
State Demonstrations Group

June 9, 2022

Amanda Cassel Kraft
Acting Assistant Secretary
Executive Office of Health and Human Services
One Ashburton Place, 11th Floor, Room 1109
Boston, MA 02018

Dear Ms. Cassel Kraft:

This letter is to inform you that the Centers for Medicare & Medicaid Services (CMS) has approved a temporary extension of the state's section 1115 demonstration, entitled "MassHealth" (Project Number 11-W-00030/1), in order to allow the state and CMS to continue negotiations over the state's December 22, 2021 demonstration application. This demonstration will now expire September 30, 2022.

CMS's approval is conditioned upon the state's continued compliance with the special terms and conditions (STC) defining the nature, character, and extent of anticipated federal involvement in the project. The current STCs, waivers, and prorated expenditure authorities will continue to apply during the temporary extension of this demonstration. The state's current budget neutrality agreement and per member per month amounts (as of DY 25) will continue to apply as described in the STCs, until September 30, 2022, or until the demonstration is extended, whichever is sooner. The state will not earn budget neutrality savings during this three-month temporary extension period.

For the temporary extension period, the state should continue to monitor its demonstration as stipulated in the current STCs. In addition, the state will be expected to include the temporary extension period in its demonstration evaluation. The state may include this temporary extension period within its evaluation for the current approval period, July 1, 2017 through June 30, 2022. Alternatively, if CMS approves an extension beyond September 30, 2022, the state may include this temporary extension period in the evaluation design and activities of the next full demonstration approval period. The state will submit to CMS a summative evaluation report in accordance with the approved evaluation design. The summative evaluation report will cover the full period of performance from July 1, 2017 through June 30, 2022 (and the temporary extension period if the state chooses). In the event that the state does not obtain an extension beyond September 30, 2022, the state should include the temporary extension period in its summative evaluation.

CMS strongly supports the goals set forth in the state's extension proposal which include:

1. Continuing the path of restructuring and reaffirming accountable, value-based care;
2. Investing in primary care, behavioral health, and pediatric care to expand access and move the delivery system away from siloed, fee-for-service health care;
3. Advancing health equity, with a focus on addressing health-related social needs and specific disparities;
4. Supporting the Commonwealth’s safety net and continued linkages to accountable care; and
5. Maintaining near-universal health coverage including updates to eligibility policies to support coverage access and equity.

CMS and Massachusetts are jointly committed to finalizing the state’s demonstration extension by September 30, 2022, including approval of waiver, expenditure, and STC authorities necessary to achieve our shared goals. CMS is also committed to ensuring the state has the authorities it needs to conduct an orderly close-out and transitions of programs, including the Delivery System Reform Incentive Payment (DSRIP) program, from the current demonstration to the new demonstration.

Your CMS project officer for this demonstration is Ms. Rabia Khan. She is available to answer any questions concerning your section 1115 demonstration. Ms. Khan can be reached at Rabia.Khan1@cms.hhs.gov. If you have questions regarding this communication, please contact me at (410) 786-9686.

Sincerely,

Judith A.
Cash -S
Judith Cash
Director

Digitally signed by
Judith A. Cash -S
Date: 2022.06.09
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Enclosure

cc: Marie DiMartino, State Monitoring Lead, Medicaid and CHIP Operations Group

**CENTERS FOR MEDICARE & MEDICAID
SERVICES WAIVER LIST**

NUMBER: 11-W-00030/1

TITLE: MassHealth Medicaid Section 1115 Demonstration

AWARDEE: Massachusetts Executive Office of Health and Human Services (EOHHS)

All requirements of the Medicaid program expressed in law, regulation and policy statement, not expressly waived in this list, shall apply to the demonstration project beginning on July 1, 2017 through June 30, 2022, unless otherwise specified. In addition, these waivers may only be implemented consistent with the approved Special Terms and Conditions (STCs).

All previously approved waivers for this demonstration are superseded by those set forth below for the state's expenditures relating to dates of service during this demonstration extension.

Under the authority of section 1115(a)(1) of the Social Security Act (the Act), the following waivers of state plan requirements contained in section 1902 of the Act are granted in order to enable the Commonwealth of Massachusetts (State/Commonwealth) to carry out the MassHealth Medicaid section 1115 demonstration.

1. Statewide Operation Section 1902(a)(1)

To enable Massachusetts to provide managed care plans or certain types of managed care plans, only in certain geographical areas of the Commonwealth.

2. Comparability/Amount, Duration, and Scope Section 1902(a)(10)(B)

To enable Massachusetts to implement premiums and copayments that vary by eligibility group, income level and service, and delivery system as described in Attachment B.

To enable the Commonwealth to provide benefits that vary from those specified in the State plan, as specified in Table B and which may not be available to any categorically needy individuals under the Medicaid state plan, or to any individuals in a statutory eligibility group.

Effective no sooner than July 1, 2019, to enable Massachusetts to treat the state veteran annuity as non-countable income in making any calculations related to the post-eligibility treatment of income (PETI) rules and for any cost sharing calculations.

- 3. Eligibility Procedures and Standards** **Section 1902(a)(10)(A),
Section 1902(a)(10)(C)(i)-
(iii), and Section
1902(a)(17)**

To enable Massachusetts to use streamlined eligibility procedures including simplified eligibility redeterminations for certain individuals who attest to no change in circumstances and streamlined redeterminations for children, parents, caretaker relatives, and childless adults.

- 4. Disproportionate Share Hospital (DSH) insofar as it Requirements 1923** **Section 1902(a)(13) incorporates Section**

To exempt Massachusetts from making DSH payments to hospitals which qualify as a Disproportionate Share Hospital in any fiscal year or part of a fiscal year in which Massachusetts is authorized to make provider payments from the Safety Net Care Pool (the amount of any DSH payments made during a partial fiscal year must be prorated if necessary so that DSH payments will not exceed the percentage of the DSH allotment corresponding to the percentage of the federal fiscal year for which payment of DSH payments is required).

- 5. Financial Responsibility/Deeming** **Section 1902(a)(17)**

To enable Massachusetts to use family income and resources to determine an applicant's eligibility even if that income and resources are not actually made available to the applicant, and to enable Massachusetts to deem income from any member of the family unit (including any Medicaid-eligible member) for purposes of determining income.

To enable Massachusetts to use MAGI-like financial eligibility determination methodologies for disabled adults in determining eligibility for MassHealth Standard and CommonHealth.

Effective starting no sooner than July 1, 2019, to enable Massachusetts to treat the state veteran annuity as non-countable income in making any calculations related to the post-eligibility treatment of income (PETI) rules.

- 6. Freedom of Choice** **Section 1902(a)(23)(A)**

To enable Massachusetts to restrict freedom of choice of provider for individuals in the demonstration, including to require managed care enrollment for certain

populations exempt from mandatory managed care under section 1932(a)(2). Freedom of choice of family planning provider will not be restricted.

To limit primary care clinician plan (PCC) plan and Primary Care ACO enrollees to a single Prepaid Insurance Health Plan (PIHP) for behavioral health services, to limit enrollees who are clients of the Departments of Children and Families or Youth Services and who do not choose a managed care option to the single PIHP for behavioral health services, requiring children with third party insurance to enroll into a single PIHP for behavioral health services; in addition to limiting the number of providers within any provider type as needed to support improved care integration for MassHealth enrollees, and to permit the state to limit the number of providers who provide Anti-Hemophilia Factor drugs.

To permit the state to mandate that Medicaid eligibles with access to student health plans enroll into the plan, to the extent that it is determined to be cost effective, as a condition of eligibility as outlined in section IV and Table E. No waiver of freedom of choice is authorized for family planning providers.

7. Payment for Care and Services Section 1902(a)(30)(A)

To permit the state to pay providers using rates that vary from those set forth under the approved state plan to the extent that the payment varies based on shared savings or shared losses in an incentive arrangement.

8. Direct Provider Reimbursement Section 1902(a)(32)

To enable Massachusetts to make premium assistance payments directly to individuals who are low-income employees, self-employed, or unemployed and eligible for continuation of coverage under federal law, in order to help those individuals access qualified employer-sponsored insurance (where available) or to purchase health insurance (including student health insurance) on their own, instead of to insurers, schools or employers providing the health insurance coverage.

9. Retroactive Eligibility Section 1902(a)(34)

To enable the Commonwealth not to provide retroactive eligibility for up to 3 months prior to the date that the application for assistance is made and instead provide retroactive eligibility as outlined in Table F.

10. Extended Eligibility Section 1902(a)(52)

To enable Massachusetts to not require families receiving Transitional Medical Assistance to report the information required by section 1925(b)(2)(B) absent a

significant change in circumstances, and to not consider enrollment in a demonstration- only eligibility category or CHIP (title XXI) eligibility category in determining eligibility for Transitional Medical Assistance.

**CENTERS FOR MEDICARE & MEDICAID SERVICES
EXPENDITURE AUTHORITY**

NUMBER: 11-W-00030/1

TITLE: MassHealth Medicaid Section 1115 Demonstration

AWARDEE: Massachusetts Executive Office of Health and
Human Services

Under the authority of section 1115(a)(2) of the Social Security Act (the Act), expenditures made by Massachusetts for the items identified below, which are not otherwise included as expenditures under section 1903 of the Act shall, for the period of this demonstration extension (July 1, 2017 through June 30, 2022), unless otherwise specified, be regarded as expenditures under the State’s title XIX plan. All previously approved expenditure authorities for this demonstration are superseded by those set forth below for the state’s expenditures relating to dates of service during this demonstration extension.

The following expenditure authorities may only be implemented consistent with the approved Special Terms and Conditions (STCs) and shall enable the Commonwealth of Massachusetts (State/Commonwealth) to operate its MassHealth section 1115 Medicaid demonstration.

I. Demonstration Population Expenditures

1. **CommonHealth Adults.** Expenditures for health care-related costs for:
 - a. Adults aged 19 through 64 who are totally and permanently disabled and not eligible for comprehensive coverage under the Massachusetts state plan.
 - b. Adults aged 65 and over who are not eligible for comprehensive coverage under the Massachusetts state plan, with disabilities that would meet the federal definition of “permanent and total disability” if these adults were under the age of 65.
2. **CommonHealth Children.** Expenditures for health care-related costs for children from birth through age 18 who are totally and permanently disabled with incomes greater than 150 percent of the Federal poverty level (FPL) and who are not eligible for comprehensive coverage under the Massachusetts state plan.
3. **Family Assistance [e-Family Assistance and e-HIV/FA].** Expenditures for health care-related costs for the following individuals:
 - a. Individuals who would be eligible for the New Adult Group (MassHealth CarePlus but for the income limit, are HIV-positive, are not institutionalized, with incomes above 133 through 200 percent of the FPL and are not otherwise eligible under the Massachusetts Medicaid state plan.

These expenditures include expenditures for health care services furnished during the 90-day period between the time an individual submits an application and the time that the individual provides to the Commonwealth proof of his or her HIV-positive health status.

- b. Non-disabled children with incomes above 150 through 300 percent of the FPL who are not otherwise eligible under the Massachusetts Medicaid state plan due to family income.
4. **Breast and Cervical Cancer Demonstration Program [BCCDP].** Expenditures for health care-related costs for uninsured individuals under the age of 65 with breast or cervical cancer, who are not otherwise eligible under the Massachusetts state plan and have income above 133 percent but no higher than 250 percent of the FPL.
 5. **MassHealth Small Business Employee Premium Assistance.** Expenditure authority to make premium assistance payments for certain individuals whose MAGI income is between 133 and 300 percent of the FPL, who work for employers with 50 or fewer employees who have access to qualifying Employer Sponsored Insurance (ESI), and who are ineligible for other subsidized coverage through MassHealth or the Health Connector.
 6. **TANF and EAEDC Recipients.** Expenditures for health care related costs for individuals receiving Temporary Assistance for Needy Families and Emergency Aid to Elders, Disabled and Children. Individuals in this eligibility group are eligible for MassHealth based on receipt of TANF and/or EAEDC benefits, not based on an income determination.
 7. **End of Month Coverage.** End of Month Coverage for Members Determined Eligible for Subsidized Qualified Health Plan (QHP) Coverage through the Massachusetts Health Connector but not enrolled in a QHP. Expenditures for individuals who would otherwise lose MassHealth coverage because they are eligible for coverage in a QHP during the period.
 8. **Provisional Coverage Beneficiaries.** Expenditures for MassHealth Coverage for individuals who self-attest to any eligibility factor, except disability, immigration and citizenship; provided that expenditures for MassHealth Coverage for individuals who self-attest to income not otherwise verified through data hubs are limited to the following populations:
 - a. Pregnant women with attested modified adjusted gross income (MAGI) at or below 200% of the federal poverty level (FPL);
 - b. Adults 21 through 64 years of age who are HIV positive and have attested MAGI income at or below 200% FPL;
 - c. Individuals with breast and cervical cancer who are under 65 years of age and have attested MAGI income at or below 250% FPL; and
 - d. Children under age 21

- 9. Presumptively Eligible Beneficiaries.** Expenditures for individuals determined presumptively eligible for HIV-Family Assistance or the Breast and Cervical Cancer Treatment Program under the demonstration by qualified hospitals that elect to do so.
- 10. Out-of-state Former Foster Care Youth.** Expenditures to extend eligibility for full Medicaid State Plan benefits (MassHealth Standard) to former foster care youth who are under age 26, were in foster care under the responsibility of a state other than Massachusetts or a Tribe in such a state when they turned 18 or a higher age at which the state's or Tribe's foster care assistance ends, and were enrolled in Medicaid under that state's Medicaid state plan or 1115 demonstration at any time during the foster care period in which they aged out.
- 11. Recipients of State Veteran Annuities.** Expenditures to extend eligibility for the populations of individuals specified below:
- a. Recipients of State Veteran Annuities. Except as described in 11(b), expenditures to extend eligibility for MassHealth Standard, MassHealth CarePlus, MassHealth Family Assistance and MassHealth Limited benefits for individuals who would be eligible for such benefits but for the receipt of a state veteran annuity or the inclusion of such annuity in the household income, provided that individuals described above are not otherwise eligible to receive comparable coverage on the state exchange.
 - b. Expenditures to extend eligibility for MassHealth Standard and MassHealth CommonHealth benefits for disabled individuals who would be eligible for such benefits but for the receipt of a state veteran annuity or the inclusion of such annuity in the household income.
 - c. Expenditures to extend eligibility for individuals who would be eligible to enroll in PACE but for the receipt of a state veteran annuity or but for the inclusion of such annuity in the household income.

II. Service Related Expenditures

- 12. Premium Assistance.** Expenditures for premium assistance payments to enable individuals enrolled in CommonHealth (Adults and Children) and Family Assistance to enroll in private health insurance to the extent the Commonwealth determines that insurance to be cost effective consistent with STC 49.
- 13. Pediatric Asthma Pilot Program.** Expenditures related to a pilot program focused on pediatric asthma. The authority for this pilot program to receive FFP is subject to CMS approval of the protocols and amendments to such protocols.
- 14. Diversionary Behavioral Health Services.** Expenditures for benefits specified in Table C to the extent not available under the Medicaid state plan.
- 15. Expanded Substance Use Treatment Services.** Expenditures for benefits specified in Table D of Section V to the extent not available under the Medicaid state plan.

16. Full Medicaid Benefits for Presumptively Eligible Pregnant Women. Expenditures to provide full MassHealth Standard plan benefits to presumptively eligible pregnant women (including Hospital Presumptive Eligibility) with incomes at or below 200 percent of the FPL.

17. Medicare Cost Sharing Assistance. Expenditures for monthly Medicare Part A and Part B premiums and for deductibles and coinsurance under Part A and Part B for MassHealth members with incomes at or below the 133 percent of the FPL, who are also eligible for Medicare (without applying an asset test).

Expenditures to cover the costs of monthly Medicare Part B premiums for CommonHealth members who are also eligible for Medicare with gross income between 133 and 135 percent FPL (without applying an asset test).

18. Continuous Eligibility Period for Individuals enrolled in Student Health Insurance Plans. Expenditures for health care costs, including insurance premiums and cost sharing for individuals who are enrolled while Medicaid eligible in cost-effective student health insurance as determined by the state for periods in which such individuals are no longer Medicaid eligible during a continuous eligibility period.

III. Delivery System-Related Expenditures

19. PCCM Entities and Pilot ACOs: Expenditures for shared savings payments to participating ACOs and Pilot ACOs that include risk-based (upside and downside) payments to these ACOs, and that may allow or require ACOs to distribute some portion of shared savings to or collect shared losses from select direct service providers, that are outside of the ranges for Integrated Care Models (ICMs) provisions and/or are not otherwise authorized under 42 CFR §438.

a. **Safety Net Care Pool (SNCP).** Expenditures for the following categories of expenditures, subject to overall SNCP limits and category-specific limits set forth in the STCs.

20. Incentive-Based Pools. As described in Attachment E and effective July 1, 2017, expenditures for Delivery System Reform Payments (DSRIP) and continued expenditures for Public Hospital Transformation and Incentive Initiatives.

1. **DSRIP and Related Initiatives.** Expenditures for incentive payments and state infrastructure payments for the DSRIP program specified in Section VIII of the STCs, and for flexible services provided to ACO enrolled beneficiaries, to the extent not otherwise available under the Medicaid state plan, under other state or federal programs, or under this demonstration.

2. **Public Hospital Transformation and Incentive Initiatives (PHTII).** Expenditures for incentive payments

that support Cambridge Health Alliance’s transformation work through its Public Hospital Transformation and Incentive Initiatives program.

- 21. Disproportionate Share Hospital-like (DSH-like) Pool.** As described in Attachment E, limited to the extent set forth under the SNCP limits, expenditures for payments to providers, including: acute hospitals and health systems, non- acute hospitals, and other providers of medical services to support uncompensated care for Medicaid eligible individuals , and low-income uninsured individuals, in accordance with the Massachusetts’ Uncompensated Cost Limit Protocol approved December 17, 2013, and expenditures for payments for otherwise covered services furnished to individuals who are inpatients in an Institution for Mental Disease (IMD).
- 22. Uncompensated Care Pool.** As described in Attachment E, expenditures for supplemental payments to hospitals to reflect uncompensated charity care costs beyond the expenditure limits of the DSH Pool. Specifically, expenditures for additional Health Safety Net payments to hospitals that reflect care provided to certain low-income, uninsured patients; and Department of Public Health (DPH) and Department of Mental Health (DMH) hospital expenditures for care provided to uninsured patients.
- 23. Designated State Health Programs (DSHP).** Expenditures for designated programs that provide health services that are otherwise state-funded, for health services as specified below and in Attachment E of the STCs.
 - a. Health Connector Subsidies. Expenditures for the payments made through its state-funded program to:
 - i. Provide premium subsidies for individuals with incomes at or below 300 percent of the FPL who purchase health insurance through the Massachusetts Health Insurance Connector Authority (Health Connector). Subsidies will be provided on behalf of individuals who: (A) are not Medicaid eligible; and (B) whose income, as determined by the state, is at or below 300 percent of the FPL.
 - ii. Provide cost-sharing subsidies for individuals who purchase health insurance through the Health Connector. Subsidies will be provided on behalf of individuals who: (A) are not Medicaid eligible; and (B) whose income, as determined by the Health Connector, is at or below 300 percent of the FPL.
 - b. Health Connector Gap Coverage. Expenditures for individuals who are determined eligible QHP coverage, for up to 100 days while they select, pay and enroll into a health plan.

IV. Streamlined Redeterminations

- 24. Streamlined Redeterminations for Adult Populations.** Expenditures for parents,

caretaker relatives, and childless adults who would not be eligible under either the state plan or other full-benefit demonstration populations, but for Streamlined Redeterminations.

- 25. Streamlined Redeterminations for Children’s Population.** Expenditures for children who would not be eligible under the Title XIX state plan, Title XXI state child health plan or other full-benefit demonstration populations, but for Streamlined Redeterminations.

All requirements of the Medicaid program expressed in law, regulation, and policy statements that are explicitly waived under the Waiver List herein shall similarly not apply to any other expenditures made by the state pursuant to its Expenditure Authority hereunder. In addition, none of the Medicaid program requirements as listed and described below shall apply to such other expenditures. All other requirements of the Medicaid program expressed in law, regulation, and policy statements shall apply to such other expenditures.

The Following Title XIX Requirements Do Not Apply to These Expenditure Authorities.

- 26. Premiums and Cost Sharing Section 1902(a)(14) insofar as it incorporates Section 1916 and 1916A**

To enable Massachusetts to impose premiums and cost-sharing in excess of statutory limits on individuals enrolled in the CommonHealth and Breast and Cervical Cancer Treatment programs.

- 27. Financial Responsibility/Deeming** **Section 1902(a)(17)**

Effective no sooner than July 1, 2019, to enable Massachusetts to treat the state veteran annuity as non-countable income in making any calculations related to the post-eligibility treatment of income (PETI) rules.

- 28. Comparability/Amount, Duration, and Scope** **Section 1902(a)(10)(B)**

Effective no sooner than July 1, 2019, to enable Massachusetts to treat the state veteran annuity as non-countable income in making any calculations related to the post-eligibility treatment of income (PETI) rules and for any cost sharing calculations.

In Addition to the Above, the Following Title XIX Requirements Do Not Apply to Expenditures for Family Assistance Coverage:

**29. Early and Periodic Screening, Diagnostic and Treatment Services (EPSDT)
Section 1902(a)(43)**

EPSDT does not apply to individuals eligible for the family assistance program.

30. Assurance of Transportation **Section 1902(a)(4)
insofar as it incorporates 42 CFR 431.53**

To enable Massachusetts to provide benefit packages to individuals enrolled in the Family Assistance demonstration programs that do not include transportation.

31. Reasonable Promptness **Section 1902(a)(8)**

To enable Massachusetts to cap enrollment and maintain waiting lists for the Family Assistance demonstration programs.

32. Mandatory Services **Section 1902(a)(10)(A)
insofar as it incorporates Section 1905(a)**

To exempt the state from providing all mandatory services to individuals enrolled in the Family Assistance demonstration programs.

The Following Title XIX Requirements Do Not Apply to Expenditures for Medicare Cost Sharing Assistance:

33. Resource Limits **Section 1902(a)(10)(E)**

To enable Massachusetts to disregard assets in determining eligibility for Medicare cost sharing assistance.

No Title XIX Requirements are Applicable to Expenditures for the Safety Net Care Pool.

The Following Title XIX Requirements are not Applicable to Expenditures for the CommonHealth program.

**Income Disregards
under Section
1902(r)(2)(A)**

To enable Massachusetts to not apply financial eligibility determination methodologies required under section 1902(r)(2)(A) for Commonwealth adults eligible under expenditure authority 1.

**CENTERS FOR MEDICARE & MEDICAID SERVICES
SPECIAL TERMS & CONDITIONS**

NUMBER: 11-W-00030/1

TITLE: MassHealth Medicaid Section 1115 Demonstration

AWARDEE: Massachusetts Executive Office of Health and Human Services
(EOHHS)

I. PREFACE

The following are the Special Terms and Conditions (STCs) for the Massachusetts MassHealth section 1115(a) Medicaid demonstration (hereinafter “demonstration”). The parties to this agreement are the Massachusetts Executive Office of Health and Human Services (which is the single state agency that oversees the MassHealth program), (State/Commonwealth) and the Centers for Medicare & Medicaid Services (CMS). The STCs set forth in detail the nature, character, and extent of Federal involvement in the demonstration and the Commonwealth’s obligations to CMS related to this demonstration.

The STCs are effective as of July 1, 2017, unless otherwise specified. All previously approved STCs are superseded by the STCs set forth below for the State’s expenditures relating to dates of service during this demonstration extension, unless otherwise specified. The demonstration is set to expire on June 30, 2022.

The STCs have been arranged into the following subject areas:

- I. Preface
- II. Program Description and Objectives
- III. General Program Requirements
- IV. Eligibility and Enrollment
- V. Demonstration Programs and Benefits
- VI. Delivery System
- VII. Cost Sharing
- VIII. The Safety Net Care Pool
- IX. General Reporting Requirements
- X. Monitoring
- XI. Evaluation
- XII. Close Out Reporting
- XIII. General Financial Requirements under Title XIX
- XIV. Monitoring Budget Neutrality for the Demonstration
- XV. Schedule of Deliverables for the Demonstration Extension Period

- Attachment A. Reserved
- Attachment B. Cost Sharing
- Attachment C. Quarterly Operational Report Content and Format
- Attachment D. MassHealth Historical Per Member/Per Month Limits
- Attachment E. Safety Net Care Pool Payments

Attachment F.	Pediatric Asthma Pilot Program Protocols
Attachment G.	Retired
Attachment H.	Safety Net Care Pool Uncompensated Care Cost Limit Protocol
Attachment I.	Retired
Attachment J.	Retired
Attachment K.	Cambridge Health Alliance Public Hospital Transformation and Incentive Initiatives (PHTII) Protocol
Attachment L.	Pilot Accountable Care Organization (ACO) Payment Methodology
Attachment M	Delivery System Reform Incentive Payment (DSRIP) Program Protocol
Attachment N.	Safety Net Provider Payment Eligibility and Allocation
Attachment O.	Pricing methodology for ACOs and MCOs
Attachment P.	Additional Historical Information
Attachment Q.	Medicaid Managed Care Entity / ACO Performance Based Incentive Payment Mechanisms
Attachment R.	Flexible Services
Attachment S.	Evaluation Design

II. PROGRAM DESCRIPTION AND OBJECTIVES

In the extension of the demonstration awarded on November 4, 2016, the Commonwealth and CMS agreed to implement major new demonstration components to support a value-based restructuring of MassHealth's health care delivery and payment system, including a new Accountable Care Organization (ACO) initiative and Delivery System Reform Incentive Program (DSRIP) to transition the Massachusetts delivery system into accountable care models. The Safety Net Care Pool (SNCP) has been redesigned to align SNCP funding with MassHealth's broader accountable care strategies and expectations and to establish a more sustainable structure for necessary and ongoing funding support to safety net providers.

During the extension period approved for state fiscal year (SFY) 2018-2022, the goals of the demonstration are:

- (1) Enact payment and delivery system reforms that promote integrated, coordinated care; and hold providers accountable for the quality and total cost of care;
- (2) Improve integration of physical, behavioral and long term services;
- (3) Maintain near-universal coverage;
- (4) Sustainably support safety net providers to ensure continued access to care for Medicaid and low-income uninsured individuals;
- (5) Address the opioid addiction crisis by expanding access to a broad spectrum of recovery-oriented substance use disorder services;
- (6) Ensure access to Medicaid services for former foster care individuals aged 18 through 26 who previously resided in another state; and
- (7) Ensure the long-term financial sustainability of the MassHealth program through refinement of provisional eligibility and authorization for SHIP Premium Assistance.

III. GENERAL PROGRAM REQUIREMENTS

1. **Compliance with Federal Non-Discrimination Statutes.** The state must comply with all applicable federal statutes relating to non-discrimination. These include, but are not limited to, the Americans with Disabilities Act of 1990, title VI of the Civil Rights Act of 1964, section 504 of the

Rehabilitation Act of 1973, and the Age Discrimination Act of 1975.

2. **Compliance with Medicaid and CHIP Law, Regulation, and Policy.** All requirements of the Medicaid program and Children’s Health Insurance Program (CHIP) for the separate CHIP population, expressed in law, regulation, and policy statement, that are not expressly waived or identified as not applicable in the waiver and expenditure authority documents apply to the demonstration.
3. **Changes in Medicaid and CHIP Law, Regulation, and Policy.** The state must, within the timeframes specified in law, regulation, or policy statement, come into compliance with any changes in federal law, regulation, or policy affecting the Medicaid or CHIP programs that occur during this demonstration approval period, unless the provision being changed is expressly waived or identified as not applicable. In addition, CMS reserves the right to amend the STCs to reflect such changes and/or changes as needed without requiring the state to submit an amendment to the demonstration under STC 7. CMS will notify the state 30 days in advance of the expected approval date of the amended STCs to allow the state to provide comment. Changes will be considered in force upon issuance of the approval letter by CMS. The state must accept the changes in writing.
4. **Impact on Demonstration of Changes in Federal Law, Regulation, and Policy Statements.**
 - a) To the extent that a change in federal law, regulation, or policy requires either a reduction or an increase in federal financial participation (FFP) for expenditures made under this demonstration, the state must adopt, subject to CMS approval, a modified budget neutrality agreement as well as a modified allotment neutrality worksheet for the demonstration as necessary to comply with such a change. The modified agreement will be effective upon the implementation of the change. The trend rates for the budget neutrality agreement are not subject to change under this subparagraph.
 - b) If mandated changes in the federal law require state legislation, the changes must take effect on the earlier of the day, such state legislation becomes effective, or on the last day, such legislation was required to be in effect under the law.
5. **State Plan Amendments.** The state will not be required to submit title XIX or title XXI state plan amendments (SPAs) for changes affecting any populations made eligible solely through the demonstration. If a population eligible through the Medicaid or CHIP state plan is affected by a change to the demonstration, a conforming amendment to the appropriate state plan may be required except as otherwise noted in these STCs. In all such cases, the Medicaid state plan governs.

Pertaining to the new coverage of former foster care youth under this demonstration, as outlined in CMS' November 21, 2016 CMCS Informational Bulletin (CIB) to *Allow Medicaid Coverage to Former Foster Care Youth Who Have Moved to a Different State*, the state shall submit a conforming amendment to the Medicaid State Plan withdrawing its current state plan authority effective as of the effective date of this section 1115 approval.

6. **Changes Subject to the Amendment Process.** Changes related to eligibility, enrollment, benefits, delivery systems, cost sharing, sources of non-federal share of funding, budget neutrality, and other comparable program elements specified in these STCs must be submitted to CMS as amendments to the demonstration. All amendment requests are subject to approval at the discretion of the secretary in accordance with section 1115 of the Act. The state must not implement or begin operational changes to

these elements without prior approval by CMS of the amendment to the demonstration. Amendments to the demonstration are not retroactive and FFP will not be available for changes to the demonstration that have not been approved through the amendment process set forth in STC 7 below.

7. **Amendment Process.** Requests to amend the demonstration must be submitted to CMS for approval no later than 120 calendar days prior to the planned date of implementation of the change and may not be implemented until approved. CMS reserves the right to deny or delay approval of a demonstration amendment based on non-compliance with these STCs, including, but not limited to, failure by the state to submit required reports and other deliverables in a timely fashion according to the deadlines specified therein. Amendment requests must include, but are not limited to, the following:
 - A. An explanation of the public notice process used by the Commonwealth consistent with the requirements of STC 15. Such explanation must include a summary of any public feedback received and identification of how this feedback was addressed by the state in the final amendment request submitted to CMS.
 - B. A data analysis which identifies the specific “with waiver” impact of the proposed amendment on the current budget neutrality agreement. Such analysis must include current total computable “with waiver” and “without waiver” status on both a summary and detailed level through the current extension approval period using the most recent actual expenditures, as well as summary and detailed projections of the change in the “with waiver” expenditure total as a result of the proposed amendment which isolates (by Eligibility Group (EG)) the impact of the amendment;
 - C. An up-to-date CHIP allotment neutrality worksheet, if necessary;
 - D. A detailed description of the amendment, including impact on beneficiaries, with sufficient supporting documentation including a conforming title XIX and/or title XXI state plan amendment, if necessary; and
 - E. The state must provide updates to existing demonstration reporting and quality and evaluation plans. This includes a description of how the evaluation design and annual progress reports will be modified to incorporate the amendment provisions, as well as the oversight, monitoring and measurement of the provisions.
8. **Extension of the Demonstration.** States that intend to request an extension of the demonstration must submit an application to CMS from the Governor or Chief Executive Officer of the state in accordance with the requirements at 42 Code of Federal Regulations (CFR) 431.412(c). States that do not intend to request an extension of the demonstration beyond the period authorized in these STCs, must submit a phase-out plan consistent with the requirements of STC 9.
9. **Demonstration Phase-Out.** The state may only suspend or terminate this demonstration in whole, or in part, consistent with the following requirements:
 - a) **Notification of Suspension or Termination:** The state must promptly notify CMS in writing of the reason(s) for the suspension or termination, together with the effective date and a phase-out plan. The state must submit its notification letter and a draft phase-out plan to CMS no less than six (6) months before the effective date of the demonstration’s suspension or termination. Prior to submitting the draft phase-out plan to CMS, the state must publish on its website the draft phase-

out plan for a 30-day public comment period. In addition, the state must conduct tribal consultation in accordance with its approved tribal consultation State Plan Amendment. Once the 30-day public comment period has ended, the state must provide a summary of each public comment received, the state's response to the comment and how the state incorporated the received comment into the revised phase-out plan.

The state must obtain CMS approval of the phase-out plan prior to the implementation of the phase-out activities. Implementation of phase-out activities must be no sooner than 14 days after CMS approval of the phase-out plan.

- b) **Phase-out Plan Requirements:** The state must include, at a minimum, in its phase-out plan the process by which it will notify affected beneficiaries, the content of said notices (including information on the beneficiary's appeal rights), the process by which the state will conduct administrative reviews of Medicaid eligibility for the affected beneficiaries, and ensure ongoing coverage for eligible individuals, as well as any community outreach activities.

Phase-out Procedures: The state must comply with all notice requirements found in 42 C.F.R. section 431.206, section 431.210, and § 431.213. In addition, the state must assure all appeal and hearing rights afforded to demonstration participants as outlined in 42 C.F.R. section 431.220 and section 431.221. If a demonstration participant requests a hearing before the date of action, the state must maintain benefits as required in 42 C.F.R. section 431.230. In addition, the state must conduct administrative renewals for all affected beneficiaries in order to determine if they qualify for Medicaid eligibility under a different eligibility category as discussed in the October 1, 2010, State Health Official Letter #10-008.

- c) **Federal Financial Participation (FFP):** If the project is terminated or any relevant waivers suspended by the state, FFP will be limited to, normal closeout costs associated with terminating the demonstration including services and administrative costs of disenrolling participants.

10. **CMS Right to Terminate or Suspend.** CMS may suspend or terminate the demonstration, in whole or in part, at any time before the date of expiration, whenever it determines following a hearing that the state has materially failed to comply with the terms of the project. CMS must promptly notify the state in writing of the determination and the reasons for the suspension or termination, together with the effective date.
11. **Finding of Non-Compliance.** The state does not relinquish its rights to administratively and/or judicially challenge CMS' finding that the state materially failed to comply.
12. **Withdrawal of Waiver Authority.** CMS reserves the right to withdraw waivers or expenditure authorities at any time it determines that continuing the waivers or expenditure authorities would no longer be in the public interest or promote the objectives of title XIX. The CMS will promptly notify the state in writing of the determination and the reasons for the withdrawal, together with the effective date, and afford the state an opportunity to request a hearing to challenge CMS' determination prior to the effective date. If a waiver or expenditure authority is withdrawn, FFP is limited to normal closeout costs associated with terminating the waiver or expenditure authority, including services and administrative costs of disenrolling participants.
13. **Adequacy of Infrastructure.** The Commonwealth will ensure the availability of adequate resources for implementation and monitoring of the demonstration, including education, outreach, and

enrollment; maintaining eligibility systems; compliance with cost sharing requirements; and reporting on financial and other demonstration components.

14. **Public Notice, Tribal Consultation, and Consultation with Interested Parties.** The state must comply with the state notice procedures as required in 42 Code of Federal Regulations (CFR) section 431.408 prior to submitting an application to extend the demonstration. For applications to amend the demonstration, the state must comply with the state notice procedures set forth in 59 Fed. Reg. 49249 (September 27, 1994) prior to submitting such request. The state must also comply with the public notice procedures set forth in 42 CFR section 447.205 for changes in statewide methods and standards for setting payment rates.

The state must also comply with tribal and Indian Health Program/Urban Indian Health Organization consultation requirements at section 1902(a)(73) of the Act, 42 CFR section 431.408(b), State Medicaid Director Letter #01-024, and contained in the state's approved Medicaid State plan, when any program changes to the demonstration, either through amendment as set out in STC 6 or extension, as proposed by the state

15. **FFP.** No federal matching funds for expenditures for this demonstration will take effect until the effective date identified in the demonstration approval letter, or later date if so identified elsewhere in these STCs or in the lists of waiver or expenditure authorities.
16. **Transformed Medicaid Statistical Information Systems Requirements (T-MSIS).** The State shall comply with all data reporting requirements under Section 1903(r) of the Act, including but not limited to Transformed Medicaid Statistical Information Systems Requirements. More information regarding T-MSIS is available in the August 23, 2013 State Medicaid Director Letter. CMS expects the state to implement both an interim and long-term plan to collect, validate and report managed care encounter data, per required T-MSIS reporting and 1115 evaluation. The interim plan must be submitted to CMS by January 31, 2017. The long-term plan must be submitted to CMS no later than June 30, 2017. The system costs associated with this work are eligible for enhanced match. Failure to achieve this condition may result in a reduction in systems FFP for the costs associated with operations of the State's current data warehouse solution.
17. **Common Rule Exemption.** The state shall ensure that the only involvement of human subjects in research activities that may be authorized and/or required by this demonstration is for projects that are conducted by or subject to the approval of CMS, and that are designed to study, evaluate, or otherwise examine the Medicaid program – including public benefit or service programs; procedures for obtaining Medicaid benefits or services; possible changes in or alternatives to those programs or procedures; or possible changes in methods or level of payment for benefits or services under those programs. CMS has determined that this demonstration as represented in these approved STCs meets the requirements for exemption from the human subject research provisions of the Common Rule set forth in 45 CFR 46.101(b)(5).

IV. ELIGIBILITY AND ENROLLMENT

18. **Eligible Populations.** This demonstration affects mandatory and optional Medicaid state plan populations as well as populations eligible for benefits only through the demonstration. Table A at the end of section IV of the STCs shows each specific group of individuals; under what authority they are made eligible for the demonstration; the name of the eligibility and expenditure group under which expenditures are reported to CMS and the budget neutrality expenditure agreement is constructed; and the corresponding demonstration program under which benefits are provided.

Eligibility is determined based on an application by the beneficiary or without an application for eligibility groups enrolled based on receipt of benefits under another program.

MassHealth defines the age of a dependent child for purposes of the parent/caretaker relative coverage type as a child who is younger than age 19. A caretaker relative is eligible under this provision only if the parent is not living in the household.

19. **Retroactive Eligibility.** Retroactive eligibility is provided in accordance to STC 50 Table F.

20. **Calculation of Financial Eligibility.** Financial eligibility for demonstration programs is determined by comparing the family's Modified Adjusted Gross Income (MAGI) with the applicable income standard for the specific coverage type, with the exception of adults aged 19 and above who are determined eligible on the basis of disability and whose financial eligibility is determined as described below. MAGI income counting methodologies will also be applied to disabled adults in determining eligibility for MassHealth Standard and CommonHealth; however, household composition for disabled adults will always be determined using non-tax filer rules, regardless of whether the individual files income taxes or is claimed as a dependent on another person's income taxes. In determining eligibility and making related calculations of deductibles and cost sharing for MassHealth Standard and CommonHealth for disabled adults, the Commonwealth may consider state veteran annuity as non-countable income as described below, and apply the five percent income disregard that is also applied to non-disabled adults.

- a) Section 6b of Chapter 115 of Massachusetts General Law authorizes a state veteran annuity payment to eligible disabled veterans and surviving Gold Star parents and spouses who have lost their child or spouse in combat. Except as described in the next sentence, the Commonwealth may consider such payment as non-countable income for purposes of determining eligibility for MassHealth Standard, MassHealth CarePlus, MassHealth Family Assistance and MassHealth Limited benefits for individuals who would be eligible for such benefits but for the receipt of a state veteran annuity or the inclusion of such annuity in the household income, provided that, except with respect to disabled individuals and PACE enrollees described in the next two sentences, individuals described above are not otherwise eligible to receive comparable coverage on the state exchange. The Commonwealth may consider such payment as non-countable income for purposes of determining eligibility for MassHealth Standard and MassHealth CommonHealth benefits for disabled individuals who would be eligible for such benefits but for the receipt of a state veteran annuity or the inclusion of such annuity in the household income. In addition, the Commonwealth may consider the state veteran annuity as non-countable income for purposes of determining eligibility for individuals who would be eligible to enroll in PACE but for the receipt of a state veteran annuity or but for the inclusion of such annuity in the household income. Effective no sooner than July 1, 2019, the Commonwealth will not count the state veteran annuity when calculating a beneficiary's premium, deductible, and/or other cost sharing obligations. The Commonwealth may treat the state veteran annuity as non-countable income in making calculations related to the post-eligibility treatment of income (PETI) rules as described in 42 C.F.R. 435.700 et seq. as applicable for all MassHealth members.

21. **Streamlined Redeterminations.** Under the streamlined renewal process, enrollees are not required to return an annual eligibility review form if they are asked to attest whether they have any changes in circumstances (including household size and income) and do not have any changes in circumstances reported to MassHealth. The process applies to the following populations:

- a) Families with children under the age of 19 who have gross income as verified by MassHealth at or below 150 percent FPL and who are receiving SNAP benefits with SNAP verified income at or below 180 percent FPL.
- b) Families with children up to age 21 whose SNAP verified income is at or below 180 percent FPL, effective to the extent that the state uses an Express Lane eligibility process under its state plan for children up to the age of 21.
- c) Childless adults whose SNAP verified income is at or below 163 percent FPL.

The authority to use streamlined eligibility redetermination procedures will also remain in effect for families with children notwithstanding sunset dates for Express Lane Eligibility applicable to the companion state plan amendments.

22. **TANF and EAEDC Recipients.** The Medicaid agency shall extend MassHealth eligibility to individuals receiving Temporary Assistance for Needy Families and Emergency Aid to Elders, Disabled and Children. MassHealth eligibility for individuals in this demonstration population does not involve an income determination, but is based on receipt of TANF/EAEDC benefits. Individuals in this demonstration population would not be described in the new adult group, because that is a group defined by an income determination. Therefore, the enhanced match for individuals in the new adult group is not available for this population. If an individual loses his/her TANF/EAEDC eligibility then he/she must apply for MassHealth benefits and receive an income eligibility determination in order to receive MassHealth benefits.

23. **Hospital-Determined Presumptive Eligibility for Additional Eligibility Groups.** Qualified hospitals that elect to do so may make presumptive eligibility determinations for individuals who appear eligible for HIV-Family Assistance or the Breast and Cervical Cancer Treatment Program under the demonstration, in addition to populations that are eligible in accordance with the Medicaid state plan.

The hospital determined presumptive eligibility benefit for pregnant women and unborn children is a full MassHealth Standard benefit.

24. **Provisional Eligibility.** MassHealth will accept self-attestation for all eligibility factors, except for disability status, immigration and citizenship status and, for certain individuals described below, income, in order to determine eligibility, and may require post-eligibility verification from the applicant. If MassHealth is unable to verify eligibility through federal and state data hubs, or if the information provided by an applicant is not reasonably compatible with the information available through the data hubs, MassHealth can enroll individuals for a 90-day “provisional eligibility period,” during which MassHealth will require further verifications from the applicant.

Applicants whose self-attested income is not otherwise verified through data hubs are eligible to receive provisional eligibility consistent with the previous paragraph only if they fall within any one of the following populations:

- e. Pregnant women with attested modified adjusted gross income (MAGI) at or below 200% of the federal poverty level (FPL)

- f. Adults 21 through 64 years of age who are HIV positive and have attested MAGI income at or below 200% FPL; and
- g. Individuals with breast and cervical cancer who are under 65 years of age and have attested MAGI income at or below 250% FPL
- h. Children under age 21

Necessary verifications are required within 90 days of the date the individual receives notice of the provisional eligibility determination in order to maintain enrollment. The date the notice is received is considered to be five days after the date the notice is sent, unless the notice recipient shows otherwise. The reasonable opportunity period for applicants pending verification of citizenship or immigration status aligns with the 90-day provisional eligibility period for applicants pending verification of other eligibility criteria, such that benefits provided may begin prospectively with respect to all applicants as early as the date of application. For individuals not eligible for provisional eligibility as described in the previous paragraph, income verifications are required within 90 days of the date the individual receives notice requesting income verification in order to maintain original application date.

Under the demonstration, benefits for children under age 21 and pregnant women who have been determined provisionally eligible begin 10 days prior to the date the paper application is received at the MassHealth Enrollment Center (MEC) or MassHealth outreach site, or an electronic application is submitted through an online eligibility system. FFP is not available for the 10 days of retroactive coverage for children and pregnant women receiving benefits during a reasonable opportunity period pending verification of citizenship, immigration status, or lawfully present status. FFP is available for the 10 days of retroactive-coverage period if the pregnant woman's or child's citizenship, immigration or lawfully present status is verified before the end of the reasonable opportunity period. Benefits are provided on a fee-for-service basis for covered services received during the period starting 10 days prior to the date of application up until the application is processed and a provisional eligibility determination is made.

Benefits for all other individuals who have been determined provisionally eligible begin on the date that MassHealth sends the notice of the provisional eligibility determination. If all required verifications are received before the end of the provisional eligibility period or before the end of the 90-day verification period for those not receiving provisional eligibility, retroactive coverage is provided for the verified coverage type in accordance with Table F. The Commonwealth must not provide retroactive coverage for individuals age 21 and over or for non-pregnant adults until eligibility has been verified through federal and state data hubs or, if the information provided by an applicant is not reasonably compatible with the information available through the data hubs, until MassHealth has obtained further verifications from the applicant verifying eligibility during the retroactive period. For individuals eligible for the New Adult Group, the Commonwealth may not claim the expansion state Federal Medical Assistance Percentage (FMAP) for individuals whose eligibility has not been verified within the provisional eligibility period, but may claim the regular FMAP for those individuals for no longer than a 90 day plus a five-day notice period of benefits (unless the individual can demonstrate that he or she did not receive the notice within five days, in which case benefits would be extended).

The reasonable opportunity period for immigration, citizenship and identity verification will be aligned with the provisional eligibility period. An individual may receive provisional eligibility no more than once within a twelve-month period, starting with the effective date of the initial provisional eligibility determination, unless the individual is transitioning from a Qualified Health Plan (QHP) with an

Advanced Premium Tax Credit (APTC), or if the individual self-attests pregnancy. In those cases, an individual may receive provisional eligibility before such 12-month period has passed.

25. Verification of Breast or Cervical Cancer or Human Immunodeficiency Virus (HIV).

For individuals who indicate on the application that they have breast or cervical cancer or HIV, a determination of eligibility will be made in accordance with the procedures described in STC 24. Persons who have not submitted verification of breast cancer, cervical cancer, or HIV diagnosis within 90 days of the eligibility determination will subsequently have their eligibility redetermined as if they did not have breast cancer, cervical cancer, or HIV.

26. Eligibility Exclusions. Notwithstanding the criteria outlined in this section or in Table A, the following individuals are excluded from this demonstration. Payments or expenditures related to uncompensated care for such individuals as defined in STC 54, and for DSHP as described in STC 58, however, may be included as allowable expenditures under the Safety Net Care Pool (SNCP). In addition, SUD services described in STC 40 provided to MassHealth eligible individuals age 65 and over as well as benefits provided to recipients of state veteran annuities, regardless of age, described in the expenditure authority, may be included as an allowable expenditure under the demonstration.

Individuals 65 years and older, to the extent that such an exclusion is authorized by MGL Ch118E Sec 9A, except for individuals eligible in accordance within 42 CFR 435.110
Participants in Program of All-Inclusive Care of the Elderly (PACE), except as otherwise described at STC 20(a)
Refugees served through the Refugee Resettlement Program

27. Enrollment Caps. The Commonwealth is authorized to impose enrollment caps on populations made eligible solely through the demonstration, except that enrollment caps may not be imposed for the demonstration expansion population groups listed as “Hypotheticals” in Table A. Setting and implementing specific caps are considered amendments to the demonstration and must be made consistent with section III, STC 7.

28. Twelve Month Continuous Eligibility for Student Health Insurance Program Population.

Individuals who are enrolled in a cost-effective Student Health Insurance Program will be continuously eligible for a period of up to 12 months while enrolled in the SHIP plan, until the end of the policy year date. The policy year will end on either July 31 or August 31 of each year. The Commonwealth will determine the individual’s eligibility at the completion of each policy year to ensure that the individual remains eligible.

- a) Exceptions. Notwithstanding subparagraph (a), if any of the following circumstances occur during an individual’s 12 month continuous eligibility period, the individual’s Medicaid eligibility shall, after appropriate process, be terminated:
 - i. The individual cannot be located for a period of more than one month, after good faith efforts by the state to do so.
 - ii. The individual is no longer a Massachusetts resident.
 - iii. The individual dies.
 - iv. The individual fails to provide, or cooperate in obtaining a Social Security Number, if otherwise required.

- v. The individual provided an incorrect or fraudulent Social Security Number.
- b) Notwithstanding subparagraph (a), if any of the following circumstances occur during an individual's 12 month continuous eligibility period, the individual's Medicaid eligibility shall be redetermined.
 - i. The individual is no longer enrolled in a SHIP
 - ii. The individual requests termination of SHIP enrollment.

Table A. MassHealth State Plan Base Populations¹ (See STC 95 for terminology)

Medicaid Mandatory and Optional State Plan Groups (Categorical Eligibility)	Federal Poverty Level (FPL) and/or Other Qualifying Criteria	Funding Stream	Expenditure and Eligibility Group (EG) Reporting	MassHealth Demonstration Program	Comments
AFDC-Poverty Level infants	< Age 1: 0 through 185%	Title XIX	<u>Base Families</u>	Standard	
Medicaid Expansion infants	< Age 1: 185.1 through 200%	<ul style="list-style-type: none"> • Title XIX if insured at the time of application • Title XXI if uninsured at the time of application • Funded through title XIX if title XXI is exhausted 	<u>1902(r)(2)</u> <u>Children</u> <u>1902(r)(2) XXI</u> <u>RO</u>	Standard	

Table A. MassHealth State Plan Base Populations¹ (See STC 95 for terminology)

Medicaid Mandatory and Optional State Plan Groups (Categorical Eligibility)	Federal Poverty Level (FPL) and/or Other Qualifying Criteria	Funding Stream	Expenditure and Eligibility Group (EG) Reporting	MassHealth Demonstration Program	Comments
AFDC-Poverty Level Children and Independent Foster Care Adolescents	<ul style="list-style-type: none"> • Age 1 - 5: 0 through 133% • Age 6 - 17: 0 through 114% • Independent Foster Care Adolescents aged out of DCF until the age of 21 without regard to income or assets <p>Former Foster Care Adolescents until the age of 26 without regard to income or assets (effective January 1, 2014)</p>	<ul style="list-style-type: none"> • Title XIX 	<u>Base Families</u>	Standard	

Table A. MassHealth State Plan Base Populations ¹ (See STC 95 for terminology)					
Medicaid Mandatory and Optional State Plan Groups (Categorical Eligibility)	Federal Poverty Level (FPL) and/or Other Qualifying Criteria	Funding Stream	Expenditure and Eligibility Group (EG) Reporting	MassHealth Demonstration Program	Comments
AFDC-Poverty Level Children	Age 6 - 17: 114.1% through 133%	Title XIX if insured at the time of application Title XXI if uninsured at the time of application	<u>Base Families</u>	Standard	
Medicaid Expansion Children I	Age 18: 0 through 133%	Funded through title XIX if title XXI is exhausted	<u>Bas Fam XXI RO</u>		

¹ Massachusetts includes in the MassHealth demonstration almost all the mandatory and optional populations aged under 65 eligible under the state plan. All Standard and CommonHealth members who have access to qualifying private insurance may receive premium assistance plus wrap-around benefits. The Massachusetts state plan outlines all covered populations not specifically indicated here.

Table A. MassHealth State Plan Base Populations (continued)*

Medicaid Mandatory and Optional State Plan Groups (Categorical Eligibility)	Federal Poverty Level (FPL) and/or Other Qualifying Criteria	Funding Stream	Expenditure and Eligibility Group (EG) Reporting	MassHealth Demonstration Program	Comments
Medicaid Expansion Children II	Ages 1 - 18: 133.1 through 150%	<ul style="list-style-type: none"> • Title XIX if insured at the time of application • Title XXI if uninsured at the time of application • Funded through title XIX if title XXI is exhausted 	<p align="center"><u>1902(r)(2)</u></p> <p align="center"><u>Children</u></p> <p align="center"><u>1902(r)(2) XXI</u></p> <p align="center"><u>RO</u></p>	Standard	
Medicaid Expansion Children II (effective January 1, 2014)	Ages 19 and 20: 133.1 through 150%	Title XIX	<p align="center"><u>1902(r)(2)</u></p> <p align="center"><u>Children</u></p>	Standard	
CHIP Unborn Children	0 through 200%	Title XXI	<p align="center"><u>n/a</u></p>	Standard	
Pregnant women	0 through 185%	Title XIX	<p align="center"><u>Base Families</u></p>	Standard	

Parents and caretaker relatives ages 19 through 64 eligible under section 1931	0 through 133%	Title XIX	<u>Base Families</u>	Standard	
Table A. MassHealth State Plan Base Populations (continued)*					
Medicaid Mandatory and Optional State Plan Groups (Categorical Eligibility)	Federal Poverty Level (FPL) and/or Other Qualifying Criteria	Funding Stream	Expenditure and Eligibility Group (EG) Reporting	MassHealth Demonstration Program	Comments
Disabled children under age 19	0 through 150%	Title XIX	<u>Base Disabled</u>	Standard	
Disabled adults ages 19 through 64	0 through 114%	Title XIX	<u>Base Disabled</u>	Standard	
Non-working disabled adults ages 19 through 64	Above 133%	Title XIX	<u>Base Disabled</u>	CommonHealth	Must spend-down to medically needy income standard to become eligible as medically needy
Pregnant women	185.1 through 200%	Title XIX	<u>1902(r)(2) Children</u>	Standard	

Table A. MassHealth State Plan Base Populations (continued)*

Medicaid Mandatory and Optional State Plan Groups (Categorical Eligibility)	Federal Poverty Level (FPL) and/or Other Qualifying Criteria	Funding Stream	Expenditure and Eligibility Group (EG) Reporting	MassHealth Demonstration Program	Comments
“Non-qualified Aliens” or “Protected Aliens”	Otherwise eligible for Medicaid under the State Plan	Title XIX	<p align="center"> <u>Base Families</u> <u>Base Disabled</u> <u>1902(r)(2) Children</u> <u>1902(r)(2) Disabled</u> <u>New Adult Group</u> <u>(New Adult Group coverage began January 1, 2014)</u> </p>	Limited	<p>Member eligible for emergency services only under the state Plan and the demonstration.</p> <p>Members who meet the definition and are determined to have a disability are included in the Base Disabled EG</p> <p>Members who are determined eligible via 1902(r)(2) criteria are included in the 1902(r)(2) EG</p>
Disabled adults ages 19 through 64	114.1 through 133%	Title XIX	<u>1902(r)(2) Disabled</u>	Standard	

Table A. MassHealth State Plan Base Populations (continued)*

Medicaid Mandatory and Optional State Plan Groups (Categorical Eligibility)	Federal Poverty Level (FPL) and/or Other Qualifying Criteria	Funding Stream	Expenditure and Eligibility Group (EG) Reporting	MassHealth Demonstration Program	Comments
Children eligible under TEFRA section 134, SSA section 1902(e)(3) and 42 U.S.C. 1396a(e)(3) (Kaileigh Mulligan kids)	Age 0 – 17 <ul style="list-style-type: none"> • Require hospital or nursing facility level of care • Income < or = to \$72.81, or deductible • \$0 through \$2,000 in assets 	Title XIX	<u>Base Disabled</u>	Standard	Income and assets of their parents are not considered in determination of eligibility
Children receiving title IV-E adoption assistance	<ul style="list-style-type: none"> • Age 0 through 18 	Title XIX	<u>Base Families</u>	Standard	Children placed in subsidized adoption under title IV-E of the

Table A. MassHealth State Plan Base Populations (continued)*

Medicaid Mandatory and Optional State Plan Groups (Categorical Eligibility)	Federal Poverty Level (FPL) and/or Other Qualifying Criteria	Funding Stream	Expenditure and Eligibility Group (EG) Reporting	MassHealth Demonstration Program	Comments
Special Home and Community-Based Waiver (HCBW) Group (individuals who without the HCBW would be eligible for Medicaid if in an institution) under age 65	<ul style="list-style-type: none"> • 0 through 300% SSI Federal Benefits Rate • \$0 through \$2,000 in assets 	Title XIX	<u>Base Disabled</u>	Standard	All other participants under age 65 in a HCBW are reflected in other Base Eligibility Groups in this chart.

<p>Affordable Care Act New Adult Group (effective January 1, 2014)</p>	<ul style="list-style-type: none"> • Ages 19 and 20: 0 through 133% • Individuals with HIV or breast or cervical cancer: 0 through 133% • Individuals receiving services or on a waiting list to receive services through the Department of Mental Health: 0 through 133% 	<p>Title XIX</p>	<p><u>New Adult Group</u></p>	<p>Standard (Alternative Benefit Plan)</p> <p>CarePlus (Alternative Benefit Plan)</p>	<p>Ages 19 and 20 treated as children and entitled to EPSDT</p> <p>Individuals exempt from mandatory enrollment in an Alternative Benefit Plan may enroll in Standard</p>
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Table A. MassHealth Demonstration Expansion Populations *

Groups with a Categorical Link Made Eligible through the Demonstration (“Hypotheticals”)	Federal Poverty Level (FPL) and/or Other Qualifying Criteria	Funding Stream	Expenditure and Eligibility Group (EG) Reporting	MassHealth Demonstration Program	Comments
Higher income children with disabilities	<ul style="list-style-type: none"> · < Age 1: 200.1 through 300% · Ages 1 - 18: 150.1 through 300% 	<ul style="list-style-type: none"> • Title XIX if insured at the time of application • Title XXI via the separate XXI program if uninsured at the time of application (Funded through title XIX if title XXI is exhausted) 	<p align="center"><u>CommonHealth</u></p> <p align="center"><u>CommonHealth</u></p> <p align="center"><u>XXI</u></p>	CommonHealth	The CommonHealth program existed prior to the separate XXI Children’s Health Insurance Program and was not affected by the maintenance of effort date. The CommonHealth program is contained in the separate XXI state plan and as authorized under this 1115 demonstration. Certain children derive eligibility from both the authority granted under this demonstration <u>and</u> the separate XXI program.
Higher income children with disabilities ages 0 through 18	Above 300%	Title XIX	<u>CommonHealth</u>	CommonHealth	Sliding scale premium responsibilities for those individuals above 150 percent of the FPL

Higher income adults with disabilities ages 19 through 64.	Above 133% Above 150% for 19- and 20-year olds)	Title XIX	<u>CommonHealth</u>	CommonHealth (“working”)	Such individuals are subject to a one-time only deductible except that there is no deductible for individuals who work 40 hours or more per month. Sliding scale premium responsibilities for those individuals above 150 percent of the FPL.
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Table A. MassHealth Demonstration Expansion Populations *

Groups with a Categorical Link Made Eligible through the Demonstration (“Hypotheticals”)	Federal Poverty Level (FPL) and/or Other Qualifying Criteria	Funding Stream	Expenditure and Eligibility Group (EG) Reporting	MassHealth Demonstration Program	Comments
Higher income adults with disabilities who are 65 and older.	Net income above 100% FPL and/or Assets > \$2,000	Title XIX	<u>CommonHealth</u>	CommonHealth (65+)	Such individuals are subject to a deductible and asset test under the State Plan except there is no deductible or asset test for individuals who have paid employment for 40 hours or more per month. Individuals who met the deductible and asset test under the State plan receive MassHealth Standard. Sliding scale premium responsibilities for those individuals above 150 percent of the FPL.

Table A. MassHealth Demonstration Expansion Populations *

Groups with a Categorical Link Made Eligible through the Demonstration (“Hypotheticals”)	Federal Poverty Level (FPL) and/or Other Qualifying Criteria	Funding Stream	Expenditure and Eligibility Group (EG) Reporting	MassHealth Demonstration Program	Comments
<p>“Out-of-state Former Foster Care Youth” are youth under age 26 who were in foster care under the responsibility of a state other than Massachusetts or a Tribe in such a state when they turned 18 (or a higher age at which the state’s or Tribe’s foster care assistance ends), and were enrolled in Medicaid under that state’s Medicaid state plan or 1115 demonstration at any time during the foster care period in which they aged out.</p>	<p>No FPL requirements</p>	<p>Title XIX</p>	<p align="center"><u>FFCY</u></p>	<p>Out-of-state Former Foster Care Youth</p>	<p>These individuals are limited to those that were or would have been eligible for State Plan coverage as described in the January 22, 2013 CMS notice of proposed rulemaking that permitted the option to cover formerly out-of-state former foster care youth up to age 26 pursuant to section 1902(a)(10)(A)(i)(IX) of the Act. This coverage is now only permissible under the authority of this section 1115 demonstration as outlined in the November 21, 2016 CIB on transitioning coverage for Former Foster Care Youth. Individuals enrolled as Out-of-State Former Foster Care Youth are eligible to receive MassHealth Standard.</p>

Table A. MassHealth Demonstration Expansion Populations (See STC 95 for terminology)

Populations Made Eligible through the Demonstration	Federal Poverty Level (FPL) and other qualifying criteria	Funding Stream	Expenditure and Eligibility Group (EG) Reporting	Massachusetts Demonstration Program	Additional comments
<p>Children ages 1 through 18 (Non-disabled)</p> <p>Children less than age 1</p>	<p>150.1 through 200</p> <p>Above 200 through 300% (effective January 1, 2014)</p> <p>Above 200 through 300% (effective January 1, 2014)</p>	<ul style="list-style-type: none"> Title XIX if insured at the time of application Title XXI via the separate XXI program if uninsured <p>(Funded through title XIX if title XXI is exhausted)</p>	<p><u>e-Family Assistance</u></p> <p><u>Fam Assist XXI</u> (if XXI is exhausted)</p>	<p>Family Assistance</p> <ul style="list-style-type: none"> Premium Assistance Direct Coverage <p>The premium assistance payments and FFP will be based on the children’s eligibility. Parents are covered incidental to the child. No additional wrap other than dental is provided to ESI.</p>	<p>Effective January 1, 2014, children ages 0 through 18 from 200-300% FPL who are insured at the time of application are eligible under the 1115 demonstration.</p> <p>Children who are uninsured at the time of application derive eligibility from both the authority granted under this demonstration and the XXI program.</p>

Table A. MassHealth Demonstration Expansion Populations (See STC 95 for terminology)

Populations Made Eligible through the Demonstration	Federal Poverty Level (FPL) and other qualifying criteria	Funding Stream	Expenditure and Eligibility Group (EG) Reporting	Massachusetts Demonstration Program	Additional comments
Adults under the age of 65 who are not otherwise eligible for medical assistance who work for a small employer and purchase ESI that meets basic benefit level (BBL) standards	133.1 through 300%	Title XIX	<u>SBE</u>	Small Business Employee Premium Assistance	<p>Individuals must not be eligible for any other MassHealth coverage or for APTCs.</p> <p>No additional wraparound benefits are provided.</p> <p>Individuals whose spouse or children are receiving MassHealth premium assistance for a policy that is available to the individual are not entitled to this benefit.</p>

Table A. MassHealth Demonstration Expansion Populations(continued)*

Populations Made Eligible through the Demonstration	Federal Poverty Level (FPL) and other qualifying criteria	Funding Stream	Expenditure and Eligibility Group (EG) Reporting	Massachusetts Demonstration Program	Additional comments
Individuals with HIV not otherwise eligible for medical assistance with income above 133% through 200% FPL.	Above 133 to 200%	Title XIX	<u>e-HIV/FA</u>	Family Assistance	Premium assistance is offered in lieu of direct coverage when there is access to other insurance. Additional wraparound to private insurance is provided.
Individuals who receive Temporary Assistance for Needy Families and Emergency Aid to Elders, Disabled and Children	N/A	Title XIX	<u>TANF/EAE DC</u>	MassHealth	Expenditures for health care related costs for individuals receiving Temporary Assistance for Needy Families and Emergency Aid to Elders, Disabled and Children. Individuals in this eligibility group are eligible for MassHealth based on receipt of TANF and/or EAEDC benefits, not an income determination.
Provisional Eligibility	Self-Attested income level to qualify for other group, pending verification	Title XIX	<u>Provisional Eligibility</u>	MassHealth	Expenditures for amounts spent on individuals found not eligible for Medicaid benefits under this authority in accordance with STC 24.

Table A. MassHealth Demonstration Expansion Populations(continued)*

Populations Made Eligible through the Demonstration	Federal Poverty Level (FPL) and other qualifying criteria	Funding Stream	Expenditure and Eligibility Group (EG) Reporting	Massachusetts Demonstration Program	Additional comments
End of Month Coverage Beneficiaries determined eligible for subsidized Qualified Health Plan (QHP) coverage through the Massachusetts Health Connector but not enrolled in a QHP	Ineligible for MassHealth and Eligible for QHP up to 400% FPL	Title XIX	<u>End of Month Coverage</u>	N/A	Effective January 1, 2014, expenditures for individuals who would otherwise lose MassHealth coverage because they are eligible for coverage in a QHP, during the period specified in STC 29.
Individuals determined presumptively eligible for HIV-Family Assistance or the Breast and Cervical Cancer Demonstration Program under the demonstration by qualified hospitals that elect to do so.	HIV-Family Assistance – 133.1 through 200 BCCDT – above 133.1 through 250	Title XIX	<u>Presumptively Eligible</u>	Family Assistance Standard	
Individuals determined eligible for the Breast and Cervical Cancer Demonstration Program under the demonstration.	BCCDT – above 133.1% of the FPL through 250 FPL	Title XIX	<u>BCCDP</u>	Standard	

V. DEMONSTRATION PROGRAMS AND BENEFITS

29. **End of Month Coverage for Members Eligible for Subsidized Coverage through the Massachusetts Health Connector.** When a MassHealth member's enrollment is being terminated due to a change in circumstance that makes the member ineligible for MassHealth but eligible for subsidized coverage through the Health Connector, MassHealth will extend the member's last day of coverage to the end of the month before Health Connector coverage may feasibly become effective. If the termination otherwise would have been effective on or before the 15th of a given month, then MassHealth coverage will be extended to the end of that month. If the termination otherwise would have been effective on or after the 16th of a given month, then MassHealth coverage will be extended to the end of the following month.
30. **Demonstration Program Benefits.** Massachusetts provides health care benefits through the following specific benefit programs. The benefit program for which an individual is eligible is based on the criteria outlined in Table A of Section IV of the STCs. Table B in STC 38, provides a side-by-side analysis of the benefits offered through these MassHealth programs.
31. **MassHealth Standard.** Individuals enrolled in MassHealth Standard receive state plan services including for individuals under age 21, Early and Periodic Screening Diagnostic and Treatment (EPSDT) benefit. In addition, individuals enrolled in Standard receive additional demonstration benefits specifically authorized in demonstration expenditure authorities.

MassHealth's Standard Alternative Benefit Plan (ABP) is for individuals in the New Adult Group who are ages 19-20, as well as individuals 21-64 who are HIV positive, have breast or cervical cancer or are receiving services from the Department of Mental Health or who are on a waiting list to receive such services. Individuals enrolled in the Standard ABP receive the same benefits offered in Standard and benefits are provided in the same manner as outlined below.

MassHealth Standard benefits will be provided either through direct coverage, cost effective premium assistance, or a combination of both (benefits wrap). Premium assistance will be furnished as described in STC 49 and 50.

MassHealth Standard benefits include, for individuals with incomes at or below 133 percent of FPL who are also eligible for Medicare, (1) payment of monthly Medicare Part B premiums, (2) payment of hospital insurance premiums under Medicare Part A; and, (3) payment of deductibles and co-insurance under Medicare Part A and B. The Commonwealth may establish eligibility for this coverage without applying an asset test. These benefits will begin on the first day of the month following the date of the MassHealth eligibility determination.

32. **MassHealth CarePlus.** MassHealth's CarePlus ABP is for individuals in the New Adult Group ages 21-64 who are not otherwise eligible for MassHealth Standard ABP. CarePlus provides medical and behavioral health services, including diversionary behavioral health service and non-emergency medical transportation, but does not include long term services and supports. Benefits are provided either through direct coverage, cost effective premium assistance, or a combination of both (benefits

wrap). Premium assistance will be furnished as described in STC 49 and 50.

33. **MassHealth Breast and Cervical Cancer Demonstration Program (BCCDP).** The BCCDP is a health benefits program for individuals in need of treatment for breast or cervical cancer. This program offers MassHealth Standard benefits to individuals under 65 who do not otherwise qualify for MassHealth.
34. **MassHealth CommonHealth.** Individuals enrolled in CommonHealth receive the same benefits as those available under Standard; individuals under age 21 receive EPSDT services as well. In addition, individuals enrolled in CommonHealth receive additional demonstration benefits specifically authorized in demonstration expenditure authorities. Benefits are provided either through direct coverage, cost effective premium assistance or a combination of both. Premium assistance will be furnished as described in STC 49 and 50. In addition, for CommonHealth members with gross income between 133 and 135 percent FPL who are also eligible for Medicare, the Commonwealth will also pay the cost of the monthly Medicare Part B premium. These benefits shall begin on the first day of the month following the date of the MassHealth eligibility determination. The Commonwealth may establish eligibility for this coverage without applying an asset test.
35. **MassHealth Family Assistance.** Individuals enrolled in Family Assistance receive benefits similar to those provided under Standard. Among other things, individuals enrolled in Family Assistance receive additional demonstration benefits specifically authorized in demonstration expenditure authorities. The Commonwealth may waive its requirement for children with access to ESI to enroll in ESI if the Commonwealth determines it is more cost effective to provide benefits under direct Family Assistance coverage than to provide premium assistance. For individuals who derive their Family Assistance benefits via the 1115 demonstration and who are on Direct Coverage, premium assistance will be furnished in coordination with STC 49. There are two separate categories of eligibility under Family Assistance:
 - a) **Family Assistance-HIV/AIDS.** As referenced in Table A above, for persons with HIV/AIDS whose income is above 133 percent less than or equal to 200 percent of the FPL would be eligible for the New Adult Group (MassHealth CarePlus) but for the income limit. Unlike other coverage types, persons with HIV who have access to ESI do not have to enroll in available ESI; however, if they choose to receive premium assistance, the Commonwealth will provide covered services that are not available from the ESI plan on a fee-for-service (FFS) basis.
 - b) **Family Assistance-Children.** As referenced in table A above, children can be enrolled in Family Assistance if their family's income is above 150 percent and less than or equal to 300 percent FPL. Benefits are provided either through direct coverage or cost effective premium assistance. Direct coverage Family Assistance under the title XXI program is provided through an MCO, ACO, or the PCC plan for children without access to ESI. Premium Assistance benefits are limited to premium assistance for ESI, to the extent that ESI is available to these children that is cost-effective, meets a basic benefit level (BBL), and for which the employer contributes at least 50 percent of the premium cost. Premium assistance may exceed the cost of child-only coverage and include family coverage if cost

effective based on the child’s coverage. Direct coverage is provided for children with access to cost effective ESI that meets the BBL only during the provisional eligibility period and the time span while the Commonwealth is investigating availability of and enrolling the child in ESI.

- 36. **MassHealth Small Business Employee (SBE) Premium Assistance.** Under the SBE Premium Assistance Program, the Commonwealth will make premium assistance payments for certain individuals whose gross family income is greater than 133 percent of the FPL and less than or equal to 300 percent of the FPL, who work for employers with 50 or fewer employees, who have access to qualifying ESI, and where the member is ineligible for other subsidized coverage through MassHealth or the Health Connector. Benefits are limited to premium assistance payments for qualifying ESI that meets basic benefit level (BBL) standards.
- 37. **MassHealth Limited.** Individuals are enrolled in Limited if they are federally non-qualified non-citizens, whose immigration status makes them ineligible for other MassHealth programs under the state plan. These individuals receive emergency medical services only as described in 42 C.F.R. 440.255.
- 38. **Former Foster Care Youth.** Individuals enrolled as "Former Foster Care Youth" as described in Table A above are eligible to receive MassHealth Standard.
- 39. **Benefits Offered under Certain Demonstration Programs.**

Table B. Summary of MassHealth Direct Coverage Benefits are described in Table Below

Benefits	Standard/ Standard ABP	CommonHealth	Family Assistance	CarePlus
EPSDT	X	X		
Inpatient Acute Hospital	X	X	X	X
Adult Day Health	X	X		
Adult Foster Care**	X	X		
Ambulance (emergency)	X	X	X	X
Audiologist Services	X	X	X	X
Behavioral Health Services (mental health and substance abuse)	X	X	X	X

Benefits	Standard/ Standard ABP	CommonHealth	Family Assistance	CarePlus
Chapter 766 Home Assessment***	X	X	X	
Chiropractic Care	X	X	X	X
Chronic Disease and Rehabilitation Hospital Inpatient	X	X	X	X
Chronic Disease and Rehabilitation Hospital Outpatient	X	X	X	X
Community Health Center (includes FQHC and RHC services)	X	X	X	X
Day Habilitation****	X	X		
Dental Services	X	X	X	X
Diversionsary Behavioral Health Services	X	X	X	X
Durable Medical Equipment and Supplies	X	X	X	X
Early Intervention	X	X	X	
Family Planning	X	X	X	X
Group Adult Foster Care	X	X		
Hearing Aids	X	X	X	X
Home Health	X	X	X	X
Hospice	X	X	X	X
Laboratory/X-ray/Imaging	X	X	X	X

Benefits	Standard/ Standard ABP	CommonHealth	Family Assistance	CarePlus
Medically Necessary Non- emergency Transport	X	X		X
Nurse Midwife Services	X	X	X	X
Nurse Practitioner Services	X	X	X	X
Orthotic Services	X	X	X	X
Outpatient Hospital	X	X	X	X
Outpatient Surgery	X	X	X	X
Oxygen and Respiratory Therapy Equipment	X	X	X	X
Personal Care	X	X		
Pharmacy	X	X	X	X
Physician	X	X	X	X
Podiatry	X	X	X	X
Private Duty Nursing	X	X		
Prosthetics	X	X	X	X
Rehabilitation	X	X	X	X
Renal Dialysis Services	X	X	X	X
Skilled Nursing Facility	X	X	Limited	Limited
Speech and Hearing Services	X	X	X	X
Targeted Case Management	X	X		X

Benefits	Standard/ Standard ABP	CommonHealth	Family Assistance	CarePlus
Therapy: Physical, Occupational, and Speech/ Language	X	X	X	X
Vision Care	X	X	X	X

Chart Notes

****Adult Foster Care Services** – These services are state plan services and the definition of these services may vary contingent upon the approved state plan. In general, the services are assistance with activities of daily living and instrumental activities daily living, supportive services, nursing oversight and care management provided in a qualified private home by a principal caregiver who lives in the home. Adult foster care is furnished to adults who receive the services in conjunction with residing in the home. The number of individuals living in the home unrelated to the principal caregiver may not exceed three. Adult foster care does not include payment for room and board or payments to spouses, parents of minor children and other legally responsible relatives

***** Chapter 766 Home Assessments** – These services may be provided by a social worker, nurse or counselor. The purpose of the home assessment is to identify and address behavioral needs that can be obtained by direct observation of the child in the home setting.

****** Day Habilitation Services** – These services are state plan services and the definition of these services may vary contingent upon the approved state plan. In general, the services are assistance with skill acquisition in the following developmental need areas: self-help, sensorimotor, communication, independent living, affective, behavior, socialization and adaptive skills. Services are provided in non-residential settings or Skilled Nursing Facilities when recommended through the PASRR process. Services include nursing, therapy and developmental skills training in environments designed to foster skill acquisition and greater independence. A day habilitation plan sets forth measurable goals and objectives, and prescribes an integrated program of developmental skills training and therapies necessary to reach the stated goals and objectives.

40. Diversionary Behavioral Health Services. Diversionary behavioral health services are home and community-based mental health and substance use disorder services furnished as clinically appropriate alternatives to and diversions from inpatient mental health and substance use disorder services in more community-based, less structured environments. Diversionary services are also provided to support an individual’s return to the community following a 24-hour acute placement; or to provide intensive support to maintain functioning in the community. There are two categories of diversionary services, those provided in a 24-hour facility, and those which are provided on an outpatient basis in a non-24-hour setting or facility. Generally, 24-hour and non- 24 hour diversionary behavioral health services are provided by free-standing (community- based) or hospital-based programs licensed by the Department of Mental Health or the Department of Public Health. Some of the 24 hour service providers of Diversionary Behavioral Health Services meet the

definition of an Institution for Mental Diseases (IMD). Diversionary services are offered to provide interventions and stabilization to persons experiencing mental health or substance abuse crises in order to divert from acute inpatient hospitalization or to stabilize after discharge. These services do not include residential programs involving long-term residential stays. Any MassHealth member under the demonstration who is enrolled in managed care may be eligible to receive diversionary services. Managed care entities and the Prepaid Inpatient Health Plan (PIHP) for behavioral health services identify appropriate individuals to receive diversionary services. Managed care entities maintain a network of diversionary services and arrange, coordinate, and oversee the provision of medically necessary diversionary services, as described in Table C.

Table C. Diversionary Behavioral Health Services Provided Through Managed Care Under the Demonstration

Diversionary Behavioral Health	Setting	Definition of Service
Community Crisis Stabilization	24-hour facility	<p>Services provided as an alternative to hospitalization, including short- term psychiatric treatment in structured, community-based therapeutic environments.</p> <p>Community Crisis Stabilization provides continuous 24-hour observation and supervision for Covered Individuals who do not require Inpatient Services.</p>
Community Support Program (CSP)	Non-24-hour facility	<p>An array of services delivered by a community-based, mobile, multi-disciplinary team of professionals and paraprofessionals. These programs provide essential services to Covered Individuals with a long-standing history of a psychiatric or substance use disorder and to their families, or to Covered Individuals who are at varying degrees of increased medical risk, or to children/adolescents who have behavioral health issues challenging their optimal level of functioning in the home/community setting.</p> <p>Services include outreach and supportive services, delivered in a community setting, which will vary with respect to hours, type and intensity of services depending on the changing needs of the Enrollee.</p>

<p>Community Support Program (CSP) (continued)</p>	<p>Non-24-hour facility</p>	<p>When provided to chronically homeless individuals, CSP services fall into the following domains:</p> <ul style="list-style-type: none"> a. Assisting Members in enhancing daily living skills; <ul style="list-style-type: none"> • Identifying and addressing barriers to attaining and maintaining community tenure • Supporting members to mitigate barriers to community tenure, including coaching and connection with social services that assist them with issues such as credit history, presence of criminal record, and poor housing history • Coaching members on budget strategies and/or supporting Members to connect with money management services, including financial counselors and representative payees • Support to gather documentation such as government identification documents, medical records • Linkages to education, vocational training/services b. Providing service coordination and linkages; <ul style="list-style-type: none"> • Referrals to healthcare providers • Providers make reasonable efforts to assist Members identify and/or facilitate transportation options, including community-based transportation resources, such as public transportation and/or community- or publically-subsidized transportation options • Collaborating with state agencies, outpatient or community-based providers, Emergency Services Programs (ESPs), or other significant entities on service and discharge
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<p>Community Support Program (CSP) (continued)</p>	<p>Non-24-hour facility</p>	<p>planning</p> <ul style="list-style-type: none"> ● Discharge planning that involves collaterals as appropriate. Collaterals include state agencies, community-based programs, and other non-health care community supports ● Provider coordinates care with Members' primary care providers to be knowledgeable of medical conditions, to assess Members' compliance with medical treatment, and to assist with mitigating related barriers <p>c. Assisting Members with obtaining benefits, housing, and health care;</p> <ul style="list-style-type: none"> ● Providers work with housing agencies to obtain documentation of housing status ● Working with Members to identify transitional supports for move-in ● Connecting Members to housing search assistance, and helping to coordinate search(es) ● Linkages to primary and preventive health services Linkages to behavioral health and substance use disorder treatment ● Assistance with enrolling in community benefits (Social Security benefits, SNAP, VA benefits, MassHealth, Medicare, etc.) including obtaining needed documentation and helping to complete applications and attend appointments ● Working with Member to identify resources for home modifications as needed <p>d. Developing a crisis plan in the event of a psychiatric crisis;</p> <ul style="list-style-type: none"> ● Refer the Member to outpatient provider ● Refer the Member to an ESP ● Implement other interventions such as Member's safety plan
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<p>Community Support Program (CSP) (continued)</p>	<p>Non-24-hour facility</p>	<ul style="list-style-type: none"> • Collaborate with providers (including ESPs) and natural supports <p>e. Providing prevention and intervention;</p> <ul style="list-style-type: none"> • Comprehensive assessment of needs (behavioral health, medical, substance use, developmental, and social history; linguistic and cultural background; mental status examination; medications and allergies; barriers to housing; diagnosis and clinical formulation supported by the clinical data gathered, rationale for treatment, and recommendations; level of functioning; and key providers) to identify ways to mitigate barriers to accessing clinical treatment and attaining the skills to obtain and maintain community tenure • Developing a service plan/treatment plan (linkages to health, behavioral health, and substance use treatment) • Assisting Members to prepare for transition to permanent supportive housing by linking Members to entities that provide transitional assistance resources. This may include referrals to churches, local housing authorities and non-profit agencies. Transitional assistance includes non-recurring household set-up expenses • Discharge planning that involves collaterals • Early intervention for potential issues/behavior intervention affecting tenancy <p>f. Fostering empowerment and recovery, including linkages to peer support and self-help groups</p>
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<u>Diversions Behavioral Health</u>	<u>Setting</u>	<u>Definition of Service</u>
Community Support Program (CSP) (continued)	Non-24-hour facility	<ul style="list-style-type: none"> ● Recovery, wellness and empowerment principles and practices are incorporated in service delivery, trainings, and quality improvement activities ● Facilitates the use of formal and informal resources including community and natural support systems, wellness programs, vocational assistance programs, and peer and self-help supports and services ● Provider educates Members and their natural supports about substance use and psychiatric disorders, recovery and medications, and links with regular health services
Partial Hospitalization*	Non-24-hour facility	<ul style="list-style-type: none"> ● An alternative to Inpatient Mental Health Services, PHP services offer short-term day mental health programming available seven days per week. These services consist of therapeutically intensive acute treatment within a stable therapeutic milieu and include daily psychiatric management.

Diversions Behavioral Health	Setting	Definition of Service
Acute Treatment Services for Substance Abuse	24-hour facility, including IMDs	<p>24-hour, seven days per week, medically monitored addiction treatment services that provide evaluation and withdrawal management.</p> <p>Detoxification services are delivered by nursing and counseling staff under a physician-approved protocol and physician-monitored procedures and include: bio-psychosocial assessment; individual and group counseling; psychoeducational groups; and discharge planning.</p> <p>Pregnant women receive specialized services to ensure substance use disorder treatment and obstetrical care. Covered Individuals with Co-occurring Disorders receive specialized services to ensure treatment for their co-occurring psychiatric conditions. These services may be provided in licensed freestanding or hospital-based programs.</p>
Clinical Support Services for Substance Abuse	24-hour facility, including IMDs	<p>24-hour treatment services, which can be used independently or following Acute Treatment Services for substance use disorders, and including intensive education and counseling regarding the nature of addiction and its consequences; outreach to families and significant others; and aftercare planning for individuals beginning to engage in recovery from addiction. Covered Individuals with Co-Occurring Disorders receive coordination of transportation and referrals to mental health providers to ensure treatment for their co-occurring psychiatric conditions. Pregnant women receive coordination of their obstetrical care.</p>

Diversions Behavioral Health	Setting	Definition of Service
<p>Transitional Care Unit Services addressing the needs of children and adolescents, under age 19, in the custody of the Department of Children and Families (DCF), who need group care or foster care and no longer meet the clinical criteria for continued stay at an acute level of care.</p>	<p>24-hour facility, including IMDs</p>	<p>A community based therapeutic program offering high levels of supervision, structure and intensity of service within an unlocked setting. The TCU offers comprehensive services, including but not limited to, a therapeutic milieu**, psychiatry, aggressive case management, and multidisciplinary, multi-modal therapies.</p>
<p>Psychiatric Day Treatment*</p>	<p>Non-24-hour facility</p>	<p>Services which constitute a program of a planned combination of diagnostic, treatment and rehabilitative services provided to a person with mental illness who needs more active or inclusive treatment than is typically available through a weekly visit to a mental health center, individual Provider's office or hospital outpatient department, but who does not need 24-hour hospitalization.</p>
<p>Intensive Outpatient Program</p>	<p>Non-24-hour</p>	<p>A clinically intensive service designed to improve functional status, provide stabilization in the community, divert an admission to an Inpatient Service, or facilitate a rapid and stable reintegration into the community following a discharge from an inpatient service. The IOP provides time-limited, comprehensive, and coordinated multidisciplinary treatment.</p>

Diversionary Behavioral Health	Setting	Definition of Service
Structured Outpatient Addiction Program	Non-24-hour facility	<p>Clinically intensive, structured day and/or evening substance use disorder services. These programs can be utilized as a transition service in the continuum of care for an Enrollee being discharged from Acute Substance Abuse Treatment, or can be utilized by individuals, who need Outpatient Services, but who also need more structured treatment for a substance use disorder. These programs may incorporate the evidence-based practice of Motivational Interviewing (as defined by Substance Abuse and Mental Health Services Administration) into clinical programming to promote individualized treatment planning.</p> <p>These programs may include specialized services and staffing for targeted populations including pregnant women, adolescents and adults requiring 24-hour monitoring.</p>
Program of Assertive Community Treatment	Non-24-hour facility	<p>A multi-disciplinary team approach to providing acute, active, ongoing, and long-term community-based psychiatric treatment, assertive outreach, rehabilitation and support. The program team provides assistance to Covered Individuals to maximize their recovery, ensure consumer-directed goal setting, assist individuals in gaining a sense of hope and empowerment, and provide assistance in helping the individuals served become better integrated into the community.</p> <p>Services are provided in the community and are available, as needed by the individual, 24 hours per day, seven days per week, 365 days per year.</p>

Diversions Behavioral Health	Setting	Definition of Service
Emergency Services Program*	Non-24-hour facility	Services provided through designated contracted ESPs, and which are available seven days per week, 24 hours per day to provide treatment of any individual who is experiencing a mental health crisis.
Community Based Acute Treatment for Children and Adolescents	24-hour facility	Mental health services provided in a staff-secure setting on a 24-hour basis, with sufficient clinical staffing to insure safety for the child or adolescent, while providing intensive therapeutic services including, but not limited to, daily medication monitoring; psychiatric assessment; nursing availability; Specializing (which is defined as one-on-one therapeutic monitoring as needed for individuals who may be at immediate risk for suicide or other self-harming behavior); individual, group and family therapy; case management; family assessment and consultation; discharge planning; and psychological testing, as needed. This service may be used as an alternative to or transition from Inpatient services.
<i>Chart Notes:</i>		
* This service is a service provided under the Medicaid state plan, and the definition may be changed pursuant to any state plan amendment.		
** In this context, “therapeutic milieu” refers to a structured, sub-acute setting, in which clinical services (therapies) are provided at both the individual and group level, and in which the common social/interpersonal interactions between each patient, and all others who are present in the setting, are incorporated into the treatment approach.		

41. Substance Use Disorder Services

As part of this demonstration Project, in addition to the Substance Use Disorder (SUD) services described in Charts B and C, above, FFP is available under the demonstration for the Substance Use Disorder (SUD) services described in Chart D, below. By providing improved access to treatment and ongoing recovery support, EOHHS believes individuals with SUD will have improved health and increased rates of long-term recovery. These SUD services will contribute to reduced use of the emergency department and unnecessary hospitalizations.

As is currently the case, MassHealth anticipates that the Department of Public Health,

Bureau of Substance Abuse Services (BSAS), which is the single state authority on SUD services, continue to fund primary prevention efforts, including education campaigns and community prevention coalitions. Intervention and initial treatment will be available to MassHealth members, as described below, in a number of different settings (as set forth herein) and allow for a bio-psycho-social clinical assessment, based on the ASAM principles, to gain an understanding of addiction severity, co-occurring mental health issues and trauma, physical health issues, family and social supports, housing stability and other issues.

Table D. Additional SUD Authorized Services

<u>Service for People with SUD</u>	<u>Population</u>	<u>Setting</u>	<u>Definition of Service</u>
Clinically Managed Population-Specific High-Intensity Residential Services ASAM Level 3.3 (Specialized 24-hour treatment services to meet more complex needs)	All MassHealth Members, except those in MassHealth Limited	24-hour facility, including IMDs	Treats patients in a 24-hour setting where the effects of the substance use, other addictive disorder, or co-occurring disorder resulting in cognitive impairment on the individual’s life are so significant and the resulting level of impairment so great that other levels of 24-hour or outpatient care are not feasible or effective. Includes day programming and individual and group services. This service will be implemented on or after July 1, 2018.
Clinically Managed Low-Intensity Residential Services ASAM Level 3.1 (24-hour Transitional Support Services)	All MassHealth members, except those in MassHealth Limited	24-hour facility, including IMDs	Services provided to an individual with a substance use disorder in a 24-hour setting, with clinical staff and appropriately trained professional and paraprofessional staff to ensure safety for the individual, while providing active treatment and reassessment. Includes 4 hours of nursing services.
Clinically Managed Low-Intensity Residential Services ASAM Level 3.1 (24-hour Residential Rehabilitation Services and 24-hour community-based family SUD treatment services)	All MassHealth members, except those in MassHealth Limited	24-hour facility, including IMDs	Services provided to an individual with a substance use disorder in a 24-hour setting, with clinical staff and appropriately trained professional and paraprofessional staff to ensure safety for the individual, while providing active treatment and reassessment. Through this service MassHealth will provide ASAM Level 3.1 services to adults, families, and adolescents. Residential Rehabilitation Services includes day programming and individual and group services.

<u>Service for People with SUD</u>	<u>Population</u>	<u>Setting</u>	<u>Definition of Service</u>
Recovery support navigator services	All MassHealth members, except those in MassHealth Limited		Under this service, a Recovery Support Navigator develops and monitors a recovery plan in conjunction with the member, coordinates all clinical and non-clinical services, participates in discharge planning from acute treatment programs, works with the member to ensure adherence to the discharge plan, and assists the member in pursuing his or her health management goals.
Recovery coach services	All MassHealth members, except those in MassHealth Limited		Under this service, a Recovery Coach (a person with SUD lived experience) will serve as a recovery guide and role model. Recovery Coaches provide nonjudgmental problem solving and advocacy to help members meet their recovery goals.

Chart Notes: MassHealth Members receiving services on a FFS basis will receive all medically necessary Transitional Support Services (TSS), and up to the first 90 days of a medically necessary stay in Residential Rehabilitation Services (RRS). MassHealth Members who are enrolled in an MCO, ACO or the PCC Plan, will receive all medically necessary TSS and RRS from an MCO, ACO, or the behavioral health carve out vendor. The Commonwealth’s average length of stay (ALOS) in SUD treatment for persons admitted into all DPH-licensed by or contracted ASAM Level 3.7, 3.5 and 3.1 programs during state fiscal year 2015 was 16.1 days.

VI. DELIVERY SYSTEM

The MassHealth section 1115 demonstration provides benefits through multiple delivery systems and programs. A fundamental philosophy of MassHealth is that the Commonwealth will enable beneficiaries to take advantage of available and qualified employer-sponsored (ESI) or student health (SHIP) insurance if cost effective. These circumstances include the availability of ESI, the employer’s contribution level meeting a state-specified minimum, and its cost-effectiveness.

MassHealth pays for medical benefits directly (direct coverage) only if no other source of payment is available and cost-effective. Beneficiaries are required, as a condition of eligibility under some coverage types, to obtain or maintain private health insurance if MassHealth determines it is cost effective to do so, with the premium assistance necessary to make it affordable for the beneficiary. All demonstration programs, except MassHealth Limited have a premium assistance component.

42. **Direct Coverage and Eligibility for Managed Care**

MassHealth benefits provided through direct coverage are delivered through the following delivery systems under the demonstration, grouped into four categories:

- a) Fee for service (“FFS”);
- b) A behavioral health contractor (which is a PIHP);
- c) Two primary care case management (PCCM) delivery systems: the PCC Plan; and Primary Care ACOs (which are PCCM entities); and
- d) Two MCO-based delivery systems: the MassHealth MCOs; and Accountable Care Partnership Plans

Together, all of these delivery systems except for FFS (i.e., the PCC Plan, the Behavioral Health PIHP, Primary Care ACOs, MassHealth MCOs, and Accountable Care Partnership Plans) are referred to as “Managed Care.” Additional detail on these Managed Care delivery systems is provided in STC 44-47. MassHealth may require beneficiaries eligible for direct coverage under any of the following categories to enroll in one of the Managed Care options described above: Standard, Standard ABP, Family Assistance, CarePlus, or CommonHealth members with no third party liability.

In addition, children who are clients of the Departments of Children and Families (DCF) or Youth Services (DYS) who do not choose to enroll in Managed Care may instead choose to receive medical services through FFS, but are nonetheless required to enroll with the behavioral health contractor for behavioral health services.

However, Former Foster Care Youth (including Out of State Former Foster Care Youth as described above in Table A) are required to enroll in Managed Care, subject to all other applicable provisions of section **VI: Delivery System**.

Children eligible under TEFRA section 134 (Kaileigh Mulligan) and children receiving title IV- E adoption assistance may opt to enroll in Managed Care, or may choose instead to receive health services through FFS. Children who choose fee-for-service will be passively enrolled with the behavioral health contractor for behavioral health services, but have the ability to opt- out and receive behavioral health services through the fee-for-service provider network.

See Table E below for additional details on Managed Care eligibility and enrollment rules.

43. **Exclusions from Managed Care Enrollment.** The following individuals may be excluded from enrollment in Managed Care:

- a) Any individual for whom MassHealth is a secondary payer (i.e., a member with other health insurance). For purposes of exclusion from Managed Care, “other health insurance” is defined as any medical coverage plan available to the member, including, but not limited to Medicare, CHAMPUS, or a private health plan. However, MassHealth requires children eligible for MassHealth Standard/Standard ABP and CommonHealth, for whom MassHealth is a secondary payer, to enroll with the behavioral health contractor for behavioral health services;

- b) Any individual receiving benefits during the hospital-determined presumptive eligibility period or the time-limited period while MassHealth investigates and verifies access to qualified and cost-effective private health insurance or the time-limited period while the member is enrolling in such insurance;
- c) Any individual receiving Limited coverage;
- d) Any individual receiving hospice care, or who is terminally ill as documented with a medical prognosis of a life expectancy of 6 months or less; and
- e) Any participant in a Home and Community-Based Services Waiver who is not eligible for SSI and for whom MassHealth is not a secondary payer.

MassHealth may permit such individuals to enroll in Managed Care, including the option to enroll with the behavioral health contractor for behavioral health services and receive their medical services through FFS.

44. Managed Care Delivery Systems

MassHealth’s Managed Care delivery systems include two categories as described above: (1) PCCM delivery systems (which includes the PCC Plan and Primary Care ACOs); and (2) MCO-based delivery systems (which includes the MassHealth MCOs and Partnership Plans). Table E below provides an overview of these delivery systems.

Table E. Overview of Managed Care Delivery Systems

Managed Care					
PCCM delivery systems			MCO-based delivery systems		
PCC Plan		Primary Care ACOs (previously “Model B ACOs”)	MassHealth MCOs		Partnership Plans (previously “Model A ACOs”)
<i>Non-Pilot</i>	<i>ACO Pilot</i>			<i>Non-ACO</i>	

45. PCCM delivery systems:

- a) **The PCC Plan.** The PCC Plan is a managed care option operated by MassHealth. Members enrolled in the PCC Plan are also enrolled in a single Behavioral Health Program (BHP) contractor, which is a Prepaid Inpatient Health Plan (PIHP), for behavioral health coverage. Members enrolled in the PCC Plan access other services from MassHealth’s FFS network, subject to PCC referral and other utilization management requirements. Each member enrolled in the PCC Plan is assigned to a designated primary care provider (a “Primary Care Clinician,” or “PCC”) from among the PCC Plan’s available PCCs, who provides primary care case management. A member’s PCC provides most primary and preventive care and is responsible for providing referrals for most specialty services and for otherwise coordinating the member’s services. PCC Plan members may receive family planning services from any

provider without consulting their PCC or obtaining prior approval from MassHealth. Members enrolled in the PCC Plan do not experience fixed enrollment, and may enroll in another Managed Care delivery system (i.e., a Primary Care ACO, a MassHealth MCO, or a Partnership Plan) at any time.

- i. **Enhanced Primary Care Clinician Payments.** In accordance with 42 C.F.R. section 438.6(c), MassHealth may establish enhanced fee-for-service rate payments or capitated rate payments to Primary Care Clinicians for coordination of the care delivered to their enrolled PCC plan members. MassHealth may also establish pay-for-performance incentives using capitated or other payment arrangements for achieving certain quality of care benchmarks, for demonstrating certain levels of improvement for selected Healthcare Effectiveness Data and Information Set (HEDIS) or other quality indicators, and for implementing practice infrastructure designed to support the delivery of high-quality health care services to enrolled members.
 - ii. **ACO Pilot.** In state fiscal years 2017 and 2018, MassHealth will contract with ACOs (“Pilot ACOs”) for an ACO Pilot within the PCC Plan; the ACO Pilot is not a separate delivery system or an enrollment option for members. Members in the PCC Plan will not experience fixed enrollment periods for the ACO Pilot, and members will still have access to all PCC Plan benefits and network of providers. Pilot ACOs consist of provider-led entities such as health systems or groups of health care providers that contract with MassHealth to provide care coordination and management and to take financial accountability for cost and quality of care for certain attributed PCC Plan members. Members enrolled in the PCC Plan who are assigned to PCCs that participate with Pilot ACOs will be considered attributed to these Pilot ACOs. MassHealth may establish Referral Circles for Pilot ACOs; Referral Circles are groups of providers within MassHealth’s FFS network, for which MassHealth will eliminate the need for otherwise-required primary care referrals for ACO-attributed members, in order to facilitate increased access and coordinated care. MassHealth will hold Pilot ACOs financially accountable for cost and quality of care through shared savings and shared losses (i.e., downside risk), including potentially asymmetric risk (i.e., potential shared savings exceed potential shared losses). MassHealth will contract with Pilot ACOs selectively. Pilot ACOs are not managed care entities under 42 CFR 438. See Attachment L for additional detail on the ACO Pilot.
- b) **Primary Care ACOs.** Primary Care ACOs are managed care options operated by MassHealth using PCCM contractors (“Primary Care ACOs”). MassHealth contracts with Primary Care ACOs to serve as PCCM entities. Primary Care ACOs are not paid directly to provide services. Members enrolled in Primary Care ACOs are also enrolled in MassHealth’s Behavioral Health PIHP for behavioral health coverage and access other services from MassHealth’s FFS network, subject to primary care referral and other utilization management requirements. Each member enrolled in a Primary Care ACO is assigned to a primary care provider from among the Primary Care ACO’s participating primary care providers. Primary Care ACO enrollees may receive family planning services from any provider without consulting their primary care provider or their

Primary Care ACO, or obtaining prior approval from MassHealth.

- i. The State may limit disenrollment for Primary Care ACO enrollees. Any such limitation will be consistent with 42 CFR 438.56(c).
 - ii. MassHealth may establish Referral Circles for Primary Care ACOs; Referral Circles are groups of providers within MassHealth's FFS network, for which MassHealth will eliminate the need for otherwise-required primary care referrals for Primary Care ACO enrollees, in order to facilitate increased access and coordinated care.
 - iii. MassHealth will hold Primary Care ACOs financially accountable for cost and quality of care through shared savings and shared losses (i.e., downside risk), including potentially asymmetric risk (i.e., potential shared savings exceed potential shared losses). See Attachment O for additional detail on pricing for Primary Care ACOs.
 - iv. Similar to the Center for Medicare and Medicaid Innovation (CMMI) "Next Gen" ACO program and its option for population-based payment, MassHealth may also prospectively pre-pay a Primary Care ACO, at the request of both the Primary Care ACO and the providers. Providers and Primary Care ACOs may choose such arrangements to support greater control of service revenue funds within a coordinated system, to increase accountability for total cost of care, to support up-front investments in infrastructure that supports integrated care delivery, or for other purposes in service of MassHealth's delivery system goals. Under such a payment mechanism, MassHealth would continue to maintain the FFS network and receive claims from network providers for payments for services, but would reconcile those claims to prepayments for such services. The Commonwealth will submit a proposal for any such payment mechanism to CMS for approval prior to implementation.
 - v. Primary Care ACOs may be required to implement payment arrangements in their contracts with their participating primary care providers that may include minimum levels and/or frequency of risk sharing. Such arrangements will be consistent with 42 CFR 438.6.
 - vi. MassHealth will contract with Primary Care ACOs selectively. Primary Care ACOs are PCCM entities under 42 CFR 438.
- c) **Other features of MassHealth's PCCM delivery systems.** MassHealth will maintain responsibility for requirements of the delivery systems not specifically delegated to the PCCMs or PCCM entities (e.g., member communications about the delivery system).

46. MCO-based delivery systems:

- a) **MassHealth MCOs.** MassHealth contracts selectively with Managed Care Organizations (MCOs) that provide comprehensive health coverage, including behavioral health services, to enrollees. Some Direct Coverage services are not provided by the MCOs but are instead covered directly by MassHealth for members enrolled in MCOs. Over the course of the Demonstration, MassHealth anticipates that enrollees will begin to receive certain of these Direct Coverage services from the MCOs. For example, Long Term Services and Supports (LTSS) are anticipated to be phased into MCO covered services during the Demonstration extension period. Members enrolled in MCOs may receive family planning services from any provider without consulting their PCP or MCO and are not required to obtain prior approval from MassHealth. For family planning services provided by MassHealth providers not participating in a member's MCO network, MassHealth reimburses the provider on a fee-for-service basis and recoups the funds from the MCO. See Attachment O for

additional detail on pricing for MassHealth MCOs. MassHealth MCOs are MCOs under 42 CFR 438.

1. The State may limit disenrollment for MCO enrollees. Any such limitation will be consistent with 42 CFR 438.56(c).
2. MCO contracts will include requirements to use alternative payment methodologies and other arrangements described in STC 45 and Attachment Q, to increase accountability for cost and quality of care through shared savings and shared losses (i.e., downside risk), including potentially asymmetric risk (i.e., potential shared savings exceed potential shared losses).
3. **MCO-Contracted ACOs.** MassHealth will select certain qualified ACOs through a competitive selection process, for accountability for services furnished through MassHealth MCOs. These “MCO-Contracting ACOs” will be provider-led entities such as health systems or groups of health care providers that contract with MCOs to provide care coordination and management and to take financial accountability for cost and quality of care for certain attributed MCO enrollees. They are not managed care entities under 42 CFR 438 and there will not be a separate delivery system or enrollment option for MCO enrollees attributed to MCO-contracting ACOs; such individuals will receive services from the MCO service delivery system. MCO enrollees who receive primary care from primary care providers who participate in MCO-contracting ACOs are considered attributed to those ACOs for the purposes of this cost and quality accountability. MassHealth MCO contracts will include requirements for MCOs to contract with MCO-Contracted ACOs using a MassHealth-approved alternative payment contract framework that includes risk tracks and schedules set by the state, which will be broadly consistent with 42 CFR 438.6(c). This alternative payment contract framework will hold MCO-Contracted ACOs financially accountable through shared savings and shared losses (i.e., downside risk), including potentially asymmetric risk (i.e., potential shared savings exceed potential shared losses). As with MCO enrollees not attributed to ACOs, these MCO enrollees may experience fixed enrollment to their MCO, and receive services from their MCO’s provider network (except for certain Direct Coverage services provided directly by MassHealth, as described above) subject to their MCO’s rules for referral, prior authorization, and primary care provider assignment. See Attachment O for additional detail on pricing for MCO-Contracted ACOs.

b) **Accountable Care Partnership Plans (“Partnership Plans”).** MassHealth will contract selectively with Partnership Plans that provide comprehensive health coverage, including behavioral health services, to enrollees. Some Direct Coverage services are not provided by the Partnership Plans but are instead covered directly by MassHealth for members enrolled in Partnership Plans. Over the course of the Demonstration, MassHealth anticipates that enrollees will begin to receive certain of these Direct Coverage services from the Partnership Plans. For example, Long Term Services and Supports (LTSS) are anticipated to be phased into Partnership Plan covered services during the Demonstration extension period. Members enrolled in Partnership Plans may receive family planning services from any provider without consulting their PCP or Partnership Plan and are not required to obtain prior approval from MassHealth. For family planning services provided by MassHealth providers not participating in a member’s Partnership Plan network, MassHealth reimburses the provider on a fee-for-service basis and recoups the funds from the Partnership Plan. See Attachment O for additional detail on pricing for Partnership Plans.

- i. The state may limit disenrollment for Partnership Plan enrollees. Any such limitation will be consistent with 42 CFR 438.56(c).

- ii. Partnership Plans may have certain additional requirements such as requirements to partner with an ACO-based provider network to deliver services and coordinate care for enrollees, and to hold such ACO and providers financially accountable for the cost and quality of care under a MassHealth-approved framework that may include minimum levels and/or frequency of risk sharing. Such arrangements will be consistent with 438.6.
- iii. MassHealth will contract with Partnership Plans selectively. Partnership Plans are MCOs under 42 CFR 438.

47. Primary Care Exclusivity. MassHealth will establish rules to require the exclusivity of primary care providers for certain Managed Care delivery systems, in order to ensure that accountability for cost and quality can accurately be assigned, and to facilitate members' choice among delivery systems options if members wish to choose based on their preferred primary care provider. Specifically, MassHealth will require, except in limited circumstances with MassHealth approval (e.g. Special Kids Special Care program members, geographically isolated areas), all Pilot ACOs, Primary Care ACOs, Partnership Plans, and MCO-Contracted ACOs (all of which are financially accountable for the cost and quality of attributed members) to each ensure that their participating primary care providers do not simultaneously participate in any other delivery system option, as follows:

- a) A primary care provider participating with a Pilot ACO may not simultaneously participate with another Pilot ACO
- b) A primary care provider participating with a Primary Care ACO may not simultaneously participate with another Primary Care ACO, with a Partnership Plan, or with an MCO-Administered ACO. This primary care provider also may not serve as a PCC in the PCC Plan or a network PCP in the network of a MassHealth MCO. This primary care provider will exclusively serve as a primary care provider for enrollees in the Primary Care ACO.
- c) A primary care provider participating with a Partnership Plan may not simultaneously participate with a Primary Care ACO, with another Partnership Plan, or with an MCO-Administered ACO. This primary care provider also may not serve as a PCC in the PCC Plan or a network PCP in the network of a MassHealth MCO. This primary care provider will exclusively serve as a primary care provider for enrollees in the Partnership Plan.
- d) A primary care provider participating with an MCO-Contracted ACO may not simultaneously participate with a Primary Care ACO, with a Partnership Plan, or with another MCO-Contracted ACO. This primary care provider also may not serve as a PCC in the PCC Plan. This primary care provider may not serve as a network PCP in the network of a MassHealth MCO, except as part of the MCO-Contracted ACO (i.e., the MCO must have a MassHealth-approved ACO contract with the MCO-Contracted ACO). This primary care provider will exclusively serve as a primary care provider for MassHealth MCO enrollees who are attributed to the MCO-Contracted ACO.

Where this exclusivity applies, it applies only for MassHealth members eligible for Managed Care. Primary care providers may be in MassHealth's FFS network and provide services to non-Managed Care enrolled MassHealth members (e.g., dually eligible FFS members).

48. Contracts.

a) Managed Care Contracts. All contracts and modifications of existing contracts between the Commonwealth and MCOs or between the Commonwealth and Partnership Plans must be prior approved by CMS. The Commonwealth will provide CMS with a minimum of 90 calendar days to review and approve changes.

i. MassHealth may make periodic payments of the types described below to managed care entities (MCE), including MCOs, Partnership Plans and PIHPs, and direct that these payments be made to hospitals in the MCEs' networks:

For example, starting in MCO Rate Year 2017 (October 1, 2016-September 30, 2017), MassHealth will direct its contracted MCOs to make payments to hospitals in their networks as an incentive for hospitals to report on and subsequently improve access to appropriate medical and diagnostic equipment for members with disabilities.

MassHealth will calculate the payments for which each hospital is eligible based on current year Medicaid Gross Patient Service Revenue and will direct the MCOs to make payments accordingly, contingent on the hospitals meeting requirements set forth by MassHealth. While this program will not be renewed automatically, it will be a multi- year initiative in which the first two years will require reporting by hospitals on access to medical and diagnostic equipment, and future years will include related performance requirements for hospitals. In future years this program may also be administered by Accountable Care Partnership Plans, in accordance with Attachment O and Q.

b) Public Contracts. Contracts with public agencies, that are not competitively bid in a process involving multiple bidders, shall not exceed the documented costs incurred in furnishing covered services to eligible individuals (or a reasonable estimate with an adjustment factor no greater than the annual change in the consumer price index), unless the contractual payment rate is set at the same rate for both public and private providers. This requirement does not apply to contracts under the SNCP as outlined in STC 54.

c) Selective Contracting. Procurement processes and the subsequent final contracts developed to implement selective contracting by the Commonwealth with any provider group shall be subject to CMS approval prior to implementation, except for contracts authorized pursuant to 42 C.F.R. section 431.54(d).

d) Capitation Rate Development. Capitation rates for MCOs and Partnership Plans shall comply with the rate development and certification standards in 42 CFR §438. The Commonwealth shall develop its capitation rates in a manner consistent with Attachment O.

49. MassHealth Premium Assistance. For most individuals eligible for MassHealth, the Commonwealth may require as a condition of receiving benefits, enrollment in available insurance coverage. In that case, Massachusetts provides a contribution through reimbursement, direct payment to the insurer, or direct payment to an institution of higher education (or its designee) that offers a Student Health Insurance Plan (SHIP), toward an individual's share of the premium for an employer sponsored health insurance plan or SHIP which meets a basic benefit level (BBL). The Commonwealth has identified the features of a qualified health insurance product, including covered benefits, deductibles and co-payments, which constitute the BBL. Each private health insurance plan is measured against the BBL,

and a determination is then made regarding the cost- effectiveness of providing premium assistance. For individuals eligible for premium assistance only through the SBE ESI program, this same test will apply. If available and cost effective, the Commonwealth will provide premium assistance on behalf of individuals eligible for Standard (including ABP 1), CarePlus or CommonHealth coverage, to assist them in the purchase of private health insurance coverage. The state will also provide coverage for additional services required to ensure that such individuals are receiving no less than the benefits they would receive through direct coverage under the state plan. This coverage will be furnished, at the state option, on either a FFS basis or through managed care arrangements. These individuals are not required to contribute more towards the cost of their private health insurance than they would otherwise pay for MassHealth Standard (including ABP 1), CarePlus or CommonHealth coverage. Cooperation with the Commonwealth to obtain or maintain available health insurance will be treated as a condition of eligibility for all of those in the family group, except those who are under the age of 21, or pregnant.

50. Student Health Insurance (SHIP) Plans. For individuals with access to SHIP plans, the Commonwealth may require enrollment in such plan as a condition of receiving benefits. Once the individual enrolls in the SHIP Plan, premium and cost sharing assistance will be provided for the entire plan year or the duration of the SHIP plan enrollment, if less than one year. The state will also ensure individuals receive comparable benefits to those offered in Medicaid programs the individual is eligible for receiving, for the duration of the individual's enrollment in SHIP. In addition, for those individuals enrolled in SHIP plans with premium assistance, the Commonwealth will provide continuous eligibility that will coincide with the SHIP plan year, or the duration of the SHIP plan enrollment, if less than one year, for which premium assistance is provided.

51. Overview of Delivery System and Coverage for MassHealth Administered Programs. The following chart provides further detail on the delivery system utilized for the MassHealth administered programs and the related start date for coverage:

Table F. Delivery System and Coverage for MassHealth Demonstration Programs

Coverage Type	Delivery System Type	Mandatory	Voluntary	FFS Only	Start Date of Coverage****
<u>Standard/Standard ABP</u>					
Individuals with no third party liability (TPL)	Managed Care (PCC Plan, MCO, or Accountable Care)	X			10 days prior to date of application
Adults with TPL	Receive wrap benefits via FFS			X	10 days prior to date of application
Children with TPL	Receive benefits FFS except for behavioral health via mandatory enrollment in BHP PIHP	X		X	10 days prior to date of application
Individuals with qualifying ESI or SHIP	Premium assistance with wrap			X	10 days prior to date of application

Coverage Type	Delivery System Type	Mandatory	Voluntary	FFS Only	Start Date of Coverage****
Kaileigh Mulligan eligible children and children receiving title IV-E adoption assistance	Behavioral health is typically provided via BHP PIHP, although a FFS alternative must be available; all other services are offered via Managed Care or FFS.		x		Kaileigh Mulligan - may be retroactive to first day of third month before month of application, if covered medical services were received during such period, and the applicant would have been eligible at the time services were provided.” Title IV-E adoption assistance - start date of adoption
Medically complex children in the care/custody of the DCF	Special Kids Special Care MCO		x		Start date of state custody
Children in the care/custody of the DCF or DYS, including medically complex children in the care/custody of the DCF	All services are offered via Managed Care or FFS, with the exception of behavioral health which is provided via mandatory enrollment in BHP PIHP unless the child enrolls in an MCO or Accountable Care Partnership Plan	x	x	x	Start date of state custody

Coverage Type	Delivery System Type	Mandatory	Voluntary	FFS Only	Start Date of Coverage*****
	in which case, behavioral health is provided through the MCO or Accountable Care Partnership Plan				
Provisionally eligible pregnant women and children, for an up to 90-day period, before self-attested family income is verified	FFS			x	10 days prior to date of application if citizenship/immigration status is verified
Individuals in the Breast and Cervical Cancer Treatment Program	Managed Care	X			10 days prior to date of application
<u>CommonHealth*</u>					
Individuals with no TPL	Managed Care **	X			10 days prior to date of application
Adults with TPL	Receive wrap benefits via FFS			x	10 days prior to date of application

Coverage Type	Delivery System Type	Mandatory	Voluntary	FFS Only	Start Date of Coverage****
Children with TPL	Receive benefits FFS except for behavioral health via mandatory enrollment in BHP PIHP	x		x	10 days prior to date of application
Individuals with qualifying ESI or SHIP	Premium assistance with wrap			x	10 days prior to date of application
<u>Family Assistance for HIV/AIDS*</u>					
Individuals with no TPL	Managed Care **	X			10 days prior to date of application
Individuals with TPL	Receive wrap benefits via FFS			x	10 days prior to date of application

Coverage Type	Delivery System Type	Mandatory	Voluntary	FFS Only	Start Date of Coverage*****
Individuals with qualifying ESI or SHIP	Premium assistance with wrap			x	10 days prior to date of application
<u>Family Assistance for Children***</u>					
Individuals with no TPL	Managed Care **	X			10 days prior to date of application
Individuals with qualifying ESI or SHIP	Premium assistance with wrap			x	10 days prior to date of application
<u>CarePlus</u>					
Individuals with no TPL	Managed Care	X			10 days prior to date of application
Individuals with TPL	Receive wrap benefits via FFS			X	10 days prior to date of application
Individuals with qualifying ESI or SHIP	Premium assistance with wrap			X	10 days prior to date of application

Coverage Type	Delivery System Type	Mandatory	Voluntary	FFS Only	Start Date of Coverage****
<u>Small Business Employee Premium Assistance</u>					
Individuals with qualifying ESI	Premium assistance for employees			N/A	First month's premium payment following determination of eligibility
<u>Limited</u>					
Individuals receiving emergency services only	FFS			X	10 days prior to date of application
<u>Home and Community-Based Waiver, under age 65</u>	Generally FFS, but also available through voluntary Managed Care		X		May be retroactive to first day of third month before month of application, if covered medical services were received during such period, and the applicant would have been eligible at the time services were provided.
Health Connector Subsidies	Premium and cost sharing assistance	X			Start date of Health Connector benefits
<u>Chart Notes</u>					
*TPL wrap could include premium payments					
** FFS until member selects or is auto-assigned to MCO, ACO or PCC Plan					
***Presumptive and time-limited during health insurance investigation					
**** All retroactive eligibility is made on a FFS basis.					

VII. COST SHARING

52. Overview. Cost-sharing imposed upon individuals enrolled in the demonstration and eligible under the state plan or in a “hypothetical” eligibility group is consistent with the provisions of the approved state plan except where expressly made not applicable in the demonstration expenditure authorities. Cost sharing for individuals eligible only through the demonstration may vary across delivery systems, demonstration programs and by FPL, except that no co-payments are charged for any benefits rendered to children under age 21 or pregnant women. Additionally, no premium payments are required for any individual enrolled in the demonstration whose gross income is less than 150 percent FPL. Please see Attachment B for a full description of cost-sharing under the

demonstration for MassHealth- administered programs. The Commonwealth has the authority to change cost-sharing for the Small Business Employee Premium Assistance programs without amendment. Updates to the cost- sharing will be provided upon request and in the annual reports,

a. State Differential Cost Sharing and Network Adequacy. The Commonwealth's ability to implement premiums and copayments cost sharing that vary by eligibility group, income level, delivery system and service as described in Attachment B through June 30, 2020 may be extended with approval from CMS, based on findings of an evaluation of aggregate provider networks in the ACO and MCO programs relative to the PCC Plan, as further described in Section XI (language below in Evaluation section), using metrics created by the state. If the findings are satisfactory to CMS then the waiver authority and the waiver is extended, such renewal shall not require that the state submit an amendment request to the demonstration.

VIII. THE SAFETY NET CARE POOL (SNCP)

53. Description. The Safety Net Care Pool (SNCP) was established effective July 1, 2005 for the purpose of reducing the rate of uninsurance in the Commonwealth while providing residual provider funding for uncompensated care, and care for Medicaid FFS, Medicaid managed care, Commonwealth Care and low-income uninsured individuals, as well as infrastructure expenditures and access to certain state health programs related to vulnerable individuals, including low-income populations as described in Attachment E. As the Commonwealth has achieved significant progress in increasing access to health coverage, the SNCP has evolved to support delivery system transformation and infrastructure expenditures, both aimed at improving health care delivery systems and thereby improving access to effective, quality care. During the current extension period, the SNCP has been restructured to include the following expenditure categories:

- a) Payments that offset Medicaid FFS and managed care underpayment, and uncompensated care for uninsured and underinsured (DSH – shortfall and uninsured).
- b) Uncompensated care pool restricted to charity care for uninsured and underinsured, aligned with CMS uncompensated care pool policy as applied in other states (UCC – uninsured care). CMS will only make changes to the base methodology during the negotiation of another demonstration extension with the Commonwealth.
- c) Time-limited incentive based pools, that phase down over the course the five-year extension period; and
- d) Expenditures for Health Connector subsidies.

54. Expenditures Authorized under the SNCP. The Commonwealth is authorized to claim as allowable expenditures under the demonstration, to the extent permitted under the SNCP limits under STC 55, for the following categories of payments and expenditures. The Commonwealth must identify the provider and the source of non-federal share for each component of the SNCP. Federally-approved payments and expenditures within these

categories are specified in Attachment E. The Commonwealth must only claim expenditures at the regular FMAP for these programs.

a) **Payments for Uncompensated Care**

- i. **Disproportionate Share Hospital-like (DSH-like) Pool.** As described in Attachment E, the Commonwealth may claim as an allowable expenditure under the demonstration, payments to providers, including but not limited to, acute hospitals and health systems, non-acute hospitals, and other providers of medical services to support uncompensated care for Medicaid FFS, and low-income uninsured individuals consistent with the definition of uncompensated care in 42 CFR 447.299, except that DSRIP and PHTII incentive payments will not be included as patient care revenues for this purpose. The Commonwealth may also claim as allowable expenditures payments not otherwise eligible for FFP that are for otherwise covered services furnished to individuals who are inpatients in an Institution for Mental Disease. Payments to providers other than community health centers are limited to uncompensated care costs incurred by providers and verified in cost reports or other cost records, in serving individuals who are eligible for Medicaid, or have no health care insurance for the service. These payments are subject to the SNCP limits under STC 55. The DSH Pool may include expenditures for:
 1. Public Service Hospital Safety Net Care payments to hospitals for care provided to eligible low income uninsured and underinsured patients;
 2. Health Safety Net Trust Fund payments to hospitals and community health centers for care provided to eligible low income uninsured and underinsured patients;
 3. Payments to Institutions for Mental Disease (IMDs) for care provided to MassHealth Members, to the extent these expenditures are not claimed under the SUD authority described in STC 41;
 4. Certified public expenditures for uncompensated care provided by Department of Public Health (DPH) and Department of Mental Health (DMH) hospitals; and
 5. Safety Net Provider Payments to qualifying hospitals, as described in (2) below.
- ii. **Safety Net Provider Payments.** The Commonwealth may make Safety Net Provider Payments to eligible hospitals, in recognition of safety net providers in the Commonwealth that serve a large proportion of Medicaid and uninsured individuals and have a demonstrated need for support to address uncompensated care costs consistent with the definition of 42 CFR 447.299. These payments are intended to provide ongoing and necessary operational support; as such, they are not specifically for the purposes of delivery system reform and are not time limited.

The Commonwealth will determine, based on the eligibility criteria listed below,

the hospitals that are eligible to receive the Safety Net Provider Payments. The eligibility criteria below use hospitals' fiscal year 2014 Uncompensated Care Cost Report (UCCR) and, if a UCCR is unavailable, Massachusetts 403 hospital cost reports for these calculations:

To be eligible, the hospital must meet the following three criteria:

1. Medicaid and Uninsured payer mix by charges of at least 20.00%;
2. Commercial payer mix by charges of less than 50.00%;
3. Is not a MassHealth Essential hospital as defined in Massachusetts' approved State Plan.

Once meeting the above eligibility criteria, a hospital may only receive a Safety Net Provider payment if its FY14 UCCR or, if an FY14 UCCR is unavailable, its FY14 403 cost report demonstrates that it experienced a shortfall for the combination of its Medicaid FFS, managed care, and Uninsured payments versus costs for Medicaid and Uninsured patients, excluding Safety Net Care Pool payments other than Health Safety Net Trust Fund payments. Hospitals that qualify for Safety Net Provider payments because they meet these eligibility criteria and have a demonstrated Medicaid and Uninsured shortfall are listed in Attachment N. Safety Net Provider Payments to any provider may not exceed the amount of documented uncompensated care indicated on these reports.

Safety Net Provider Payments will have accountability requirements, aligned with the Commonwealth's overall delivery system and payment reform goals. In each year of the demonstration extension period, hospitals that receive Safety Net Provider Payments must participate in one of MassHealth's ACO models. In addition, an increasing portion of Safety Net Provider Payments each year of the demonstration extension period will be tied to ACO performance measures as defined in the approved DSRIP Protocol. The benchmarks for ACO performance and methodology for calculating the ACO Accountability Score and associated payment will be the same as the benchmarks and methodology used in the DSRIP program and specified in the approved DSRIP Protocol. The risk levels for each year are specified below.

The portion of the Safety Net Provider Payments that is at-risk will follow the same at-risk Budget Period structure as for the ACOs. The Budget Period is January 1 through December 31. Funds for the 6-month Preparation Budget Period (July 1, 2017 to December 31, 2017) for each safety net provider will be equal to half of the provider's Safety Net

Provider Payments in Demonstration Year 1. Budget Period 1 funds for each safety net provider will be equal to the sum of half of the provider's Safety Net Provider Payments in Demonstration Year 1, and half of the Payments in Demonstration Year 2. Budget Periods 2 through 4 for each safety net provider will be sourced by the same funding pattern as Budget Period 1. Budget Period 5 funds for each safety net provider will be equal to half of the

provider's Safety Net Provider Payments in Demonstration Year 5.

The risk levels for each Budget Period are specified below:

- a. 6-month Preparation Budget Period: 5% of each provider's total Safety Net Provider Payments / – hospitals that participate in a MassHealth ACO model will have met the accountability requirement for the 6 month Preparation Budget Period
- b. Budget Period 1: 5% of each provider's total Safety Net Provider Payments at risk – tied to ACO performance on DSRIP measures
- c. Budget Period 2: 5% of each provider's total Safety Net Provider Payments at risk – tied to ACO performance on DSRIP measures
- d. Budget Period 3: 10% of each provider's total Safety Net Provider Payments at risk – tied to ACO performance on DSRIP measures
- e. Budget Period 4: 15% of each provider's total Safety Net Provider Payments at risk – tied to ACO performance on DSRIP measures
- f. Budget Period 5: 20% of each provider's total Safety Net Provider Payments at risk – tied to ACO performance on DSRIP measures

iii. Uncompensated Care (UC) Pool

1. As described in Attachment E, the Commonwealth may claim as an allowable expenditure under the demonstration, payments to providers, including but not limited to, acute hospitals and health systems, non-acute hospitals, and other providers of medical services to support uncompensated care for non-Medicaid-eligible, uninsured individuals. Payments to an individual provider cannot exceed uncompensated care expenditures documented in cost reports or other records, except that DSRIP and PHTII incentive payments will not be included as hospital patient care revenues for this purpose. Consistent with the Cost Limit Protocol, incentive payments, including DSRIP and PHTII, will not be included as hospital patient care revenues for this purpose. Expenditures provided under the UCC Pool are not subject to the Provider Cap for the DSH Pool described in STC 55. The UCC Pool will include expenditures for:
 - a. Health Safety Net payments to hospitals specifically for costs incurred by the hospital in providing care to Health-Safety Net qualified low income, uninsured patients;
 - b. Certified public expenditures for DPH and DMH hospital

expenditures for care provided to uninsured patients, when the source of the non-federal share of such expenditures is not derived from federally-supported funds.

2. Massachusetts will only claim expenditures under the UC Pool to the extent that such expenditures for a particular hospital, when added to amounts paid through the DSH Pool, do not exceed the hospital's documented uncompensated care (except as specified below, for critical access hospitals). The methodology used by the state to determine UC payments will ensure that payments to hospitals are in no way subject to any manifest partiality based on sources of nonfederal share or other funding considerations.
3. Prior to the initiation of the Uncompensated Care Pool and at any time in which there is a material change in the pool's distribution methodology, the Commonwealth shall submit an Uncompensated Care Pool Distribution Methodology Report that describes the specific allocation methodology of the pool and demonstrates compliance with the above STCs.

55. Expenditure Limits under the SNCP.

- a) Aggregate SNCP Cap. For SFYs 2018-2022 (July 1, 2017 through June 30, 2022) (SNCP extension period), the SNCP will be subject to an aggregate cap of up to \$4.514 billion added to the provider cap for the DSH-like pool described in STC 55 (b) below, as well as the overall budget neutrality limit established in section XI of the STCs, provided, however, that allowable expenditures for Health Connector subsidies will not be subject to the aggregate SNCP cap. Because the aggregate SNCP cap is based, in part, on an amount equal to the Commonwealth's annual disproportionate share hospital (DSH) allotment any change in the Commonwealth's Federal DSH allotment that would have applied for the SNCP extension period absent the demonstration shall result in an equal change to the aggregate SNCP cap, and a corresponding change to the provider cap as described in subparagraph (b). Such a change shall be reflected in STC 55(b), and shall not require a demonstration amendment.
- b) Provider Cap for the DSH-like Pool. The Commonwealth may expend an amount for purposes specified in STC 54(a) equal to no more than the cumulative amount of the Commonwealth's annual DSH allotments for the SNCP extension period. Any change in the Commonwealth's federal DSH allotment that would have applied for the SNCP extension period absent the demonstration shall result in an equal change to the aggregate amount available for the DSH-like pool. Such change shall not require a demonstration amendment. The DSH-like Pool funding is based on the amount equal to the state's entire DSH allotment as set forth in section 1923(f) of the Act, ("DSH"). In order to align DSH amounts with each SFY, the state's DSH allotment for the federal fiscal year will be pro-rated. In any year to which reductions to Massachusetts' DSH allotment are required by section 1923(f)(7) of the Social

Security Act, the amount of the DSH allotment attributable to the SNCP in a given DY shall be reduced consistent with CMS guidelines. The funding limit does not apply to expenditures under the UC Pool, though the Commonwealth may only claim expenditures under the UC Pool to the extent that the DSH Pool has been fully expended.

- c) Uncompensated Care Pool Cap. The Commonwealth may expend up to \$212 million (total computable) for SFY 2018 and up to \$100.4 million (total computable) annually in SFYs 2019- 2022 for allowable UC Pool expenditures, as further described in Attachment E. Any unused expenditure authority in SFY 2018 can be expended in SFY 2019, subject to any applicable approval processes described in STC 76.
- d) Budget Neutrality Reconciliation. The Commonwealth is bound by the budget neutrality agreement described in section XIII of the STCs. The Commonwealth agrees to reduce spending in the SNCP to comply with budget neutrality in the event that expenditures under the demonstration exceed the budget neutrality ceiling outlined in section XIV, STC 108.

56. Cost for Uncompensated Care. The SNCP payments pursuant to STC 54(a) support providers for furnishing uncompensated care. This protocol ensures that payments to providers other than community health centers for uncompensated care pursuant to STC 54(a) will be limited on a provider-specific basis to the cost of providing Medicaid state plan services and any other additional allowable uncompensated costs of care provided to Medicaid eligible individuals and uninsured individuals, less payment received by or on behalf of such individuals for such services. DSRIP and PHTII revenues will not be considered to be patient care revenues for this purpose along with other revenues as described in Massachusetts' Cost Limit Protocol approved by CMS in December 2013. Notwithstanding the generality of the foregoing, Critical Access Hospitals may receive 101% of the cost of providing Medicaid services, and 100% of uncompensated care costs as specified by the provisions of Section 1923(g) of the Act as implemented by 447.295(d).

57. Transition of Specified Safety Net Provider Payments and Public Hospital Transformation and Incentive Initiatives into Medicaid Managed Care/ACO Incentive Payment Mechanisms. As the delivery system reforms are implemented, the Commonwealth and CMS seek to shift payments to risk- based alternative payment models focused on accountability for quality, integration and total cost of care. These payments are described in Attachment Q, MassHealth MCO Incentives.

58. Designated State Health Programs. The Commonwealth may claim as allowable expenditures under the demonstration Health Connector subsidies as described below. The state may claim as allowable expenditures under the demonstration the payments made through its state-funded program to provide subsidies for individuals with incomes at or below 300 percent of the FPL who purchase health insurance through the Health Connector. Subsidies will be provided on behalf of individuals who:

(1) are not Medicaid eligible; and (2) whose income is at or below 300 percent of the FPL through 300 percent of the FPL. The state may also claim as allowable expenditures under the demonstration the payments made through its state-funded Health Safety Net (HSN) program to provide gap coverage subsidies for individuals eligible for coverage through the Health Connector with incomes at or below 300% FPL. HSN-Health Connector gap coverage subsidies are provided to eligible individuals during the time designated to select and enroll in a plan through the Health Connector.

Federal financial participation for the premium assistance, gap coverage, and cost-sharing portions of Health Connector subsidies for citizens and eligible qualified non-citizens will be provided through the Designated State Health Programs authority under the SNCP pursuant to this STC. Allowable expenditures for Health Connector subsidies will not be subject to the aggregate SNCP limit described in STC 55 or other SNCP sub-caps.

- 59. Cambridge Health Alliance (CHA) Public Hospital Transformation and Incentive Initiatives (PHTII).** CHA is the Commonwealth's only non-state, non-federal public acute hospital and has among the highest concentration of patients participating in MassHealth demonstration programs of any acute hospital in the Commonwealth.

The PHTII program, which was established in the previous demonstration extension period, will evolve to focus on two areas that align with the Commonwealth's plans for a restructured MassHealth delivery system centered around ACOs and emphasizing the integration of care across physical and behavioral health care, long term services and supports, and health related social services. The two areas of focus for PHTII are:

- a) Participation in an ACO model and demonstrating success on the corresponding ACO performance measures, utilizing the same performance measures as specified for the DSRIP initiative; because CHA relies on PHTII as an important component of its overall MassHealth funding structure, enhancing the level of incentive funding tied to these critical measures will ensure alignment across payment streams and enable CHA to devote attention and resources to improving these outcomes;
- b) Continuation and strengthening of initiatives approved through PHTII from the prior demonstration period, including but not limited to initiatives focusing on access to behavioral health services and integration of behavioral health care with physical health care, given CHA's role as a major provider of behavioral health services. These PHTII initiatives will build on work done during the 2014-2017 period and will include a strengthened set of outcome and improvement measure slates that reflect the potential for greater measurable impact over time.

Attachment E specifies the total potential funding available for CHA's Public

Hospital Transformation and Incentive Initiatives. An increasing proportion of PHTII funding will be at-risk based on ACO performance, outcome and improvement measures over the course of the demonstration period. For example, the proportion of total PHTII funding tied to CHA's performance on MassHealth DSRIP accountability measures as part of an ACO increases from 5% to 20% over the course of the demonstration period. In addition, 10 percent of total PHTII funding each year will be tied to performance on outcomes and improvement measures associated with continuing PHTII initiatives from the prior demonstration period. The remainder of PHTII incentive funding is contingent on CHA's successful completion of initiative activities and reporting. Further details regarding the Metrics and Evaluation of the initiatives are outlined in Attachment K.

PHTII payments are an incentive for successfully meeting associated metrics and outcomes rather than payment of claims for the provision of medical care. For this reason, Public Hospital Transformation and Incentive Initiative payments shall not be considered patient care revenue for purposes of offsetting allowable uncompensated care costs under the cost limit protocol approved under the demonstration authority.

To the extent that CHA fails to meet PHTII accountability measures and does not receive PHTII payments, the expenditure authority for PHTII will be reduced by the amount not payable.

Intended Funding Source: The non-federal share of PHTII payments will be provided through permissible intergovernmental transfer provided by CHA (from funds that are not federal funds or are federal funds authorized by federal law to be used to match other federal funds in accordance with 1903(w) of the Act and implementing regulations).

60. Delivery System Reform Incentive Program (DSRIP). The state may claim, as authorized expenditures under the demonstration, up to \$1.8 billion (total computable) for five years, performance- based incentive payments to entities that support change in how care is provided to Medicaid beneficiaries through payment and delivery system reforms. DSRIP payments are an incentive for successfully meeting associated metrics and outcomes rather than payment of claims for the provision of medical care. For this reason, DSRIP payments shall not be considered patient care revenue for purposes of offsetting allowable uncompensated care costs under the Safety Net Care Pool Uncompensated Care Cost Limit Protocol under demonstration authority. DSRIP will be a time limited program, and Massachusetts' efforts undertaken through DSRIP will be sustainable after the demonstration period concludes.

Specifically, the Commonwealth may claim as allowable expenditures under the demonstration, payments to Accountable Care Organizations (ACOs), certified Community Partners (CPs), social service organizations, providers, sister agencies, full-time staff, and contracted vendors for activities that will likely increase the success of the payment and care delivery reform efforts and the overall goals as outlined above

and in the 1115 demonstration. Such activities include: (1) start up and ongoing support for ACO development, infrastructure, and new care delivery models; (2) support for ACOs to pay for traditionally non-reimbursed flexible services to address health-related social needs; (3) transitional funding for certain safety net hospitals to support the transition to ACO models and to smooth the shift to a lower level of ongoing Safety Net Provider funding; (4) support to Community Partners for care management, care coordination, assessments, counseling, and navigational services; (5) support to Community Partners for infrastructure and capacity building; and (6) initiatives to scale up statewide infrastructure and workforce capacity to support successful reform implementation. DSRIP funds must be subject to limitations that prevent their use as the non-federal share of claimed Medicaid expenditures.

Massachusetts may also claim as allowable expenditures under the demonstration payments for state implementation and robust oversight of the DSRIP program as described below in STC 70(b).

DSRIP payments are incentive payments and are therefore not subject to the Safety Net Care Pool Uncompensated Care Cost Limit Protocol.

- a. **Objective and Goals.** The objective of the DSRIP program is to further key goals of the 1115 demonstration, including: (1) enacting payment and delivery system reforms that promote member-driven, integrated, coordinated care and hold providers accountable for the quality and total cost of care; (2) improving integration among physical health, behavioral health, long-term services and supports, and health-related social services; and (3) sustainably supporting safety net providers to ensure continued access to care for Medicaid and low-income uninsured individuals.

The goal of the DSRIP program is to provide a time-limited investment into the provider community that will facilitate transition away from a fee-for service payment model to one that moves toward alternative payment models. These models assure that health care services are member-driven, integrated, and coordinated and that begins to address social determinants of health while moderating the cost trend.

- b. **Accomplishment of Goals.** Massachusetts seeks to accomplish its goals through the creation of three ACO models, certification of and investment in Community Partners, and investments in statewide infrastructure and workforce development. Minimal funds will be used for state implementation and oversight.
- c. **Funding Sources.** MassHealth must use a permissible source of non-federal share to support the DSRIP program. FFP is only available for DSRIP payments to Participant ACOs and CPs that comply with the DSRIP Protocol and Participation Plans; or to other entities that receive funding through the DSRIP statewide investments or DSRIP-supported state operations and implementation funding streams. The Commonwealth may claim FFP for up to two years after

the calendar quarter in which the State made DSRIP payments to eligible entities. MassHealth’s DSRIP expenditures are subject to availability of funds.

- d. **Expenditure Limits.** The Commonwealth may claim FFP for up to \$1.8 billion in DSRIP expenditures.
 - i. An increasing amount of state DSRIP expenditure authority will be at-risk over the five-year period (See STC 71).
 - a) The State’s expenditure authority will be reduced based on the State’s DSRIP Accountability Score (See STC 71). MassHealth will reduce DSRIP payments in proportion to the reduced expenditure authority.
 - ii. **Enrollment Adjustments.** Given that a significant portion of DSRIP expenditure authority will be disbursed on a PMPM bases, lower than anticipated member participation in the ACO or CP programs may lead to lower actual expenditures in a given DSRIP year. Therefore, the state may carry forward prior year DSRIP expenditure authority from one year to the next. The state may only carry forward expenditure authority from one DSRIP year to the next for reasons related to member participation fluctuations. If the carry forward amount from any given year to the next is more than 15%, the state must obtain CMS approval. The state must ensure that carry over does not result in the amount of DSRIP for DY 25 being greater than the amount for DY 24.

- e. **Funding Allocation and Methodologies.** The funding table below shows anticipated amounts of funding per DSRIP funding stream by waiver demonstration year. The State and CMS recognize that these funding amounts may vary due to a variety of reasons, including fluctuations in the number of members enrolled in ACOs, and the number of members who require BH and LTSS CPs services. As such, the state may reallocate funding amounts between funding streams at its discretion. If the actual funding amounts per DSRIP funding stream vary by more than 15% from the amounts provided in the table below, the state must notify CMS 60 calendar days prior to the effective reallocation of funds. CMS reserves the right to disapprove any such reallocations.

Table G. DSRIP Funding Allocation Total Computable (In Millions)

Funding Stream	DY 21	DY 22	DY 23	DY 24	DY 25	Total
ACO Funding	\$329.2M	\$289.9M	\$229.4M	\$152.0M	\$65.1M	\$1,065.6M
Community Partners	\$57.0M	\$95.9M	\$132.2M	\$133.6M	\$128.0M	\$546.6M
Statewide Investments	\$24.2M	\$24.6M	\$23.8M	\$24.8M	\$17.4M	\$114.8M
State Operations and Implementation	\$14.6M	\$14.6M	\$14.6M	\$14.6M	\$14.6M	\$73.0M
Total:	\$425.0	\$425.0	\$400.0	\$325.0	\$225.0	\$1,800.0

61. DSRIP Protocol. The State must develop and submit to CMS for approval a DSRIP

Protocol, and work collaboratively with CMS towards an approval date of December 15, 2016. Once approved by CMS, this document will be incorporated as Attachment M of these STCs, and once incorporated may be altered only with CMS approval, and only to the extent consistent with the approved waivers, expenditure authorities and STCs. The Protocol lays out the permissible uses of DSRIP specific funding for ACO, CP, and statewide investments, as well as state implementation and oversight of the DSRIP program. Changes to the Protocol will apply prospectively, unless otherwise indicated in the Protocols. DSRIP payments for each participating entity or organization are contingent on fully meeting requirements as specified in the DSRIP Protocol. In order to receive incentive funding the entity must submit all required reporting, as outlined in the DSRIP Protocol.

- a) **Protocol Purpose:** The Commonwealth may only claim FFP for DSRIP expenditures in accordance with the DSRIP Protocol. The DSRIP Protocol:
- i. Outlines the context, goals, and outcomes that the Commonwealth seeks to achieve through payment reform;
 - ii. Specifies the allowed uses for DSRIP funding, and the methodologies/process by which the Commonwealth will determine how to distribute DSRIP funding and ensure robust oversight of said funds;
 - iii. Specifies requirements for the DSRIP Participation Plans and Budgets that ACOs and CPs are required to submit and have approved by the Commonwealth;
 - iv. Specifies requirements for how the Commonwealth will procure and oversee any statewide investments in support of the key goals of the demonstration.
- b) **DSRIP Protocol Requirements:** At a minimum the DSRIP protocol must contain the following information:
- i. Specify a State review process and criteria to evaluate and monitor each ACOs and Community Partners individual DSRIP plan and develop its recommendation for approval or disapproval prior to submission to CMS for final approval;
 - ii. Specify a review process and timeline to evaluate DSRIP progress, in which first the State and then CMS must certify that a targets were met as a condition for FFP for the continued release of associated DSRIP funds;
 - iii. Specify an incentive payment formula to determine the total annual amount of DSRIP incentive payments each participating entity may be eligible to receive during the implementation of the DSRIP project, and a formula for determining the incentive

payment amounts, quality incentive payments, any other outcomes- or performance-based payments, etc.;

- iv. Specify that an entity's failure to fully meet performance targets under its DSRIP Plan within the time frame specified will result in forfeiture of the associated incentive payment (i.e., no payment for partial fulfillment);
- v. Include a process that allows for potential modification (including possible reclamation, or redistribution, pending State and CMS approval) and an identification of circumstances under which potential protocol modification may be considered, which shall stipulate that CMS may require that a plan be modified if it becomes evident that the previous targeting/estimation is no longer appropriate or that targets were greatly exceeded or underachieved; and
- vi. Include a State process of developing an evaluation of DSRIP as a component of the evaluation design as required by STC 88. When developing the DSRIP Protocol, the State should consider ways to structure the different projects that will facilitate the collection, dissemination, and comparison of valid quantitative data to support the Evaluation Design required in section XI of the STCs. The State must select a preferred evaluation plan for the applicable evaluation question, and provide a rationale for its selection. To the extent possible, participating entities should use similar metrics for similar projects to enhance evaluation and learning experience. To facilitate evaluation, the DSRIP Protocol must identify a core set performance targets that all participating entities and/or the State must be required to report.

- c) **Review and Approval of Modifications to DSRIP Protocol:** Massachusetts has the right to modify the DSRIP Protocol over time with CMS approval, taking into account evidence and learnings from experience; unforeseen circumstances; or other good cause.
 - i. CMS and Massachusetts agree to a targeted approval date of 60 business days after submission of the DSRIP Protocol modification.
 - ii. If CMS determines that the DSRIP Protocol modifications are not ready for approval by the target date, CMS will notify Massachusetts of its determination, and CMS and Massachusetts will then work collaboratively together to address the reasons provided by CMS for not granting approval.

62. ACO & CP Participation Plans: In order to receive DSRIP funding, ACOs must submit their Participation Plan, Budget, and Budget Narratives to MassHealth, and

receive MassHealth approval. The Participation Plans must describe how the ACO will use DSRIP funding to support the transition to the new MassHealth ACO models.

- a) At a minimum, the Participation Plans must include the following sections: executive summary, patient and community population, partnerships, narrative, timeline, milestones and metrics, and sustainability.
- b) The Budget is a line item budget for the ACO's proposed DSRIP-funded investments and programs; the accompanying Budget Narrative explains uses of the funds. See DSRIP Protocol for more details about the Participation Plans and Budgets.
- c) MassHealth Review and Approval: MassHealth must review the ACO Participation Plans, Budgets, and Budget Narratives and notify ACOs of approval.
- d) Participation Plan, Budget, and Budget Narrative Modification Process. An ACO or CP may request modifications to its Participation Plan, Budget, and Budget Narrative by submitting a request for modification to MassHealth in writing.
- e) MassHealth will provide CMS with approved Participation Plans upon request.

63. Accountable Care Organizations. The Commonwealth will provide DSRIP investment funds to its contracted ACOs, which are generally provider-led health systems or organizations that focus on integration of physical health, Behavioral Health, Long Term Services and Supports, and social service needs; ACOs will be financially accountable for the cost and quality of their members' care. MassHealth's ACO models are described in STC 44-46 above.

- a) Eligibility: ACO entities that are eligible to receive DSRIP payments from MassHealth are entities that have signed contracts to be MassHealth ACOs (i.e., Accountable Care Partnership Plans, Primary Care ACOs, and MCO-Contracted ACOs).
- b) Funding Use: MassHealth may pay ACOs under the DSRIP expenditure authority for the following:
 - i. ACO startup/ongoing support
 - ii. Support for flexible services. These services will be delineated in the post-approval Flexible Services Protocol. The Commonwealth will submit the protocol for CMS review and approval by May 2017. The protocol will include eligibility criteria and service definitions, payment methodologies, specific interventions, a description of the methodology used to identify the target population(s) including data analyses and a needs assessment of the target population, the nature of the individualized determination that would need to be made to determine potential for institutional placement and description of

services that will be made available to beneficiaries including medical, behavioral, social and non-medical services. The State may provide a portion of flexible services funding directly to social service organizations to help them build infrastructure and capacity to better support ACOs in delivering flexible services, subject to expenditure limits set forth in the Flexible Services Protocol. Flexible services include:

1. Transition services for individuals transitioning from institutional settings into community settings consistent with the guidance provided on the provision of transition services as a home and community based service.
2. Home and Community-Based Services to divert individuals from institutional placements.
3. Services to maintain a safe and healthy living environment.
4. Physical activity and nutrition.
5. Experience of violence support.
6. Other individual goods and services.
 - a) Address medical needs and provide direct benefit and support specific outcomes that are identified in the individual waiver participant's care plan; and
 - b) Promote the delivery of covered services in community settings;
 - c) Decrease the need for other Medicaid services;
 - d) Reduce the reliance on paid support; or
 - e) Are directly related to the health and safety of the member in his/her home or community; or
 - f) Satisfy the other criteria listed below

iii. These flexible services must satisfy the following criteria:

1. Must be health-related
2. Not covered benefits under the MassHealth State Plan, the 1115 demonstration Expenditure Authority, or a home and community based waiver the member is enrolled in.
3. Must be consistent with and documented in member's care plan
4. Determined to be cost effective services that are informed by evidence that the service is related to health outcomes.
5. May include, but are not limited to, classes, programs, equipment, appliances or special clothing or footwear likely to improve health outcomes, prevent or delay health deterioration.
6. Other criteria established by MassHealth and approved by CMS.

c) Limitations on FFP for Flexible Services: The state must provide detailed information, as part of its quarterly report, on the exact flexible service, number and dollar amounts provided by each ACO during the quarter. If during the course of the demonstration CMS finds that flexible services provided by an ACO are outside of the scope of the STCs or other CMS federal policy guidance, CMS reserves the right to modify and/or terminate the expenditure authority for flexible services only.

d) Additional Limitations on Flexible Services. Flexible service dollars may not be

used to fund or pay for the following:

- i. State Plan, 1115 demonstration services, or services available through a Home and Community Based waiver in which the member is enrolled
 - ii. Services that a member is eligible to receive from another state agency
 - iii. Services that a member is eligible for, *and able to*, receive from a publically funded program (recognizing that certain public programs, periodically run out of funds)
 - iv. Services that are duplicative of services a member is already receiving
 - v. Services where other funding sources are available.
 - vi. Alternative medicine services (e.g., reiki)
 - vii. Medical marijuana
 - viii. Copayments
 - ix. Premiums
 - x. Ongoing rent or mortgage payments
 - xi. Room and board, including capital and operational expenses of housing
 - xii. Ongoing utility payments
 - xiii. Cable/television bill payments
 - xiv. Gift cards or other cash equivalents with the exception of nutrition related vouchers or nutrition prescriptions
 - xv. Student loan payments
 - xvi. Credit card payments
 - xvii. Memberships not associated with one of the allowable domains
 - xviii. Licenses (drivers, professional, or vocational)
 - xix. Services outside of the allowable domains. For example:
 - xx. Educational supports
 - xxi. Vocational training
 - xxii. Child care not used to support attendance of medical or other health-related appointments
 - xxiii. Social activities not related to the health of an individual
 - xxiv. Hobbies (materials or courses)
 - xxv. Clothing (beyond specialized clothing necessary for fitness)
 - xxvi. Auto repairs not related to accessibility
- e) Transitional “glide path” funding for DSTI safety net hospitals: This funding will only be available to ACOs that include a DSTI safety net hospital, and is allocated according to a MassHealth- determined schedule that was developed based on negotiations with CMS regarding the overall funding glide path for DSTI hospitals, inclusive of other funding streams.
- f) At-Risk DSRIP Funding: A portion of DSRIP ACO startup/ongoing funds and glide path funding will be at-risk. An ACO’s DSRIP Accountability Score will determine the amount of at-risk funding that is earned (STC 71).

- g) Funding Methodology: The amount of DSRIP payments MassHealth provides to an ACO will be the summed amount of the three funding streams described in these STCs. An ACO's DSRIP funding allocation for startup/ongoing support and for flexible services will be determined by multiplying the number of lives attributed to the ACO by a per member per month (PMPM) rate. DSTI Glide Path funding will be based on a schedule determined by MassHealth for each specific DSTI hospital.
- h) Startup/ongoing support: The PMPM amount for startup/ongoing funds decreases over the five year period, and will vary for each ACO, depending on adjustments based on the following factors, as determined by MassHealth: the ACO's payer revenue mix, the ACO model and risk track selected and the number of ACO members attributed to community health centers (see DSRIP Protocol Section 4.4.1).
- i) Flexible services support: The PMPM amount for flexible services is the same for every ACO.
- j) Sustainability. The base PMPMs used to calculate payment amounts will decrease over the five years so as to avoid a funding cliff at the end of the DSRIP program. At that point, ACOs will be required to absorb incremental costs associated with new care expectations under TCOC management.

64. Assessments and Person-Centered Planning for LTSS. Consistent with the requirements at 42 CFR 438.208(b), the state will develop methods to identify members enrolled in MCO-based delivery systems and Primary Care ACOs who have LTSS needs. The state will establish policies for the scope of services MassHealth MCOs, Partnership Plans, and Primary Care ACOs must include in assessments and person-centered care plans to reflect the phasing in of LTSS accountability over the duration of the Demonstration. Where MassHealth MCOs, Partnership Plans, and Primary Care ACOs are accountable for members' LTSS needs, or as otherwise defined by the state, enrollees with LTSS needs in these delivery systems will have comprehensive assessments and person-centered care plans.

- a) **Assessments.** The state will develop policies and procedures to ensure comprehensive assessments are completed for members enrolled in MCO-based delivery systems and Primary Care ACOs with identified LTSS needs. MassHealth MCOs, Partnership Plans, and Primary Care ACOs will be responsible for comprehensively assessing each enrollee with LTSS needs, consistent with the requirements at 42 CFR 438.208(c)(2). MassHealth will develop and set standards to ensure assessments of LTSS needs are independent, as described in STC 64(c) below.
- b) **Person-Centered Planning.** MassHealth MCO, Partnership Plan, and Primary Care ACO enrollees with identified LTSS needs will have a person-centered care plan maintained at the MassHealth MCO, Partnership Plan, or Primary Care ACO, consistent with the requirements at 42 CFR 438.208(c)(3). Person-centered planning includes consideration of the current and unique psycho-social and medical needs and history of the enrollee, as well as the person's functional level and support systems.

The person-centered plan will be developed by a person trained in person-centered planning using a person-centered process and plan with the enrollee, the assistance of the enrollee's providers, and those individuals the enrollee chooses to include. The plan will include the services and supports that the enrollee needs. The plan will be reviewed and revised upon reassessment of functional need, at least every 12 months, if the enrollee's needs change significantly, or at the request of the enrollee. Person-centered plans will be developed in accordance with 42 CFR 441.301(c)(4)(F)(1) through (8).

- c) **Avoiding Conflict of Interest for LTSS.** EOHHS will establish policies and procedures to ensure that individuals with LTSS needs enrolled in MassHealth MCOs, Partnership Plans, and Primary Care ACOs receive independent LTSS assessments.

Providers of facility- or community-based LTSS may not conduct LTSS needs assessments, except as explicitly permitted and monitored by the state (e.g. because a provider has select expertise, or is the only qualified and willing entity available). In such circumstances, the state will require that the provider entity establish a firewall or other appropriate controls in order to mitigate conflict of interest. An organization providing only evaluation, assessment, coordination, skills training, peer supports, and Fiscal Intermediary services will not be considered a provider of LTSS.

65. Beneficiary Support System. To support the beneficiary's experience receiving services in an MCO or ACO environment, the state shall create and maintain a permanent beneficiary support system to assist those beneficiaries in understanding the coverage model and in the resolution of problems regarding services, coverage, access and rights.

- a) **Organizational Structure.** The Beneficiary Support System shall operate independently from any MCO or ACO. Additionally, to the extent possible, the program shall also operate independently of the state Medicaid agency.
- b) **Accessibility.** The services of the Beneficiary Support System shall be available to all Medicaid beneficiaries enrolled in an MCO or an ACO and must be accessible through multiple entryways (e.g., phone, internet, office) and also provide outreach in the same manner as appropriate.
- c) **Functions.** The Beneficiary Support System shall assist beneficiaries to navigate and access covered services, including the following activities:
 - i. Offer beneficiaries support in the pre-enrollment state, such as unbiased health plan choice counseling and general program-related information.
 - ii. Serve as an access point for complaints and concerns about health plan

enrollment, access to services and other related matters.

- iii. Help enrollees understand the fair hearing, grievance and appeal rights and processes within the health plan and at the state level, and assist them through the process if needed/requested.

- d) **Staffing.** The Beneficiary Support System must employ individuals who are knowledgeable about the state's Medicaid programs; beneficiary protections and rights under Medicaid managed care arrangements; and the health and service needs of persons with complex needs, including those with a chronic condition, disability, and cognitive or behavioral needs.

- e) **Data Collection and Reporting.** The Beneficiary Support System shall track the volume and nature of beneficiary contacts and the resolution of such contacts on a schedule and manner determined by the state, but no less frequently than quarterly.

- f) **Geographic expansion of ACO.** In any geographic location where the state is operating an ACO or where ACO may enroll into an ACO, the state must have the Beneficiary Support System in place at least 30 days prior to enrollment procedures for that geographic location.

66. Community Partners. Certified Community Partners (CPs) are community-based organizations that offer members linkages and support to community resources that facilitate a coordinated, holistic approach to care.

Behavioral Health (BH) CPs are responsible for providing certain supports for members (adults and children) with serious mental illness (SMI), serious emotional disturbance (SED), and/or serious and persistent substance use disorder (SUD).

Long Term Services and Supports (LTSS) CPs are responsible for providing certain supports to members with LTSS needs including physical disabilities, members with acquired or traumatic brain injury, members with intellectual or developmental disabilities (ID/DD).

- a. Eligibility: Entities that are eligible to receive DSRIP funding are entities that have been certified by MassHealth and have signed contracts to be MassHealth BH CPs or MassHealth LTSS CPs and have executed contracts with ACOs or MCOs.
- b. Funding Use: Community Partners DSRIP funding uses depends on whether the organization is a BH CP or LTSS CP.
 - i. The CP may not bill MassHealth, MCOs or ACOs for activities funded through DSRIP. A BH CP may utilize DSRIP funding for the following purposes:
 - ii. Provision of person-centered care management, assessments, care coordination and care planning, including but not limited to:

1. Screening to identify current or unmet BH needs;
 2. Review of members' existing assessments and services;
 3. Assessment for BH related functional and clinical needs;
 4. Care planning;
 5. Care management;
 6. Care coordination;
 7. Managing transitions of care;
 8. Member engagement outside of existing care provision (e.g., adherence, navigation);
 9. Member and family support;
 10. Health promotion;
 11. Navigation to and engagement with community resources and social services providers; and
 12. Other activities to help promote integration across physical health, behavioral health, LTSS and health-related social needs for BH CP members, as agreed upon by the care team.
- iii. The CP may not bill Mass Health, MCOs or ACOs for activities funded through DSRIP. An LTSS CP may utilize DSRIP funding for the following purposes, including but not limited to:
1. LTSS assessments and counseling on available options;
 2. Support for person-centered care management, care plan support and care coordination activities, including but not limited to:
 3. Screening to identify current or unmet LTSS needs;
 4. Review of members' existing LTSS assessment and current LTSS services;
 5. Independent assessment for LTSS functional and clinical needs;
 6. Choice counseling including navigation on LTSS service options and member education on range of LTSS providers;
 7. Care transition assistance;
 8. Provide LTSS-specific input to the member care plan and care team;
 9. Coordination (e.g., scheduling) across multiple LTSS providers; coordination of LTSS with medical and BH providers/services as appropriate;
 10. Member engagement regarding LTSS;
 11. Health promotion; and
 12. Other activities to help promote integration across physical health, behavioral health, LTSS and health-related social needs for LTSS CP members, as agreed upon by the care team.
- iv. Infrastructure and capacity building

- c. At-Risk DSRIP Funding: A portion of DSRIP Community Partners funding will be at-risk. A CP's DSRIP Accountability Score will determine the amount of at-

risk funding that is earned (see DSRIP Protocol Section 5.4)).

- d. Funding Methodology: The amount of MassHealth's DSRIP payment any CP receives will be based on the total number of members that the CP serves each DSRIP year, as well as other funding methodologies, such as a needs-based grant program for infrastructure and capacity building support. DSRIP payments will be adjusted for at-risk performance.
- e. Sustainability: MassHealth will evaluate the Community Partners program to assess whether the program should be continued after the DSRIP period concludes. If MassHealth determines that the CP program should continue, then it will work to identify other funding sources to support the CP program, such as contributions from the budgets of ACOs/MCOs.

67. ACO & CP Reporting Requirements. ACOs and CPs must submit semiannual progress reports, including expenditures for the semiannual periods upon which the semiannual progress reports are based.

- a) ACOs must also annually submit clinical quality data to the Commonwealth for quality evaluation purposes; and their ACO revenue payer mix, for safety net categorization purposes
- b) CPs must also annually submit clinical quality data to the Commonwealth for quality evaluation purposes
- c) State Reporting to CMS: The State must compile ACO and CP quarterly operational reports to submit to CMS as part of the broader 1115 demonstration quarterly reports.
- d) State Reporting to External Stakeholders and Stakeholder Engagement: The State must compile public-facing annual reports of ACO and CP performance.
 - i. The State must give stakeholders an opportunity to provide feedback on reports

68. Stakeholder Engagement. The State must allow for stakeholder engagement through meetings, access to web resources, and opportunities to provide feedback.

69. DSRIP Accountability to the State.

- a) ACO DSRIP Accountability Score: The amount of at-risk funding earned by an ACO will be determined by an ACO's DSRIP accountability score, which is based on performance in the following two domains:
 - i. ACO Total Cost of Care (TCOC) Performance; and
 - ii. ACO Quality and Utilization Performance.
- b) Additional Accountability Considerations.
 - i. If an ACO performs below a MassHealth-determined performance threshold for two consecutive years, MassHealth may increase the proportion of DSRIP funds at risk for that ACO in the following year.
 - ii. If an ACO decides to exit the DSRIP program prior to the end of the five year 1115 waiver demonstration period, it will be required to

return at least 50 percent of DSRIP startup/ongoing and DSTI Glide Path funding received up to that point.

- c) CP DSRIP Accountability Score: The amount of at-risk funding earned by a CP will be determined by a CP's DSRIP accountability score, which will be based on performance in the following domains: CP quality and member experience measures; progress towards integration across physical health, LTSS and behavioral health; and efficiency measures. See DSRIP Protocol for information about CP Accountability to the State

70. Statewide Investments: Statewide investments allow the Commonwealth to efficiently scale up statewide infrastructure and workforce capacity. These Statewide investments are limited to those provided for by the DSRIP funding pool, and specified in the DSRIP protocol.

a.) Massachusetts will make eight different statewide investments to efficiently scale up statewide infrastructure and workforce capacity, including the following:

- i. Student Loan Repayment: program which repays a portion of a student's loan in exchange for a minimum 18-month commitment (or equivalent in part-time service) as a (1) primary care provider at a community health center; or (2) behavioral health professional or licensed clinical social worker at a community health center, community mental health center, or an Emergency Service Program (ESP).
- ii. Primary Care Integration Models and Retention: program that provides support for community health centers and community mental health centers to allow primary care and behavioral health providers to engage in one-year projects related to accountable care implementation.
- iii. Investment in Primary Care Residency Training: program to help offset the costs of community health center residency slots for both community health centers and hospitals.
- iv. Workforce Development Grant Program: program to support health care workforce development and training to more effectively operate in a new health care system
- v. Technical Assistance: program to provide technical assistance to ACOs, CPs, or their contracted social service organizations as they participate in payment and care delivery reform.
- vi. Alternative Payment Methods (APM) Preparation Fund: program to support providers that are not yet ready to participate in an ACO, but want to take steps towards APM adoption.
- vii. Enhanced Diversionary Behavioral Health Activities: program to support investment in new or enhanced diversionary levels of care that will meet the needs of patients with behavioral health needs at risk for ED boarding within the least restrictive, most clinically appropriate settings.
- viii. Improved accessibility for people with disabilities and for whom

English is a Second Language: programs to assist providers in delivering necessary equipment and expertise to meet the needs of person with disabilities and those for whom English is not their primary language.

- ix. Information Domains for Each Statewide Investment: The DSRIP Protocol will provide additional information for each statewide investment regarding the following domains (at a minimum):
1. Eligibility for funding;
 2. Amount of funding available;
 3. Allowable funding uses; and
 4. Obligations for entities receiving funding support through the statewide investments.
- b.) State Operations and Implementation. DSRIP expenditure authority includes necessary state operations and implementation support to help administer and provide robust oversight for the DSRIP program including state employees and vendors to provide the following support:
- i. ACO and CP administration, oversight, and operational support
 - ii. Statewide investments administration, oversight, and operational support
 - iii. DSRIP program support (e.g. project management, communications, evaluation and reporting).

71. State DSRIP Accountability to CMS

- a) At-Risk DSRIP Funding: A portion of the State's DSRIP expenditure authority will be at-risk. If MassHealth's DSRIP expenditure authority is reduced based on an Accountability Score that is less than 100%, then MassHealth will reduce DSRIP payments in proportion to the reduced expenditure authority to ensure sufficient state funding to support the program. This mechanism ensures that all recipients of MassHealth DSRIP funding are accountable to the State achieving its performance commitments.
- b) The portion of the State's DSRIP expenditure authority that is at-risk will follow the same at-risk Budget Period structure as for the ACOs. The Budget Period is January 1 through December 31. The 6-month Preparation Budget Period funds will be equal to half of the State's allocated DSRIP Year 1 funds. Budget Period 1 funds will be equal to the sum of half of the State's allocated DSRIP Year 1 funds, and half of DSRIP Year 2 funds. Budget Periods 2 through 4 will be sourced by the same funding pattern as Budget Period 1. Budget Period 5 funds will be equal to half of the State's allocated DSRIP Year 5 funds. In the Preparation Budget Period and Budget Period 1, 0% of funds will be at-risk. However, in Budget Periods 2 through 5, the portion of at-risk expenditure authority follows the table below:

DSRIP Budget Period	Prep BP and BP 1 July 1, 2017 – December 31, 2018	BP 2 January 1, 2019- December 31, 2019	BP 3 January 1, 2020- December 2020	BP 4 January 1, 2021- December 31, 2021	BP 5 January 1, 2022- December 31, 2022
DSRIP Expenditure Authority	\$637.5M	\$412.5M	\$362.5M	\$275M	\$112.5M
% of Expenditure Authority At-Risk	0%	5%	10%	15%	20%
Actual Expenditure Authority At-Risk	\$0M	\$20.625M	\$36.25M	\$41.25M	\$22.5M

- c) State DSRIP Accountability Score: The State will calculate the State’s DSRIP Accountability Score. See DSRIP Protocol Section 5.2. The State DSRIP Accountability will be based on performance in the following domains:
- i. MassHealth ACO/APM Adoption Rate
 - ii. Reduction in State Spending Growth
 - iii. ACO Quality and Utilization Performance

Each domain will be assigned a domain weight for each performance year, such that the sum of the domain weights is 100% each year. State performance in each domain will be multiplied by the associated weight, and then summed together to create an aggregate score, namely the State’s DSRIP Accountability Score. The State will report its Accountability Score to CMS once it is available, and the score will then be used by the State and CMS to determine whether the State’s DSRIP expenditure authority might be reduced.

- d) Corrective Action Plan. In the event that the State does not achieve a 100% DSRIP Accountability Score, the State will provide CMS with a Corrective Action Plan including steps the State will take to regain any reduction to its DSRIP expenditure authority; and potential modification of accountability targets. The State’s Corrective Action Plan will be subject to CMS approval.
- e) MassHealth ACO/APM Adoption Rate. The State will have target percentages for the number of MassHealth ACO-eligible lives served by ACOs or who receive services from providers paid under APMs. The State will calculate the percentage of ACO-eligible lives served by ACOs or who receive services from providers paid under APMs. The State must meet or surpass its targets in order to earn a 100% score on this domain. If the State does not meet the target, then it will earn a 0% score for that Budget Period.
- f) Reduction in State Spending Growth. The State and CMS will work together to agree

to a detailed methodology for calculating the State's reduction in spending growth. In general, the State will, by CY2022, be accountable to a 2.1% reduction in PMPMs for the ACO-enrolled population, off of "trended PMPMs" (described below). The State's trend line over the course of the DSRIP program will be 4.4% annually, which is the "without waiver" trend rate calculated by CMS based on the 2017 President's Budget Medicaid Baseline smoothed per capita cost trend with all populations combined (2017-2022). This trend rate will be applied to the base PMPM rate in CY2017 (i.e. pre-ACO). The trend will be compounded over the five Budget Periods, and the percent reduction will be determined according to the following calculation: percent reduction = (trended PMPM minus actual PMPM) / (trended PMPM). Prior to CY2022, the State will have target reductions smaller than 2.1% off of the trended PMPM.

Prior to CY2019, spending reduction targets will be adjusted to reflect CY2017 baseline performance. In the detailed methodology that CMS and the State will agree to, these measurements of PMPM spend will:

- i. Be for the ACO-enrolled population
 - ii. For the population enrolled in MCO-Contracted ACOs, be based on actual MCO expenditures for services to the population attributed to the ACO (categories to be agreed upon by CMS and the State), and not on the State's capitated payments to the MCO
 - iii. Include reductions in DSTI supplemental payments to safety net hospitals
 - iv. Exclude Hepatitis C drugs, other high-cost emerging drug therapies (such as cystic fibrosis drugs and biologics), long-term services and supports (LTSS) costs, and other potential categories agreed upon by CMS and the State
 - v. Allow for adjustments based on changes in population or acuity mix
 - vi. Allow for adjustments based on higher than anticipated growth in MassHealth spending due to economic conditions in the state or nationally, or other reasons as agreed upon by CMS and the State.
- g) Gap to Goal Methodology. CMS and the State will agree on the detailed methodology two quarters before CY2018. The State will calculate its performance compared to the trended PMPM, and the domain score will be determined according to a gap-to-goal methodology for each Budget Period, as detailed below:
- i. If Actual Reduction < (50% * Reduction Target), then Measure Score = 0%
 - ii. If Actual Reduction ≥ (Reduction Target), then Measure Score = 100%
 - iii. If Actual Reduction ≥ (50% * Reduction Target) AND < (Reduction Target), then Measure Score is equal to: (Actual Reduction - (50% * Reduction Target)) / (Reduction Target - (50% * Reduction Target))

For example, if the State achieves less than 50% of the Reduction Target, then the measure score will be equal to 0%. If the State achieves

75% of the Reduction Target, then the measure score will be equal to
 $(75\%-50\%) / (100\%-50\%) = 50\%$

Overall Statewide Quality Performance. MassHealth will annually calculate Statewide Quality performance by aggregating quality measure scores of all ACOs. Section 5.2.1.3 of the DSRIP protocol contains a detailed description of this calculation. ACO performance scores are based on preset attainment thresholds and goal benchmarks that have been agreed upon by the State and CMS as described in Section 5.3.1.2 of the DSRIP Protocol.

72. State Public Outreach for ACO Expansion. To provide and demonstrate seamless transitions for MCO and ACO enrollees, the state must (where applicable):

- a) Send sample notification letters. Existing Medicaid providers must receive sample beneficiary notification letters via widely distributed methods (mail, email, providerwebsite, etc.) so that providers are informed of the information received by enrollees regarding their managed care transition.
- b) Provide continued comprehensive outreach, including educational tours for enrollees and providers. Education for enrollees and providers should include plan enrollment options, rights and responsibilities and other important program elements. The state must provide webinars, meeting plans, and send notices through outreach and other social media (e.g. state's website). The enrollment broker, choice counseling entities, ombudsman and any group providing enrollment support must participate.
- c) Operate a call center independent of the PCC, ACO, and MCO plans. This entity must be able to help enrollees in making independent decisions about plan choice and be able to document complaints about the plans. During the first 60 days of implementation the state must review all call center response statistics to ensure all contracted plans are meeting requirements in their contracts. After the first 60 days, if all entities are consistently meeting contractual requirements the state can decrease the frequency of the review of call center statistics, but no more than 120 days should elapse between reviews.
- d) The state will provide language assistance, including in written materials, in accordance with Section 1557 of the Affordable Care Act.
- e) Member materials sent to beneficiaries will be culturally competent, and the state will provide culturally competent and available translation and navigation services. The state will make available navigation resources upon beneficiary request.

73. CMS Evaluation of State.

- a) Assessment of Performance, and Interim Evaluation. An interim evaluation of the DSRIP program will be conducted by an independent evaluator, which will use both quantitative and qualitative methodologies, to evaluate whether the investments made

through the DSRIP program have contributed to achieving the demonstration goals as described in STC 60. The interim evaluation will provide an overview of the DSRIP program from July 1, 2017 to December 2020, and will be submitted to CMS by the end of June 2021.

- b) Final Evaluation: The final evaluation of DSRIP will be a component of the Summative Evaluation submitted to CMS as per the timeline in STC 88(f).

74. Independent Assessor. The state will identify independent entities with expertise in delivery system improvement to assist with DSRIP administration, oversight and monitoring, including an independent assessor and/or evaluator. An independent assessor will review ACO and CP proposals, progress reports and other related documents, to ensure compliance with approved STCs and Protocols, provided that initial ACO and CP proposals are not subject to review from the independent assessor. The independent assessor shall make recommendations to the state regarding approvals, denials or recommended changes to plans to make them approvable. This entity (or another entity identified by the state) will also assist with the progress reports and any other ongoing reviews of DSRIP project plan; and assist with continuous quality improvement activities. The independent assessor will complete the mid-point assessment, which will individually and systematically assess the performance of demonstration entities (i.e., ACOs, Community Partners, and key Statewide Investment management vendors as determined by the State), including identification of specific challenges and actionable mitigation strategies for mid-course correction for the State's consideration. The mid-point assessment will cover the time period from July 1, 2017 through December 2019 and the mid-point assessment report will be submitted to CMS by the end of September 2020. Expenditures for the independent assessor are administrative costs the state incurs associated with the management of DSRIP reports and other data.

The state must describe the functions of each independent entity and their relationship with the state as part of its Quarterly report requirements.

Spending on the independent entities and other administrative cost associated with the DSRIP fund is classified as a state administrative activity of operating the state plan as affected by this demonstration. The state must ensure that all administrative costs for the independent entities are proper and efficient for the administration of the DSRIP Fund. The State may also claim FFP for expenditures related to these administrative activities using DSRIP expenditure authority.

75. DSRIP Advisory Committee. The state will develop and put into action a committee of stakeholders who will be responsible for supporting the clinical performance improvement cycle of DSRIP activities. The Committee will serve as an advisory group offering expertise in health care quality measures, clinical measurement, and clinical data used in performance improvement initiatives, quality, and best practices.

Final decision-making authority will be retained by the state and CMS, although all recommendations of the committee will be

considered by the State and CMS.

Specifically, the Committee will provide feedback to the state regarding:

- i. Selection of additional metrics for providers that have reached baseline performance thresholds or exceeded performance targets
- ii. Assessing the effectiveness of cross-cutting measures to understand how aspects of one system are affecting the other. For example, are BH/SUD/LTSS performance focus areas affecting physical health outcomes?
- iii. Alignment of measures between systems with purpose, to enable the state to assess the effectiveness in their outcomes across systems
- iv. Identify actionable new areas of priority,
- v. Make systems-based recommendations for initiatives to improve cross-cutting performance.

a.) Composition of the Committee

The membership of the committee must consist of between nine to fifteen members with no more than three members employed by Massachusetts hospitals, ACOs or Community Partners. All members will be appointed by MassHealth based on the following composition criteria:

- i. Representation from community health centers serving the Medicaid population.
- ii. Clinical experts in each of the following specialty care areas: Behavioral Health, Substance Use Disorder, and Long Term Services & Supports. Clinical experts are physicians, physician assistants, nurse practitioners, licensed clinical social workers, licensed mental health counselors, psychologists, and registered nurses.
- iii. At least 30% of the members must have significant expertise in clinical quality measurement of hospitals, primary care providers, community health centers, clinics and managed care plans. Significant expertise is defined as not less than five years of recent full time employment in quality measurement in government service or from companies providing quality measurement services to above listed provider types and managed care plans.
- iv. Advocacy Members: Consumers or consumer representatives, including at least one representative for people with disabilities and, separately, at least one representative for people with complex medical conditions,
- v. Members must agree to recuse themselves from review of specific DSRIP matters when they have a conflict of interest. MassHealth shall develop conflict of interest guidelines.

76. SNCP Additional Reporting Requirements. All SNCP expenditures must be reported as specified in section XIII, STC 95. In addition, the Commonwealth must submit updates to

Attachment E as set forth below to CMS for approval.

- a) Charts A – C of Attachment E. The Commonwealth must submit to CMS for approval, updates to Charts A – C of Attachment E that reflect projected SNCP payments and expenditures for State Fiscal Years (SFYs) 2017-2022, and identify the non-federal share for each line item, no later than 45 business days after enactment of the State budget for each SFY. CMS shall approve the Commonwealth's projected SNCP payments and expenditures within 30 business days of the Commonwealth's submission of the update, provided that all projections are within the applicable SNCP limits specified in STC 55.

Before it can claim FFP, the Commonwealth must notify CMS and receive CMS approval, for any SNCP payments and expenditures outlined in Charts A-C of Attachment E that are in excess of the approved projected SNCP payments and expenditures by a variance greater than 10 percent. Any variance in SNCP payments and expenditures must adhere to the SNCP expenditure limits pursuant to STC 55. The Commonwealth must submit to CMS for approval updates to Charts A – C that include these variations in projected SNCP payments and expenditures. CMS shall approve the Commonwealth's revised projected SNCP payments and expenditures within 30 business days of the Commonwealth's submission of the update, provided that all projections are within the applicable SNCP limits specified in STC 55.

The Commonwealth must submit to CMS for approval updates to Charts A – C of Attachment E that reflect actual payments and expenditures for each SFY, within 180 calendar days after the close of the SFY. CMS shall approve the Commonwealth's actual SNCP expenditures within 45 business days of the Commonwealth's submission of the update, provided that all SNCP payments and expenditures are within the applicable SNCP limits specified in STC 55.

The Commonwealth must submit to CMS for approval further updates to any or all of these charts as part of the quarterly operational report and at such other times as may be required to reflect projected or actual changes in SNCP payments and expenditures.

CMS must approve the Commonwealth's updated charts within 45 business days of the Commonwealth's submission of the update, provided that all SNCP payments and expenditures are within the applicable limits specified in STC 55.

No demonstration amendment is required to update Charts A-C in Attachment E, with the exception of any new types of payments or expenditures in Charts A-C, or for any increase to the Public Service Hospital Safety Net Care payments.

- b) DSHP Reporting for Connector Care. The state must provide data regarding the operation of this subsidy program in the annual report required per STC 83. This data must, at a minimum, include:

- 1) The number of individuals served by the program;
 - 2) The size of the subsidies; and
 - 3) A comparison of projected costs with actual costs.
- c) DSRIP Reporting: DSRIP reporting is required as specified in Section X and the approved DSRIP Protocol.

IX. GENERAL REPORTING REQUIREMENTS

- 77. Submission of Post-approval Deliverables.** The state shall submit all required analyses, reports, design documents, presentations, and other items specified in these STCs (“deliverables”). The state shall use the processes stipulated by CMS and within the timeframes outlined within these STCs.
- 78. Deferral for Failure to Provide Deliverables on Time.** The state agrees that CMS may require the state to cease drawing down federal funds until such deliverables are submitted in a satisfactory form, until the amount of federal funds not drawn down would exceed \$5,000,000. Specifically:
- a. Thirty (30) calendar days after the deliverable was due, CMS is required to issue a written notification to the state providing advance notification of a pending deferral for late or non-compliant submissions of required deliverables.
 - b. For each deliverable, the state may submit a written request for an extension to submit the required deliverable. The extension request must explain the reason why the required deliverable was not submitted, the steps that the state has taken to address such issue, the estimated time for submission of the deliverable, and whether additional measures could be taken to expedite the schedule for such submission. CMS will only grant such a request if CMS finds that the state faced unforeseen circumstances, and has taken reasonable measures to submit the deliverable as soon as practicable. CMS could grant the requested extension in whole or in part. Should CMS agree in writing to the state’s request, a corresponding extension of the deferral process described below can be provided.
 - c. The deferral would be issued against the next quarterly expenditure report following the written deferral notification.
 - d. When the state submits the overdue deliverable(s) that are accepted by CMS, the deferral(s) will be released.
 - e. As the purpose of a section 1115 demonstration is to test new methods of operation or services, a state’s failure to submit all required reports, evaluations, and other deliverables may preclude a state from renewing a demonstration or obtaining a new demonstration.
 - f. CMS will consider with the state an alternative set of operational steps for implementing the intended deferral to align the process with the state’s existing deferral process, for example the structure of the state request for an extension, what quarter the deferral applies to, and how the deferral is released.

- 79. Compliance with Federal Systems Innovation.** As federal systems continue to evolve and incorporate 1115 waiver reporting and analytics, the state shall work with CMS to revise the reporting templates and submission processes to accommodate timely compliance with the requirements of the new systems. The state will submit the monitoring reports and evaluation reports to the appropriate system as directed by CMS.
- 80. Cooperation with Federal Evaluators.** As required under 42 CFR 431.420(f), should CMS undertake a federal evaluation of the demonstration or any component of the demonstration, the state shall cooperate fully and timely with CMS and its contractors' evaluation activities. This includes, but is not limited to, commenting on design and other federal evaluation documents and providing data and analytic files to CMS, including entering into a data use agreement that explains how the data and data files will be exchanged, and providing a technical point of contact to support specification of the data and files to be disclosed, as well as relevant data dictionaries and record layouts. The state shall include in its contracts with entities who collect, produce or maintain data and files for the demonstration, that they shall make such data available for the federal evaluation as is required of the state under 42 CFR 431.420(f) to support federal evaluation. The state may claim administrative match for these activities. Failure to comply with this STC may result in a deferral being issued as outlined in STC 75.
- 81. Cooperation with Federal Learning Collaboration Efforts.** The state will cooperate with improvement and learning collaboration efforts by CMS.

X. MONITORING

- 82. Quarterly and Annual Report Timelines.** The state must submit three Quarterly Reports and one compiled Annual Report each DY. The Quarterly Reports are due no later than 60 days following the end of each demonstration quarter. The compiled Annual Report is due no later than 90 days following the end of the DY.
- 83. Quarterly and Annual Report Scope.** The reports shall provide sufficient information for CMS to understand implementation progress of the demonstration, including the reports documenting key operational and other challenges, underlying causes of challenges, how challenges are being addressed, as well as key achievements and to what conditions and efforts successes can be attributed. The reports will include all required elements and should not direct readers to links outside the report. (Additional links not referenced in the document may be listed in a Reference/Bibliography section).
- a. **Quarterly and Annual Report Outline.** The Quarterly and Annual Reports must follow the framework provided by CMS, which is subject to change as monitoring systems are developed/evolve, and be provided in a structured manner that supports federal tracking and analysis.

- i. Operational Updates – The reports shall provide sufficient information to document key operational and other challenges, underlying causes of challenges, how challenges are being addressed, as well as key achievements and to what conditions and efforts successes can be attributed. The discussion should also include any lawsuits or legal actions; unusual or unanticipated trends; legislative updates; and descriptions of any public forums held.
- ii. Performance Metrics – Progress on any required monitoring and performance metrics must be included in writing in the Quarterly and Annual Reports. Information in the reports will follow the framework provided by CMS and be provided in a structured manner that supports federal tracking and analysis.
- iii. Budget Neutrality and Financial Reporting Requirements – The state must provide an updated budget neutrality workbook with every Quarterly and Annual Report that meets all the reporting requirements for monitoring budget neutrality set forth in the General Financial Requirements section of these STCs, including the submission of corrected budget neutrality data upon request. In addition, the state must report quarterly expenditures associated with the populations affected by this demonstration on the Form CMS-64.
- iv. Evaluation Activities and Interim Findings – The state shall include a summary of the progress of evaluation activities, including key milestones accomplished, as well as challenges encountered and how they were addressed. The state shall specify for CMS approval a set of performance and outcome metrics and network adequacy, including their specifications, reporting cycles, level of reporting (e.g., the state, health plan and provider level, and segmentation by population) to support rapid cycle assessment in trends for monitoring and evaluation of the demonstration.

84. Additional Demonstration Annual Operational Report Requirements. The Annual Report must include all items outlined in STC 83. In addition, the Annual Report must, at a minimum, include the requirements outlined below:

- i. All items included in the Quarterly Reports must be summarized to reflect the operation/activities throughout the DY;
- ii. Total annual expenditures for the demonstration population for each DY, with administrative costs reported separately;
- iii. Total contributions, withdrawals, balances, and credits; and
- iv. Yearly unduplicated enrollment reports for demonstration enrollees for each DY (enrollees include all individuals enrolled in the demonstration) that include the member months, as required to evaluate compliance with the budget neutrality agreement.

- 85. Monitoring Calls.** CMS will convene periodic conference calls with the state.
- a) The purpose of these calls is to discuss any significant actual or anticipated developments affecting the demonstration.
 - b) CMS will provide updates on any amendments or concept papers under review, as well as federal policies and issues that may affect any aspect of the demonstration.
 - c) The state and CMS will jointly develop the agenda for the calls.
 - d) Areas to be addressed during the monitoring call include, but are not limited to:
 - i. Transition and implementation activities;
 - ii. Stakeholder concerns;
 - iii. QHP operations and performance;
 - iv. Enrollment;
 - v. Cost sharing;
 - vi. Quality of care;
 - vii. Beneficiary access;
 - viii. Benefit package and wrap around benefits;
 - ix. Audits;
 - x. Lawsuits;
 - xi. Financial reporting and budget neutrality issues;
 - xii. Progress on evaluation activities and contracts;
 - xiii. Related legislative developments in the state; and
 - xiv. Any demonstration changes or amendments the state is considering.

86. Corrective Action. If monitoring indicates that demonstration features are not likely to assist in promoting the objectives of Medicaid, CMS reserves the right to require the state to submit a correction action plan to CMS for approval. This may be an interim step to withdrawing waivers or expenditure authorities, as outlined in STC 11.

XI. EVALUATION

87. Independent Evaluator. At the beginning of the demonstration period, the state must acquire an independent party to conduct an evaluation of the demonstration to ensure that the necessary data is collected at the level of detail needed to research the approved hypotheses. The independent party must sign an agreement to conduct the demonstration evaluation in accord with the CMS-approved, draft evaluation plan. For scientific integrity, every effort should be made to follow the approved methodology, but requests for changes may be made in advance of running any data or due to mid- course changes in the operation of the demonstration.

88. Evaluation Design and Implementation. The State must submit a draft updated evaluation design for MassHealth 1115 demonstration to CMS no later than June 30, 2018. Such revisions to the evaluation design and the STCs shall not affect previously established timelines for report submission for the insert old demo name, if applicable. The state must submit a final evaluation design within 60 days after receipt of CMS' comments. Upon CMS approval of the evaluation design, the state must implement the

evaluation design and submit their evaluation implementation progress in each of the quarterly and annual progress reports, including the rapid cycle assessments as outlined in the Monitoring Section of these STCs. The final evaluation design will be included as an attachment to the STCs. Per 42 CFR 431.424(c), the state will publish the approved evaluation design within 30 days of CMS approval. The state must implement the evaluation design and submit their evaluation implementation progress in each of the Quarterly and Annual Reports as outlined in STC 83.

- a) **Evaluation Budget.** A budget for the evaluation shall be provided with the evaluation design. It will include the total estimated cost, as well as a breakdown of estimated staff, administrative and other costs for all aspects of the evaluation such as any survey and measurement development, quantitative and qualitative data collection and cleaning, analyses, and reports generation. A justification of the costs may be required by CMS if the estimates provided do not appear to sufficiently cover the costs of the design or if CMS finds that the design is not sufficiently developed.
- b) **Cost-effectiveness.** While not the only purpose of the evaluation, the core purpose of the evaluation is to support a determination as to whether the preponderance of the evidence about the costs and effectiveness of the demonstration when considered in its totality demonstrates cost effectiveness taking into account both initial and longer term costs and other impacts such as improvements in service delivery and health outcomes.
 - i. The evaluation will explore and explain through developed evidence the effectiveness of the demonstration for each hypothesis, including total costs in accordance with the evaluation design as approved by CMS. Included in the evaluation will be examinations using a robust set of measures of provider access and clinical quality measures under the demonstration compared to what would have happened for a comparable population absent the demonstration.
 - ii. The state will compare total costs under the demonstration to costs of what would have happened without the demonstration. This will include an evaluation of provider rates, healthcare utilization and associated costs, and administrative expenses over time.
 - iii. The State will compare changes in access and quality to associated changes in costs within the demonstration. To the extent possible, component contributions to changes in access and quality and their associated levels of investment will be determined and compared to improvement efforts undertaken in other delivery systems.
- c) **Evaluation Requirements.** The demonstration evaluation will meet the prevailing standards of scientific and academic rigor, as appropriate and feasible for each aspect of the evaluation, including standards for the evaluation design, conduct, and interpretation and reporting of findings.

- i. The demonstration evaluation will use the best available data; use controls and adjustments for and reporting of the limitations of data and their effects on results; and discuss the generalizability of results.
- ii. The State shall acquire an independent entity to conduct the evaluation. The evaluation design shall discuss the State's process for obtaining an independent entity to conduct the evaluation, including a description of the qualifications the entity must possess, how the State will assure no conflict of interest, and a budget for evaluation activities.

d) **Evaluation Design.** The Evaluation Design shall include the following core components to be approved by CMS:

- i. Research questions and hypotheses: This includes a statement of the specific research questions and testable hypotheses that address the goals of the demonstration. At a minimum, the research questions shall address the goals of improving access, reducing churning, improving quality of care thereby leading to enhanced health outcomes, and lowering costs. The research questions will have appropriate comparison groups and may be studied in a time series. The analyses of these research questions will provide the basis for a robust assessment of cost effectiveness.

The following are among the hypotheses to be considered in development of the evaluation design and will be included in the design as appropriate:

1. The formation of new partnerships and collaborations within the delivery system
2. The increased acceptance of TCOC risk-based payments among MassHealth providers
3. Improvements in the member experience of care, particularly through increased member engagement in the primary care setting or closer coordination among providers
4. Reductions in the growth of avoidable inpatient utilization
5. Reductions in the growth of TCOC for MassHealth's managed care-eligible population
6. More robust EHR and other infrastructure capabilities and interconnectivity among providers
7. Increased coordination across silos of care (e.g., physical health, behavioral health, LTSS, social supports)
8. Maintenance or improvement of clinical quality
9. The enhancement of safety net providers' capacity to serve Medicaid and uninsured patients in the Commonwealth
10. Increased coverage of out-of-state former foster care youth and improved health outcomes for this population.
11. The strength of aggregate provider networks in the ACO and MCO programs (excluding Primary Care ACOs) relative to the PCC Plan, in first three years of demonstration, including:

- a) Types of providers
- b) Breadth of providers
- c) Quality of services
- d) Outcomes of services

These hypotheses should be addressed in the demonstration reporting described in STC 83 with regard to progress towards the expected outcomes.

ii. Data: This discussion shall include:

- 1. A description of the data, including a definition/description of the sources and the baseline values for metrics/measures;
- 2. Method of data collection
- 3. Frequency and timing of data collection.

The following shall be considered and included as appropriate:

- a. Medicaid encounters and claims data,
- b. Enrollment data, and
- c. Consumer and provider surveys

iii. Study Design: The design will include a description of the quantitative and qualitative study design, including a rationale for the methodologies selected. The discussion will include a proposed baseline and approach to comparison; examples to be considered as appropriate include the definition of control and/or comparison groups or within-subjects design, use of propensity score matching and difference in differences design to adjust for differences in comparison populations over time. The former will address how the effects of the demonstration will be isolated from those other changes occurring in the state at the same time through the use of comparison or control groups to identify the impact of significant aspects of the demonstration. The discussion will include approach to benchmarking, and should consider applicability of national and state standards. The application of sensitivity analyses as appropriate shall be considered.

iv. Study Population: This includes a clear description of the populations impacted by each hypothesis, as well as the comparison population, if applicable. The discussion may include the sampling methodology for the selected population, as well as support that a statistically reliable sample size is available.

v. Access, Service Delivery Improvement, Health Outcome, Satisfaction and Cost Measures: This includes identification, for each hypothesis, of quantitative and/or qualitative process and/or outcome measures that adequately assess the effectiveness of the Demonstration. Nationally recognized measures may be used where appropriate. Measures will be clearly stated and described, with the

numerator and dominator clearly defined. To the extent possible, the State may incorporate comparisons to national data and/or measure sets. A broad set of performance metrics may be selected from nationally recognized metrics, for example from sets developed by the Center for Medicare and Medicaid Innovation, for meaningful use under HIT, and from the Medicaid Core Adult sets. Among considerations in selecting the metrics shall be opportunities identified by the State for improving quality of care and health outcomes, and controlling cost of care.

- vi. Assurances Needed to Obtain Data: The design report will discuss the State's arrangements to assure needed data to support the evaluation design are available.
 - vii. Data Analysis: This includes a detailed discussion of the method of data evaluation, including appropriate statistical methods that will allow for the effects of the Demonstration to be isolated from other initiatives occurring in the State. The level of analysis may be at the beneficiary, provider, and program level, as appropriate, and shall include population stratifications, for further depth. Sensitivity analyses may be used when appropriate. Qualitative analysis methods may also be described, if applicable.
 - viii. Timeline: This includes a timeline for evaluation-related milestones, including those related to procurement of an outside contractor, and the deliverables outlined in this section. Pursuant to 42 CFR 431.424(c)(v), this timeline should also include the date by which the final summative evaluation report is due.
 - ix. Evaluator: This includes a discussion of the State's process for obtaining an independent entity to conduct the evaluation, including a description of the qualifications that the selected entity must possess; how the state will assure no conflict of interest, and a budget for evaluation activities.
 - x. State additions: The state may provide to CMS any other information pertinent to the state's research on the policy operations of the demonstration operations. The state and CMS may discuss the scope of information necessary to clarify what is pertinent to the state's research.
- e) **Interim Evaluation Report.** The state must submit a draft Interim Evaluation Report one year prior to this renewal period ending June 30, 2022. The Interim Evaluation Report shall include the same core components as identified in STC 88 for the Summative Evaluation Report and should be in accordance with the CMS approved evaluation design. The State shall submit the final Interim Evaluation Report within 30 business days after receipt of CMS' comments.
- f) **Summative Evaluation Reports.**

- i. The state shall provide the summative evaluation report described below to capture the demonstration period covered by this renewal.
 - 1. The state shall provide a Summative Evaluation Report (SER) for the demonstration period starting July 1, 2017 through June 30, 2022.
 - a) A preliminary draft of the SER is due within -24 months after the end of this demonstration period. This report shall include documentation of outstanding assessments due to data lags to complete the interim evaluation.
 - b) . The state should respond to comments and submit the final SER within 30 calendar days after receipt of CMS' comments.

- ii. The Summative Evaluation Report shall include the following core components:
 - 1. **Executive Summary.** This includes a concise summary of the goals of the Demonstration; the evaluation questions and hypotheses tested; and key findings including whether the evaluators find the demonstration to be budget neutral and cost effective, and policy implications.
 - 2. **Demonstration Description.** This includes a description of the Demonstration programmatic goals and strategies, particularly how they relate to budget neutrality and cost effectiveness.
 - 3. **Study Design.** This includes a discussion of the evaluation design employed including research questions and hypotheses; type of study design; impacted populations and stakeholders; data sources; and data collection; analysis techniques, including controls or adjustments for differences in comparison groups, controls for other interventions in the State and any sensitivity analyses, and limitations of the study.
 - 4. **Discussion of Findings and Conclusions.** This includes a summary of the key findings and outcomes, particularly a discussion of cost effectiveness, as well as implementation successes, challenges, and lessons learned.
 - 5. **Policy Implications.** This includes an interpretation of the conclusions; the impact of the Demonstration within the health delivery system in the State; the implications for State and Federal health policy; and the potential for successful Demonstration strategies to be replicated in other State Medicaid programs.
 - 6. **Interactions with Other State Initiatives.** This includes a discussion of this demonstration within an overall Medicaid context and long range planning, and includes interrelations of the demonstration with other aspects of the State's Medicaid program, and interactions with other Medicaid waivers, the SIM award and other federal awards affecting service delivery, health outcomes and the cost of care under Medicaid.

- g) **State Presentations for CMS.** The State will present to and participate in a discussion with CMS on the final design plan, post approval, in conjunction with STC 88. The State will present on its interim evaluation in conjunction with STC 88. The

State will present on its summative evaluation in conjunction with STC 88.

89. Public Access. The State shall post the final approved Evaluation Design, Interim Evaluation Report, and Summative Evaluation Report on the State Medicaid website within 30 days of approval by CMS.

XII. CLOSE OUT REPORTING

90. Close out Reports. Within 120 calendar days prior to the end of the demonstration, the state must submit a Draft Final Operational Report to CMS for comments.

- a) The draft final reports must comply with the most current Guidance from CMS, and include all components required.
- b) The state will present to and participate in a discussion with CMS on the Close-Out reports.
- c) The state must take into consideration CMS’ comments for incorporation into the final Close-Out Reports.
- d) The Final Close-Out Reports are due to CMS no later than 30 days after receipt of CMS’ comments.
- e) A delay in submitting the draft or final versions of the Close-Out Reports could subject the state to penalties described above.

91. Public Access. The state shall post the final approved Annual Reports, Final Operational Report, Evaluation Design, Interim Evaluation Report(s), Summative Evaluation Report(s), and Final Evaluation Report on the state’s Medicaid website within 30 days of approval by CMS.

92. Presentations and Publications. During the demonstration period, and for 24 months following the expiration of the demonstration, CMS will be provided with notification regarding the public release, presentation or publication of Interim, Summative, and/or Final Evaluations and Operational Reports.

- 1. The state will make every effort to inform the CMS Project Officer, as far in advance as possible, of pending news articles or reports about the demonstration that are of a significant nature. A bibliographic reference of news articles and reports about the demonstration will be included in the next Quarterly Report.

XIII. GENERAL FINANCIAL REQUIREMENTS UNDER TITLE XIX

93. Quarterly Expenditure Reports. The state must provide quarterly expenditure reports using Form CMS-64 to report total expenditures for services provided through this demonstration under section 1115 authority that are subject to budget neutrality. This project is approved for expenditures applicable to services rendered during the demonstration period. CMS shall provide FFP for allowable demonstration expenditures only as long as they do not exceed the pre-defined limits on the expenditures as specified in section XIII of the STCs.

94. Demonstration Years. The demonstration years under this extension period are as follows:

Demonstration Year 21	July 1, 2017- June 30,	12 Months
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	2018	
Demonstration Year 22	July 1, 2018 - June 30, 2019	12 Months
Demonstration Year 23	July 1, 2019 - June 30, 2020	12 Months
Demonstration Year 24	July 1, 2020 - June 30, 2021	12 Months
Demonstration Year 25	July 1, 2021 - June 30, 2022	12 Months

95. Reporting Expenditures Under the Demonstration. The following describes the reporting of expenditures subject to the budget neutrality agreement:

- a) Tracking Expenditures. In order to track expenditures under this demonstration, the state must report demonstration expenditures through the Medicaid and Children’s Health Insurance Program Budget and Expenditure System (MBES/CBES), following routine CMS-64 reporting instructions outlined in section 2500 of the State Medicaid Manual. All demonstration expenditures claimed under the authority of title XIX of the Act and subject to the budget neutrality expenditure limit must be reported each quarter on separate Forms CMS-64.9 Waiver and/or 64.9P Waiver, identified by the demonstration project number (11-W-00030/1) assigned by CMS, including the project number extension which indicates the Demonstration Year (DY) in which services were rendered.
- b) Cost Settlements. For monitoring purposes, cost settlements attributable to the demonstration must be recorded on the appropriate prior period adjustment schedules (Form CMS-64.9P Waiver) for the Summary Sheet Line 10B, in lieu of Lines 9 or 10C. For any cost settlement not attributable to this demonstration, the adjustments should be reported as otherwise instructed in the State Medicaid Manual.
- c) Pharmacy Rebates. When claiming these expenditures the Commonwealth may refer to the July 24, 2014 CMCS Informational Bulletin which contains clarifying information for quarterly reporting of Medicaid Drug Rebates in the Medicaid Budget and Expenditures (MBES) (<http://www.medicaid.gov/Federal-Policy-Guidance/downloads/CIB-07-24-2014.pdf>). The Commonwealth must adhere to the requirement at section 2500.1 of the State Medicaid Manual that all state collections, including drug rebates, must be reported on the CMS-64 at the applicable Federal Medical Assistance Percentage (FMAP) or other matching rate at which related expenditures were originally claimed. Additionally, we are specifying that states unable to tie drug rebate amounts directly to individual drug expenditures may utilize an allocation methodology for determining the appropriate Federal share of drug rebate amounts reported quarterly. This

information identifies the parameters that states are required to adhere to when making such determinations.

Additionally, this information addresses how states must report drug rebates associated with the new adult eligibility group described at 42 CFR 435.119. States that adopt the new adult group may be eligible to claim drug expenditures at increased matching rates. Drug rebate amounts associated with these increased matching rates must be reported at the same matching rate as the original associated prescription drug expenditures.

- d) Premiums and other applicable cost sharing contributions from enrollees that are collected by the Commonwealth under the demonstration must be reported to CMS each quarter on Form CMS-64 Summary Sheet line 9.D, columns A and B. Additionally, the total amounts that are attributable to the demonstration must be separately reported on the CMS-64Narr by demonstration year.
- e) Demonstration year reporting. Notwithstanding the two-year filing rule, the Commonwealth may report expenditures and adjustments to particular demonstration years as described below:
 - i. Beginning July 1, 2014 (SFY 2015/DY 18), all expenditures and adjustments for demonstration years 1-14 previously reported in sections i.-viii. will be reported as demonstration year 14, all expenditures and adjustments for demonstration years 15-17 will be reported as demonstration 17, and separate schedules will be completed for demonstration years 18, 19 and 20.
 - ii. Beginning July 1, 2017 (SFY 2018/DY 21), all expenditures and adjustments for demonstration years 1-17 previously reported in sections i.-ix. will be reported as demonstration year 17, all expenditures and adjustments for demonstration years 18-20 will be reported as demonstration 20, and separate schedules will be completed for demonstration years 21, 22, 23, 24, and 25.
- f) Use of Waiver Forms. For each demonstration year as described in subparagraph (e) above, 29 separate Forms CMS-64.9 Waiver and/or 64.9P Waiver must be completed, using the waiver name noted below, to report expenditures for the following EGs and the Safety Net Care Pool. Expenditures should be allocated to these forms based on the guidance found below.
 - 1) **Base Families:** Eligible non-disabled individuals enrolled in MassHealth Standard, as well as eligible non-disabled individuals enrolled in MassHealth Limited (emergency services only)

- 2) **Base Disabled:** Eligible individuals with disabilities enrolled in Standard, individuals enrolled in CommonHealth who spend down to eligibility, as well as eligible disabled individuals enrolled in Limited (emergency services only)
- 3) **1902(r)(2) Children:** Medicaid expansion children and pregnant women who are enrolled in MassHealth Standard, as well as eligible children and pregnant women enrolled in MassHealth Limited (emergency services only)
- 4) **1902(r)(2) Disabled:** Eligible individuals with disabilities enrolled in Standard with income between 114.1 percent and 133 percent of the FPL, as well as eligible individuals with disabilities enrolled in MassHealth Limited (emergency services only)
- 5) **BCCDP:** Individuals eligible under the Breast and Cervical Cancer Demonstration Program who are enrolled in Standard
- 6) **CommonHealth:** Higher income working adults and children with disabilities enrolled in CommonHealth
- 7) **e-Family Assistance:** Eligible children receiving premium assistance or direct coverage through 200 percent of the FPL enrolled in Family Assistance.
- 8) **Base Fam XXI RO:** Title XXI-eligible AFDC children enrolled in Standard after allotment is exhausted
- 9) **1902 (r)(2) XXI RO:** Title XXI-eligible Medicaid Expansion children enrolled in Standard after allotment is exhausted
- 10) **CommonHealth XXI:** Title XXI-eligible higher income children with disabilities enrolled in title XIX CommonHealth after allotment is exhausted
- 11) **Fam Assist XXI:** Title XXI-eligible children through 200 percent of the FPL eligible for Family Assistance under the demonstration after the allotment is exhausted
- 12) **e-HIV/FA:** Eligible individuals with HIV/AIDS with incomes from 133 through 200 percent of the FPL who are enrolled in Family Assistance

- 13) **SBE:** Subsidies or reimbursement for ESI made to eligible individuals
- 14) **SNCP-DSRIP:** Expenditures for Delivery System Reform Payments (DSRIP) for the period July 1, 2017 through June 30, 2022. This should be inclusive of 15-18 below.
- 15) **SNCP-DSRIP-ACO:** Expenditures for the Accountable Care Organization payments associated with the DSRIP for the period July 1, 2017 through June 30, 2022.
- 16) **SNCP-DSRIP-CP:** Expenditures for the Community Partner payments associated with the DSRIP.
- 17) **SNCP-DSRIP-SWI:** Expenditures for the Statewide Investment payments associated with the DSRIP.
- 18) **SNCP-DSRIP-Operations:** Expenditures for the allocated portion of DSRIP associated with statewide operations, implementation, and oversight.
- 19) **SNCP-PHTII:** Expenditures authorized under the Public Hospital Transformation and Incentives Initiative
- 20) **SNCP-DSH-HSNTF:** Expenditures authorized under the Health Safety Net program as referenced on Attachment E item 4.
- 21) **SNCP-DSH-IMD:** Expenditures authorized under the SNCP for IMD services, as referenced on Attachment E item 5, excluding expenditures reported under STC 95(f)(30).
- 22) **SNCP-DSH-CPE:** Expenditures for State owned non-acute hospitals operated by the Department of Public Health and the Department of Mental Health, as referenced on Attachment E items 6 and 7.
- 23) **SNCP-UCC:** Expenditures authorized under the Uncompensated Care Pool
- 24) **SNCP-OTHER:** All other expenditures authorized under the SNCP, including Public Services Hospital Safety Net Care Payments and

Safety Net Provider Payments, as referenced on Attachment E items 1 and 8.

- 25) **Asthma**: All expenditures authorized through the pediatric asthma bundled pilot program
- 26) **New Adult Group** : Report for all expenditures for the Affordable Care Act new adult group, described in 1902(a)(10)(A)(i)(VIII) and 42 CFR 435.119
- 27) **DSHP-Health Connector Subsidy**: Expenditures for premium subsidy wrap under the demonstration.
- 28) **DSHP-CSR**: Expenditures for cost sharing subsidy wrap under the demonstration.
- 29) **Provisional Eligibility**: Expenditures for amounts spent on individuals found not eligible for Medicaid benefits under this authority consistent with STC 24.
- 30) **TANE/EAEDC**: Expenditures for health care related costs for individuals receiving Temporary Assistance for Needy Families and Emergency Aid to Elders, Disabled and Children.
- 31) **End of Month Coverage**: Beneficiaries determined eligible for subsidized QHP coverage through Massachusetts Health Connector but who are not enrolled in a QHP.
- 32) **Continuous Eligibility**: Expenditures for continuous eligibility period up to 12 months for those enrolled in a student health insurance program.
- 33) **FFCY** – Expenditures for those individuals enrolled as “Out-of-state Former Foster Care Youth,” who are youth under age 26 who were in foster care under the responsibility of a state other than Massachusetts or a Tribe in such a state when they turned 18 (or a higher age at which the state’s or Tribe’s foster care assistance ends), and were enrolled in Medicaid under that state’s Medicaid state plan or 1115 demonstration at any time during the foster care period in which they aged out.
- 34) **SUD**: All expenditures for services provided to an individual while they are a patient in an IMD for SUD treatment

described in Table D of Section V.

- g) **Title XIX Administrative Costs.** Administrative costs will not be included in the budget neutrality agreement, but the Commonwealth must separately track and report additional administrative costs that are directly attributable to the demonstration. All administrative costs must be identified on the Forms CMS-64.10 Waiver and/or 64.10P Waiver.

96. Reporting Expenditures under the Demonstration for Groups that are Eligible First under the Separate Title XXI Program. The Commonwealth is entitled to claim title XXI funds for expenditures for certain children that are also eligible under this title XIX demonstration included within the Base Families EG, the 1902(r)(2) Children EG, the CommonHealth EG and the Family Assistance EG. These groups are included in the Commonwealth's title XXI state plan and therefore can be funded through the separate title XXI program up to the amount of its title XXI allotment (including any reallocations or redistributions). Expenditures for these children under title XXI must be reported on separate Forms CMS-64.21U and/or 64.21UP in accordance with the instructions in section 2115 of the State Medicaid Manual. If the title XXI allotment has been exhausted, including any reallocations or redistributions, these children are then eligible under this title XIX demonstration and the following reporting requirements for these EGs under the title XIX demonstration apply:

Base Families XXI RO, 1902(r)(2) RO, CommonHealth XXI, and Fam Assist XXI:

- a) Exhaustion of Title XXI Funds. If the Commonwealth has exhausted title XXI funds, expenditures for these optional targeted low-income children may be claimed as title XIX expenditures as approved in the Medicaid state plan. The Commonwealth shall report expenditures for these children as waiver expenditures on the Forms CMS 64.9 Waiver and/or CMS 64.9P Waiver in accordance with STC 95 (Reporting Expenditures Under the Demonstration).
- b) Exhaustion of Title XXI Funds Notification. The Commonwealth must notify CMS in writing of any anticipated title XXI shortfall at least 120 days prior to an expected change in claiming of expenditures.
- c) If the Commonwealth chooses to claim expenditures for **Base Families XXI RO, 1902(r)(2) RO, and CommonHealth XXI** groups under title XIX, the expenditures and caseload attributable to these EGs will:
 - i. Count toward the budget neutrality expenditure limit calculated under section XI, STC 111 (Budget Neutrality Annual Expenditure Limit); and
 - ii. Be considered expenditures subject to the budget neutrality agreement as defined in STC 111, so that the Commonwealth is not at risk for caseload while claiming title XIX federal matching

funds when title XXI funds are exhausted.

- d) If the Commonwealth chooses to claim expenditures for **Fam Assist XXI** under title XIX, the expenditures and caseload attributable to this EG will be considered expenditures subject to the budget neutrality agreement as defined in STC 111. The Commonwealth is at risk for both caseload and expenditures while claiming Title XIX federal matching funds for this population when title XXI funds are exhausted.

97. Expenditures Subject to the Budget Neutrality Agreement. For purposes of this section, the term “expenditures subject to the budget neutrality agreement” means expenditures for the EGs outlined in section IV of the STCs, except where specifically exempted. All expenditures that are subject to the budget neutrality agreement are considered demonstration expenditures and must be reported on Forms CMS-64.9 Waiver and /or 64.9P Waiver.

98. Premium Collection Adjustment. The Commonwealth must include demonstration premium collections as a manual adjustment (decrease) to the demonstration’s actual expenditures on a quarterly basis on the CMS-64 Summary Sheet and on the budget neutrality monitoring workbook submitted on a quarterly basis.

99. Claiming Period. All claims for expenditures subject to the budget neutrality agreement (including any cost settlements) must be made within 2 years after the calendar quarter in which the Commonwealth made the expenditures. Furthermore, all claims for services during the demonstration period (including any cost settlements) must be made within 2 years after the conclusion or termination of the demonstration. During the latter 2-year period, the state must continue to identify separately net expenditures related to dates of service during the operation of the demonstration on the CMS-64 waiver forms, in order to properly account for these expenditures in determining budget neutrality.

100. Reporting Member Months. The following describes the reporting of member months for demonstration populations:

- a) For the purpose of calculating the budget neutrality agreement and for other purposes, the Commonwealth must provide to CMS, as part of the quarterly report required under STC 83, the actual number of eligible member months for each EGs defined in STC 95, except SNCP-DSRIP, SNCP-PHTII, SNCP-UCC, SNCP-DSH-HSNTF, SNCP-DSH-IMD, SNCP-DSH-CPE and SNCP-Other. The Commonwealth must submit a statement accompanying the quarterly report, which certifies the accuracy of this information.

To permit full recognition of “in-process” eligibility, reported counts of member months may be subject to revisions after the end of each quarter. Member month counts may be revised retrospectively as needed.

- b) The term “eligible member months” refers to the number of months in which persons are eligible to receive services. For example, a person who is eligible for three months contributes three eligible member months to the total. Two individuals who are eligible for two months each contribute two eligible member month to the total, for a total of four eligible member months.

101. Cost Settlement.

- a) Interim Reconciliation– Within 12 months of the provider’s cost report filing for each reporting year, the Commonwealth must validate cost data using the CMS-approved cost limit protocol, developed jointly by Massachusetts and CMS. Interim Reconciliation will be based on the results of the Commonwealth’s review. Any increasing or decreasing adjustment identified as a result of the settlement must be reported to CMS as an adjustment to reported expenditures and reported through the CMS-64 process.
- b) Final Reconciliation – For each provider subject to cost settlement, the Commonwealth must complete final settlement within 12 months after the provider’s final and audited (as applicable) cost report become available. The Commonwealth must submit cost and payment information for that demonstration year as required by the CMS-approved cost limit protocol. Any increasing or decreasing adjustment identified as a result of the settlement must be reported to CMS as an adjustment to reported expenditures and reported through the CMS-64 process. CMS will complete its review of the costs reported using the protocol tool and send concurrence or share its findings with the Commonwealth within 120 calendar days of receipt.
- c) **Standard Medicaid Funding Process.** The standard Medicaid funding process must be used during the demonstration. Massachusetts must estimate matchable demonstration expenditures (total computable and federal share) subject to the budget neutrality expenditure limit and separately report these expenditures by quarter for each FFY on the Form CMS-37 (narrative section) for both the Medical Assistance Payments (MAP) and State and Local Administrative Costs (ADM). CMS shall make federal funds available based upon the state’s estimate, as approved by CMS. Within 30 calendar days after the end of each quarter, the state must submit the Form CMS-64 quarterly Medicaid expenditure report, showing Medicaid expenditures made in the quarter just ended. CMS shall reconcile expenditures reported on the Form CMS-64 with federal funding previously made available to the state, and include the reconciling adjustment in the finalization of the grant award to the state.

102. Extent of Federal Financial Participation for the Demonstration. Subject to CMS approval of the source(s) of the non-federal share of funding, CMS shall provide FFP at the applicable federal matching rates for the demonstration as a whole for the following, subject to the limits described in section XIII of the STCs:

- a) Administrative costs, including those associated with the administration of the demonstration;
- b) Net expenditures and prior period adjustments of the Medicaid program that are paid in accordance with the approved Medicaid state plan; and
- c) Net medical assistance expenditures and prior period adjustments made under section 1115 demonstration authority with dates of service during the demonstration extension period, including expenditures under the Safety Net Care Pool.

103. Sources of Non-Federal Share. The Commonwealth provides assurance that the matching non-federal share of funds for the demonstration is state/local monies. The Commonwealth further assures that such funds shall not be used as the match for any other federal grant or contract, except as permitted by law. All sources of non-federal funding must be compliant with section 1903(w) of the Act and applicable regulations. In addition, all sources of the non-federal share of funding are subject to CMS approval.

- a) CMS may review at any time the sources of the non-federal share of funding for the demonstration. The Commonwealth agrees that all funding sources deemed unacceptable by CMS shall be addressed within the time frames set by CMS.
- b) Any amendments that impact the financial status of the program shall require the state to provide information to CMS regarding all sources of the non-federal share of funding.
- c) The Commonwealth assures that all health care-related taxes comport with section 1903(w) of the Act and all other applicable federal statutory and regulatory provisions, as well as the approved Medicaid state plan.

104. State Certification of Funding Conditions. The Commonwealth must certify that the following conditions for non-federal share of Demonstration expenditures are met:

- a) Units of government, including governmentally operated health care providers, may certify that state or local monies have been expended as the non-federal share of funds under the demonstration.
- b) To the extent, the Commonwealth utilizes certified public expenditures (CPEs) as the funding mechanism for title XIX (or under section 1115 authority) payments, CMS must approve a cost reimbursement methodology. This methodology must include a detailed explanation of the process by which the Commonwealth would identify those costs eligible under title XIX (or under section 1115 authority) for purposes of certifying public expenditures.

- c) To the extent the Commonwealth utilizes CPEs as the funding mechanism to claim federal match for expenditures under the demonstration, governmental entities to which general revenue funds are appropriated must certify to the state the amount of such state or local monies as allowable under 42 C.F.R. § 433.51 used to satisfy demonstration expenditures. The entities that incurred the cost must also provide cost documentation to support the state's claim for federal match;
- d) The Commonwealth may use intergovernmental transfers to the extent that such funds are derived from state or local monies and are transferred by units of government within the Commonwealth. Any transfers from governmentally operated health care providers must be made in an amount not to exceed the non-federal share of title XIX payments.
- e) Under all circumstances, health care providers must retain 100 percent of the claimed expenditure. Moreover, no pre-arranged agreements (contractual or otherwise) exist between health care providers and state and/or local government to return and/or redirect to the Commonwealth any portion of the Medicaid payments. This confirmation of Medicaid payment retention is made with the understanding that payments that are the normal operating expenses of conducting business, such as payments related to taxes, including health care provider-related taxes, fees, business relationships with governments that are unrelated to Medicaid and in which there is no connection to Medicaid payments, are not considered returning and/or redirecting a Medicaid payment.

105. Monitoring the Demonstration. The Commonwealth will provide CMS with information to effectively monitor the demonstration, upon request, in a reasonable time frame.

106. Program Integrity. The state must have processes in place to ensure that there is no duplication of federal funding for any aspect of the demonstration.

XIV. MONITORING BUDGET NEUTRALITY FOR THE DEMONSTRATION

107. Budget Neutrality Effective Date. Notwithstanding the effective date specified in section I of the STCs or in any other demonstration documentation, all STCs, waivers, and expenditure authorities relating to budget neutrality shall be effective beginning July 1, 2017.

108. Limit on Title XIX Funding. Massachusetts will be subject to a limit on the amount of federal title XIX funding that the Commonwealth may receive on selected Medicaid expenditures during the period of approval of the demonstration. The limit is determined by using a per capita cost method combined with an aggregate amount based on the aggregate annual DSH allotment that would have applied to the Commonwealth absent the demonstration (DSH allotment). Budget neutrality

expenditure targets are calculated on an annual basis with a cumulative budget neutrality expenditure limit for the length of the entire demonstration. Actual expenditures subject to the budget neutrality expenditure limit must be reported by the Commonwealth using the procedures described in section XIII, STC 95. The data supplied by the Commonwealth to CMS to calculate the annual limits is subject to review and audit, and if found to be inaccurate, will result in a modified budget neutrality expenditure limit. CMS' assessment of the Commonwealth's compliance with these annual limits will be done using the Schedule C report from the Form CMS-64.

- 109. Risk.** Massachusetts will be at risk for the per capita cost for demonstration enrollees under this budget neutrality agreement, but not for the number of demonstration enrollees in each of the groups. By providing FFP for all demonstration enrollees, Massachusetts will not be at risk for changing economic conditions which impact enrollment levels. However, by placing Massachusetts at risk for the per capita costs for demonstration enrollees, CMS assures that the federal demonstration expenditures do not exceed the level of expenditures that would have occurred had there been no demonstration.
- 110. Expenditures Excluded From Budget Neutrality Test.** Regular FMAP will continue for costs not subject to budget neutrality limit tests. Those exclusions include:
- a) Expenditures made on behalf of enrollees aged 65 years and above and expenditures made on behalf of enrollees under age 65 who are institutionalized in a nursing facility, chronic disease or rehabilitation hospital, intermediate care facility for the mentally retarded, or a state psychiatric hospital for other than a short-term rehabilitative stay;
 - b) All long-term care expenditures, including nursing facility, personal care attendant, home health, private duty nursing, adult foster care, day habilitation, hospice, chronic disease and rehabilitation hospital inpatient and outpatient, and home and community-based waiver services, except pursuant to STC 108; For demonstration years 1 and 2, LTSS costs will be excluded from budget neutrality. Over the course of the demonstration, LTSS will be included no later than DY 24 into budget neutrality if MassHealth incorporates LTSS into managed care delivery models and TCOC for ACOs.
 - i. *Exception.* Hospice services provided to individuals in the MassHealth Basic and Essential programs are subject to the budget neutrality test.
 - c) Expenditures for covered services currently provided to Medicaid recipients by other state agencies or cities and towns, whether or not these services are currently claimed for federal reimbursement; and

d) Allowable administrative expenditures.

111. Budget Neutrality Annual Expenditure Limit. The annual budget neutrality expenditure limit for the demonstration as a whole is the sum of limit A and limit B. The overall budget neutrality expenditure limit for the demonstration is the sum of the annual budget neutrality expenditure limits. The federal share of the overall budget neutrality expenditure limit represents the maximum amount of FFP that the Commonwealth may receive for expenditures on behalf of demonstration populations as well as demonstration services described in Table B, Table C and Table D of STC 38-40 during the demonstration period.

- a) Limit A. For each year of the budget neutrality agreement an annual budget neutrality expenditure limit is calculated for each EG described as follows:
- i. An annual EG estimate must be calculated as a product of the number of eligible member months reported by the Commonwealth under section XIII, STC 95 for each EG, including the hypothetical populations, times the appropriate estimated per member/per month (PMPM) costs from the tables in STCs 111, 112 and 113 below, and summing the results of those calculations. The annual limits will then be added together to obtain a budget neutrality limit for the entire demonstration period;
 - ii. Starting in SFY 2006, actual expenditures for the CommonHealth EG will be included in the expenditure limit for the Commonwealth. The amount of actual expenditures to be included will be the lower of the trended baseline CommonHealth costs, or actual CommonHealth per member per most cost experience for SFYs 2018-2022;
 - iii. The amount of actual expenditures included will be the lower of the trended baseline costs, or actual per member per most cost experience for each eligibility group in SFYs 2018-2022;
 - iv. Historical PMPM costs used to calculate the budget neutrality expenditure limit in prior demonstration periods are provided in Attachment D.
- b) Limit B. The Commonwealth's annual DSH allotment.

112. Main Budget Neutrality Test. The trend rates and per capita costs estimates for each EG for each year of the demonstration are listed in the table below.

Eligibility Group (EG)	Trend Rate	DY 21 PMPM (SFY 2018)	DY 22 PMPM (SFY 2019)	DY 23 PMPM (SFY 2020)	DY 24 PMPM (SFY 2021)	DY 25 PMPM (SFY 2022)
Mandatory and Optional State Plan Groups						
Base Families	3.8%	\$753.10	\$781.72	\$811.42	\$842.25	\$874.26
Base Disabled/MCB	4.0%	\$1,647.49	\$1,713.39	\$1,781.93	\$1,853.21	\$1,927.34
1902 (r) 2 Children	3.6%	\$597.02	\$618.51	\$640.78	\$663.85	\$687.75
1902 (r) 2 Disabled	3.6%	\$1,284.97	\$1,331.23	\$1,379.15	\$1,428.80	\$1,480.24
1902 (r) 2 BCCDP	3.6%	\$4,928.56	\$5,105.99	\$5,289.81	\$5,480.24	\$5,677.53
Hypothetical Populations*						
CommonHealth	4.4%	\$776.08	\$813.33	\$852.37	\$893.28	\$936.16
Out-of-state Former Foster Care Youth	4.3%	\$350.41	\$365.48	\$381.19	\$397.58	\$414.68

113. Supplemental Budget Neutrality Test: New Adult Group. Adults eligible for Medicaid as the group defined in section 1902(a)(10)(A)(i)(VIII) of the Act are included in this demonstration, and in the budget neutrality. The state will not be allowed to obtain budget neutrality “savings” from this population. Therefore, a separate expenditure cap is established for this group, to be known as Supplemental Budget Neutrality Test.

- a) The EG listed in the table below is included in Supplemental Budget Neutrality Test.

Eligibility Group (EG)	Trend Rate	DY 21 PMPM (SFY 2018)	DY 22 PMPM (SFY 2019)	DY 23 PMPM (SFY 2020)	DY 24 PMPM (SFY 2021)	DY 25 PMPM (SFY 2022)
<u>New Adult Group</u>	4.3 percent	\$561.68	\$585.83	\$611.02	\$637.29	\$664.70

- b) If the state’s experience of the take up rate for the New Adult Group and other factors that affect the costs of this population indicates that the PMPM limit described above in paragraph (a) may underestimate the actual costs of medical assistance for the New Adult Group, the state may submit an adjustment to paragraph (a) for CMS review without submitting an amendment. Adjustments to the PMPM limit for a demonstration year must be submitted to CMS by no later than April 30 of the demonstration year for which the adjustment would take effect.

- c) The Supplemental Budget Neutrality Test is calculated by taking the PMPM cost projection for the New Adult Group in each DY, times the number of eligible member months for that group and DY, and adding the products together across groups and DYs. The federal share of the Supplemental Cap is obtained by multiplying total computable Supplemental Cap by the Composite Federal Share described in STC 116.
- d) The Supplemental Budget Neutrality Test is a comparison between the federal share of the Supplemental Cap and total FFP reported by the State for the New Adult Group.
- e) If total FFP for the New Adult Group should exceed the federal share of the Supplemental Budget Neutrality Test after any adjustments made to the budget neutrality limit as described in paragraph (b), the difference must be reported as a cost against the budget neutrality limit described in STC 111.

115. 1115A Duals Demonstration Savings. When Massachusetts’ section 1115(a) demonstration is considered for an amendment, renewal, and at the end of the Duals demonstration, CMS’ Office of the Actuary (OACT) will estimate and certify actual title XIX savings to date under the Duals Demonstration attributable to populations and services provided under the 1115(a) demonstration. This amount will be subtracted from the 1115(a) budget neutrality savings approved for the renewal. This evaluation of estimated and certified amounts of actual title XIX savings will reflect addendums and amendments to the 1115A Duals Demonstration contract and adjustment to the MassHealth Component of the capitation rate, including interim and final risk corridor settlements. (Note – PMPMs, MMs, and risk corridor amounts in the table below are illustrative.)

A.	B.	C.	D.	E.	F.	G.
1115A Duals Demo Rate Year/ Demo Year	MassHealth Component of the Capitation Rate (hypothetical)	Medicaid Savings Percentage Applied Per Contract (average)	Savings Per Month: (B*C)	Member Months of MMEs who participated in 1115A Duals Demonstration and 1115(a) Demonstration (hypothetical)	Risk Corridor Payment/ (Recoupment) ¹	Amount subtracted from 1115(a) BN savings/ margin: (D*E)-F = net (cost)/savings
CY 2013/ DY1	\$700 PMPM	0.00%	\$0 PMPM	1,000 MM	\$5,000	(\$0 PMPM * 1,000 MM) -\$5,000 = (\$5,000) cost

¹ Risk corridors are calculated by Demonstration Year (DY) and will be reported by DY once finalized.

CY 2014 (Jan - Mar 2014)/ DY1	\$700 PMPM	0.00%	\$0 PMPM	1,000 MM	\$5,000	(\$0 PMPM * 1,000 MM) -\$5,000 = (\$5,000) cost
CY 2014 (Apr - Dec 2014)/ DY1	\$700 PMPM	1.00%	\$7 PMPM	1,000 MM	\$5,000	(\$7 PMPM * 1,000 MM) -\$5,000 = \$2,000 savings
Fallon Total Care (FTC) CY 2015/ DY2	\$700 PMPM	1.50%	\$10.50 PMPM	1,000 MM	\$0	(\$10.50 PMPM * 1,000 MM) -\$0 = \$10,500 savings
CCA and Tufts CY 2015/ DY2	\$700 PMPM	0.00%	\$0 PMPM	1,000 MM	(\$2,000)	(\$0 PMPM * 1,000 MM) -(2,000) = \$2,000 savings
CY 2016/ DY3	\$700 PMPM	0.00%	\$0 PMPM	1,000 MM	(\$4,000)	(\$0 PMPM * 1,000 MM) -(4,000) = \$4,000 savings
CY 2017/ DY4	\$700 PMPM	0.25%	\$1.75 PMPM	1,000 MM	(\$7,000)	(\$1.75 PMPM * 1,000 MM) - (\$7,000) = \$8,750 savings
CY 2018/ DY5	\$700 PMPM	0.50%	\$3.50 PMPM	1,000 MM	(\$4,000)	(\$3.50 PMPM * 1,000 MM) - (\$4,000) = \$7,500 savings

Specifically, OACT will estimate and certify actual title XIX savings attributable to populations and services provided under the 1115(a) demonstration following the methodology below.

The actual title XIX savings attributable to populations and services provided under the 1115(a) demonstration are equal to the savings percentage specified in the 1115A Duals demonstration contract multiplied by the 1115A Duals demonstration MassHealth Component of the capitation rate and the number of 1115A Duals demonstration beneficiaries enrolled in the 1115(a) demonstration. The Duals demonstration capitation rate is reviewed by CMS's Medicare and Medicaid Coordination Office (MMCO), MMCO's contracted actuaries and was certified by the Commonwealth's actuaries. Per the 1115A Duals Demonstration contract, the actual Medicaid rate paid for beneficiaries enrolled in the 1115A Duals demonstration is equivalent to the state's 1115A Duals demonstration MassHealth component minus an established savings percentage (specified in the Duals Demonstration contract), adjusted by any risk corridor payments or recoupments. The Commonwealth must track the number of member months for every Medicare-Medicaid enrollee (MME) who participates in both the 1115(a) and 1115A Duals demonstration.

The table above provides an illustrative example of how the savings attributable to populations and services provided under the 1115A demonstration is calculated. The Commonwealth may adjust the chart to account for risk corridor payment or recoupments.

In each quarterly report, the Commonwealth must provide the information in the above-named chart (replacing estimated figures with actual data). Should rates differ by geographic area and/or rating category within the 1115A demonstration, this table should be done for each geographic area and/or rating category. In addition, the state must show the “amount subtracted from the 1115(a) BN savings” in the updated budget neutrality Excel worksheets that are submitted in each quarterly report.

Finally, in each quarterly CMS-64 submission and in each quarterly report, the state must indicate in the notes section: “For purposes of 1115(a) demonstration budget neutrality reporting purposes, the state reports the following information:

- Number of unduplicated Medicare-Medicaid enrollees served under the 1115A duals demonstration = [Insert number]
- Number of member months = [Insert number]
- PMPM savings per dual beneficiary enrolled from the 1115A duals demonstration = [Insert number]”

The Commonwealth must make the necessary retroactive adjustments to the budget neutrality worksheets to reflect modifications to the rates paid in the 1115A Duals demonstration. The Commonwealth may add columns to identify risk corridor payments and other adjustments in subsequent quarterly reporting. Note, the savings percentages may be updated in the Duals Demonstration contract, and the amount considered in the budget neutrality worksheets must reflect any adjustments, addendums, or amendments made in the Duals Demonstration contract.

116. Composite Federal Share Ratio. The federal share of the budget neutrality expenditure limit is calculated by multiplying the limit times the Composite Federal Share. The Composite Federal Share is the ratio calculated by dividing the sum total of FFP received by the Commonwealth on actual demonstration expenditures during the approval period, as reported through MBES/CBES and summarized on Schedule C, with consideration of additional allowable demonstration offsets such as, but not limited to premium collections and pharmacy rebates, by total computable demonstration expenditures for the same period as reported on the same forms. FFP and expenditures for extended family planning program must be subtracted from numerator and denominator, respectively, prior to calculation of this ratio. For the purpose of interim monitoring of budget neutrality, a reasonable estimate of Composite Federal Share may be developed and used through the same process or through an alternative mutually agreed to method.

117. Recognized Budget Neutrality Savings.

- a. Beginning July 1, 2017 (SFY 2018/DY21), recognized budget neutrality savings is limited to savings realized beginning in July 1, 2011 (SFY 2012/DY 15). No deficit or savings is carried over from years prior to SFY 2012. Accordingly, the budget neutrality demonstration includes "with waiver" expenditures and "without waiver" expenditure limit calculations beginning in SFY 2012.
- b. Savings Phase-out: Beginning July 1, 2017 (SFY 2018/DY21), the net variance between the without-waiver cost and actual with-waiver cost will be reduced for selected Medicaid population based EGs. The reduced variance, to be calculated as a percentage of the total variance, will be used in place of the total variance to determine overall budget neutrality for the demonstration. (Equivalently, the difference between the total variance and reduced variance could be subtracted from the without-waiver cost estimate.) For the first five years that an eligibility group is enrolled in managed care savings are carried forward in full. For the first five years that a set of services (e.g. LTSS) is subject to managed care, savings are also carried forward in full. The formula for calculating the reduced variance is: reduced variance equals total variance times applicable percentage. The applicable percentages for each EG and DY are determined based how long the associated population has been enrolled in managed care subject to this demonstration; lower percentages are for longer established managed care populations.

The EGs affected by this provision and the applicable percentages are shown in the table below, except that if the total variance for an EG in a DY is negative, the applicable percentage is 100 percent.

EG	DY 21 PMPM (SFY 2018)	DY 22 PMPM (SFY 2019)	DY 23 PMPM (SFY 2020)	DY 24 PMPM (SFY 2021)	DY 25 PMPM (SFY 2022)
Base Families	25%	25%	25%	25%	25%
Base Disabled/MCB	25%	25%	25%	25%	25%
1902 (r) 2 Children	25%	25%	25%	25%	25%
1902 (r) 2 Disabled	25%	25%	25%	25%	25%
1902 (r) 2 BCCDP	25%	25%	25%	25%	25%

118. Enforcement of Budget Neutrality. CMS shall enforce the budget neutrality agreement over the life of the demonstration as adjusted July 1, 2008, rather than on an annual basis. However, if the Commonwealth exceeds the calculated cumulative budget neutrality expenditure limit by the percentage identified below for any of the demonstration years, the Commonwealth must submit a corrective action plan to CMS for approval.

Demonstration Year	Cumulative Target Definition	Percentage
DY 21	Cumulative budget neutrality limit plus:	2.0 percent
DY 21 through DY 22	Cumulative budget neutrality limit plus:	1.5 percent
DY 21 through DY 23	Cumulative budget neutrality limit plus:	1.0 percent
DY 21 through 24	Cumulative budget neutrality limit plus:	.5 percent
DY 21 through 25	Cumulative budget neutrality limit plus:	0 percent

In addition, the Commonwealth may be required to submit a corrective action plan if an analysis of the expenditure data in relationship to the budget neutrality expenditure cap indicates a possibility that the demonstration will exceed the cap during this extension.

119. **Exceeding Budget Neutrality.** If the budget neutrality expenditure limit has been exceeded at the end of the demonstration period, the excess federal funds must be returned to CMS using the methodology outlined in STC 116, composite federal share ratio. If the demonstration is terminated prior to the end of the budget neutrality agreement, the budget neutrality test shall be based on the time elapsed through the termination date.
120. **Budget Neutrality Monitoring Tool.** The state and CMS will jointly develop a budget neutrality monitoring tool (using a mutually agreeable spreadsheet program) for the state to use for quarterly budget neutrality status updates and other in situations when an analysis of budget neutrality is required. The tool will incorporate the Schedule C Report for monitoring actual expenditures subject to budget neutrality. A working version of the monitoring tool will be available for the state’s first Quarterly Progress Report in 2018.
121. **Impact of Continuous Eligibility on Budget Neutrality.** Students enrolled in SHIP will receive continued benefits during any periods within a 12-month eligibility period when these individuals would be found ineligible if subject to redetermination. To this end, 97.4% of the member months will be matched at the enhanced rate, and 2.6% of the member months will be matched at the regular FMAP to account for the proportion of member months that beneficiaries would have been disenrolled due to excess income in the absence of continuous eligibility. Therefore, Massachusetts shall make a downward adjustment of 2.6 percent in claimed expenditures for federal matching at the enhanced federal matching rate and will instead claim those expenditures at the regular matching rate.
122. **Treatment of DSH Allotment.** The amount of any DSH-like payments must be prorated if necessary so that DSH-like payments will not exceed the percentage of the DSH allotment corresponding to the percentage of the federal fiscal year for which payment of DSH-like payments is required.

XV: SCHEDULE OF DELIVERABLES FOR THE DEMONSTRATION EXTENSION PERIOD

The state is held to all reporting requirements as outlined in the STCs; this schedule of deliverables should serve only as a tool for informational purposes only.

Date – Specific	Deliverable	Section Reference
June 30, 2018	Draft Evaluation Design	Section X
Within 60 days of receipt of CMS comments	Final Evaluation Design and Implementation	Section X
Within 180 days after the expiration of the demonstration	Final Report	Section X
Within 18 months after the expiration of this demonstration	Draft Summative Evaluation Report	Section X
Annually		
October 1 st	Draft Annual Report,	Section X
30 days of the receipt of CMS comments	Final Annual Report, including DSRIP, ACO, flexible services and expenditures.	Section X
No later than 45 days after enactment of the state budget for each SFY	Updates to Charts A-B of Attachment E that reflect projected annual SNCP expenditures and identify the non-Federal share for each line item	Section XIV, XV
No later than 45 days after enactment of the state budget for each SFY	Projected annual DSHP expenditures	Section XIV
180 days after the close of the SFY (December 31)	Updates to Charts A-B of Attachment E that reflect actual SNCP payments and expenditures	Section XIV, XV
Quarterly		
60 days following the end of the quarter	Quarterly Operational Reports, including DSRIP, ACO, Flexible Services and payments reporting and eligible member months	Section X
60 days following the end of the quarter	Quarterly Expenditure Reports	Section X

ATTACHMENT A
Reserve

**ATTACHMENT B
COST SHARING**

Cost-sharing currently in effect unless changed by a state plan amendment.

Cost-sharing imposed upon individuals enrolled in the demonstration may vary across delivery systems, coverage types and by FPL. However, no co-payments are charged for any benefits rendered to individuals under age 21, pregnant women, individuals living in an institution or receiving hospice, and American Indian/Alaska Natives who receive services through an IHS, tribal 638 or the IHS/tribal Purchased and Referred Care program.

Additionally, no premiums are charged to any individual enrolled in the demonstration whose gross income is less than 150 percent of the FPL, or to any American Indian/Alaska Natives who receive services through an IHS, tribal 638 or the IHS/tribal Purchased and Referred Care program. In the event a family group contains at least two members who are eligible for different coverage types and who would otherwise be assessed two different premiums, the family shall be assessed only the highest applicable premium. Family group will be determined using MassHealth rules for the purposes of assessing premiums as described in STC 20.

Demonstration Program	Premiums (only for persons with family income above 150 percent of the FPL)	Co-payments
MassHealth Standard/Standard ABP	\$0	All co-payments and co-payment caps are specified in the Medicaid state plan.
MassHealth CarePlus	\$0	MassHealth Standard co-payments apply.
MassHealth Breast and Cervical Cancer Treatment Program	\$15-\$72 depending on income	MassHealth Standard co-payments apply.
MassHealth CommonHealth	\$15 and above depending on income and family group size	MassHealth Standard co-payments apply.

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CommonHealth Children through 300% FPL Children with income above 300% FPL adhere to the regular CommonHealth schedule	\$12-\$84 depending on income and family group size	MassHealth Standard co-payments apply.
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**ATTACHMENT B
COST SHARING**

MassHealth Family Assistance: HIV/AIDS	\$15-\$35 depending on income	MassHealth Standard co-payments apply.
MassHealth Family Assistance: Premium Assistance	\$12 per child, \$36 max per family group	Member is responsible for all co-payments required under private insurance with a cost sharing limit of 5 percent of family income
MassHealth Family Assistance: Direct Coverage	\$12 per child, \$36 max per family group	Children only-no copayments.

Breast and Cervical Cancer Treatment Program Premium Schedule	
Percent of FPL	Premium Cost
Above 150 to 160	\$15
Above 160 to 170	\$20
Above 170 to 180	\$25
Above 180 to 190	\$30
Above 190 to 200	\$35
Above 200 to 210	\$40
Above 210 to 220	\$48
Above 220 to 230	\$56
Above 230 to 240	\$64
Above 240 to 250	\$72

CommonHealth Full Premium Schedule		
Base Premium	Additional Premium Cost	Range of Premium Cost
Above 150% FPL—start at \$15	Add \$5 for each additional 10% FPL until 200% FPL	\$15 - \$35
Above 200% FPL—start at \$40	Add \$8 for each additional 10% FPL until 400% FPL	\$40 - \$192
Above 400% FPL—start at \$202	Add \$10 for each additional 10% FPL until 600% FPL	\$202 - \$392
Above 600% FPL—start at \$404	Add \$12 for each additional 10% FPL until 800% FPL	\$404 - \$632
Above 800% FPL—start at \$646	Add \$14 for each additional 10% FPL until 1000% FPL	\$646 - \$912
Above 1000% FPL—start at \$928	Add \$16 for each additional 10% FPL	\$928 - greater

*A lower premium is required of CommonHealth members who have access to other health

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insurance per the schedule below.

**ATTACHMENT B
COST SHARING**

CommonHealth Supplemental Premium Schedule	
% of FPL	Premium requirement
Above 150% to 200%	60% of full premium per listed premium costs above
Above 200% to 400%	65% per above
Above 400% to 600%	70% per above
Above 600% to 800%	75% per above
Above 800% to 1000%	80% above
Above 1000%	85% above

Small Business Employee Premium Assistance* (effective January 1,	% of FPL	Premium Requirement for Individual	Premium Requirement for Couples
Small Business Employee Premium Assistance* provides premium assistance to certain employees who work for a small employer	Above 150% to 200%	\$40.00	\$80.00
	Above 200% to 250%	\$78.00	\$156.00
	Above 250% to 300%	\$118.00	\$236.00

* Premium requirements for individuals participating in the Small Business Employee Premium Assistance program are tied to the state affordability schedule, as reflected in the minimum premium requirement for individuals enrolled in QHP Wrap coverage through the Health Connector. The premium amounts listed in this table reflect the 2013 state affordability schedule and are subject to change without any amendment to the demonstration.

**ATTACHMENT C
QUARTERLY MONITORING REPORT
CONTENT AND FORMAT**

Under section X, the Commonwealth is required to submit quarterly progress reports to CMS. The purpose of the quarterly report is to inform CMS of significant demonstration activity from the time of approval through completion of the demonstration.

The reports are due to CMS 60 calendar days after the end of each quarter.

The following report guidelines are intended as a framework and can be modified when agreed upon by CMS and the Commonwealth. A complete quarterly progress report must include an updated budget neutrality monitoring workbook as well as updated Attachment E, Charts A-C.

NARRATIVE REPORT FORMAT:

Title Line One – MassHealth

Title Line Two – Section 1115 Quarterly Report

Demonstration/Quarter Reporting Period:

Example:

Demonstration Year: 21 (7/1/2017 – 6/30/2018) Quarter 1: (7/17 – 09/17)

Introduction

Information describing the goal of the demonstration, what it does, and key dates of approval/ operation. (This should be the same for each report.)

Enrollment Information

Please complete the following table that outlines all enrollment activity under the demonstration. The Commonwealth should indicate “N/A” where appropriate. If there was no activity under a particular enrollment category, the Commonwealth should indicate that by “0”.

Note: Enrollment counts should be person counts, not member months.

Eligibility Group	Current Enrollees (to date)
Base Families	
Base Disabled	
1902(r)(2) Children	
1902(r)(2) Disabled	
Base Childless Adults (19-	

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Base Childless Adults	
Base Childless Adults	
BCCTP	

<u>Eligibility Group</u>	<u>Current Enrollees (to date)</u>
CommonHealth	
e-Family Assistance	
e-HIV/FA	
SBE	
Basic	
DSHP- Health Connector Subsidies	
Base Fam XXI RO	
1902(r)(2) XXI RO	
CommonHealth XXI	
Fam Assist XXI	
Asthma	
TANF/EAEDC	
End of Month Coverage	
Total Demonstration	

Enrollment in Managed Care Organizations and Primary Care Clinician Plan

Comparative managed care enrollments for the previous quarter and reporting quarter are as follows: Delivery System for MassHealth-Administered Demonstration Populations

Plan Type			Difference
MCO			
PCC			
MBHP			
FFS			
PA			
ACO			

Enrollment in Premium Assistance and Small Business Employee Premium Assistance

Outreach/Innovative Activities

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Summarize outreach activities and/or promising practices for the current quarter.

Safety Net Care Pool

Provide updates on any activities or planning related to payment reform initiatives or delivery system reforms affecting demonstration population and/or undertaken in relation to the SNCP. As per Section X, include projected or actual changes in SNCP payments and expenditures within the quarterly report. Please note that the annual report must also include SNCP reporting as required by Section X and XIII.

Operational/Issues

Identify all significant program developments that have occurred in the current quarter or near future, including but not limited to, approval and contracting with new plans, the operation of MassHealth and operation of the Commonwealth Health Insurance Connector Authority. Any changes to the benefits, enrollment, grievances, quality of care, access, proposed changes to payment rates, health plan financial performance that is relevant to the demonstration, cost-sharing or delivery system for demonstration populations receiving premium assistance to purchase health insurance via the Commonwealth Health Insurance Connector Authority must be reported here.

Policy Developments/Issues

Identify all significant policy and legislative developments/issues/problems that have occurred in the current quarter. Include updates on any state health care reform activities to coordinate the transition of coverage through the Affordable Care Act.

Financial/Budget Neutrality Development/Issues

Identify all significant developments/issues/problems with financial accounting, budget neutrality, and CMS 64 reporting for the current quarter. Identify the Commonwealth's actions to address these issues.

Member Month Reporting

Enter the member months for each of the EGs for the quarter.

A. For Use in Budget Neutrality Calculations

Expenditure and Eligibility Group (EG) Reporting	Month 1	Month 2	Month 3	Total for Quarter Ending XX/XX
Base Families				
Base Disabled				
1902(r)(2) Children				
1902(r)(2) Disabled				
New Adult Group				
BCCDP				

CommonHealth				
TANF/EAEDC				

B. For Informational Purposes Only

Expenditure and Eligibility Group (EG) Reporting	Month 1	Month 2	Month 3	Total for Quarter Ending XX/XX
e-HIV/FA				
<u>Small Business Employee Premium Assistance</u>				
<u>DSHP- Health Connector Subsidies</u>				
Base Fam XXI RO				
1902(r)(2) RO				
CommonHealth XXI				
Fam Assist XXI				

Consumer Issues

A summary of the types of complaints or problems consumers identified about the program in the current quarter. Include any trends discovered, the resolution of complaints, and any actions taken or to be taken to prevent other occurrences. Also, discuss feedback received from other consumer groups.

Quality Assurance/Monitoring Activity

Identify any quality assurance/monitoring activity in the current quarter.

Demonstration Evaluation

Discuss progress of evaluation design and planning.

Enclosures/Attachments

Identify by title any attachments along with a brief description of what information the document contains.

State Contact(s)

Identify individuals by name, title, phone, fax, and address that CMS may contact should any questions arise.

Date Submitted to CMS

**ATTACHMENT D
 MASSHEALTH HISTORICAL PER MEMBER/PER
 MONTH LIMITS**

The table below lists the calculated per-member per-month (PMPM) figures by eligibility group (EG) used to develop the demonstration budget neutrality expenditure limits for the first 14 years of the MassHealth demonstration. All demonstration years are consistent with the Commonwealth's fiscal year (July 1 – June 30).

After DY 5, the following changes were made to the per member/per month limits:

1. MCB EG was subsumed into the Disabled EG;
2. A new EG, BCCTP, was added; and
3. the 1902(r)(2) EG was split between children and the disabled

DY	Time Period	Families		Disabled		MCB		1902(r)(2)	1902(r)(2) Disabled	
		PMPM	Trend Rate	PMPM	Trend Rate	PMPM	Trend Rate	Trend Rate	PMPM	Trend Rate
1	SFY 1998	\$199.06	7.71%	\$491.04	5.83%	\$438.39	5.83%	5.33%	\$471.87	4.40%
2	SFY 1999	\$214.41	7.71%	\$519.67	5.83%	\$463.95	5.83%	5.35%	\$497.12	4.80%
3	SFY 2000	\$230.94	7.71%	\$549.97	5.83%	\$491.00	5.83%	5.60%	\$524.96	5.50%
4	SFY 2001	\$248.74	7.71%	\$582.03	5.83%	\$519.62	5.83%	5.70%	\$554.88	5.30%
5	SFY 2002	\$267.92	7.71%	\$615.96	5.83%	\$549.91	5.83%	5.70%	\$586.51	5.70%

DY	Time Period	Families		Disabled		1902(r)(2) Children		1902(r)(2)		BCCTP	
		PMPM	Trend	PMPM	Trend	PMPM	Trend	PMPM	Trend	PMPM	Trend
6	SFY 2003	\$288.58	7.71%	\$677.56	10.0%	\$236.9	7.71%	\$645.1	10.0%	\$1,891.62	10.0%
7	SFY 2004	\$310.83	7.71%	\$745.32	10.0%	\$255.2	7.71%	\$709.6	10.0%	\$2,080.78	10.0%
8	SFY 2005	\$334.79	7.71%	\$819.85	10.0%	\$274.9	7.71%	\$780.6	10.0%	\$2,288.86	10.0%
9	SFY 2006	\$359.23	7.30%	\$824.79	7.00%	\$295.0	7.30%	\$718.1	7.00%	\$2,449.08	7.00%
10	SFY 2007	\$385.46	7.30%	\$834.71	7.00%	\$316.5	7.30%	\$660.6	7.00%	\$2,620.52	7.00%
11	SFY 2008	\$413.60	7.30%	\$901.39	7.00%	\$339.6	7.30%	\$724.3	7.00%	\$2,803.95	7.00%

DY	Time Period	Families		Disabled		1902(r)(2) Children		1902(r)(2) Disabled		BCCTP	
		PMPM	Trend	PMPM	Trend	PMPM	Trend	PMP	Trend	PMPM	Trend

Demonstration Approval Period: July 1, 2017 through June 30, 2022
 Amended May 23, 2019

12	SFY 2009	\$466.84	6.95%	\$1,011.95	6.86%	\$382.45	6.95%	\$791.4	6.86%	\$3,052.78	6.86%
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Demonstration Approval Period: July 1, 2017 through June 30, 2022
Amended May 23, 2019

13	SFY 2010	\$499.05	6.95%	\$1,081.37	6.86%	\$407.87	6.95%	\$846.6	6.86%	\$3,265.69	6.86%
14	SFY 2011	\$533.73	6.95%	\$1,1155.55	6.86%	\$436.22	6.95%	\$904.7	6.86%	\$3,489.72	6.86%

DY	Time Period	Families		Disabled		1902(r)(2) Children		1902(r)(2) Disabled		BCCDP	
		PMPM	Trend Rate	PMPM	Trend Rate	PMPM	Trend Rate	PMPM	Trend Rate	PMPM	Trend Rate
15	SFY 2012	\$562.02	5.3%	\$1,224.88	6.0%	\$457.59	4.9%	\$959.04	6.0%	5.3%	\$3,674.67
16	SFY 2013	\$591.81	5.3%	\$1,298.38	6.0%	\$480.02	4.9%	\$1,016.59	6.0%	5.3%	\$3,869.43
17	SFY 2014	\$623.17	5.3%	\$1,376.28	6.0%	\$503.54	4.9%	\$1,077.58	6.0%	5.3%	\$4,074.51

Demonstration Approval Period: July 1, 2017 through June 30, 2022
Amended May 23, 2019

ATTACHMENT E
SAFETY NET CARE POOL PAYMENTS

Safety Net Care Pool. The following charts reflect approved payments under Safety Net Care Pool (SNCP) for the period from July 1, 2017 through June 30, 2022, unless otherwise specified in STCs 52 and 53, consistent with and pursuant to section VIII of the STCs, and subject to the overall budget neutrality limit and the Safety Net Care Pool (SNCP) limits described in section VIII of the STCs. This chart shall be updated pursuant to the process described in STC 74.

Chart A: Approved SNCP Payments for the period from July 1, 2017 through June 30, 2022, unless otherwise specified in STCs 52 and 53 (projected and rounded in millions).

#	Payment Type	Applicable Caps	State law or regulation	Eligible Providers	Total SNCP Payments per SFY					Total SFY	Applicable footnotes
					SFY 2018	SFY 2019	SFY 2020	SFY 2021	SFY 2022		
<i>System Transformation Incentive Based Pools</i>											
1	Delivery System Reform Incentive Payments	n/a		Participating ACOs, CPs and other uses as specified in STC57-71	\$425.0	\$425.0	\$400.0	\$325.0	\$225.0	\$1,800.0	(1)
2	Public Hospital Transformation and Incentive Initiatives	n/a		Cambridge Health Alliance	\$309.0	\$243.0	\$120.0	\$100.0	\$100.0	\$872.0	
<i>System Transformation Incentive Based Pools</i>					<i>\$734.0</i>	<i>\$668.0</i>	<i>\$520.0</i>	<i>\$425.0</i>	<i>\$325.0</i>	<i>\$2,672.0</i>	
<i>Disproportionate Share Hospital (DSH) Pool</i>											
3	Public Service Hospital Safety Net Care Payment	DSH		Boston Medical Center	\$20.0	\$20.0	\$20.0	\$20.0	\$20.0	\$100.0	(2)
4	Health Safety Net Trust Fund Safety Net Care	DSH	101CMR 613.00, 614.00	All acute hospitals and CHCs	\$287.0	\$287.0	\$288.0	\$288.0	\$290.0	\$1,440.0	(3)
5	Institutions for Mental Disease (IMD)	DSH	130 CMR 425.408, 101CMR 346.004	Psychiatric inpatient hospitals Community-based detoxification centers	\$32.0	\$32.0	\$32.0	\$32.0	\$32.0	\$160.0	(4)

Demonstration Approval Period: July 1, 2017 through June 30, 2022

**ATTACHMENT E
SAFETY NET CARE POOL PAYMENTS**

Safety Net Care Pool. The following charts reflect approved payments under Safety Net Care Pool (SNCP) for the period from July 1, 2017 through June 30, 2022, unless otherwise specified in STCs 52 and 53, consistent with and pursuant to section VIII of the STCs, and subject to the overall budget neutrality limit and the Safety Net Care Pool (SNCP) limits described in section VIII of the STCs. This chart shall be updated pursuant to the process described in STC 74.

Chart A: Approved SNCP Payments for the period from July 1, 2017 through June 30, 2022, unless otherwise specified in STCs 50 and 51 (projected and rounded in millions).

6	Special Population State-Owned Non-Acute Hospitals Operated by the Department of Public Health	DSH		Shattuck Hospital Tewksbury Hospital Massachusetts Hospital School Western Massachusetts Hospital	\$51.0	\$52.0	\$37.0	\$52.0	\$52.0	\$244.0	(5)
7	State-Owned Non-Acute Hospitals Operated by the Department of Mental Health	DSH		Cape Cod and Islands Mental Health Center Corrigan Mental Health Center Quincy Mental Health Center SC Fuller Mental Health Center Taunton State Hospital Worcester Recovery Center and Hospital	\$105.0	\$107.0	\$32.0	\$107.0	\$107.0	\$458.0	(5)
8	Safety Net Provider Payments	DSH		Eligible hospitals outlined in Attachment N	\$180.0	\$177.0	\$266.0	\$176.0	\$174.0	\$973.0	(8)
	<i>Disproportionate Share Hospital (DSH) Pool Subtotal:</i>				<i>\$675.0</i>	<i>\$675.0</i>	<i>\$675.0</i>	<i>\$675.0</i>	<i>\$675.0</i>	<i>\$3,375.0</i>	
	<i>Uncompensated Care (UCC) Pool</i>										

**ATTACHMENT E
SAFETY NET CARE POOL PAYMENTS**

Safety Net Care Pool. The following charts reflect approved payments under Safety Net Care Pool (SNCP) for the period from July 1, 2017 through June 30, 2022, unless otherwise specified in STCs 52 and 53, consistent with and pursuant to section VIII of the STCs, and subject to the overall budget neutrality limit and the Safety Net Care Pool (SNCP) limits described in section VIII of the STCs. This chart shall be updated pursuant to the process described in STC 74.

Chart A: Approved SNCP Payments for the period from July 1, 2017 through June 30, 2022, unless otherwise specified in STCs 52 and 53 (projected and rounded in millions).

9	Health Safety Net Trust Fund Safety Net Care Payment	UCC	101CMR 613.00, 614.00	All acute hospitals and CHCs	\$0.0	\$10.0	\$10.0	\$10.0	\$10.0	\$40.0	(3)
10	Special Population State-Owned Non-Acute Hospitals Operated by the Department of Public Health	UCC		Shattuck Hospital Tewksbury Hospital Massachusetts Hospital School Western Massachusetts Hospital	\$65.0	\$15.0	\$15.0	\$15.0	\$15.0	\$125.0	(5)
11	State-Owned Non-Acute Hospitals Operated by the Department of Mental Health	UCC		Cape Cod and Islands Mental Health Center Corrigan Mental Health Center Quincy Mental Health Center SC Fuller Mental Health Center Taunton State Hospital Worcester Recovery Center and Hospital	\$147.0	\$75.0	\$75.0	\$75.0	\$75.0	\$447.0	(5)
	Uncompensated Care (UCC) Pool Subtotal:				\$212.0	\$100.0	\$100.0	\$100.0	\$100.0	\$612.0	
	ConnectorCare Subsidies										

**ATTACHMENT E
SAFETY NET CARE POOL PAYMENTS**

Safety Net Care Pool. The following charts reflect approved payments under Safety Net Care Pool (SNCP) for the period from July 1, 2017 through June 30, 2022, unless otherwise specified in STCs 52 and 53, consistent with and pursuant to section VIII of the STCs, and subject to the overall budget neutrality limit and the Safety Net Care Pool (SNCP) limits described in section VIII of the STCs. This chart shall be updated pursuant to the process described in STC 74.

Chart A: Approved SNCP Payments for the period from July 1, 2017 through June 30, 2022, unless otherwise specified in STCs 50 and 51 (projected and rounded in millions).

12	DSHP – Health Connector Subsidies	n/a		n/a	\$250.0	\$250.0	\$250.0	\$250.0	\$250.0	\$1,250.0	(6)
	<i>DSHP – Health Connector Subtotal</i>				<i>\$250.0</i>	<i>\$250.0</i>	<i>\$250.0</i>	<i>\$250.0</i>	<i>\$250.0</i>	<i>\$1,250.0</i>	
	Total				\$1,871.0	\$1,693.0	\$1,545.0	\$1,450.0	\$1,350.0	\$7,909.0	

*Under section 1902(a)(13)(A)(iv) of the Social Security Act, states are required to make payments that take into account the situation of disproportionate share hospital (DSH) providers. As part of this Demonstration project, CMS has waived the requirements of section 1902(a)(13) and has provided in the STCs that Massachusetts will not make such DSH payments but instead will make provider support payments under the SNCP.

The following notes are incorporated by reference into Chart A

- (1) The Delivery System Reform Incentive Payments will be distributed to participating ACOs, CPs and for other approved uses pursuant to STC 57 through STC 71 and the DSRIP Protocol.
- (2) The provider-specific Public Service Hospital Safety Net Care payments are approved by CMS. Annual payments are for dates of service beginning July 1 and ending June 30 for each fiscal year. The Commonwealth may decrease these payment amounts based on available funding without a demonstration amendment; any increase will require a demonstration amendment.
- (3) Health Safety Net Trust Fund (HSNTF) Safety Net Care Payments are made based on adjudicated claims, and approved by CMS on an aggregate basis. Annual payments are for dates of service beginning July 1 and ending June 30 for each fiscal year. Consequently, actual total and provider- specific payment amounts may vary depending on volume, service mix, rates, and available funding. Only payments for care provided to eligible uninsured patients may be claimed in line 9, under the UC Pool. Expenditures for dental services that wrap to the MassHealth State plan benefit through the HSNTF are inclusive of amounts included in capitation payments to One Care plans for One Care enrollees for dental services beyond those available in the MassHealth State plan.
- (4) IMD claiming is based on adjudicated claims, and approved by CMS on an aggregate basis. Consequently, actual total and provider-specific payment amounts may vary depending on volume, service mix, rates, and available funding. Three payment types make up the IMD category: inpatient services at psychiatric inpatient hospitals, administrative days, and inpatient services at community-based

Demonstration Approval Period: July 1, 2017 through June 30, 2022

ATTACHMENT E
SAFETY NET CARE POOL PAYMENTS

detoxification centers.

Safety Net Care Pool. The following charts reflect approved payments under Safety Net Care Pool (SNCP) for the period from July 1, 2017 through June 30, 2022, unless otherwise specified in STCs 52 and 53, consistent with and pursuant to section VIII of the STCs, and subject to the overall budget neutrality limit and the Safety Net Care Pool (SNCP) limits described in section VIII of the STCs. This chart shall be updated pursuant to the process described in STC 74.

Chart A: Approved SNCP Payments for the period from July 1, 2017 through June 30, 2022, unless otherwise specified in STCs 52 and 53 (projected and rounded in millions).

- (5) Expenditures for DPH and DMH hospitals in Chart A are based on unreimbursed Medicaid and uninsured costs, and are approved by CMS on an aggregate basis. Annual payments are for dates of service beginning July 1 and ending June 30 for each fiscal year. Consequently, the total and provider-specific amounts expended may vary depending on volume, service mix, and cost growth. Only uninsured costs may be claimed in lines 10-11 under the UC Pool.
- (6) Expenditures for DSHP - Health Connector Premium and Cost Sharing Subsidies are approved based on actual enrollment and premium assistance and cost sharing subsidy costs, and HSN Health Connector gap coverage subsidies are approved based on actual enrollment and gap coverage costs. Consequently, the amount of total expenditures may vary. Health Connector Subsidies are not subject to the aggregate SNCP cap or any sub-cap.
- (7) Expenditures for State-Owned Non-Acute Hospitals Operated by the Department of Mental Health are inclusive of amounts included in capitation payments to One Care enrollees ages 21 and over for payments to the facilities listed in item #5.
- (8) The \$90 million in Safety Net Provider Payments (SNPPs) distributed during the COVID-19 emergency (SFY20) will not be subject to the accountability requirements otherwise required for SNPPs as described in STC 54. The \$90 million is to ensure the sustainability of these safety net hospitals who are providing necessary services during the public health emergency.

**ATTACHMENT E
SAFETY NET CARE POOL PAYMENTS**

CHART B

Safety Net Care Pool. The following charts reflect approved payments under Safety Net Care Pool (SNCP) for the date of the approval letter through June 30, 2022, unless otherwise specified in STCs 52 and 53, consistent with and pursuant to section VIII of the STCs, and subject to the overall budget neutrality limit and the Safety Net Care Pool (SNCP) limits described in section VIII of the STCs. This chart shall be updated pursuant to the process described in STC 74.

Chart B: Sources of Funding for Approved SNCP payments for the period from the date of the approval letter through June 30, 2022, unless otherwise specified in STCs 52 and 53 (projected and rounded).

#	Payment Type	Applicable Caps	State law or regulation	Eligible Providers	Total SNCP Payments per SFY					Total SFY 2018-2022	Source of non-federal share
					SFY 2018	SFY 2019	SFY 2020	SFY 2021	SFY 2022		
<i>System Transformation Incentive Based Pools</i>											
1	Delivery System Reform Incentive Payments (DSRIP)	n/a		Participating ACOs, CPs and other uses as specified in STC 57 and STC 60.	\$425.0	\$425.0	\$400.0	\$325.0	\$225.0	\$1,800.0	General Fund, including provider assessment funding in the DSRIP Trust Fund
2	Public Hospital Transformation and Incentive Initiatives (PHTII)	n/a		Cambridge Health Alliance	\$309.0	\$243.0	\$120.0	\$100.0	\$100.0	\$872.0	Inter-Governmental Transfer
<i>System Transformation Incentive Based Pools Subtotal</i>					<i>\$734.0</i>	<i>\$668.0</i>	<i>\$520.0</i>	<i>\$425.0</i>	<i>\$325.0</i>	<i>\$2,672.0</i>	
<i>Disproportionate Share Hospital (DSH) Pool</i>											

Demonstration Approval Period: July 1, 2017 through June 30, 2022

ATTACHMENT E
SAFETY NET CARE POOL PAYMENTS

Safety Net Care Pool. The following charts reflect approved payments under Safety Net Care Pool (SNCP) for the date of the approval letter through June 30, 2022, unless otherwise specified in STCs 52 and 53, consistent with and pursuant to section VIII of the STCs, and subject to the overall budget neutrality limit and the Safety Net Care Pool (SNCP) limits described in section VIII of the STCs. This chart shall be updated pursuant to the process described in STC 74.

Chart B: Sources of Funding for Approved SNCP payments for the period from the date of the approval letter through June 30, 2022, unless otherwise specified in STCs 52 and 53 (projected and rounded).

3	Public Service Hospital Safety Net Care Payment	DSH		Boston Medical Center	\$20.0	\$20.0	\$20.0	\$20.0	\$20.0	\$100.0	General Fund
4	Health Safety Net Trust Fund Safety Net Care Payment	DSH	101CMR 613.00, 614.00	All acute hospitals and CHCs	\$287.0	\$287.0	\$288.0	\$288.0	\$290.0	\$1,440.0	General Fund, including provider assessment funding in the Health Safety Net Trust Fund
5	Institutions for Mental Disease (IMD)	DSH	130 CMR 425.408, 101CMR 346.004	Psychiatric inpatient hospitals Community-based detoxification centers	\$32.0	\$32.0	\$32.0	\$32.0	\$32.0	\$160.0	Certified Public Expenditure and General Fund
6	Special Population State-Owned Non-Acute Hospitals	DSH		Shattuck Hospital Tewksbury Hospital Massachusetts	\$51.0	\$52.0	\$37.0	\$52.0	\$52.0	\$244.0	Certified Public Expenditure

**ATTACHMENT E
SAFETY NET CARE POOL PAYMENTS**

Safety Net Care Pool. The following charts reflect approved payments under Safety Net Care Pool (SNCP) for the date of the approval letter through June 30, 2022, unless otherwise specified in STCs 52 and 53, consistent with and pursuant to section VIII of the STCs, and subject to the overall budget neutrality limit and the Safety Net Care Pool (SNCP) limits described in section VIII of the STCs. This chart shall be updated pursuant to the process described in STC 74.

Chart B: Sources of Funding for Approved SNCP payments for the period from the date of the approval letter through June 30, 2022, unless otherwise specified in STCs 52 and 53 (projected and rounded)

	Operated by the Department of Public Health			Hospital School Western Massachusetts Hospital							
7	State-Owned Non-Acute Hospitals Operated by the Department of Mental Health	DSH		Cape Cod and Islands Mental Health Center Corrigan Mental Health Center Quincy Mental Health Center Fuller Mental Health Center Taunton State Hospital	\$105.0	\$107.0	\$32.0	\$107.0	\$107.0	\$458.0	Certified Public Expenditure

**ATTACHMENT E
SAFETY NET CARE POOL PAYMENTS**

Safety Net Care Pool. The following charts reflect approved payments under Safety Net Care Pool (SNCP) for the date of the approval letter through June 30, 2022, unless otherwise specified in STCs 52 and 53, consistent with and pursuant to section VIII of the STCs, and subject to the overall budget neutrality limit and the Safety Net Care Pool (SNCP) limits described in section VIII of the STCs. This chart shall be updated pursuant to the process described in STC 74.

Chart B: Sources of Funding for Approved SNCP payments for the period from the date of the approval letter through June 30, 2022, unless otherwise specified in STCs 52 and 53 (projected and rounded)

				Worcester Recovery Center and							
8	Safety Net Provider Payments	DSH		Eligible hospitals outlined in Attachment N	\$180.0	\$177.0	\$266.0	\$176.0	\$174.0	\$973.0	General Fund
	Disproportionate Share Hospital (DSH) Pool Subtotal:				\$675.0	\$675.0	\$675.0	\$675.0	\$675.0	\$3,375.0	
	Uncompensated Care (UCC) Pool										
9	Health Safety Net Trust Fund Safety Net Care Payment	UCC	101CMR 613.00, 614.00	All acute hospitals and CHCs	\$0.0	\$10.0	\$10.0	\$10.0	\$10.0	\$40.0	General Fund, including provider assessment funding transferred to the HSN Trust Fund
10	Special Population State-Owned Non-Acute Hospitals Operated by the Department	UCC		Shattuck Hospital Tewksbury Hospital Massachusetts Hospital School Western	\$65.0	\$15.0	\$15.0	\$15.0	\$15.0	\$125.0	Certified Public Expenditure

**ATTACHMENT E
SAFETY NET CARE POOL PAYMENTS**

Safety Net Care Pool. The following charts reflect approved payments under Safety Net Care Pool (SNCP) for the date of the approval letter through June 30, 2022, unless otherwise specified in STCs 52 and 53, consistent with and pursuant to section VIII of the STCs, and subject to the overall budget neutrality limit and the Safety Net Care Pool (SNCP) limits described in section VIII of the STCs. This chart shall be updated pursuant to the process described in STC 74.

Chart B: Sources of Funding for Approved SNCP payments for the period from the date of the approval letter through June 30, 2022, unless otherwise specified in STCs 52 and 53 (projected and rounded)

	of Public Health			Massachusetts Hospital							
11	State-Owned Non-Acute Hospitals Operated by the Department of Mental Health	UCC		Cape Cod and Islands Mental Health Center Corrigan Mental Health Center Quincy Mental Health Center Center SC Fuller Mental Health Center Taunton State Hospital Worcester Recovery Center and	\$147.0	\$75.0	\$75.0	\$75.0	\$75.0	\$447.0	Certified Public Expenditure

**ATTACHMENT E
SAFETY NET CARE POOL PAYMENTS**

Safety Net Care Pool. The following charts reflect approved payments under Safety Net Care Pool (SNCP) for the date of the approval letter through June 30, 2022, unless otherwise specified in STCs 52 and 53, consistent with and pursuant to section VIII of the STCs, and subject to the overall budget neutrality limit and the Safety Net Care Pool (SNCP) limits described in section VIII of the STCs. This chart shall be updated pursuant to the process described in STC 74.

Chart B: Sources of Funding for Approved SNCP payments for the period from the date of the approval letter through June 30, 2022, unless otherwise specified in STCs 52 and 53 (projected and round

	<i>Uncompensated Care (UCC) Pool Subtotal</i>				<i>\$212.0</i>	<i>\$100.0</i>	<i>\$100.0</i>	<i>\$100.0</i>	<i>\$100.0</i>	<i>\$612.0</i>	
	<i>ConnectorCare Subsidies</i>										
12	DSHP – Health Connect or Premium and Cost Sharing	n/a		n/a	\$250.0	\$250.0	\$250.0	\$250.0	\$250.0	\$1,250.0	Certified Public Expenditure and General Fund, including provider assessment funding in the Health Safety Net Trust Fund
	<i>DSHP – Health Connector Subtotal</i>				<i>\$250.0</i>	<i>\$250.0</i>	<i>\$250.0</i>	<i>\$250.0</i>	<i>\$250.0</i>	<i>\$1250.0</i>	
	Total				\$1,871.0	\$1,693.0	\$1,545.0	\$1,450.0	\$1,350.0	\$7,909.0	
<p>*Under section 1902(a)(13)(A)(iv) of the Social Security Act, states are required to make payments that take into account the situation of disproportionate share hospital (DSH) providers. As part of this Demonstration project, CMS has waived the requirements of section 1902(a)(13) and has provided in the STCs that Massachusetts will not make such DSH payments but instead will make provider support payments under the SNCP.</p>											

**ATTACHMENT E
SAFETY NET CARE POOL
PAYMENTS**

Designated State Health Programs (DSHP). The following programs are authorized for claiming as DSHP, subject to the overall budget neutrality limit. No demonstration amendment is required for CMS approval of updates to Chart C of Attachment E to include additional DSHP programs. This chart shall be updated pursuant to the process described in STC 74.

Chart C: Approved Designated State Health Programs (DSHP)

These DSHPs are not subject to the overall SNCP cap.

Agency	Program Name
Health Connector	Health Connector Premium Assistance and Cost Sharing Subsidies, and HSN- Health Connector Gap Coverage Subsidies

INTRODUCTION

The Pediatric Asthma Pilot Program will utilize an integrated delivery system for preventive and treatment services through methodologies that may include a payment such as a per member/per month (PMPM) payment to participating providers for asthma-related services, equipment and supports for management of pediatric asthma for high-risk patients, to improve health outcomes, reduce asthma-related emergency department utilization and asthma-related hospitalizations, and to reduce associated Medicaid costs. These methodologies are subject to CMS approval of this pilot program protocol.

This protocol describes Phase 1 of the Pediatric Asthma Pilot Program. In accordance with STC 39(e), the Commonwealth will not expand the pilot program or implement a Phase 2 until after Phase 1 has been implemented, evaluated, and CMS has issued its approval of an expansion or Phase 2. The Commonwealth must operate Phase 1 of the demonstration for at least one (1) full year before beginning to evaluate the pilot program (see STC Protocol Requirements 8 below for additional information regarding the timing of the evaluation of Phase 1). Phase 1 may last for up to three years to ensure a seamless transition to Phase 2, if approved by CMS.

In accordance with STC 39(g) “Required Protocols Prior to Claiming Federal Financial Participation (FFP)”, this protocol describes how the Commonwealth plans to meet the milestones required before enrolling beneficiaries and claiming FFP under this pilot program.

To develop these protocols, the Commonwealth established an internal program design team, which includes three physicians, a nurse, a pharmacist, several policy experts, data analysts, and a legal counsel. MassHealth also convened an external Advisory Committee with 20 members, each of whom has expertise in treating high-risk pediatric asthma patients, designing and implementing clinical programs to prevent and manage high-risk pediatric asthma, and/or designing and implementing global or bundled payment structures. Advisory Committee members include physicians, nurses, pharmacists, researchers, representatives of professional organizations, and health care administrators.

This section sets forth the Commonwealth’s proposal for establishing eligibility criteria for member participation in the pilot and the process for enrolling members in the pilot. Because the proposed intervention is intensive, it can only be implemented in a cost neutral way if it is targeted to the patients who are most likely to require hospital treatment for asthma in the absence of intervention. In order to target these children, the advisory committee recommended restricting eligibility to members with poorly controlled asthma, as described in section A.6. below.

The advisory committee also recommended enabling Participating Practices to enroll eligible members into the pilot through the process described in section B below, in order to enroll eligible members at the time that they most need the intervention. Participating practices may have documentation supporting a member’s eligibility that is not available or not yet available through MassHealth claims data. For example, a member may have been hospitalized for asthma prior to his or her enrollment in MassHealth.

- A. **Eligibility.** Patients who meet the criteria in section A1 through 6 below may be enrolled in the Children’s High-Risk Asthma Bundled Payment Pilot (CHABP) as CHABP Enrollees:
1. Are between the ages of 2 and 18 years at the time of CHABP enrollment;
 2. Are a MassHealth member;

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3. Are enrolled in the MassHealth Primary Care Clinician (PCC) plan , as described in STC 41a, and on the PCC panel of the participating practice, as identified by its provider identification and service location number (PID/SL);
4. Have a clinical diagnosis of asthma;
5. Meet the clinical criteria for high-risk asthma, as demonstrated by meeting at least one of the following criteria within the 12 months prior to the date of CHABP enrollment:
 - a. Inpatient hospital admission for asthma;
 - b. Hospital observation stay for asthma;
 - c. Hospital emergency department visit for asthma; or
 - d. Oral systemic corticosteroid prescription for asthma; and,
6. Have poorly controlled asthma, as evidenced by a score of 19 or lower on Quality Metric's asthma control test (ACT) (see attachment A) at least twice within any 2 month period in the 12 months prior to the date of enrollment, based on responses by the patient if the patient is at least 12 years old or else by the patient's caregiver. The ACT may be completed in person or by telephone.

B. Enrollment Process. Patients who meet the eligibility criteria described in section A will be enrolled in the CHAPB through one of the following two pathways.

1. Members identified by MassHealth:
 - a. The Executive Office of Health and Human Services (EOHHS) will, within 10 working days of the contract start-date and every 90 calendar days thereafter, give the participating practice a list of the members on the participating practice's PCC panel who, based on MassHealth claims data, meet the clinical criteria for high-risk asthma set forth in section A.1 through A.5 above.
 - b. The participating practice must make and document its best efforts to schedule each eligible member in its practice for an office visit within 90 days of the date of the list described in paragraph 1.
 - c. At the office visit described in paragraph 2, the participating practice must assess each member on the list described in paragraph 1 above for poorly controlled asthma in accordance with section A.6 above and list members who meet all eligibility criteria specified in section A on the patient enrollment report (see attachment B). The practice must report to the state on the patient enrollment report the reason for not enrolling any member on the list.
2. Members identified by the participating practice.

The participating practice may also enroll on its panel PCC plan members who meet all eligibility criteria (listed in section A), but were not included on the list described in paragraph 1 above, by documenting their eligibility for the CHABP using the patient

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enrollment report. EOHHS will verify Member eligibility using MassHealth eligibility and claims data, to the extent it is available.

3. The participating practice must submit an initial patient enrollment report within 75 days of the contract start-date. The participating practice may submit changes to this enrollment report by the second Friday of each month for enrollment in the CHABP for the following month. Enrollment is effective as of the first of the month following submission of the enrollment report.
4. The participating practice must send a letter, approved by EOHHS, notifying each PCC plan member enrolled in the CHABP of the CHABP and the services available through the CHABP.

C. Disenrollment

1. A parent or guardian who does not wish their child to receive services through the CHABP may notify the Participating Practice in writing and request to be disenrolled from the CHABP. If the Participating Practice receives such a request, it will report the Member as “disenrolled” on the next Patient Enrollment Report it files.
2. Members who, according to the monthly enrollment roster available through the MassHealth provider online service center (POSC), (1) lose MassHealth coverage, (2) are disenrolled from the PCC plan, or (3) are enrolled with a different PCC site location, will be simultaneously disenrolled from the CHABP. If a member is disenrolled for one of these reasons and the member subsequently is (1) re-enrolled in MassHealth, and (2) re-enrolled in the PCC plan, and (3) reenrolled with the previous participating practice PCC site location, then the participating practice must re-enroll the member in the CHABP; in this case prior eligibility for the CHABP will serve as sufficient documentation of eligibility on the patient enrollment report.
3. Members will be not be disenrolled during Phase 1 of the CHABP, as further described below, for turning age 18 after being enrolled in the CHABP, nor for failing to continue to meet the clinical criteria for high-risk asthma described in section A.1 through A.5, nor for having an ACT test that fails to meet the criterion in section A.6 above, nor for any reason other than those listed in C.1 and C.2 above.

STC PROTOCOL REQUIREMENTS

1. A description and listing of the program specific asthma-related benefit package that will be provided to the pilot participants.

A. Traditional MassHealth Covered Services

The Participating Practice will continue to provide or arrange for all medically necessary services for the effective treatment and management of pediatric asthma for Children’s High-risk Asthma Bundled Payment Demonstration Program (CHABP) enrollees, in addition to providing required CHABP services (listed in section B) and contingent CHABP services (listed in section C). The participating practice must monitor and manage high-risk asthma services for CHABP enrollees according to their needs and based on national asthma guidelines contained in expert panel report 3 (EPR 3): “Guidelines for the diagnosis and management of asthma” (see <http://www.nhlbi.nih.gov/guidelines/asthma/asthgdln.htm>², as those guidelines may be periodically updated). The participating practice may bill MassHealth for any such medically necessary traditional MassHealth covered services it provides on a fee-for-service basis. Payment for traditional MassHealth covered services is *not* included in the Phase 1 bundled payment.

In particular, the participating practice must:

1. Assess the member’s PCC plan enrollment status at each visit.
2. Assess and monitor asthma control, impairment, and risk, and classify asthma as described in EPR 3, as part of a physician office visit;
3. Administer the asthma control test (ACT) at every well-child and asthma-related visit;
4. Provide or arrange for all medically necessary MassHealth-covered services for the effective treatment and management of pediatric asthma;
5. Ensure that the CHABP Enrollee has a written asthma action plan, in a patient-friendly format, listing the enrollee’s primary care provider’s and parents’ contact information, triggers that exacerbate the CHABP enrollee's symptoms, symptoms to watch for, the names and doses of medications the CHABP Enrollee needs and when to use them, and instructions on when to call the primary care provider and when to see a doctor immediately. The primary care provider must review the asthma action plan at least annually and update it as necessary;
6. Provide asthma self-management education to the CHABP Enrollee and family in the office, including education on the asthma action plan;

² Accessed as of February 1, 2012

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7. Provide or arrange for the CHABP enrollee to receive an inactivated flu vaccine when seasonally appropriate;
8. Provide care coordination by a case manager or clinician, to help CHABP enrollees access needed health care and community-based services, such as: allergen testing, flu vaccines, dietary modifications, smoking cessation services, and services needed for other physical and behavioral health conditions that affect the child's asthma; and,
9. Provide clinical care management of multiple co-morbidities by a licensed clinician, including communication with all clinicians treating the patient, as well as medication review, reconciliation and adjustment.

B. Required CHABP Services

For each CHABP enrollee, the participating practice must:

1. At least once per month, review available data for each CHABP Enrollee to identify the need for follow-up. This review shall include:
 - a. Identifying Enrollees who are due for an office visit, phone call, or other service; and
 - b. Identifying cases for review and discussion by the Interdisciplinary Care Team. The ICT shall at minimum review cases for Enrollees:
 - i. who had an unscheduled office visit, emergency department visit, observation stay and/or inpatient admission for asthma;
 - ii. whose most recent ACT score was 19 or lower; or
 - c. who were recommended for review by a clinician or a member of the ICT.
2. Contact families of CHABP enrollees within three months of enrollment and at least once every six months thereafter:
 - a. To schedule office visits. The participating practice must make every effort to ensure each CHABP enrollee has an office visit within three months of enrollment into the CHABP and at least once every six months thereafter. The participating practice must help families, as needed, to arrange transportation and to avoid missing appointments and document this assistance in the CHABP enrollee's record; and,
 - b. To administer the Asthma Control Test (ACT), as well as the following two additional questions:

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- 1) During the past 4 weeks, how many days of school/daycare/summer program did the CHABP Enrollee miss because of his/her asthma?
- 2) During the past 4 weeks, how many days was a CHABP Enrollee's caregiver unable to work or carry out usual activities because of the Enrollee's asthma?
3. Offer and encourage families of CHABP enrollees to accept a home visit by a community health worker (CHW) or nurse to provide supplemental family education and conduct an initial environmental assessment to identify potential asthma triggers in the home; if a family declines a home visit, then the participating practice must offer supplemental family education and care coordination in the office or by telephone and document this in the CHABP enrollee's record;
4. Request permission from the CHABP enrollee's parent or guardian to contact the CHABP enrollee's school and any childcare provider. With written permission, the Participating Practice must share the CHABP Enrollee's Asthma Action Plan with the school and childcare provider and offer to explain the plan; and,
5. Contact families of CHABP Enrollees each August, either by phone or during an pre-scheduled office visit as needed, in order to:
 - a. Review medications that the CHABP Enrollee currently takes or may need to re-start after the summer; and,
 - b. Request updated school and childcare contact information and, with permission, share the CHABP Enrollee's Asthma Action Plan with new school and childcare personnel.

C. CHABP Services to be provided on an as needed basis

The participating practice must effectively manage their use of CHABP funds to meet individual CHABP enrollees' and families' needs in addition to the minimum requirements listed in section B above. The participating practice must provide additional services and supplies, based on the enrollee's assessed needs, which include, but are not limited to the following:

1. Additional home visits by a CHW or nurse to provide supplemental family education and a full home environmental assessment to identify and document the presence of environmental asthma triggers in the home;
2. Supplies to mitigate environmental triggers, such as hypoallergenic mattress and pillow covers, vacuums, HEPA filters, air conditioner units, and pest management supplies and services, as well as training by a CHW to use these supplies correctly;

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3. Support by CHWs for families' advocacy with landlords and property managers to promote healthy environmental conditions in the home;
4. Care coordination, provided by a CHW, as a supplement to traditional care coordination provided by a case manager or clinician, to help CHABP enrollees and their caregivers access needed health care and community-based services, such as: allergen testing, flu vaccines, dietary modifications, smoking cessation services, and services needed for other physical and behavioral health conditions that affect the child's asthma; and,
6. Contacting families of CHABP Enrollees each May, either by phone or during an office visit, in order to:
 - a. Review medications that the CHABP enrollee currently takes and adjust as necessary for the summer; and,
 - b. Request contact information for any summer programs that the CHABP enrollee may be enrolled in and, with permission, share the CHABP enrollee's asthma action plan with new school and childcare personnel. Clinical data indicates that many patients experience improvement in asthma symptoms during the summer; Participating Practices should focus their efforts to coordinate with summer programs on CHABP enrollees who have not demonstrated such improvement.
7. Delivering an Enrollee's prescribed medications to a school or childcare, along with the Enrollee's Asthma Action Plan, with written consent from a parent or guardian.

2. Rationale for the inclusion of each benefit in the asthma-related benefit package that will be provided to the pilot participants

The CHABP is intended to allow primary care practitioners to use a variety of evidence-based innovations in care delivery and decision-making to control asthma in children and adolescents at high risk of serious complications or death in a culturally competent and clinically relevant manner.

The recommendations of this benefit package are based on the structure provided in the latest report of the National Heart, Lung, and Blood Institute's National Asthma Education and Prevention Program (NAEPP) Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma (2007)ⁱ, but with evidence-based content designed to accommodate new and emerging best practices in the field.

The NAEPP Guidelines structures asthma management into four components:

- (1) Measures of Asthma Assessment and Monitoring;
- (2) Education for a Partnership in Asthma Care;
- (3) Control of Environmental Factors and Co-morbid Conditions That Affect Asthma; and,
- (4) Medications.

Traditional care for asthma generally focuses on medication and education in the office setting. Phase 1 of the pilot covers currently unreimbursed services, allowing flexible use of funds to support community-based interventions. According to the NAEPP guideline, individual interventions alone are often ineffective unless they are part of a comprehensive and holistic approach to medical care. Transportation, money, and time limit traditional asthma education programs set in clinic or school settings and often cause difficulty attracting and retaining participantsⁱⁱ. The benefit package review will thus largely focus on home and community-based interventions for improved asthma outcomes.

Healthy People 2020 outlines select goals and objectives related to home interventions with an environmental focus to reduce asthma morbidity.ⁱⁱⁱ

ⁱNational Heart, Lung, and Blood Institute's National Asthma Education and Prevention Program Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma
<http://www.nhlbi.nih.gov/guidelines/asthma/asthgdln.htm>

ⁱⁱ Krieger J, Takaro T, Song L, Beaudet N, Edwards K. A randomized controlled trial of asthma self-management support comparing clinic-based nurses and in-home community health workers: the Seattle-King County Healthy Homes II Project. Arch Pediatr Adolesc Med 2009;163(2):141-9.

ⁱⁱⁱ From HealthyPeople 2020:
<http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=36>

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Table 1: Select HealthyPeople 2020 Objectives relating to environmental strategies to reduce asthma morbidity	
Objective Description	
EH-13	Reduce indoor allergen levels
RD-1	Reduce asthma deaths
RD-2	Reduce hospitalizations for asthma
RD-3	Reduce hospital emergency department visits for asthma
RD-4	Reduce activity limitations among persons with current asthma
RD-5	Reduce the proportion of persons with asthma who miss school or work days
RD-6	Increase the proportion of persons with current asthma who receive formal patient education
RD-7	Increase the proportion of persons with current asthma who receive appropriate asthma care according to National Asthma Education and Prevention Program (NAEPP) guidelines

Potential CHABP Evidence-based Interventions

Recommendations from numerous advisory groups concur that a comprehensive, multi-faceted approach to asthma management is necessary.

Table 2: Advisory group recommendations regarding a comprehensive approach to asthma management	
Publication & Advisory Group	Findings
<i>Guidelines for the Diagnosis and Management of Asthma</i> The National Asthma Education and Prevention Program (NAEPP) Expert Panel Report 2007	This report states that patients who have asthma at any level of severity should reduce, if possible, exposure to allergens to which the patient is sensitized and exposed, and that effective allergen avoidance requires a multifaceted, comprehensive approach; individual steps alone are generally ineffective.
<i>Characteristics of successful asthma programs: Asthma Health Outcomes Project^{iv} (AHOP)</i> U.S. Environmental Protection Agency	Presents quantitative and qualitative data on 223 asthma programs throughout the world that include at least one environmental component. The report findings indicated that programs were more likely to report a positive impact on health outcomes if they (1) were community based, (2) engaged the participation of community-based organizations, (3) provided program components in a clinical setting, (4) provided asthma training to health-care providers, (5) collaborated with other organizations and institutions and with government agencies, (6) designed a program for a specific racial/ethnic group, (7) tailored

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<p>2009</p>	<p>content or delivery based on individual health or educational needs, and (8) conducted environmental assessments and tailored interventions based on these assessments.</p>
<p><i>Global Strategy for Asthma Management and Prevention</i>^v</p> <p>Global Initiative for Asthma (GINA)</p> <p><i>Updated 2011</i></p>	<p>GINA works with health care professionals and public health officials around the world to reduce asthma prevalence, morbidity, and mortality. The organization published asthma guidelines that state “. . . among inner-city children with atopic asthma, an individualized home-based, comprehensive environmental intervention decreased exposure to indoor allergens and resulted in reduced asthma-associated morbidity.”</p>
<p><i>Housing Interventions and Health: a Review of the Evidence</i></p> <p>National Center for Healthy Housing & CDC</p> <p>2007</p>	<p>Published the conclusions of an expert panel convened by the National Center for Healthy Housing and the CDC in December 2007 to weigh the strength of a variety of housing interventions. Home-based environmental interventions to reduce asthma triggers were among the interventions discussed. After reviewing the evidence, the panel found that interventions such as multifaceted, tailored, home-based environmental interventions and integrated pest management for asthma were effective and appropriate for implementation.</p>
<p><i>Effectiveness of Home-Based, Multi-Trigger, Multi-component Interventions with an Environmental Focus for Reducing Asthma Morbidity: A Community Guide Systematic Review</i></p> <p>Taskforce on Community Preventive Services: A collaboration between USDHHS and CDC with public and private partners</p> <p>2011</p>	<p>The Task Force recommends the use of home-based, multi-trigger, multi-component interventions with an environmental focus for children and adolescents with asthma, on the basis of strong evidence of effectiveness in reducing symptom-days, improving quality of life scores or symptom scores, and reducing the number of school days missed. The evidence was considered strong on the basis of findings from 23 studies in the effectiveness review.</p>

Home Environment Strategy: Decrease Triggers & Housing Resources

Exposure to allergens and irritants within the home can trigger or exacerbate episodes of asthma. The most common asthma triggers within the home include allergens from house dust mites, pets, cockroaches, rodents, and mold as well as irritants such as environmental tobacco smoke (ETS) and indoor air pollutants. Targeting these triggers can decrease the number and severity of asthma exacerbations. Poor housing quality has been shown to be strongly associated with poor asthma control even after controlling for potentially confounding factors such as income, smoking, overcrowding, and unemployment^{vi}. Moisture from leaky plumbing, high humidity, and cracks in floors and walls can contribute to mold growth; provide water for cockroaches, mice, and dust mites; and provide avenues

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through which cockroaches and mice can enter the home.

INTERVENTION: CHABP will address the environmental asthma triggers through an environmental assessment of the home by a specially trained community health worker (CHW). Based on the results of the home assessment, a determination of an appropriate mitigation plan would be developed. Supplies that could contribute to asthma control include HEPA vacuums, air conditioning units, allergenic covers would be available to qualifying households based on specific triggers, patient sensitization, and need. CHWs will also be trained to support families' advocacy with landlords and property managers to promote healthy environmental conditions in the home; CHWs can educate families as to landlords' legal responsibilities for maintaining their property and help families to articulate requests for corrective action.

Home-based Education Strategy:

The NAEPP recommends asthma self-management education at multiple points of care. There is evidence that using multiple approaches to address environmental triggers, specifically approaches that use both education and remediation, could be more effective than interventions that use either alone^{vii}.

INTERVENTION: The CHABP pilot would provide funding for CHWs who have specialized training in asthma and environmental mitigation to the high risk asthma patients and their families. The cost effectiveness of CHWs for asthma education has been established in numerous settings.^{viii,ix,x,xi} The CHW training will result from a collaboration with DPH and community partners and includes a core competency training as well as additional asthma environmental mitigation training.

The education that could be supplemented by the CHW assessment and follow-up include the following:

- asthma education for caregivers
- self-management skills to promote control
- allergen control interventions
- tobacco cessation and/or avoidance for household members
- asthma action plan review
- advocacy training around housing rights

Importantly, the education is to be tailored to patient and caregiver level of literacy, will test understanding, and will be provided in a culturally and linguistically competent manner.

Office-based Strategy

In addition to the normal standard of care provided in the office setting, the CHABP is designed to allow practices the flexibility to enhance a care coordination strategy for the high risk patients identified by training CHWs to provide care coordination services for both CHABP enrollees and their caregivers. CHABP establishes a mechanism for linking office and home-based strategies for valuable information regarding the home environment, reinforcement of asthma management education concepts, and feedback to the practices regarding the patient's control. The office would also be able to offer other significant benefits to appropriate families including supplies to mitigate environmental triggers (as mentioned above) to households that qualify. The goal is to decrease asthma exacerbations and improve function by providing enhanced services that yield more timely and actionable information to prevent costly asthma exacerbations and best serve the needs of the child.

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3. Eligibility, qualifications and selection criteria for participating providers, including the RFP for preapproval;

The following eligibility, qualification, and selection criteria will be used to assess provider applications for the CHABP program, and will be reflected in procurement documents. EOHHS may also consider any relevant information about the practice known to EOHHS.

A. Minimum Qualifications

To be considered for selection as a participating provider, applicants, in addition to all other requirements specified herein, must:

1. Participate as a PCC in the MassHealth PCC plan;
2. Have a MassHealth PCC plan provider identification and service location number (PID/SL) for the applicant site;
3. Have high-risk asthma patients ages 2-18 enrolled in the PCC panel, as evidenced by MassHealth claims data;
4. Possess secure broadband Internet access; and,
5. Not participate in the MDPH Reducing Ethnic/Racial Asthma Disparities in Youth (READY) study or another initiative that pays for similar services for pediatric patients with high-risk asthma at this practice site location identified by its PID/SL.

B. Participating Practice Evaluation Criteria

1. In order to be considered for participation in the CHABP, an applicant must:
 - i. Demonstrate that it meets the minimum practice qualifications identified in section A;
 - ii. Not receive payment or funding from any other source for services, activities, or expenses that will be funded through the CHABP; and,
 - iii. Submit a complete and timely application.
2. The quality of the responses to the questions in the application will be evaluated in accordance with the following criteria: comprehensiveness, feasibility, appropriateness, clarity, effectiveness, innovation, and responsiveness to the needs of EOHHS and the goals of the CHABP;
3. EOHHS will also evaluate responses from each applicant based on the following criteria:
 - i. The extent to which the practice demonstrates commitment to participate in the CHABP for at least contingent on CMS approval:

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- ii. The number of high-risk asthma patients ages 2 through 18 enrolled in the applicant's PCC plan panel based on MassHealth claims data;
- iii. The extent to which the applicant demonstrates its ability to manage high-risk asthma in a coordinated fashion as demonstrated by the applicant's responses to the questions in the application;
- iv. The extent to which EOHHS determines that the applicant satisfies EOHHS' goals of selecting a group of pediatric primary care practices which, taken together, are diverse in terms of:
 - Practice structure (e.g., solo, group, community health center);
 - Practice affiliation (e.g., independent, hospital-owned);
 - Geographic location;
 - Bilingual and multilingual capability; and,
 - Patient mix, as defined by racial and ethnic composition.

EOHHS may consider any relevant information about the practice known to EOHHS.

C. Contract Requirements for Participating Practice Staffing

The Participating Practice must:

1. Designate a financial/operational project leader. The financial/operational project leader must manage the financial resources required to manage and treat CHABP Enrollees. During Phase 1, the financial/operational project leader will participate in monthly meetings, in person or by phone, with EOHHS-designated staff to discuss development of the Phase 2 Bundled Payment;
2. Designate a clinical project leader for the CHABP demonstration program. The clinical project leader must ensure that each Interdisciplinary Care Team (ICT), as described below, manages CHABP Enrollees' asthma according to their needs, with a goal of preventing asthma-related hospital admissions and emergency department utilization and improving health outcomes. The clinical project leader must be a licensed clinician on staff at the Participating Practice and will act as the clinical director for the CHABP within the Participating Practice;
3. Designate a group of health care professionals within the Participating Practice that must comprise an ICT for each CHABP Enrollee which must collectively provide, coordinate and supervise the provision of asthma care, services and supplies in a continuous, accessible, comprehensive and coordinated manner. The ICT must include, at a minimum, the member's primary care provider, a Community Health Worker (CHW), and the clinical supervisor for the CHW. The ICT must include CHABP Enrollees' specialty providers who offer treatment for asthma, if any, and establish a standard procedure for communicating with specialists;

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4. Employ or contract for the services of at least one full-time or part-time Community Health Worker (CHW) or train an existing staff member to become a CHW (if training an existing staff member, training must be completed prior to the provision of CHABP services). CHWs must be culturally competent in the cultures, and preferably languages, of a Participating Practice's CHABP Enrollees and must:
 - a) Demonstrate their knowledge, skill and ability in the following core competencies:
 - i. Knowledge and identification of environmental asthma triggers;
 - ii. Environmental intervention and treatment;
 - iii. Ability to counsel caregivers and pediatric asthma patients on the reduction of environmental asthma triggers and self-management; and
 - iv. Effective communication and patient follow-up skills;
 - b) Complete a seven (7) day CHW core competency training, sponsored by the Massachusetts Department of Public Health (DPH), an Area Health Education Center (AHEC), or a Massachusetts Community College. The core competency curriculum includes leadership skills, assessment techniques, public health, outreach, cross cultural communication, community organizing, special focus on specific diseases groups and health issues, techniques for connecting families with community services, and techniques for talking about smoking cessation. If the Participating Practice is unable to access the DPH training free of charge, the cost of training will be the responsibility of the Participating Practice;
 - c) Complete a four (4) day asthma mitigation training, sponsored by DPH or provided by the Participating Practice using a curriculum approved by DPH. The asthma mitigation curriculum includes recognizing uncontrolled asthma, how to read an action plan, how to reinforce messages, environmental assessment and mitigation, and a discussion of housing law and tenants rights. If the Participating Practice is unable to access the DPH training free of charge, the Participating Practice will be responsible for training the CHW;
 - d) Complete a two day refresher asthma mitigation and core competency training, sponsored by DPH, each year the practice is participating in the CHABP. If the Participating Practice is unable to access the DPH training free of charge, the Participating Practice will be responsible for the cost of the training for the CHW;
 - e) Participate in quarterly CHW trainings or collaborative learning sessions organized by DPH. If the Participating Practice is unable to access the DPH training free of charge, the Participating Practice will be responsible for the cost of the training for the CHW; and
 - f) Obtain CHW certification through DPH within one year of the date that such certification becomes available.

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5. Assign a clinical supervisor for the CHW. The clinical supervisor may be any clinical member of the Participating Practice who participates in the ICT(s). The clinical supervisor must participate in a half-day training, sponsored by DPH, on how best to utilize the CHW and how to integrate the CHW into the care team.
6. Designate or contract for the services of at least one individual to provide care coordination to help CHABP Enrollees and caregivers access needed health care and community-based services, such as: allergen testing, flu vaccines, dietary modifications, smoking cessation services, and services needed for other physical and behavioral health conditions that affect the child's asthma. Care coordination may be provided by a CHW, case manager, or clinician.
7. Designate or contract for the services of at least one licensed clinician to provide clinical care management of multiple co-morbidities, including communication with all clinicians treating the patient, as well as medication review, reconciliation and adjustment.

D. Preapproval of RFP

The Commonwealth must submit the Request for Proposals (RFP) to the CMS Regional and Central Offices for review and preapproval prior to public release. The RFP must be submitted to CMS for review and preapproval at least 45 business days prior to the expected release date.

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4. **A plan outlining how this pilot may interact with other federal grants, such as for related research (e.g. NIH, HUD, etc.) and programmatic work (e.g. CHIPRA grant related to pediatric health care practices in multi-payer medical homes, etc.). This plan should ensure no duplication of federal funds and outline the state's coordination activities across the various federal support for related programmatic activities to address potential overlap in practice site selection, patient population, etc.**

If a practice participates in the Patient Centered Medical Home Initiative (PCMHI) as a Technical Assistance Plus Practice and participates in the CHABP, the Commonwealth will reduce the CHABP payment by the amount of the PCMHI payment. The PCMHI Medical Home Activity Fee and the PCMHI Clinical Care Management Fee will be deducted from the PMPM CHABP Phase 1 bundled payment amount.

If a Practice participates, either on its own or as part of a PCC, in the Primary Care Payment Reform (PCPR) initiative, the PCPR participants' PMPM payment for medical home services will be deducted from the \$50.00 PMPM CHABP Phase 1 Bundled Payment Amount. The PCPR PMPM payment for medical home services will be calculated by multiplying the PCPR medical home load by the risk score by the expected external service provision adjustment.

Applicants to participate in the CHABP must certify that they do not receive payment or funding from any other source for services, activities, or expenses that will be funded through the CHABP at this practice site. The application form requires applicants to respond to a number of questions regarding other related programmatic activities which may be federally funded.

In evaluating the CHABP, the Commonwealth will attempt to match Participating Practices with other practices that are participating in the same set of related programmatic activities in order to discern interactions among these activities.

Application to Participate in the Massachusetts Children's High-risk Asthma Bundled Payment (CHABP) Demonstration Program Sample Questions

a. Indicate whether the practice is participating in any of these initiatives. (Participation in these initiatives is not a prerequisite to participation in the CHABP. The Practice may participate in both the CHABP and one or more of these initiatives as long as they do not provide payment or funding for services, activities, or expenses that will be funded through the CHABP at this practice site.)

Check all that apply.

- (1) Massachusetts CHIPRA Medical Home Demonstration Project
- (2) Safety Net Medical Home Initiative
- (3) Medicare Care Management for High-cost Beneficiaries Demonstration
- (4) Medicare Federally Qualified Health Center Advanced Primary Care Practice (FQHC APCP) Demonstration
- (5) State Demonstration to Integrate Care for Dual Eligible Individuals
- (6) Patient Centered Medical Home Initiative (PCMHI)
- (7) Other medical home initiative (describe)
- (8) None of the above

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b. If the practice is participating in one or more of the initiatives listed above, are the staff committed to providing time and effort to the other initiative(s)? Explain the practice's plan to complete all initiatives successfully.

c. Is the PCC plan provider participating in the MDPH Reducing Ethnic/Racial Asthma Disparities in Youth (READY) study or another initiative that pays for similar services for pediatric patients with high-risk asthma at a different practice site?

_____ Yes _____ No

If yes, please provide the name of the initiative and the participating practice site.

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5. A plan for the purchase and dissemination of supplies within the pilot specific benefit package, including procurement methods, by the state and/or providers including volume discounts;

During Phase 1, CHABP providers will be responsible for the purchase and dissemination of the environmental mitigation supplies provided as necessary to CHABP beneficiaries. Providers are required to submit a plan to procure, store and disseminate environmental mitigation supplies under this pilot during the application process; this plan must also address the delivery, installation, and ease of consumer use for each supply. This plan should also address how the provider will utilize volume discounts (either its own or the Commonwealth's) in its procurement of mitigation supplies, and how the practice will instruct the CHABP parent/guardian in the use of the supplies.

The Commonwealth is responsible for the oversight of providers' environmental mitigation supply purchasing and dissemination procedures to ensure that supplies are comparable in the areas of patient outcome, safety and relative costs. The Commonwealth must also assure standardized equipment pricing, the availability of items to all CHABP enrollees, and must provide any beneficiary supports necessary to access provider-distributed environmental mitigation supplies.

Participating providers will be required to report the type, make, model, cost and quantity for each supply procured and disseminated to CHABP members on the CHABP Expenditure Report. The Commonwealth will evaluate this information on a quarterly basis to ensure consistency and quality of purchased supplies for each practice. The state will ensure there is a process to disseminate supplies as needed to best meet individual CHABP enrollees' needs. If the Commonwealth finds that a provider(s) is unable to purchase or disseminate mitigation environmental supplies where medically necessary to support the goals of the pilot, the Commonwealth must immediately notify CMS and provide a mitigation strategy that begins with the Commonwealth intervening in order to ensure needs are met.

As part of the evaluation of Phase 1 and as a condition of approval for Phase 2, the Commonwealth will conduct a value analysis to assess the environmental mitigation supplies purchased and disseminated in terms of patient outcome, safety, and relative costs to develop product selection and standardization guidelines to be used during Phase 2 of the Pilot. The purpose of this analysis will be to determine how the bundled payment model and products provided under this contingent service correlate with costs, outcomes, and safety.

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6. Payment rate setting methodology outlining the per member per month (PMPM) payment for the pilot services and supplies, consideration of risk adjustment and the estimated/expected cost of the pilot.

Providers who contract with the MassHealth PCC Plan will be reimbursed on fee for service (FFS) basis. Under Phase 1 of CHABP, participating PCCs will receive a prospective, monthly PMPM payment to cover the CHABP asthma mitigation services not currently reimbursed by MassHealth for members with high risk asthma (services include home visits by CHW, supplies and services to mitigate environmental asthma triggers). The data used to develop the Phase 1 PMPM is included in the tables below.

The PMPM payment is built up from an estimated cost of the covered benefits and an estimate of how many members will receive each supply or service. Supply costs were estimated based on actual costs incurred by Massachusetts health care providers who are currently distributing these supplies through their practices.

The budget table below includes an estimate of the percent of CHABP Enrollees that will receive a specific supply or service during a given year. Not all Enrollees will require each supply on an annual basis (for example, a family may already own a vacuum cleaner with a HEPA filter). Participating providers may distribute supplies to CHABP members in subsequent years of Phase 1 for a number of reasons, including for example:

- The member was newly eligible for CHABP because the member recently turned 2 years of age, enrolled in MassHealth, enrolled in the PCC Plan, was assigned to the Participating Practice’s PCC Panel, met the clinical criteria for high-risk asthma, and/or met the criteria for poorly controlled asthma.
- The family had previously declined a home visit, but accepted a home visit in the second year. The environmental assessment identified the need for supplies that had not been identified previously through conversations with the family in the office and by telephone.
- The supply is no longer operational and required replacement.
- The family moved to a new housing situation and was unable to bring the supply with them.

The estimated percentage of members that will receive a supply during a year takes these contingencies into account. The estimates were based on the experience of existing programs, where for example, 30% of members declined a home visit where supplies were provided, as well as a consensus of the pilot advisors.

Estimated cost of Community Health Worker Visits and Phone Calls

	Visit	Phone Calls
CHW salary/hour	\$ 15.00	\$ 15.00
Hours per visit, including prep	4	0.25
Salary cost/visit	\$ 60.00	\$ 3.75
Supervision cost (10%)	\$ 6.00	\$ 0.38
Fringe, travel, indirect (45%)	\$ 29.70	\$ 1.86

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Cost/visit	\$ 95.70	\$ 5.98
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Budget for an average panel of high-risk asthma Members

Supply	Average Cost Each	Number	Price per Member	% of Members Receiving Supply	Cost per Member
Vacuum	\$200.00	1	\$200.00	70%	\$140.00
Filters	\$40.00	1	\$40.00	70%	\$28.00
Bedding	\$90.00	1	\$90.00	70%	\$63.00
Pillows	\$14.00	2	\$28.00	70%	\$19.60
Environmental Kits	\$55.00	1	\$55.00	45%	\$24.75
Educational Materials	\$20.00	1	\$20.00	100%	\$20.00
A/C Units	\$115.00	1	\$115.00	10%	\$11.50
Pest Management	\$135.00	1	\$135.00	50%	\$67.50
Total Supplies Cost					\$374.35
CHW initial visit/education	\$95.70	1	\$95.70	70%	\$66.99
CHW 2nd & 3rd visit, environmental mitigation	\$95.70	2	\$191.40	50%	\$95.70
CHW 4th & 5th visit follow-up education	\$95.70	2	\$191.40	30%	\$57.42
Total home visit cost					\$220.11
Phone calls	\$5.98	9	\$53.83	100%	\$53.83
Total cost per member per year					\$648.29
Cost per member per month					\$54.02

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Supply Item	Required Features
Vacuum	High Efficiency Particulate Air (HEPA) filter that removes 99.97% of particles at least 0.3 microns in size; double bag
Vacuum bags	Fits vacuum
Mattress cover	Allergen-impermeable, allergen-proof, zippered, waterproof
Pillow	Allergen-impermeable, allergen-proof
Air conditioner	High Efficiency Particulate Air (HEPA) filter that removes 99.97% of particles at least 0.3 microns in size

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7. Payment methodology outlining cost and reconciliation for the infrastructure payments to participating provider sites, and the eligibility and reporting requirements associated with the infrastructure payments.

The Commonwealth will not make infrastructure payments as part of the CHABP initiative to participating provider sites during Phase 1 of the pilot. The Commonwealth must request CMS approval in order to implement infrastructure payments during Phase 2. During Phase I, the Commonwealth must work with stakeholders, including providers and an advisory committee, to develop the cost and reconciliation methodology for infrastructure payments, which will be submitted as a condition for approval Phase 2.

During Phase 1, the financial/operational project leader will participate in monthly meetings, in person or by phone, with EOHHS-designated staff and/or with the project Advisory Committee to discuss development of the Phase 2 Infrastructure Payment and Reconciliation Methodology.

During Phase 1, the Participating Practice will develop, or contract with another entity to provide, any additional infrastructure necessary to meet the specifications that EOHHS ultimately establishes for managing the Phase 2 Bundled Payment. This infrastructure may include, but is not limited to:

- a. Systems to coordinate ambulatory services provided by other health care providers, including specialists;
- b. Contracts and other documentation necessary to make payments to these other providers;
- c. Financial systems to accept Bundled Payments from EOHHS and to use them to pay for services provided by these other health care providers; and
- d. Information technology systems to track Bundled Payments received from EOHHS and payments made to these other providers.

During Phase 2, Participating Provider sites may be eligible for up to \$10,000 per practice site for infrastructure changes. The amount of infrastructure support is variable up to this maximum; actual awards will vary depending on the provider's readiness, EOHHS's review and finding of such readiness, and CMS' concurrence on the use of the proposed funding for the Participating Practice. A description of the award, distribution, and reconciliation process for these funds must receive CMS approval prior to implementation during Phase 2. Infrastructure payments are subject to the spending limitation of the infrastructure and capacity-building (ICB) component of the Safety Net Care Pool (SNCP), and are further contingent on continued CMS approval of the SNCP and the ICB.

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8. Evaluation Design

The Commonwealth must develop an evaluation design for the CHABP pilot program which will be incorporated into the evaluation design required per STC 84 following CMS review and approval. The Commonwealth must submit the evaluation design to CMS no later than 60 calendar days after the approval of this Pediatric Asthma Pilot Program Protocol.

The objective of the evaluation is to determine the benefits and savings of the pilot as well as design viability and inform broader implementation of the design. The evaluation design must include an evaluation of programmatic outcomes for purposes of supporting any future expansion of the pilot project, including Phase 2. As part of the evaluation, the state at a minimum must include the following requirements:

- i. Collect both baseline and post-intervention data on the service utilization and cost savings achieved through reduction in hospital services and related provider services for the population enrolled in the pilot. This data collection should include the quality measure on annual asthma-related emergency room visits outlined in the initial core set of children's health care quality measures authorized by the Children's Health Insurance Program Reauthorization Act (CHIPRA) beginning with a baseline set at the onset of the pilot, adjusted for the age range enrolled in the pilot program;
- ii. A detailed analysis of how the pilot program affects the utilization of acute health services, such as asthma-related emergency department visits and hospitalizations by high risk pediatric asthma patients, and how the pilot program reduces or shifts Medicaid costs associated with treatment and management of pediatric asthma;
- iii. A detailed analysis of the provision of mandatory and optional CHABP services provided to enrollees, which must include an analysis of purchasing strategies, supply costs, and stratification of distribution and provision of CHABP services by enrollee age, as well as an analysis of any optional services provided to enrollees that differ from those specified in this protocol;
- iv. An assessment of whether the cost projections for the provider payment were appropriate given the actual cost of rendering the benefits through the pilot program; and,
- v. A detailed analysis of how the effects of the pilot interact with other related initiatives occurring in the state.

The goal of the evaluation is to assess the degree to which a bundled payment and flexible use of funds enhances the effects of delivery system transformation as demonstrated by changed practices in asthma care and improved health outcomes at the same or lower cost. The Phase 1 hypotheses are that:

1. There will be a lower rate of asthma-related hospitalization and emergency department visits among enrollees compared to the comparison group.

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2. Enrollees will attain better asthma control as measured by lower numbers of days absent from school/work/summer program as compared to the comparison group.
3. Total expenditures for the pilot including bundles payments for optional services for enrollees will be equal to or less than overall expenditures for the comparison group.

Specifically, the Commonwealth will examine changes in: 1) the way providers deliver services to CHABP Enrollees; 2) CHABP Enrollees' self-management of asthma; 3) CHABP Enrollees' health service use (i.e. emergency department use); 4) CHABP Enrollees' healthcare expenditures; and 5) CHABP Enrollees' quality of asthma care. This will include a cost-effectiveness analysis to examine the relative value between the pilot and the usual care.

Additionally, the Commonwealth will conduct a value analysis to assess the impact of environmental mitigation supplies purchased and disseminated in terms of patient outcome, safety, and relative costs. The purpose is to determine how the bundled payment model and products provided under this optional service correlate with costs, outcomes and safety.

The evaluation will use a mix of qualitative and quantitative methods. Data will be collected from Participating Practices and CHABP Enrollees, and extracted from Medicaid claims data and the MassHealth program office. Individuals with characteristics comparable to participating members will be identified for comparisons. The Commonwealth must submit its evaluation of the first full year of Phase 1 to CMS within 180 days of the end of the pilot year. To the extent that Phase 1 remains in place while the Commonwealth is conducting the evaluation and awaiting approval of its Phase 2 proposal, it will conduct an evaluation of each subsequent full pilot year on an annual and cumulative basis. Year one Phase 1 evaluation data will be a component of CMS' review of the Commonwealth's Phase 2 proposal. If CMS' review of the Commonwealth's Phase 2 proposal begins after the end of a subsequent full pilot year of Phase 1, then CMS may also include data from the Commonwealth's evaluation of that subsequent year in its review of the Commonwealth's Phase 2 proposal.

Data Sources

Data will be collected from Participating Practices to evaluate changes in the practice at 1 year intervals following implementation of Phase 1 of the pilot. The Commonwealth will also collect data from CHABP Enrollees at the pilot enrollment and 1 year after the enrollment to assess changes in asthma control and the number of days absent from school/work. Medicaid claims data will be used to evaluate changes in service use and healthcare expenditures. Additionally, data collected from participating members, healthcare expenditures paid by Medicaid, and program operation costs from the pilot management office will be used for the cost-effectiveness analysis.

Comparison Group

To mitigate the potential bias that any observed changes in outcomes are resulting from high service utilization or poor asthma control prior to the pilot participation or from concurrent changes in healthcare environment, the Commonwealth will identify a matched comparison group. To the extent available and comparable, the Commonwealth will include practices that applied for the pilot but were not chosen for the 1st phase in this comparison group. Both practice and member characteristics will be considered in the matching algorithm. Exact matching on important characteristics and propensity score matching techniques will be used to ensure the comparability of characteristics between Participating Practices/members and the comparison group. Considering these practice characteristics in the matching algorithm and subsequent statistical analysis are intended to isolate the effect of the pilot from other

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initiatives. This approach also addresses requirements set forth by STC 84.

Measures

Measures used in this evaluation are organized into three groups: changes in provider practice, changes in self-management of asthma, changes in service use (i.e. emergency department use), number of days missed from school/work/summer program due to asthma, healthcare expenditures, and quality of care. The initial core set of children's healthcare quality measures authorized by the Children's Health Insurance program Reauthorization Act (CHIPRA) will serve as the guide for service use and quality of care measures (see Measures: changes in service use, healthcare expenditures, and quality of care). Also, healthcare expenditures and program operation costs will be included in the analysis to assess the viability of the pilot and to develop a payment rate for the program (see Measures: measures for the cost-effectiveness analysis).

Changes in provider practice

Qualitative semi-structured key informant interviews with members of the interdisciplinary care team in each Participating Practice will be conducted at 1 year intervals after implementation of Phase 1 of the pilot. These interviews will assess changes in the way providers deliver services by identifying key components of changes in the practice and potential barriers in implementing the pilot.

Changes in self-management on asthma

Telephone and/or mail surveys will be used to evaluate changes in asthma management and the effect of the pilot. The survey instrument includes the asthma control test (ACT) measure and questions on the number of days absent from school for children/teens and from work for parents. These measures will also represent the effects in the cost-effectiveness analysis. The Commonwealth will conduct the surveys on all participating members and individuals in the comparison group at the baseline and at 12 month after baseline as budget permits.

Changes in service use, healthcare expenditures, and quality of care

MassHealth claims data will be used to derive healthcare service utilization, healthcare expenditures, and quality of care measures before the pilot enrollment and through the first year of the pilot participation. Key healthcare service utilization measures include asthma-related emergency department (ED) visits and asthma-related hospitalizations. Other types of service use also will be analyzed to examine possible shifting in services. Quality of care will be evaluated based on Healthcare Effectiveness Data and Information Set (HEDIS) specifications for asthma care and on the use of asthma-control medications following NQF 1799 Medication Management for People with Asthma.

Measures for cost-effectiveness analysis

In addition to healthcare expenditures from claims data, cost data will include program operation costs. Healthcare expenditures are MassHealth payment amounts for providers which are reported in claims. Program operation costs include the per-capita bundled payments for participating members and program-related administrative costs; and costs of environmental mitigation supplies purchased by providers. The MassHealth PCC plan staff will provide information on program operation costs. These cost data will represent the cost to Medicaid in the cost-effectiveness analysis.

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Data Analysis

Qualitative data collected from staff in Participating Practices will be analyzed to identify common themes of changes in service delivery across Participating Practices. Innovative approaches and barriers for service delivery related to the pilot implementation will be summarized by the practice.

A difference-in-differences analytical framework will be used to analyze outcomes from claims data and data collected from Participating Members. The Commonwealth will compare changes in services use, healthcare expenditures, asthma control, and number of days absent from school/work for participating members to those for individuals in the matched comparison group. Outcome measures will be available for each individual for two or more times before and during the first year of the pilot. Measures for an individual at different time points are likely to be correlated. The Commonwealth will apply generalized estimating equations to account for the within-subject correlations. Given the usual time lag of claims data and the seasonal nature of acute events associated with asthma, quantitative analysis using claims data will begin at 1 year after the pilot implementation.

The Commonwealth will develop a measure of total cost based on health care expenditures, adjusted for case mix, plus program operations costs. The Commonwealth will conduct cost-effectiveness analysis to estimate the relative value between the pilot and the usual care. The ACT score and the number of days being absent from school/work measures the effect of the pilot, which is independent from the costs included in the analysis. Results will show the incremental costs associated with each day not absent from school or work.

^{iv} Clark, N.M., Lachance, L., Milanovich, A.F., Stoll, S., Awad, D., [Characteristics of Successful Asthma Programs](#), Public Health Reports. 2009 Nov;124(6). 3-17.

^v *From the Global Strategy for Asthma Management and Prevention*, Global Initiative for Asthma (GINA) 2011. Available from: <http://www.ginasthma.org/>.

^{vi} Krieger J, Takaro T, Allen C, et al. The Seattle–King County Healthy Homes Project: Implementation of a comprehensive approach to improving indoor air environmental quality for low-income children with asthma. *Environ Health Perspect*. 2002 Apr;110 Suppl 2:311-22.

^{vii} Wu F, Takaro TK. Childhood asthma and environmental interventions. *Environ Health Perspect* 2007;115(6):971–5.

^{viii} Described in more detail in the Massachusetts DPH Community Health Worker Advisory Council Report, *Community Health Workers in Massachusetts: Improving Health Care and Public Health* (Boston, MA: Massachusetts Department of Public Health, 2010). http://www.mass.gov/Eeohhs2/docs/dph/com_health/com_health_workers/legislature_report.pdf

^{ix} Fedder DO, et al. The effectiveness of a community health worker outreach program on healthcare utilization of west Baltimore City Medicaid patients with diabetes, with or without hypertension. *Ethnicity and Disease*. 2003;13(1):22-7.

^x Whitley EM, et al. Measuring return on investment of outreach by community health workers. *J Health Care Poor Underserved*. 2006;17(1):6-15.

^{xi} Krieger, JW et al. The Seattle-King County Healthy Homes Project: a randomized, controlled trial of a community health worker intervention to decrease exposure to indoor asthma triggers. *Am J of Pub Hlth*. 2005;95 (4):652- 659.

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Notice of Opportunity to Participate in Pediatric Asthma Advisory Committee

Published on the Commonwealth Procurement Access and Solicitation Site (Comm-PASS) April 6, 2011.

The Executive Office of Health and Human Services (EOHHS), Office of Medicaid seeks individuals to serve on the Pediatric Asthma Bundled Payment Pilot Advisory Committee.

St.2011, C.131, S.154 directs EOHHS to “develop a global or bundled payment system for high-risk pediatric asthma patients enrolled in the MassHealth program, designed to prevent unnecessary hospital admissions and emergency room utilization.” This legislation also provides for EOHHS to consult with relevant providers in designing and implementing the pediatric asthma project. The University of Massachusetts Medical School (UMMS) is working with EOHHS to help develop this initiative.

EOHHS wishes to establish and consult an Advisory Committee on designing and implementing the high-risk pediatric asthma global or bundled payment demonstration program. The Advisory Committee may make recommendations on issues such as specifying the target patient population to be included in the initial demonstration, the basket of services to be included in the bundled payment, the risk adjustment methodology, the infrastructure required to manage the bundled payment, the evaluation metrics, and potential strategies for sharing savings between the MassHealth program and participating providers. EOHHS anticipates that this Advisory Committee will meet approximately once or twice per month or as EOHHS determines necessary beginning in or around April, 2011 through approximately December, 2012.

EOHHS seeks individuals, including representatives of providers who wish to participate in the high-risk pediatric asthma global or bundled payment demonstration program, to serve on this Advisory Committee. To be eligible to participate in the Advisory Committee, such individuals must have expertise (1) treating high-risk pediatric asthma patients, and/or (2) designing and implementing clinical programs to prevent and manage high-risk pediatric asthma, and/or (3) designing and implementing global or bundled payment structures. EOHHS will not compensate individuals for serving on this Advisory Committee. Participation in this Advisory Committee is not a pre-requisite for participation in the global or bundled payment demonstration program.

Interested individuals should submit an up-to-date resume or Curriculum Vitae and a letter of interest highlighting their relevant experience and expertise by April 13, 2011.

EOHHS and UMMS will review the responses and select individuals who bring the greatest breadth and depth of relevant knowledge and expertise to serve on the Advisory Committee. EOHHS reserves the right to request additional information from potential participants, solicit additional individuals for participation, and reject applicants for participation as it determines appropriate to assure that the Advisory Committee meets the agency’s needs.

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Advisory Committee Members

Name	Title	Institution/ Employer	Qualifications
Gary Adamkiewicz, PhD, MPH	Research Scientist	Harvard School of Public Health	<ul style="list-style-type: none"> • Research on the studies of indoor environmental conditions • Member of the Healthy Public Housing initiative – a community-centered asthma intervention project • Member of the Asthma Regional Council • Provide training on healthy homes issues • Several publications and research on asthma
Stacey Chacker	Director of Environmental Health and Asthma Regional Council	Health Resources in Action, Inc.	<ul style="list-style-type: none"> • Member Steering Committee Massachusetts Asthma Action Partnership • ARC and UMass developed tools – Investing in Best Practices for Asthma and Insurance Coverage for Asthma: A Value and Quality Checklist • November 2010 – Symposium leader for Improving Asthma Management in a Changing Healthcare System
May Chin, RN, MS, MBA	Project Director Asthma Prevention and Management Initiative	Floating Hospital for Children at Tufts Medical Center	<ul style="list-style-type: none"> • Registered Nurse for over 40 years • Designed and implemented the Asthma Prevention and Management Initiative at Tufts • Cardiac Care demonstration project which resulted in full implementation as a reimbursable standard of care
Patricia Edraos, JD	Health Resources Policy Director	Massachusetts League of Community Health Center	<ul style="list-style-type: none"> • Assisted Medicaid agency in CHIP expansion • Educational programs for global payment
Jim Glauber, MD, MPH	Senior Medical Director	Neighborhood Health Plan	<ul style="list-style-type: none"> • Pediatrician in practice for 19 years • Management of children with special healthcare needs i.e. asthma, prenatal diabetes • Developed asthma disease management program • Received grant for Implementation of an Enhanced Asthma Home Environmental Program
Polly Hoppin, ScD	Research Professor and Program Director	School of Health and Environment University of Massachusetts, Lowell	<ul style="list-style-type: none"> • Senior advisor to the Regional Director of DHHS • Principal Investigator on project to better understand how health insurance plans make decisions to cover preventive measures • Designing a coordinated asthma home visit system for the city of Boston • Several publications on the subject of Asthma • Secretary’s Award for Distinguished Service in 1998 for developing five-year strategic plan to combat Asthma

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Name	Title	Institution/ Employer	Qualifications
Lara Khouri, MBA, MPH	Director, Integrated Care	Children's Hospital	<ul style="list-style-type: none"> • Business Perspective – Accounting & Management • Managed Care Contracting on behalf of large academic medical centers • Developed innovative payment structures – pay for performance
Ted Kremer, MD	Director, Pediatric Sleep Medicine	UMass Memorial Medical Center	<ul style="list-style-type: none"> • Pediatrician in practice for over 12 years • Board certified in Pediatric Pulmonology • Member of the Division of the Pediatric Pulmonary, Asthma, Sleep and Cystic Fibrosis Center at UMass Memorial
Kimberly Lenz, Pharm.D.	Clinical Consultant Pharmacist	UMass Medical School – Commonwealth Medicine	<ul style="list-style-type: none"> • Registered pharmacist 8 years • Participated in an asthma outreach program while a student at St. Louis Children's Hospital • Member of the Pediatric Pharmacy Advocate Group
William Minkle, MS	Executive Director	ESAC (Ecumenical Social Action Committee, Inc.)	<ul style="list-style-type: none"> • Supervise ESAC's Boston Asthma Initiative (BAI) for 4 years • 30 years non-profit experience with community programs • Member Boston Community Asthma Initiative Steering Committee
Neil Minkoff, MD	Chief Medical Officer	1776 Healthcare	<ul style="list-style-type: none"> • Has been practicing medicine for 15 years • Currently clinical lead for creating bundled payment • Extensive medical management experience
Shari Nethersole, MD	Medical Director for Community Health	Children's Hospital, Boston	<ul style="list-style-type: none"> • Pediatrician in practice for over 25 years • Drafted the MA Provider Consensus Statement in conjunction with the Asthma Regional Council • Oversaw the design and establishment of the Community Asthma Initiative at Children's.
Dorothy Page, MSN, FNP	Pediatric Nurse Practitioner	UMass Memorial Medical Center	<ul style="list-style-type: none"> • Registered Nurse for 40 years • Member of the Pediatric Pulmonary, Asthma, Sleep and Cystic Fibrosis Center – UMass Memorial • Developed the clinical asthma program working with school nurses for the high risk and poorly controlled asthmatics
Margaret Reid, RN, BA	Director, Division of Healthy Homes and Community Supports	Boston Public Health Commission	<ul style="list-style-type: none"> • Registered Nurse for 17 years – currently working on Master's • Convened the Boston Asthma Home Visit Stakeholders Group • 2009 –EPA National Environment Leadership Award in Asthma Management • Member Massachusetts Asthma Action Partnership

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Name	Title	Institution/ Employer	Qualifications
Elaine Erenrich Rosenburg, MS	Executive Director	Asthma & Allergy Foundation of America/New England Chapter, Inc.	<ul style="list-style-type: none"> • Member of the Steering Committees for the Boston Urban Asthma Coalition and the Massachusetts Asthma Action Program and the Health Access Resource Network • Work closely with parents of asthma patients • Help to manage children’s asthma to reduce asthma incidents especially those requiring ER visits
Matthew Sadof, MD, FAAP	Director, Medical Home and Primary Care Asthma Intervention Programs	Baystate Medical Center	<ul style="list-style-type: none"> • Pediatrician in practice for 25 years • Received numerous grants for Asthma research • Directs a program that utilizes CHW’s to extend care to children with asthma • Cares for a high-risk pediatric population with asthma at a local clinic
Megan Sandel MD, MPH, FAAP	Director & Co- Founder	Doc4kids project	<ul style="list-style-type: none"> • Pediatrician in practice for 15 years focused solely on care for low income children • Member Asthma Regional Coordinating Council • Ongoing research on How Much is Too Much to Wheeze: Asthma • Co-authored with Jean Zotter a publication on How substandard Housing affects children’s health
Winthrop Whitcomb, MD, MHM	Medical Director, Healthcare Quality	Baystate Medical Center	<ul style="list-style-type: none"> • Physician for over 20 years • Chair of the total hip replacement bundled payment program pilot at Baystate
Elizabeth Woods, MD, MPH	Director of the Children’s Hospital Boston’s Community Asthma Initiative	Children’s Hospital, Boston	<ul style="list-style-type: none"> • Pediatrician in practice for over 25 years • April 12, 2007 Elizabeth Woods Day in Boston for community asthma efforts • Principal investigator on a grant providing coordination of asthma care at home • Principal investigator on a grant addressing health disparities for children living in Jamaica Plain, Roxbury and Dorchester dealing with asthma

References

ATTACHMENT G
Reserved

**Massachusetts MassHealth Section 1115 Demonstration Safety Net Care Pool
Uncompensated Care Cost Limit Protocol
December 11, 2013**

Introduction

This cost limit protocol will meet the required protocol specifications pursuant to Massachusetts 1115 Demonstration Special Terms and Conditions (STC) 50(f). According to this protocol:

- 1) The cost limit must be calculated on a provider-specific basis.
- 2) Only the providers receiving SNCP payments for uncompensated care pursuant to STC 49(c) will be subject to the protocol.
 - a. All Medicaid Fee-for-Service payments for services and managed care payments, including any supplemental or enhanced Medicaid payments made under the State plan³, SNCP payments subject to the Provider Cap pursuant to STC 50(c), and any other revenue received by the providers by or on behalf of Medicaid-eligible individuals or uninsured patients are offset against the eligible cost. Payments that are not service payments for the provision of medical care are not offset against the eligible cost. Since the following payments are not payments for the provision of medical care, they are not offset against the eligible cost: SNCP grants and performance-based, incentive, and shared savings payments. These include performance- and incentive-based payments and grants and awards both currently in existence and those that may be implemented during future demonstration renewal periods, such as those listed below.
 - b. Performance- and incentive-based payments, including but not limited to:
 - i. Pay-for-performance payments made under the Medicaid state plan;
 - ii. Quality incentive payments associated with an alternative payment arrangement authorized under the Medicaid state plan or the section 1115 demonstration;
 - iii. Delivery System Transformation Initiative payments made under the 1115 demonstration;
 - iv. Patient Centered Medical Home Initiative payments, including care management and coordination payments, made under the 1115 demonstration;
 - v. Shared savings and other risk-based payments under an alternative payment arrangement (e.g., Primary Care Payment Reform, subject to CMS approval), authorized under the Medicaid state plan or the section 1115 demonstration;
 - vi. Medicaid EHR incentive payments, including eligible provider and hospital Electronic Health Record (EHR) incentive payments, made in accordance with the CMS-approved state Medicaid Plan and CMS regulations.
 - c. Grants and awards:

³ State Plan supplemental payments include, but may not be limited to, Essential MassHealth Hospital Payments, Freestanding Pediatric Acute Hospital Payments, Acute Hospitals with High Medicaid Discharges Payments, and Infant and Pediatric Outlier Payment Adjustments. Safety Net Care Pool supplemental payments under the 1115 demonstration include Public Service Hospital Payments.

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- i. Infrastructure and Capacity Building grants and any other grants or awards awarded by the Commonwealth of Massachusetts or any of its agencies;
- ii. Any grants or awards through the CMS Innovation Center or other federal programs;
- iii. Any grants or awards by a private foundation or other entity.

Acute Inpatient and Outpatient Hospital Protocol for Medicaid and Uncompensated Care Cost

Determination of Allowable Medicaid and Uninsured Costs

- a. Disproportionate Share Hospital (DSH) Allowable Costs
 - i. Per STC 50(f), the Commonwealth will use the Medicaid DSH statutory, regulatory, and policy definitions of allowable inpatient hospital and outpatient hospital services and allowable Medicaid and uninsured costs in determining hospital-specific cost limits in its cost protocols. To the extent that the determination of uncompensated care costs varies from the Medicaid DSH requirements, the process must be accounted for in this document.
 - ii. Allowable pharmacy costs include the cost of drugs and pharmacy supplies requested by patient care departments and drugs charged to patients. Pharmacy service costs that are not part of an inpatient or outpatient service, such as retail pharmacy costs, are not considered eligible for inclusion in the hospital-specific uncompensated cost limit allowable under DSH. To the extent that the determination of allowable pharmacy costs varies from the Medicaid DSH requirements, the process must be accounted for in this document.
 - iii. Costs included must be for services that meet the federal definition and the approved Massachusetts State plan definition of “hospital services” for medical assistance. “Medical assistance” is defined as the cost of care and services “for individuals, and, with respect to physicians’ or dentists’ services, at the option of the State, to individuals [who are eligible]...” per Section 1905 of the Act.
- b. Medicaid State Plan Allowable Costs
 - i. Massachusetts will use the same definition for all inpatient hospital, outpatient hospital, and physician services, clinic services, non-hospital services, etc. as described in its approved Medicaid State plan, and in accordance with Section 1905 of the Social Security Act and the regulations promulgated thereunder, to define allowable service costs provided by acute inpatient and outpatient hospitals. Massachusetts identifies other service costs, subject to CMS approval, that are not included in the Medicaid state plan definitions to be included as allowable uncompensated care costs in this document (see Cost Element table).
 - 1. Inpatient acute hospital services: Medical services provided to a member admitted to an acute inpatient hospital. Such services are as described in Section 1905 of the Social Security Act and the regulations promulgated thereunder.
 - 2. Outpatient acute hospital services: Outpatient Hospital Services include medical services provided to a member in a hospital outpatient department. Such services include, but are not limited to, emergency

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services, primary-care services, observation services, ancillary services, and day-surgery services. Outpatient Services include medical services provided to a member in an outpatient setting including but not limited to hospital outpatient departments, hospital-licensed health centers or other hospital satellite clinics, hospital-based physicians' offices, hospital-based nurse practitioners' offices, freestanding ambulatory surgery centers, day treatment centers, or the member's home. Such services are as described in Section 1905 of the Social Security Act and the regulations promulgated thereunder.

- c. 1115 Demonstration Allowable Costs
 - i. 1115 Demonstration Expenditures: Costs incurred by acute hospitals for providing Medicaid state plan services to members eligible for Medicaid through the 1115 demonstration (i.e., expansion populations) will be counted as allowable costs. In addition, allowable costs of services that are not authorized under the Medicaid state plan and are provided by acute hospitals under the 1115 demonstration include expenditures related to services provided in the programs below and described in the Cost Element table. All services authorized under the section 1115 demonstration are subject to the requirements and limitations specified in the STCs.
 - 1. The Commonwealth must not claim costs for the Pediatric Asthma Pilot Program until receiving CMS approval of the Pediatric Asthma Program payment protocol as described in Special Term and Condition 40(h).
 - 2. Intensive Early Intervention Services for Children with Autism Spectrum Disorder. The Commonwealth must not claim costs for the Intensive Early Intervention Services for Children with Autism Spectrum disorder until CMS approves the Intensive Early Intervention Services for Children with Autism Spectrum Disorder the Pediatric Asthma Pilot Program payment protocol as specified in STC 40(h).
 - 3. Diversionary Behavioral Health Services.
 - d. Medicaid Managed Care Costs: Costs incurred by acute hospitals for providing services to members enrolled in Medicaid managed care organizations including Senior Care Organizations (SCOs) and Integrated Care Organization (ICOs), prepaid inpatient health plans, and any prepaid ambulatory health plans. Eligible costs are determined using the same methodology under this section.
 - e. Other Allowable Costs, Approved 1915(c) Waivers – Allowable costs are defined in the Cost Element table.
 - f. Additional Allowable Costs – Allowable costs are defined in the Cost Element table.

I. Summary of 2552-10 Cost Report (CMS 2552 cost report)

Worksheet A: Reclassification and Adjustment of Trial Balance of Expenses

Worksheet A provides for recording the trial balance of expense accounts from your accounting books and records. It also provides for the necessary reclassifications and adjustments to certain accounts. Not included on Worksheet A are items that conflict with Medicare regulations, manuals, or instructions but which providers may wish to claim and contest.

The trial balance of expenses is broken down into the following categories to facilitate the transfer of costs to the various worksheets:

- 1) General service cost centers
- 2) Inpatient routine service cost centers

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- 3) Ancillary service cost centers
- 4) Outpatient service cost centers
- 5) Other reimbursable cost centers
- 6) Special purpose cost centers
- 7) Other special purpose cost centers not previously identified
- 8) Costs applicable to nonreimbursable cost centers to which general service costs apply
- 9) Nonreimbursable cost center to accumulate the cost incurred by you for services related to the physicians' private practice

Worksheet B

Worksheet B allocates overhead (originally identified as general service cost centers) to all other cost centers, including the non-reimbursable costs identified in lines 96 through 100.

Cost finding is the process of recasting data derived from the accounts ordinarily kept by the provider to ascertain costs of the various types of services rendered; i.e., the allocation of the expenses of each general service cost center to those cost centers which receive the services. The CMS 2552 approved method of cost finding is recognized and outlined in 42 CFR 413.24 and is based on the accrual basis of accounting except where government institutions operate on a cash basis of accounting.

Worksheet C

Worksheet C computes the ratio of cost to charges (RCC) for inpatient services, ancillary services, outpatient services, and other reimbursable services. The total cost for each cost center is derived from Worksheet B after the overhead allocation, and the total charge for each cost center is determined from the provider's records. This RCC is used on Worksheet D, Worksheet D-3, Worksheet D-4, Worksheet H-3, and Worksheet J-2 to determine the program's share of ancillary service costs in accordance with 42 CFR 413.53. This worksheet is also needed to determine the adjusted total costs used on Worksheet D-1.

Worksheet D

This series of worksheets is where the total costs from Worksheet B are apportioned to different payer programs. Apportionment is the process by which a cost center's total cost is allocated to a specific payer or program or service type. Apportionment is used to arrive at Medicare hospital inpatient routine and ancillary cost and Medicare hospital outpatient cost, etc.

Worksheet D consists of the following five parts:

- 1) Part I: Apportionment of Inpatient Routine Service Capital Costs
- 2) Part II: Apportionment of Inpatient Ancillary Service Capital Costs
- 3) Part III: Apportionment of Inpatient Routine Service Other Pass Through Costs
- 4) Part IV: Apportionment of Inpatient/Outpatient Ancillary Service Other Pass Through Costs
- 5) Part V: Apportionment of Medical and Other Health Services Costs

Worksheet D-1: All providers will complete this worksheet, which provides for the computation of hospital inpatient operating cost in accordance with 42 CFR 413.53 (determination of cost of services to beneficiaries), 42 CFR 413.40 (ceiling on rate of hospital cost increases), and 42 CFR 412.1 through 412.125 (prospective payment).

Worksheet D-2: Worksheet D-2 apportions the cost of services rendered by interns and residents across the following two parts:

- 1) Part I: Not in Approved Teaching Program. This part is used by the provider only if it has interns and residents that are not in an approved teaching program.

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- 2) Part II: In an Approved Teaching Program (Title XVIII, Part B Inpatient Routine Costs Only). This part provides for reimbursement for inpatient routine services rendered by interns and residents in approved teaching programs to Medicaid beneficiaries.

Worksheet D-3: Worksheet D-3 apportions inpatient ancillary services.

Worksheet D-4: Worksheet D-4 computes organ acquisition costs and charges for hospitals that are certified transplant centers.

Worksheet D-5: Apportions cost for the services of teaching physicians.

Worksheet E

Worksheet E worksheets will be used to calculate Title XIX settlement for inpatient prospective payment system (IPPS) hospital services, medical and other health services.

NOTES:

For purposes of utilizing the CMS 2552 cost report to determine Medicare reimbursements, the term “as filed 2552 cost report” refers to the cost report filed on or before the last day of the fifth month following the close of the provider’s cost reporting period. The cost reporting period covers a 12-month period of operations based upon the provider’s accounting year.

II. Uniform Medicaid & Uncompensated Care Cost & Charge Report (UCCR)

In relation to Medicaid reimbursement, the CMS 2552 report does not sufficiently capture costs for Massachusetts hospitals because costs cannot be allocated across other payers, nor are costs reimbursed through the CMS 2552 inclusive of those incurred for providing the types of services that support the Medicaid-eligible and uninsured populations, such as those approved in this cost limit protocol as additional allowable costs.

The Commonwealth will use the CMS 2552⁴ and Uniform Medicaid & Uncompensated Care Cost & Charge Report (UCCR) to determine Medicaid and uninsured costs. To supplement the CMS 2552 cost report, hospitals subject to the cost limit protocol will file the UCCR to allocate allowable 2552 costs to Medicaid and uninsured services and, in accordance with the Cost Element table, recognize additional costs that are not otherwise reimbursed through the CMS 2552.

The UCCR report includes cost-center specific data by payer and its purpose is to capture uncompensated costs that safety net providers incur from supporting a large proportion of Medicaid and uninsured individuals. The UCCR also captures costs that are specifically allocated toward “funding required for the operation of the Safety Net Health Care System” on Schedule E, which was designed to reflect costs that are incurred disproportionately on behalf of Medicaid and uninsured patients (e.g., social, financial, and interpreter costs; unreimbursed costs for Dual Eligibles, etc. and other additional allowable costs approved in this cost limit protocol).

Overview

⁴ Community Based Detoxification Centers are the only provider type subject to the cost limit that does not submit the CMS 2552 cost report.

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Acute hospitals must submit cost, charge and patient day data via the UCCR, an electronic report developed by the Commonwealth, based on the CMS 2552, and currently used to record Medicaid- and uncompensated care costs for certain safety net providers. For the Commonwealth’s use in calculating provider-specific uncompensated care cost limits, data submitted by the provider shall be based on information supplied on the hospital’s CMS 2552, as filed with and audited/settled by the Medicare fiscal intermediary, hospital records, and the UCCR.

NOTES:

The Medicaid- eligible population includes those individuals who are eligible for Medicaid but have private insurance; Medicaid FFS and Medicaid Managed Care, including individuals dually eligible for Medicaid and Medicare.

“Uninsured individuals” for whom uncompensated care costs are allowable includes the population for which HSN payments are made. Costs associated with Medicaid-eligible individuals who are uninsured for the service are allowable under this population, assuming the service meets all other criteria outlined in this protocol, including but not limited to being “medically necessary.” Additionally, costs associated with the Medicaid- eligible population must not be duplicative of the uninsured individual costs.

The costs incurred for providing the services below are approved by CMS as additional allowable services not otherwise captured and/or allocated to the Medicaid-eligible and uninsured population through the CMS 2552 allocation method.

For the purposes of the UCCR, a Massachusetts Medicaid Managed Care Organization (otherwise referred to as “MMCO”) includes MCOs, Integrated Care Organizations (ICOs), Senior Care Organizations (SCOs), Programs of All-inclusive Care for the Elderly (PACE), and Prepaid Inpatient or Ambulatory Health Plan (including the behavioral health PIHP).

Cost Element	Inpatient Services	Outpatient Hospital Services	Chronic Disease and Rehab – Inpatient	Chronic Disease and Rehab – Outpatient	Psychiatric Inpatient Hospital	Psychiatric Outpatient Hospital	Substance Abuse Treatment – Inpatient	Substance Abuse Treatment – Outpatient
Professional component of provider-based physician costs, including contracted physician costs, which are not part of the inpatient hospital billing	X	X	X	X	X	X		

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Cost Element	Inpatient Services	Outpatient Hospital Services	Chronic Disease and Rehab – Inpatient	Chronic Disease and Rehab – Outpatient	Psychiatric Inpatient Hospital	Psychiatric Outpatient Hospital	Substance Abuse Treatment – Inpatient	Substance Abuse Treatment – Outpatient
Provider component of provider-based physician costs reduced by Medicare reasonable compensation equivalency (RCE) limits, subject to applicable Medicare cost principles	X	X	X	X	X	X		
Administrative costs of the hospital’s billing activities associated with physician services who are employees of the hospital billed and received by the hospital	X	X	X	X	X	X		
Patient and community education programs, excluding cost of marketing activities	X	X	X	X	X	X	X	X
Telemedicine services	X	X	X	X	X	X	X	X
Addiction Services	X	X	X	X	X	X		X
Community Psychiatric Support and Treatment		X		X		X		X
Medication Administration		X				X		
Vision Care		X						
Health care for the house bound and the homeless, family planning, and		X						

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Cost Element	Inpatient Services	Outpatient Hospital Services	Chronic Disease and Rehab – Inpatient	Chronic Disease and Rehab – Outpatient	Psychiatric Inpatient Hospital	Psychiatric Outpatient Hospital	Substance Abuse Treatment – Inpatient	Substance Abuse Treatment – Outpatient
pre-natal, labor, and post-natal support for at risk pregnancies. CMS 255-10, Line 193								
Social, Financial, Interpreter, Coordinated Care and other services for Medicaid-eligible and uninsured patients	X	X	X	X	X	X	X	X
340b and other pharmacy costs		X						
Graduate Medical Education	X	X	X	X	X	X		
Outlier Day: Each day beyond 20 acute days, during a single admission, for which a member remains hospitalized at acute status	X							
Psychiatric Day Treatment Program Services		X				X		
Dental Services		X						
Intensive Early Intervention Services for Children with Autism Spectrum Disorder	X	X						
Diversionsary Behavioral Health Services	X	X	X	X	X	X	X	X
Public Hospital Pensions and	X	X						

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Cost Element	Inpatient Services	Outpatient Hospital Services	Chronic Disease and Rehab – Inpatient	Chronic Disease and Rehab – Outpatient	Psychiatric Inpatient Hospital	Psychiatric Outpatient Hospital	Substance Abuse Treatment – Inpatient	Substance Abuse Treatment – Outpatient
Retiree Benefits								

UCCR Instructions

Schedule A: Computation of MassHealth Fee-for-Service (FFS) Costs

Column 1 – Reported Costs

Enter costs from the hospital’s most recently filed Medicare cost report (CMS 2552) Worksheet B, Part 1, column 24. This column includes costs that have already been reclassified, adjusted and stepped down through the A and B worksheet series and includes costs related to interns and residents.

Column 2 – Reclassification of Observation Costs and inclusion of Post-Stepdown Costs
Reclassify observation costs from Line 30 to Line 92. The observation costs are derived from the CMS-2552, Worksheet C, Part I, Column 5, Line 92.

Add post-step-down costs from Supplemental Worksheet B-2, Column 4, Lines 54, 60, 89 & 90, except costs related to interns and residents.

For line 30 (Adults and Pediatrics), include a decreasing adjustment, if applicable, for the swing bed costs reported on Worksheet D-1, Part I, line 26, and for the private room differential costs reported on Worksheet D-1, Part I, line 36.

Column 3 – Total Costs

Sum of costs from column 1 and column 2. [This column will auto-populate.]

Column 4 – Charges

Enter charges from the hospital’s most recently filed Medicare cost report (CMS 2552) Worksheet C, Part I, column 8.

Column 5 – Hospital Cost-to-Charge Ratios

Calculate the cost-to-charge ratio for each cost center by dividing the total costs for each cost center from column 3 by the respective charges from column 4. [This column will auto-populate.]

Column 6 – Total MassHealth Fee-for-Service Inpatient Charges:

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Enter from hospital records inpatient charges by cost center related to MassHealth Fee-for-Service (FFS) patients.

- MassHealth FFS Inpatient Charges include only those charges for the following:
 - Medically necessary services as defined in 130 CMR 450.204;
 - MassHealth covered inpatient hospital services provided to MassHealth patients eligible pursuant to Titles XIX and XXI at the time of service delivery.

- MassHealth FFS Inpatient Charges may not include:
 - Charges associated with services provided to MassHealth members where the service is covered by a Medicaid Managed Care Organization;
 - Charges associated with claims that have been final denied for payment by MassHealth;
 - Charges associated with state programs that are not Title XIX and Title XXI programs (e.g., the Children’s Medical Security Plan);
 - Charges associated with the professional component of hospital-based physician services.

Column 7 – MassHealth FFS Inpatient Costs

For Lines 50 through 117, calculate the MassHealth FFS inpatient costs by multiplying for each cost center the MassHealth FFS inpatient charges from column 8 by the respective hospital cost-to-charge ratios from column 5. [These lines will auto-populate.] For lines 30-46, costs are determined using a per diem methodology; these cells will automatically be populated after Schedule B (column 5) has been completed.

Column 8 – MassHealth Fee-for-Service Outpatient Charges

Enter from hospital records outpatient charges by cost center related to MassHealth Fee-for-Service (FFS) patients.

- MassHealth FFS Outpatient Charges include only those charges for the following:
 - Medically necessary services as defined in 130 CMR 450.204; and
 - MassHealth covered outpatient hospital services provided to MassHealth patients eligible pursuant to Titles XIX and XXI at the time of service delivery.

- MassHealth FFS Outpatient Charges may not include:
 - Charges associated with services provided to MassHealth members where the service is covered by a Medicaid Managed Care Organization;
 - Charges associated with claims that have been final denied for payment by MassHealth;
 - Charges associated with state programs that are not Title XIX or Title XXI programs (e.g., the Children’s Medical Security Plan); or
 - Charges associated with the professional component of hospital-based physician services.

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Column 9 – MassHealth Fee-for-Service Outpatient Costs

MassHealth FFS outpatient costs are determined by multiplying the MassHealth outpatient charges for each cost center from column 8 by the respective hospital cost-to-charge ratios from column 5. [This column will auto-populate.]

Column 10 – Total MassHealth Fee-for-Service Inpatient and Outpatient Costs

Total MassHealth FFS costs are determined by adding the MassHealth inpatient costs from column 7 and the MassHealth outpatient costs from column 9. [This column will auto-populate.]

Schedule B: Computation of Inpatient Routine Cost Center Per Diems

For the purposes of completing Schedule B, patient days entered in Columns 2, 4, 6 and 8 must include only those days wherein a patient fully met, at the time of service, the criteria for the given category (FFS, MMCO, HSN and Uninsured Care), as set forth in the Instructions to Schedules A and C. The SNF, NF, and LTC cost centers must be removed from Schedule B, since these costs cannot be claimed as part of the hospital uncompensated care costs.

Column 1 – Total Routine Cost Center Inpatient Costs

Enter total costs for each routine cost center as reported on UCCR Schedule A, Column 3, lines 30-46. [This column will auto-populate.]

Column 2 – Total Inpatient Days

Enter total patient days for each routine cost center from CMS-2552 Worksheet S-3, Part 1, Column 8.

Column 3 – Per Diem

Calculate the average cost per day (per diem) by dividing total costs for each cost center in column 1 by the respective total patient days in column 2. [This column will auto-populate.]

Column 4 – MassHealth Fee-for-Service Inpatient Days

Enter total MassHealth FFS inpatient days for each routine cost center on lines 30-46 from provider records.

Column 5 – Total MassHealth FFS Inpatient Costs

Calculate total FFS inpatient costs for each routine cost center by multiplying the days in column 4 by the per diem in column 3. [This column will auto-populate.]

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Column 6 – Medicaid Managed Care Inpatient Days

Enter total Medicaid Managed Care inpatient days for each routine cost center on lines 30-46 from provider records.

Column 7 – Total Medicaid Managed Care Inpatient Costs

Calculate total MMCO inpatient costs for each routine cost center by multiplying the days in column 6 by the per diem in column 3. [This column will auto-populate.]

Column 8 – HSN and Uninsured Care Inpatient Days

Enter total HSN and Uninsured Care inpatient days for each routine cost center on lines 30-46 from provider records.

Column 9 – Total HSN and Uninsured Care Inpatient Costs

Calculate total HSN and Uninsured Care inpatient costs for each routine cost center by multiplying the days in column 8 by the per diem in column 3. [This column will auto-populate.]

Schedule C: Computation of Massachusetts Medicaid Managed Care (MMCO) and HSN and Uninsured Costs

For the purposes of completing Schedule C:

- Massachusetts Medicaid Managed Care Charges include only those charges for the following:
 - Medically necessary services as defined in 130 CMR 450.204;
 - MassHealth covered inpatient and outpatient hospital services provided to MassHealth patients eligible pursuant to Titles XIX and XXI and enrolled in a MassHealth contracting MCO, SCO, PACE, PIHP and PAHP (MMCO) at the time of service delivery.
- Medicaid Managed Care Charges may not include:
 - Charges associated with services provided to MassHealth members where the service is covered under MassHealth Fee-for-Service, including the Primary Care Clinician program;
 - Charges associated with claims that have been final denied for payment by the MMCO;
 - Charges associated with state programs that are not Title XIX and Title XXI programs (e.g., the Children’s Medical Security Plan);
 - Charges reported as HSN and Uninsured Care (below).
- HSN and Uninsured Care Inpatient and Outpatient Charges are defined as those charges associated with care provided by hospitals for medically necessary services, including services reasonably calculated to prevent, diagnose, prevent the worsening of, alleviate,

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correct, or cure conditions in the member that endanger life, cause suffering or pain, cause physical deformity or malfunction, threaten to cause or to aggravate a handicap, or result in illness or infirmity provided to:

- Individuals with no health insurance coverage;
 - Low-Income Patients (under state regulation 114.6 CMR 12.03 (3) or (4) or its successor regulation) with no health insurance coverage;
 - Low-Income Patients (under state regulation 114.6 CMR 12.03 (3) or (4) or its successor regulation) whose public or private health insurance plan does not cover the cost of the particular service (excluding unpaid coinsurance and/or deductible amounts); or
 - Medicaid-eligible patients whose medical service is not paid by MassHealth or the Massachusetts Medicaid Managed Care Organizations, SCO, ICO, PACE, PIHP or PAHP;
- HSN and Uninsured Care Charges, for the purpose of Schedule C of the UCCR, shall exclude charges associated with:
 - Professional component of physician charges;
 - Overhead charges related to physician services.

Column 1 – Hospital Cost-to-Charge Ratios

Enter the hospital cost-to-charge ratio for each cost center from Schedule A: MassHealth Fee-for-Service (FFS) Costs column 5. [This column will auto-populate.]

Column 2 – Massachusetts Medicaid Managed Care Inpatient Charges

Enter from hospital records inpatient charges, by cost center, related to Massachusetts Medicaid managed care patients.

Column 3 – Massachusetts Medicaid Managed Care Inpatient Costs

Massachusetts Medicaid managed care inpatient costs are determined by multiplying the Massachusetts Medicaid managed care inpatient charges for each cost center from column 2 by the respective hospital cost-to-charge ratios from column 1. However, for lines 30-46, costs are determined using a per diem methodology via Schedule B. [This column will auto-populate.]

Column 4 – Massachusetts Medicaid Managed Care Outpatient Charges

Enter from hospital records outpatient charges, by cost center, related to Massachusetts Medicaid managed care patients.

Column 5 – Massachusetts Medicaid Managed Care Outpatient Costs

Massachusetts Medicaid managed care outpatient costs are determined by multiplying the

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Massachusetts Medicaid managed care outpatient charges for each cost center from column 4 by the respective hospital cost-to-charge ratios from column 1.

Column 6 – Total Massachusetts Medicaid Managed Care Inpatient and Outpatient Costs

Total Massachusetts Medicaid managed care inpatient and outpatient costs are determined by adding the Massachusetts Medicaid managed care inpatient costs from column 3 and the Massachusetts Medicaid managed care outpatient costs from column 5.

Column 7 – HSN and Uninsured Care Inpatient Charges

Enter from hospital records inpatient charges, by cost center, related to HSN and Uninsured Care patients.

Column 8 – HSN and Uninsured Care Inpatient Costs

For Lines 50 through 117, HSN and Uninsured Care inpatient costs are determined by multiplying the HSN and Uninsured Care inpatient charges for each cost center from column 7 by the respective hospital cost-to-charge ratios from column 1; for lines 30-46, costs are determined using a per diem methodology via Schedule B. [This column will auto-populate through line 94.]

Column 9 – HSN and Uninsured Care Outpatient Charges

Enter from the hospital records outpatient charges by cost center related to HSN and Uninsured Care patients.

Column 10 – HSN and Uninsured Care Outpatient Costs

Uncompensated care outpatient costs are determined by multiplying the HSN and Uninsured Care outpatient charges for each cost center from column 9 by the respective hospital cost-to-charge ratios from column 1.

Column 11 – Total HSN and Uninsured Care Costs

Total HSN and Uninsured Care inpatient and outpatient costs are determined by adding the HSN and Uninsured Care inpatient costs from column 8 and the HSN and Uninsured Care outpatient costs from column 10.

Schedule D: Computation of Uncompensated Physician Costs

For purposes of completing Schedule D:

Uncompensated Physician Costs are limited to those charges incurred by hospital-based physicians for professional services.

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- MassHealth FFS Charges include only those charges for the following:
 - Medically necessary services as defined in 130 CMR 450.204;
 - MassHealth covered hospital-based physician professional services provided to MassHealth patients eligible pursuant to Titles XIX and XXI at the time of service delivery.
 - Charges associated with the professional component of hospital-based physicians services.

- MassHealth FFS Hospital-Based Physician Professional Charges may not include:
 - Charges associated with services provided to MassHealth members where the service is covered by a Medicaid Managed Care Organization;
 - Charges associated with claims that have been final denied for payment by MassHealth;
 - Charges associated with state programs that are not Title XIX and Title XXI programs (e.g., the Children’s Medical Security Plan);

- Massachusetts Medicaid Managed Care Charges include only those charges for the following:
 - Medically necessary services as defined in 130 CMR 450.204;
 - MassHealth covered hospital-based physician professional services provided to MassHealth patients eligible pursuant to Titles XIX and XXI and enrolled in a MassHealth contracting MCO, SCO, PACE, PIHP and PAHP (MMCO) at the time of service delivery;
 - Charges associated with professional component of hospital-based physician services.

- Medicaid Managed Care Charges may not include:
 - Charges associated with services provided to MassHealth members where the service is covered under MassHealth Fee-for-Service, including the Primary Care Clinician program;
 - Charges associated with claims that have been final denied for payment by the MMCO;
 - Charges associated with state programs that are not Title XIX and Title XXI programs (e.g., the Children’s Medical Security Plan);
 - Charges reported as HSN and Uninsured Care (below).

- HSN and Uninsured Physician Charges are defined as those physician charges associated with care provided for medically necessary services, including services reasonably calculated to prevent, diagnose, prevent the worsening of, alleviate, correct, or cure conditions in the member that endanger life, cause suffering or pain, cause physical deformity or malfunction, threaten to cause or to aggravate a handicap, or result in illness or infirmity provided to:
 - Individuals with no health insurance coverage;
 - Low-Income Patients (under state regulation 114.6 CMR 12.03 (3) or (4) or its successor regulation) with no health insurance coverage;
 - Low-Income Patients (under state regulation 114.6 CMR 12.03 (3) or (4) or its successor regulation) whose public or private health insurance plan does not cover the cost of a particular service (excluding unpaid coinsurance and/or deductible amounts); or

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- Medicaid-eligible patients whose medical service is not paid by MassHealth or the Massachusetts Medicaid Managed Care Organizations, SCO, ICO, PACE, PIHP or PAHP;

Column 1 – Professional Component of Physicians’ Costs

The professional component of physicians’ costs come from the hospital’s most recently filed Medicare cost report (CMS 2552) Worksheet A-8-2, column 4.

Column 2 – Overhead Costs Related to Physicians’ Services

If the overhead costs related to physicians’ services were adjusted out of the physicians’ costs entered on Worksheet A-8-2, enter those overhead costs from Worksheet A-8 to the corresponding cost center.

Column 3 – Total Physicians’ Costs

Total Physicians’ costs are determined by adding column 1 and column 2. [This column will auto-populate.]

Column 4 – Total Physician Inpatient and Outpatient Charges

Enter the total charges related to physician inpatient and outpatient services from hospital records to the corresponding cost center.

Column 5 – Cost-to-Charge Ratios

For each cost center, a cost-to-charge ratio is calculated by dividing total physicians’ costs in column 3 by total physician charges in column 4. [This column will auto-populate.]

Column 6 – MassHealth FFS Physician Inpatient and Outpatient Charges

Enter by cost center the total charges related to physician inpatient and outpatient services for MassHealth FFS patients from hospital records.

Column 7 – MassHealth FFS Physician Inpatient and Outpatient Costs

MassHealth FFS physician inpatient and outpatient costs are determined for each cost center by multiplying the MassHealth FFS inpatient and outpatient physician charges from column 6 by the cost-to-charge ratio from column 5. [This column will auto-populate.]

Column 8 – Massachusetts Medicaid Managed Care Physician Inpatient and Outpatient Charges

Enter the total charges related to physician inpatient and outpatient services for Massachusetts

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Medicaid managed care patients from hospital records.

Column 9 – Massachusetts Medicaid Managed Care Physician Inpatient and Outpatient Costs

Massachusetts Medicaid managed care physician inpatient and outpatient costs are determined for each cost center by multiplying the Massachusetts Medicaid managed care inpatient and outpatient physician charges from column 8 by the cost-to-charge ratio from column 5. [This column will auto-populate.]

Column 10 – HSN and Uninsured Care Physician Inpatient and Outpatient Charges

From provider records, enter the charges related to physician inpatient and outpatient services for HSN and Uninsured Care patients as defined above.

Column 11 – HSN and Uninsured Care Physician Inpatient and Outpatient Costs

HSN and Uninsured Care physician inpatient and outpatient costs are determined for each cost center by multiplying the HSN and Uninsured Care inpatient and outpatient physician charges from column 10 by the cost-to-charge ratio from column 5. [This column will auto-populate.]

Column 12 – Total Massachusetts Medicaid Fee-for-Service, Medicaid Managed Care and HSN and Uninsured Care Inpatient and Outpatient Physician Costs

Total Massachusetts Medicaid fee-for-service, managed care and HSN and Uninsured Care inpatient and outpatient physician costs are determined by adding column 7, column 9 and column 11.

Schedule E: Safety Net Health Care System (SNCHS) Expenditures

Pursuant to Section 49 (c) of the 1115 demonstration Special Terms and Conditions, expenditures for payments to providers is authorized under the safety net care pool to support uncompensated care for “Medicaid FFS, Medicaid managed care, and low-income uninsured individuals.” This Schedule E provides health care providers the opportunity to itemize such system expenditures for the Medicaid-eligible and uninsured population and includes the additional allowable costs outlined in the Development Tool approved by CMS on September 6, 2013 and any additional allowable costs described in the Cost Element table of this document.

Column 1 – Total System Expenditures

Enter total safety net health care system expenditures for each line item.

Column 2 – Medicaid-eligible / HSN and Uninsured Payer Mix Proportion

To determine the proportion of total system expenditures attributable to Medicaid-eligible and uninsured patients, first estimate the total charges for the year attributable to this group; next, estimate

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the total charges for the year attributable to all patients served by the SNHCS. The ratio of these two numbers will be used to estimate the amount of system expenditures attributable to Medicaid-eligible and uninsured patients. Enter this ratio in column 2. Should an alternative ratio be more appropriate, enter that number, and then explain the basis for it in the Narrative Description section of Schedule E.

Column 3 – Medicaid-eligible / HSN and Uninsured Share of System Expenditures

Calculate the system expenditures attributable to Medicaid-eligible and uninsured patients by multiplying the total system expenditure in column 1 by the payer mix proportion in column 2. [This column will auto-populate.]

Schedule F: Medicaid and Uninsured Revenue

Note: Hospitals must ensure that any applicable revenues pertaining to Medicaid or uninsured costs allowed in Schedule E are captured in Schedule F and are treated as an offset to arrive at net uncompensated care costs.

Line Instructions:

Hospital and Clinic Revenue:

In lines 1-8, enter amounts paid for services provided by the hospital and any provider-based satellites, including hospital-licensed health centers.

Line 1 – Payer Medical Claims Revenue

For each column, enter in line 1 the total amount paid by the payer for medical claims. Do not include payments for that are not related to claims, such as pay-for-performance payments or supplemental payments. The amounts reported must reflect any post-payment reconciliations or recoupments, subject to the availability of that data.

Column 5 - Health Safety Net and Uninsured

In line 1, column 5, report the gross payments received from the HSN and Uninsured. Do not offset the amount of the HSN Assessment.

Line 2 – Pay-for-Performance / Incentive Payment Revenue

This revenue data is reported for informational purposes only. Payments that are not service payments for the provision of medical care are not offset against the eligible cost. Since the following payments are not payments for the provision of medical care, they are not offset against the eligible cost: SNCP grants and performance-based, incentive, and shared savings payments. These include performance-based and incentive-based payments and grants and awards both currently in existence and those that may be approved and implemented during future demonstration renewal periods.

Enter in line 2 any amounts paid by the payer for pay-for-performance or other incentive payments. The amount reported must also include any recoveries made by the payer for performance issue, such as retrospective performance penalties.

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Line 3-5 – Supplemental Payments

Enter in lines 3-5 any amounts paid by the payer for supplemental payments. Specify the type of supplemental payment reported by modifying the title of the line. The total gross payment must be reported; do not offset any payment amount by any intergovernmental transfer amounts that may have been made by a related public entity.

Line 6 – Medicare Revenue

Enter in line 6 any payments amounts received by Medicare for services provided to patients who are eligible for both Medicare and the payer noted in the column.

Line 7 – Third Party and Self Pay Revenue

Enter in line 7 any payment amounts received by third parties, the patient, or the patient's guarantor for the cost-sharing or services not covered by the payer noted in the column.

Line 8 – Other Revenue

Enter in line 8 any additional revenue from the payer for the Medicaid-eligible and uninsured populations not included in lines 1-7. Specify the type of revenue by modifying the title of the line. Additional information may be provided in the Notes tab.

Line 9 – Subtotal Hospital and Clinic

Sum of lines 1-8. [This line will auto-populate.]

Lines 10-15 Physician Revenue

Using the same descriptions in the corresponding lines 1-8, report physician revenue related to the payers.

Line 16 – Subtotal Physician Revenue

Sum of lines 10-15. [This line will auto-populate.]

Line 17 – Total Revenue.

Sum of lines 9 and 16. [This line will auto-populate.]

Column Instructions.

Column 1 – Medicaid FFS Inpatient Revenue

Report in column 1, amounts paid by MassHealth for inpatient services provided to members enrolled in the MassHealth program, excluding those enrolled in MassHealth managed care programs.

Column 2 – Medicaid FFS Outpatient Revenue

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Report in column 2, amounts paid by MassHealth for outpatient services provided to members enrolled in the MassHealth program, excluding those enrolled in MassHealth managed care programs.

Column 3 – Medicaid Managed Care Inpatient Revenue

Report in column 3, amounts paid by Medicaid Managed Care Organizations for inpatient services provided to members.

Column 4 – Medicaid Managed Care Outpatient Revenue

Report in column 4, amounts paid by Medicaid Managed Care Organizations for outpatient services provided to members.

Column 5 – HSN and Uninsured Inpatient and Outpatient Revenue

Report in column 5, amounts paid by the HSN and uninsured individuals for inpatient and outpatient services provided. Report the gross payments received from the HSN. Do not offset the amount of the HSN Assessment.

Column 6 – Total Revenue

Sum of columns 1 through 5. [This column will auto-populate.]

Schedule G: Notes

Providers may use Schedule G to provide additional information on the data reported.

III. Reconciliation

Interim Reconciliation

Each provider's uncompensated care costs must be computed based on the provider's as-filed CMS 2552⁵ cost report and Uniform Medicaid & Uncompensated Care Cost & Charge Report (UCCR) and for the actual service period. The CMS 2552 cost report is filed with the Medicare contractor five months after the close of the cost reporting period. The UCCR must be filed three months after the CMS 2552 is filed. For SNCP payments subject to the cost limit pursuant to STC 49(c), each provider's allowable Medicaid, uncompensated care, and uninsured costs must be reconciled against associated applicable payments received for the year for which the payments were made.

For hospitals whose accounting fiscal year aligns with the cost limit reporting fiscal year (Federal

⁵ Community Based Detoxification Centers are the only provider type subject to the cost limit that does not submit the CMS 2552 cost report.

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fiscal year), the Medicaid and uninsured costs will be reflected in the CMS 2552 and UCCR that is submitted for the accounting fiscal year. For acute hospitals whose accounting fiscal years do not align with the reporting fiscal year, the reporting year cost limit will be calculated by applying the appropriate percentage of the two contiguous CMS 2552 and UCCR cost reports that span the reporting fiscal year so that the Federal fiscal year will be represented in the cost limit calculation.

The Commonwealth must recover provider overpayments as it determines necessary based on its reconciliation calculations and availability of federal financial participation.

If an overpayment exists, the Commonwealth must determine if the overpayment occurred due to Health Safety Net (HSN) Trust Fund payments or other SNCP payments, or from both payments. To the extent that the overpayment is a result of overpaid funds from the HSN Trust Fund payments, the Commonwealth must recover from the provider the amount overpaid to the provider from the HSN Trust Fund and credit that amount to the HSN Trust Fund. The HSN Trust Fund will redistribute such amounts to other providers as appropriate. To the extent that the overpayment is not the result of HSN Trust Fund payments, the Commonwealth must recover from the provider the overpayment, and the Commonwealth must properly credit the federal share to the federal government.

The interim reconciliation described above must be performed and completed within twelve months after the filing of the UCCR(s).

Final Reconciliation

Each provider's uncompensated care costs must be recomputed based on the provider's audited CMS 2552 cost report for the actual service period. These recomputed costs must be carried over to the UCCR. The CMS 2552 cost report is audited and settled by the Medicare contractor to determine final allowable costs and reimbursement amounts as recognized by Medicare. For SNCP payments subject to the cost limit pursuant to STC 49(c), each provider's allowable Medicaid, uncompensated care, and uninsured costs must be reconciled against associated applicable payments received for the year for which the payments were made. SNCP uncompensated care payments made to the provider for a cost limit reporting year cannot exceed the recomputed uncompensated care cost limit. If, at the end of the final reconciliation process, it is determined that expenditures claimed exceeded the individual provider's uncompensated care cost limit, thereby causing an overpayment, the Commonwealth must recoup the overpayment from the provider. Specifically, if an overpayment exists, the Commonwealth must determine if the overpayment occurred due to HSN Trust Fund payments or other SNCP payments, or from both payments. To the extent that the overpayment is a result of overpaid funds from the HSN Trust Fund, the Commonwealth must recover from the provider the amount overpaid to the provider from the HSN Trust Fund and credit that amount to the HSN Trust Fund. The HSN Trust Fund will redistribute such amounts to other providers as appropriate. To the extent that the overpayment is not the result of HSN Trust Fund payments, the Commonwealth must recover from the provider the overpayment, and the Commonwealth must properly credit the federal share to the federal government.

For hospitals whose accounting fiscal year aligns with the cost limit reporting fiscal year (Federal fiscal year), the Medicaid and uninsured costs will be reflected in the CMS 2552 and UCCR that is submitted for the accounting fiscal year. For acute hospitals whose accounting fiscal years do not align with the reporting fiscal year, the reporting year cost limit will be calculated by applying the appropriate percentage of the two contiguous CMS 2552 and UCCR cost reports that span the reporting fiscal year so that the Federal fiscal year will be represented in the cost limit calculation.

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The Commonwealth must recover provider overpayments as it determines necessary based on its reconciliation calculations and availability of federal financial participation.

The final reconciliation described above must be performed and completed within twelve months after all final, audited CMS 2552 cost reports become available online.

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Protocol for Medicaid and Uncompensated Care Cost**

Determination of Allowable Medicaid and Uninsured Costs

- a. DSH Allowable Costs
 - i. Per STC 50(f), the cost limit protocol will use the Medicaid DSH statutory, regulatory, and policy definitions of allowable inpatient hospital and outpatient hospital services and allowable Medicaid and uninsured costs in determining hospital-specific cost limits. To the extent that the determination of uncompensated care costs varies from the Medicaid DSH requirements, the process must be accounted for in this document.
 - ii. Allowable pharmacy costs include the cost of drugs and pharmacy supplies requested by patient care departments and drugs charged to patients. Pharmacy service costs that are not part of an inpatient or outpatient service, such as retail pharmacy costs, are not considered eligible for inclusion in the hospital-specific uncompensated cost limit allowable under DSH. To the extent that the determination of allowable pharmacy costs varies from the Medicaid DSH requirements, the process must be accounted for in this document.
 - iii. Costs included must be for services that meet the federal definition and the approved Massachusetts State plan definition of “hospital services” for medical assistance. “Medical assistance” is defined as the cost of care and services “for individuals, and, with respect to physicians’ or dentists’ services, at the option of the State, to individuals [who are eligible]...” Section 1905 of the Act.
- b. Medicaid State Plan Allowable Costs
 - i. Massachusetts must use the same definition for all inpatient hospital, outpatient hospital, and physician services, clinic services, non-hospital services, etc. as described in its approved Medicaid state plan, and in accordance with Section 1905 of the Social Security Act and the regulations promulgated thereunder, to define allowable service costs provided by inpatient and outpatient hospitals. Massachusetts identifies other service costs, subject to CMS approval, that are not included in the Medicaid state plan definitions to be included as allowable uncompensated care costs in this document (see Cost Element table).
 - 1. Inpatient chronic disease and rehabilitation hospital services: Inpatient services are routine and ancillary services that are provided to recipients admitted as patients to a chronic disease or rehabilitation hospital. Such services are as described in Section 1905 of the Social Security Act and the regulations promulgated thereunder.
 - 2. Inpatient psychiatric hospital services: Psychiatric treatment provided under the direction of a psychiatrist in a psychiatric inpatient hospital. Such services are as described in Section 1905 of the Social Security Act and the regulations promulgated thereunder.
 - 3. Outpatient chronic disease and rehabilitation hospital services: Rehabilitative and medical services provided to a member in a chronic disease or rehabilitation outpatient setting including but not limited to chronic disease or rehabilitation hospital outpatient

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departments, hospital-licensed health centers or other hospital satellite clinics, physicians' offices, nurse practitioners' offices, freestanding ambulatory surgery centers, day treatment centers, or the member's home. Such services include, but are not limited to, radiology, laboratory, diagnostic testing, therapy services (i.e., physical, speech, occupational and respiratory) and Day surgery services. Such services are as described in Section 1905 of the Social Security Act and the regulations promulgated thereunder.

4. Outpatient psychiatric hospital services: Services provided to members on an outpatient basis in a psychiatric hospital. Such services are as described in Section 1905 of the Social Security Act and the regulations promulgated thereunder.
- c. 1115 Demonstration Allowable Costs
 - i. 1115 Demonstration Expenditures: Costs incurred by psychiatric and chronic disease and rehabilitation hospitals for providing services to members eligible for Medicaid through the section 1115 demonstration (i.e., expansion populations) will be counted as allowable costs. In addition, allowable costs of services that are not authorized under the 1115 demonstration include expenditures related to services provided in the programs below and described in the Cost Element table. All services authorized under the section 1115 demonstration are subject to the requirements and limitations specified in the STCs.
 1. Diversionary Behavioral Health Services.
 - d. Medicaid Managed Care Costs: Costs incurred by psychiatric and chronic disease and rehabilitation hospitals for providing services to members enrolled in Medicaid managed care organizations including SCOs and ICOs, prepaid inpatient health plans, and any prepaid ambulatory health plans. Eligible costs are determined using the same methodology under this section.
 - e. Other Allowable Costs, Approved 1915(c) Waivers – Allowable costs are defined in the Cost Element table.
 - f. Additional Allowable Costs – Allowable costs are defined in the Cost Element table.

I. Certified Public Expenditures – Determination of Allowable Safety Net Care Pool Costs

In accordance with the approved MassHealth Section 1115 demonstration, beginning July 1, 2014, the estimated fiscal year expenditures will be based on the actual fiscal year CMS 2552 and UCCR cost reports.

General Description of Methodology

The certified public expenditures (CPEs) for special population State-Owned Non-Acute hospitals operated by the Department of Public Health (DPH) and Department of Mental Health (DMH) are claimed annually under the Safety Net Care Pool (SNCP) based upon the unreimbursed Medicaid and uninsured. The CPE interim payments made under the SNCP will follow the same methodology as contained in the Commonwealth's Medicaid State Plan.

II. Summary of 2552-10 Cost Report

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Worksheet A: Reclassification and Adjustment of Trial Balance of Expenses

Worksheet A provides for recording the trial balance of expense accounts from your accounting books and records. It also provides for the necessary reclassifications and adjustments to certain accounts. Not included on Worksheet A are items that conflict with Medicare regulations, manuals, or instructions but which providers may wish to claim and contest.

The trial balance of expenses is broken down into the following categories to facilitate the transfer of costs to the various worksheets:

- 1) General service cost centers
- 2) Inpatient routine service cost centers
- 3) Ancillary service cost centers
- 4) Outpatient service cost centers
- 5) Other reimbursable cost centers
- 6) Special purpose cost centers
- 7) Other special purpose cost centers not previously identified
- 8) Costs applicable to nonreimbursable cost centers to which general service costs apply
- 9) Nonreimbursable cost center to accumulate the cost incurred by you for services related to the physicians' private practice

Worksheet B

Worksheet B allocates overhead (originally identified as general service cost centers) to all other cost centers, including the non-reimbursable costs identified in lines 96 through 100.

Cost finding is the process of recasting data derived from the accounts ordinarily kept by the provider to ascertain costs of the various types of services rendered; i.e., the allocation of the expenses of each general service cost center to those cost centers which receive the services. The CMS 2552 approved method of cost finding is recognized and outlined in 42 CFR 413.24 and is based on the accrual basis of accounting except where government institutions operate on a cash basis of accounting.

Worksheet C

Worksheet C computes the ratio of cost to charges (RCC) for inpatient services, ancillary services, outpatient services, and other reimbursable services. The total cost for each cost center is derived from Worksheet B after the overhead allocation, and the total charge for each cost center is determined from the provider's records. This RCC is used on Worksheet D, Worksheet D-3, Worksheet D-4, Worksheet H-3, and Worksheet J-2 to determine the program's share of ancillary service costs in accordance with 42 CFR 413.53. This worksheet is also needed to determine the adjusted total costs used on Worksheet D-1.

Worksheet D

This series of worksheets is where the total costs from Worksheet B are apportioned to different payer programs. Apportionment is the process by which a cost center's total cost is allocated to a specific payer or program or service type. Apportionment is used to arrive at Medicare hospital inpatient routine and ancillary cost and Medicare hospital outpatient cost, etc.

Worksheet D consists of the following five parts:

- 1) Part I: Apportionment of Inpatient Routine Service Capital Costs
- 2) Part II: Apportionment of Inpatient Ancillary Service Capital Costs
- 3) Part III: Apportionment of Inpatient Routine Service Other Pass Through Costs
- 4) Part IV: Apportionment of Inpatient/Outpatient Ancillary Service Other Pass Through Costs
- 5) Part V: Apportionment of Medical and Other Health Services Costs

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Worksheet D-1: All providers will complete this worksheet, which provides for the computation of hospital inpatient operating cost in accordance with 42 CFR 413.53 (determination of cost of services to beneficiaries), 42 CFR 413.40 (ceiling on rate of hospital cost increases), and 42 CFR 412.1 through 412.125 (prospective payment).

Worksheet D-2: Worksheet D-2 apportions the cost of services rendered by interns and residents across the following two parts:

- 1) Part I: Not in Approved Teaching Program. This part is used by the provider only if it has interns and residents that are not in an approved teaching program.
- 2) Part II: In an Approved Teaching Program (Title XVIII, Part B Inpatient Routine Costs Only). This part provides for reimbursement for inpatient routine services rendered by interns and residents in approved teaching programs to Medicaid beneficiaries.

Worksheet D-3: Worksheet D-3 apportions inpatient ancillary services.

Worksheet D-4: Worksheet D-4 computes organ acquisition costs and charges for hospitals that are certified transplant centers.

Worksheet D-5: Apportions cost for the services of teaching physicians.

Worksheet E

Worksheet E worksheets will be used to calculate Title XIX settlement for inpatient prospective payment system (IPPS) hospital services, medical and other health services.

NOTES:

For purposes of utilizing the CMS 2552 cost report to determine Medicare reimbursements, the term “as filed 2552 cost report” refers to the cost report filed on or before the last day of the fifth month following the close of the provider’s cost reporting period. The cost reporting period covers a 12-month period of operations based upon the provider’s accounting year.

III. Uniform Medicaid & Uncompensated Care Cost & Charge Report (UCCR)

In relation to Medicaid reimbursement, the CMS 2552 report does not sufficiently capture costs for Massachusetts providers because costs cannot be allocated across other payers, nor are costs reimbursed through the CMS 2552 inclusive of those incurred for providing the types of services that support the Medicaid-eligible and uninsured populations, such as those approved in this cost limit protocol as additional allowable costs.

The Commonwealth will use the CMS 2552⁶ and Uniform Medicaid & Uncompensated Care Cost & Charge Report (UCCR) to determine Medicaid and uninsured costs. To supplement the Medicare 2552 cost report, hospitals subject to the cost protocol will file the UCCR to allocate allowable 2552 costs to Medicaid and uninsured services and, in accordance with the Cost Element table, recognize additional costs that are not otherwise reimbursed through the CMS 2552.

The UCCR report includes cost-center specific data by payer and its purpose is to capture

⁶ Community Based Detoxification Centers are the only provider type subject to the cost limit that does not submit the Medicare 2552 cost report.

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uncompensated costs that safety net providers incur from supporting a large proportion of Medicaid-eligible and uninsured individuals. The UCCR also captures costs that are specifically allocated toward “funding required for the operation of the Safety Net Health Care System” on Schedule E, which was designed to reflect costs that are incurred disproportionately on behalf of Medicaid-eligible and uninsured patients (e.g., social, financial, and interpreter costs; unreimbursed costs for Dual Eligibles, etc. and other additional allowable costs approved in this cost limit protocol).

Overview

Public Chronic Disease & Rehabilitation and Psychiatric Inpatient and Outpatient Hospitals must submit cost, charge and patient day data via the UCCR, an electronic report developed by the Commonwealth based on the 2552 and currently used to record Medicaid and uncompensated care costs for certain safety net providers. For the Commonwealth’s use in calculating provider-specific uncompensated care cost limits, data submitted by the provider shall be based on information supplied on the hospital’s CMS 2552, as filed with and audited/settled by the Medicare fiscal intermediary, hospital records, and the UCCR.

NOTES:

The Medicaid-eligible population includes those who are eligible for Medicaid but have private insurance; Medicaid FFS and Medicaid Managed Care, including individuals dually eligible for Medicaid and Medicare.

“Uninsured individuals” for whom uncompensated care costs are allowable includes the population for which HSN payments are made. Costs associated with Medicaid-eligible individuals who are uninsured for the service are allowable under this population, assuming the service meets all other criteria outlined in this protocol, including but not limited to being “medically necessary.” Additionally, costs associated with the Medicaid-eligible population must not be duplicative of the uninsured individual costs.

The costs incurred for providing the services below are approved by CMS as additional allowable services not otherwise captured and/or allocated to the Medicaid-eligible and uninsured population through the CMS 2552 allocation method.

For the purposes of the UCCR, a Massachusetts Medicaid Managed Care Organization (otherwise referred to as “MMCO”) includes MCOs, Integrated Care Organizations (ICOs), Senior Care Organizations (SCOs), Programs of All-inclusive Care for the Elderly (PACE), and Prepaid Inpatient or Ambulatory Health Plan (including the behavioral health PIHP).

Cost Element	Inpatient Services	Outpatient Hospital Services	Chronic Disease and Rehab – Inpatient	Chronic Disease and Rehab – Outpatient	Psychiatric Inpatient Hospital	Psychiatric Outpatient Hospital	Substance Abuse Treatment – Inpatient	Substance Abuse Treatment – Outpatient
Professional component of provider-based physician costs, including contracted physician costs,	X	X	X	X	X	X		

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Cost Element	Inpatient Services	Outpatient Hospital Services	Chronic Disease and Rehab – Inpatient	Chronic Disease and Rehab – Outpatient	Psychiatric Inpatient Hospital	Psychiatric Outpatient Hospital	Substance Abuse Treatment – Inpatient	Substance Abuse Treatment – Outpatient
which are not part of the inpatient hospital billing								
Provider component of provider-based physician costs reduced by Medicare reasonable compensation equivalency (RCE) limits, subject to applicable Medicare cost principles	X	X	X	X	X	X		
Administrative costs of the hospital's billing activities associated with physician services who are employees of the hospital billed and received by the hospital	X	X	X	X	X	X		
Patient and community education programs, excluding cost of marketing activities	X	X	X	X	X	X	X	X
Telemedicine services	X	X	X	X	X	X	X	X
Addiction Services	X	X	X	X	X	X		X
Community Psychiatric Support and Treatment		X		X		X		X
Medication Administration		X				X		
Vision Care		X						

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Cost Element	Inpatient Services	Outpatient Hospital Services	Chronic Disease and Rehab – Inpatient	Chronic Disease and Rehab – Outpatient	Psychiatric Inpatient Hospital	Psychiatric Outpatient Hospital	Substance Abuse Treatment – Inpatient	Substance Abuse Treatment – Outpatient
Health care for the house bound and the homeless, family planning, and pre-natal, labor, and post-natal support for at risk pregnancies. CMS 255-10, Line 193		X						
Social, Financial, Interpreter, Coordinated Care and other services for Medicaid-eligible and uninsured patients	X	X	X	X	X	X	X	X
340b and other pharmacy costs		X						
Graduate Medical Education	X	X	X	X	X	X		
Outlier Day: Each day beyond 20 acute days, during a single admission, for which a member remains hospitalized at acute status	X							
Psychiatric Day Treatment Program Services		X				X		
Dental Services		X						
Intensive Early Intervention Services for Children with Autism Spectrum	X	X						

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Cost Element	Inpatient Services	Outpatient Hospital Services	Chronic Disease and Rehab – Inpatient	Chronic Disease and Rehab – Outpatient	Psychiatric Inpatient Hospital	Psychiatric Outpatient Hospital	Substance Abuse Treatment – Inpatient	Substance Abuse Treatment – Outpatient
Disorder								
Diversionsary Behavioral Health Services	X	X	X	X	X	X	X	X
Public Hospital Pensions and Retiree Benefits	X	X						

UCCR Instructions

Schedule A: Computation of MassHealth Fee-for-Service (FFS) Costs

Column 1 – Reported Costs

Enter costs from the hospital’s most recently filed Medicare cost report (CMS 2552) Worksheet B, Part 1, column 24. This column includes costs that have already been reclassified, adjusted and stepped down through the A and B worksheet series and includes costs related to interns and residents.

Column 2 – Reclassification of Observation Costs and Inclusion of Post-Stepdown Costs

Reclassify observation costs from Line 30 to Line 92. The observation costs are derived from the CMS-2552, Worksheet C, Part I, Column 5, Line 92.

Add post-step-down costs from Supplemental Worksheet B-2, Column 4, Lines 54, 60, 89 & 90, except costs related to interns and residents.

For line 30 (Adults and Pediatrics), include a decreasing adjustment, if applicable, for the swing bed costs reported on Worksheet D-1, Part I, line 26, and for the private room differential costs reported on Worksheet D-1, Part I, line 36.

Column 3 – Total Costs

Sum of costs from column 1 and column 2. [This column will auto-populate.]

Column 4 – Charges

Enter charges from the hospital’s most recently filed Medicare cost report (CMS 2552) Worksheet C, Part I, column 8.

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Column 5 – Hospital Cost-to-Charge Ratios

Calculate the cost-to-charge ratio for each cost center by dividing the total costs for each cost center from column 3 by the respective charges from column 4. [This column will auto-populate.]

Column 6 – Total MassHealth Fee-for-Service Inpatient Charges:

Enter from hospital records inpatient charges by cost center related to MassHealth Fee-for-Service (FFS) patients.

- MassHealth FFS Charges include only those charges for the following:
 - Medically necessary services as defined in 130 CMR 450.204;
 - MassHealth covered inpatient hospital services provided to MassHealth patients eligible pursuant to Titles XIX and XXI at the time of service delivery.

- MassHealth FFS Charges may not include:
 - Charges associated with services provided to MassHealth members where the service is covered by a Medicaid Managed Care Organization;
 - Charges associated with claims that have been final denied for payment by MassHealth;
 - Charges associated with state programs that are not Title XIX and Title XXI programs (e.g., the Children’s Medical Security Plan);
 - Charges associated with the professional component of hospital-based physician services.

Column 7 – MassHealth FFS Inpatient Costs

For Lines 50 through 117, calculate the MassHealth FFS inpatient costs by multiplying for each cost center the MassHealth FFS inpatient charges from column 8 by the respective hospital cost-to-charge ratios from column 5. [These lines will auto-populate.] For lines 30-46, costs are determined using a per diem methodology; these cells will automatically be populated after Schedule B (column 5) has been completed.

Column 8 – MassHealth Fee-for-Service Outpatient Charges

Enter from hospital records outpatient charges by cost center related to MassHealth Fee-for-Service (FFS) patients.

- MassHealth FFS Outpatient Charges include only those charges for the following:
 - Medically necessary services as defined in 130 CMR 450.204;
 - MassHealth covered outpatient hospital services provided to MassHealth patients eligible pursuant to Titles XIX and XXI at the time of service delivery.

- MassHealth FFS Outpatient Charges may not include:
 - Charges associated with services provided to MassHealth members where the service is covered by a Medicaid Managed Care Organization;

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- Charges associated with claims that have been final denied for payment by MassHealth;
- Charges associated with state programs that are not Title XIX or Title XXI programs (e.g., the Children’s Medical Security Plan);
- Charges associated with the professional component of hospital-based physician services.

Column 9 – MassHealth Fee-for-Service Outpatient Costs

MassHealth FFS outpatient costs are determined by multiplying the MassHealth outpatient charges for each cost center from column 8 by the respective hospital cost-to-charge ratios from column 5. [This column will auto-populate.]

Column 10 – Total MassHealth Fee-for-Service Inpatient and Outpatient Costs

Total MassHealth FFS costs are determined by adding the MassHealth inpatient costs from column 7 and the MassHealth outpatient costs from column 11. [This column will auto-populate.]

Schedule B: Computation of Inpatient Routine Cost Center Per Diems

For the purposes of completing Schedule B, patient days entered in Columns 2, 4, 6 and 8 must include only those days wherein a patient fully met, at the time of service, the criteria for the given category (FFS, MMCO, HSN and Uninsured Care), as set forth in the Instructions to Schedules A and C.

Column 1 – Total Routine Cost Center Inpatient Costs

Enter total costs for each routine cost center as reported on UCCR Schedule A, Column 3, lines 30-46. [This column will auto-populate.]

Column 2 – Total Inpatient Days

Enter total patient days for each routine cost center from CMS-2552 Worksheet S-3, Part 1, Column 8.

Column 3 – Per Diem

Calculate the average cost per day (per diem) by dividing total costs for each cost center in column 1 by the respective total patient days in column 2. [This column will auto-populate.]

Column 4 – MassHealth Fee-for-Service Inpatient Days

Enter total MassHealth FFS inpatient days for each routine cost center on lines 30-46 from provider records.

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Column 5 – Total MassHealth FFS Inpatient Costs

Calculate total FFS inpatient costs for each routine cost center by multiplying the days in column 4 by the per diem in column 3. [This column will auto-populate.]

Column 6 – Medicaid Managed Care Inpatient Days

Enter total MassHealth managed care inpatient days for each routine cost center on lines 30-46 from provider records.

Column 7 – Total Medicaid Managed Care Inpatient Costs

Calculate total MMCO inpatient costs for each routine cost center by multiplying the days in column 6 by the per diem in column 3. [This column will auto-populate.]

Column 8 – HSN and Uninsured Care Inpatient Days

Enter total HSN and Uninsured Care inpatient days for each routine cost center on lines 30-46 from provider records.

Column 9 – Total HSN and Uninsured Care Inpatient Costs

Calculate total HSN and Uninsured Care inpatient costs for each routine cost center by multiplying the days in column 8 by the per diem in column 3. [This column will auto-populate.]

Schedule C: Computation of Massachusetts Medicaid Managed Care (MMCO) and HSN and Uninsured Costs

For the purposes of completing Schedule C:

- Massachusetts Medicaid Managed Care Charges include only those charges for the following:
 - Medically necessary services as defined in 130 CMR 450.204;
 - MassHealth covered inpatient and outpatient hospital services provided to MassHealth patients eligible pursuant to Titles XIX and XXI and enrolled in a MassHealth contracting MCO, SCO, PACE, PIHP and PAHP (MMCO) at the time of service delivery.

- Medicaid Managed Care Charges may not include:
 - Charges associated with services provided to MassHealth members where the service is covered under MassHealth Fee-for-Service, including the Primary Care Clinician program;
 - Charges associated with claims that have been final denied for payment by the MMCO;

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- Charges associated with state programs that are not Title XIX and Title XXI programs (e.g., the Children’s Medical Security Plan);
 - Charges associated with patients eligible for another state’s Medicaid program;
 - Charges reported as HSN and Uninsured Care (below).
- HSN and Uninsured Care Inpatient and Outpatient Charges are defined as those charges associated with care provided by hospitals for medically necessary services, including services reasonably calculated to prevent, diagnose, prevent the worsening of, alleviate, correct, or cure conditions in the member that endanger life, cause suffering or pain, cause physical deformity or malfunction, threaten to cause or to aggravate a handicap, or result in illness or infirmity provided to:
 - Individuals with no health insurance coverage;
 - Low-Income Patients (under state regulation 114.6 CMR 12.03 (3) or (4) or its successor regulation) with no health insurance coverage;
 - Low-Income Patients (under state regulation 114.6 CMR 12.03 (3) or (4) or its successor regulation) whose public or private health insurance plan does not cover the cost of the particular service (excluding unpaid coinsurance and/or deductible amounts); or
 - Medicaid-eligible patients whose medical service is not paid by MassHealth or the Massachusetts Medicaid Managed Care Organizations, SCO, ICO, PACE, PIHP or PAHP;
 - HSN and Uninsured Care Charges, for the purpose of Schedule C of the UCCR, shall exclude charges associated with:
 - Professional component of physician charges;
 - Overhead charges related to physician services.

Column 1 – Hospital Cost-to-Charge Ratios

Enter the hospital cost-to-charge ratio for each cost center from Schedule A: MassHealth Fee-for-Service (FFS) Costs column 5. [This column will auto-populate.]

Column 2 – Massachusetts Medicaid Managed Care Inpatient Charges

Enter from hospital records inpatient charges, by cost center, related to Massachusetts Medicaid managed care patients.

Column 3 – Massachusetts Medicaid Managed Care Inpatient Costs

Massachusetts Medicaid managed care inpatient costs are determined by multiplying the Massachusetts Medicaid managed care inpatient charges for each cost center from column 2 by the respective hospital cost-to-charge ratios from column 1. However, for lines 30-46, costs are determined using a per diem methodology via Schedule B. [This column will auto-populate.]

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Column 4 – Massachusetts Medicaid Managed Care Outpatient Charges

Enter from hospital records outpatient charges, by cost center, related to Massachusetts Medicaid managed care patients.

Column 5 – Massachusetts Medicaid Managed Care Outpatient Costs

Massachusetts Medicaid managed care outpatient costs are determined by multiplying the Massachusetts Medicaid managed care outpatient charges for each cost center from column 4 by the respective hospital cost-to-charge ratios from column 1.

Column 6 – Total Massachusetts Medicaid managed care Inpatient and Outpatient Costs

Total Massachusetts Medicaid managed care inpatient and outpatient costs are determined by adding the Massachusetts Medicaid managed care inpatient costs from column 3 and the Massachusetts Medicaid managed care outpatient costs from column 5.

Column 7 – HSN and Uninsured Care Inpatient Charges

Enter from hospital records inpatient charges, by cost center, related to HSN and Uninsured Care patients.

Column 8 – HSN and Uninsured Care Inpatient Costs

For Lines 50 through 117, HSN and Uninsured Care inpatient costs are determined by multiplying the HSN and Uninsured Care inpatient charges for each cost center from column 7 by the respective hospital cost-to-charge ratios from column 1; for lines 30-46, costs are determined using a per diem methodology via Schedule B. [This column will auto-populate through line 94.]

Column 9 – HSN and Uninsured Care Outpatient Charges

Enter from the hospital records outpatient charges by cost center related to HSN and Uninsured Care patients.

Column 10 – HSN and Uninsured Care Outpatient Costs

HSN and Uninsured Care outpatient costs are determined by multiplying the HSN and Uninsured Care outpatient charges for each cost center from column 9 by the respective hospital cost-to-charge ratios from column 1.

Column 11 – Total HSN and Uninsured Care Inpatient and Outpatient Costs

Total HSN and Uninsured Care inpatient and outpatient costs are determined by adding the HSN and Uninsured Care inpatient costs from column 8 and the HSN and Uninsured Care outpatient costs from

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column 10.

Schedule D: Computation of Uncompensated Physician Costs

For purposes of completing Schedule D:

Uncompensated Physician Costs are limited to those charges incurred by hospital-based physicians for professional services.

- MassHealth FFS Inpatient and Outpatient Charges include only those charges for the following:
 - Medically necessary services as defined in 130 CMR 450.204;
 - MassHealth covered hospital-based physician professional services provided to MassHealth patients eligible pursuant to Titles XIX and XXI at the time of service delivery.
 - Charges associated with the professional component of hospital-based physician services.
- MassHealth FFS Hospital-Based Physician Professional Charges may not include:
 - Charges associated with services provided to MassHealth members where the service is covered by a Medicaid Managed Care Organization;
 - Charges associated with claims that have been final denied for payment by MassHealth;
 - Charges associated with state programs that are not Title XIX and Title XXI programs (e.g., the Children's Medical Security Plan);
- Massachusetts Medicaid Managed Care Charges include only those charges for the following:
 - Medically necessary services as defined in 130 CMR 450.204;
 - MassHealth covered hospital-based physician services provided to MassHealth patients eligible pursuant to Titles XIX and XXI and enrolled in a MassHealth contracting MCO, SCO, PACE, PIHP and PAHP (MMCO) at the time of service delivery.
- Medicaid Managed Care Charges may not include:
 - Charges associated with services provided to MassHealth members where the service is covered under MassHealth Fee-for-Service, including the Primary Care Clinician program;
 - Charges associated with claims that have been final denied for payment by the MMCO;
 - Charges associated with state programs that are not Title XIX and Title XXI programs (e.g., the Children's Medical Security Plan);
 - Charges reported as HSN and Uninsured Care (below).
- HSN and Uninsured Care Physician Charges are defined as those physician charges associated with care provided for medically necessary services, including services reasonably calculated to prevent, diagnose, prevent the worsening of, alleviate, correct, or cure conditions in the member that endanger life, cause suffering or pain, cause physical deformity or malfunction, threaten to cause or to aggravate a handicap, or result in illness or infirmity provided to:

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- Individuals with no health insurance coverage;
- Low-Income Patients (under state regulation 114.6 CMR 12.03 (3) or (4) or its successor regulation) with no health insurance coverage;
- Low-Income Patients (under state regulation 114.6 CMR 12.03 (3) or (4) or its successor regulation) whose public or private health insurance plan does not cover the cost of the particular service (excluding unpaid coinsurance and/or deductible amounts); or
- Medicaid-eligible patients whose medical service is not paid by MassHealth or the Massachusetts Medicaid Managed Care Organizations, SCO, ICO, PACE, PIHP or PAHP;

Column 1 – Professional Component of Physicians’ Costs

The professional component of physicians’ costs come from the hospital’s most recently filed Medicare cost report (CMS 2552) Worksheet A-8-2, column 4.

Column 2 – Overhead Costs Related to Physicians’ Services

If the overhead costs related to physicians’ services were adjusted out of the physicians’ costs entered on Worksheet A-8-2, enter those overhead costs from Worksheet A-8 to the corresponding cost center.

Column 3 – Total Physicians’ Costs

Total Physicians’ costs are determined by adding column 1 and column 2. [This column will auto-populate.]

Column 4 – Total Physician Inpatient and Outpatient Charges

Enter the total charges related to physician inpatient and outpatient services from hospital records to the corresponding cost center.

Column 5 – Cost-to-Charge Ratios

For each cost center, a cost-to-charge ratio is calculated by dividing total physicians’ costs in column 3 by total physician charges in column 4. [This column will auto-populate.]

Column 6 – MassHealth FFS Physician Inpatient and Outpatient Charges

Enter by cost center the total charges related to physician inpatient and outpatient services for MassHealth FFS patients from hospital records.

Column 7 – MassHealth FFS Physician Inpatient and Outpatient Costs

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MassHealth FFS physician inpatient and outpatient costs are determined for each cost center by multiplying the MassHealth FFS inpatient and outpatient physician charges from column 6 by the cost-to-charge ratio from column 5. [This column will auto-populate.]

Column 8 – Massachusetts Medicaid Managed Care Physician Inpatient and Outpatient Charges

Enter the total charges related to physician inpatient and outpatient services for Massachusetts Medicaid managed care patients from hospital records.

Column 9 – Massachusetts Medicaid Managed Care Physician Inpatient and Outpatient Costs

Massachusetts Medicaid managed care physician inpatient and outpatient costs are determined for each cost center by multiplying the Massachusetts Medicaid managed care inpatient and outpatient physician charges from column 8 by the cost-to-charge ratio from column 5. [This column will auto-populate.]

Column 10 – HSN and Uninsured Care Physician Inpatient and Outpatient Charges

From provider records, enter the charges related to physician inpatient and outpatient services for HSN and Uninsured Care patients as defined above.

Column 11 – HSN and Uninsured Care Physician Inpatient and Outpatient Costs

HSN and Uninsured Care physician inpatient and outpatient costs are determined for each cost center by multiplying the HSN and Uninsured Care inpatient and outpatient physician charges from column 10 by the cost-to-charge ratio from column 5. [This column will auto-populate.]

Column 12 – Total Massachusetts Medicaid Fee For Service Medicaid Managed Care and HSN and Uninsured Care Inpatient and Outpatient Physician Costs

Total Massachusetts Medicaid fee for service, managed care and HSN and Uninsured Care inpatient and outpatient physician costs are determined by adding column 7, column 9 and column 11.

Schedule E: Safety Net Health Care System (SNCHS) Expenditures

Pursuant to Section 49 (c) of the 1115 demonstration Special Terms and Conditions, expenditures for payments to providers is authorized under the safety net care pool to support uncompensated care for “Medicaid FFS, Medicaid managed care, and low-income uninsured individuals.” This Schedule E provides health care providers the opportunity to itemize such system expenditures for the Medicaid-eligible and uninsured population and includes the additional allowable costs outlined in the Development Tool approved by CMS on September 6, 2013 and any additional allowable costs described in the Cost Element table of this document.

Column 1 – Total SNHCS Expenditures

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Enter total safety net health care system expenditures for each line item.

Column 2 – Medicaid-eligible / HSN and Uninsured Payer Mix Proportion

To determine the proportion of total system expenditures attributable to Medicaid-eligible and uninsured patients, first estimate the total charges for the year attributable to this group; next, estimate the total charges for the year attributable to all patients served by the SNHCS. The ratio of these two numbers will be used to estimate the amount of system expenditures attributable to Medicaid-eligible and uninsured patients. Enter this ratio in column 2. Should an alternative ratio be more appropriate, enter that number, and then explain the basis for it in the Narrative Description section of Schedule E.

Column 3 – Medicaid-eligible / HSN and Uninsured Share of System Expenditures

Calculate the system expenditures attributable to Medicaid-eligible and uninsured patients by multiplying the total system expenditure in column 1 by the payer mix proportion in column 2. [This column will auto-populate.]

Schedule F: Medicaid and Uninsured Revenue

Note: Hospitals must ensure that any applicable revenues pertaining to Medicaid or uninsured costs allowed in Schedule E are captured in Schedule F and are treated as an offset to arrive at net uncompensated care costs.

Line Instructions:

Hospital and Clinic Revenue:

In lines 1-8, enter amounts paid for services provided by the hospital and any provider-based satellites, including hospital-licensed health centers.

Line 1 – Payer Medical Claims Revenue

For each column, enter in line 1 the total amount paid by the payer for medical claims. Do not include payments for that are not related to claims, such as pay-for-performance payments or supplemental payments. The amounts reported must reflect any post-payment reconciliations or recoupments, subject to the availability of that data.

Column 5 - Health Safety Net and Uninsured

In line 1, column 5, report the gross payments received from the HSN and Uninsured. Do not offset the amount of the HSN Assessment.

Line 2 – Pay for Performance / Incentive Payment Revenue

This revenue data is reported for informational purposes only. Payments that are not service payments for the provision of medical care are not offset against the eligible cost. Since following payments are not payments for the provision of medical care, they are not offset against the eligible cost: SNCP grants and performance-based, incentive, and shared savings payments. These include performance-

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based and incentive-based payments and grants and awards both currently in existence and those that may be approved and implemented during future demonstration renewal periods.

Enter in line 2 any amounts paid by the payer for pay-for-performance or other incentive payments. The amount reported must also include any recoveries made by the payer for performance issue, such as retrospective performance penalties.

Line 3-5 – Supplemental Payments

Enter in lines 3-5 any amounts paid by the payer for supplemental payments. Specify the type of supplemental payment reported by modifying the title of the line. The total gross payment must be reported; do not offset any payment amount by any intergovernmental transfer amounts that may have been made by a related public entity.

Line 6 – Medicare Revenue

Enter in line 6 any payments amounts received by Medicare for services provided to patients who are eligible for both Medicare and the payer noted in the column.

Line 7 – Third Party and Self Pay Revenue

Enter in line 7 any payment amounts received by third parties, the patient, or the patient's guarantor for the cost-sharing or services not covered by the payer noted in the column.

Line 8 – Other Revenue

Enter in line 8 any additional revenue from the payer for the Medicaid-eligible and uninsured populations not included in lines 1-7. Specify the type of revenue by modifying the title of the line. Additional information may be provided in the Notes tab.

Line 9 – Subtotal Hospital and Clinic

Sum of lines 1-8. [This line will auto-populate.]

Lines 10-15 Physician Revenue

Using the same descriptions in the corresponding lines 1-8, report physician revenue related to the payers.

Line 16 – Subtotal Physician Revenue

Sum of lines 10-15. [This line will auto-populate.]

Line 17 – Total Revenue.

Sum of lines 9 and 16. [This line will auto-populate.]

Column Instructions.

Column 1 – Medicaid FFS Inpatient Revenue

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Report in column 1, amounts paid by MassHealth for inpatient services provided to members enrolled in the MassHealth program, excluding those enrolled in MassHealth managed care programs.

Column 2 – Medicaid FFS Outpatient Revenue

Report in column 2, amounts paid by MassHealth for outpatient services provided to members enrolled in the MassHealth program, excluding those enrolled in MassHealth managed care programs.

Column 3 – Medicaid Managed Care Inpatient Revenue

Report in column 3, amounts paid by Medicaid Managed Care Organizations for inpatient services provided to members.

Column 4 – Medicaid Managed Care Outpatient Revenue

Report in column 4, amounts paid by Medicaid Managed Care Organizations for outpatient services provided to members.

Column 5 – HSN and Uninsured Inpatient and Outpatient Revenue

Report in column 5, amounts paid by the HSN and Uninsured individuals for inpatient and outpatient services provided. Report the gross payments received from the HSN. Do not offset the amount of the HSN Assessment.

Column 6 – Total Revenue

Sum of columns 1 through 5. [This column will auto-populate.]

Schedule G: Notes

Providers may use Schedule G to provide additional information on the data reported.

IV. Reconciliation

Interim Reconciliation

Each provider's uncompensated care costs must be computed based on the provider's as-filed CMS 2552⁷ cost report and Uniform Medicaid & Uncompensated Care Cost & Charge Report (UCCR) and for the actual service period. The CMS 2552 cost report is filed with the Medicare contractor five months after the close of the cost reporting period. The UCCR must be filed three months after the CMS 2552 is filed. For SNCP payments subject to the cost limit pursuant to STC 49(c), each provider's allowable Medicaid, uncompensated care, and uninsured costs must be reconciled against

⁷ Community Based Detoxification Centers are the only provider type subject to the cost limit that does not submit the CMS 2552 cost report.

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associated applicable payments received for the year for which the payments were made.

For hospitals whose accounting fiscal year aligns with the cost limit reporting fiscal year (Federal fiscal year), the Medicaid and uninsured costs will be reflected in the CMS 2552 and UCCR that is submitted for the accounting fiscal year. For acute hospitals whose accounting fiscal years do not align with the reporting fiscal year, the reporting year cost limit will be calculated by applying the appropriate percentage of the two contiguous CMS 2552 and UCCR cost reports that span the reporting fiscal year so that the Federal fiscal year will be represented in the cost limit calculation.

The Commonwealth must recover provider overpayments as it determines necessary based on its reconciliation calculations and availability of federal financial participation.

Specifically, if an overpayment exists, the Commonwealth must determine if the overpayment occurred due to Health Safety Net (HSN) Trust Fund payments or other SNCP payments, or from both payments. To the extent that the overpayment is a result of overpaid funds from the HSN Trust Fund, the Commonwealth must recover from the provider the amount overpaid to the provider from the HSN Trust Fund and credit that amount to the HSN Trust Fund. The HSN Trust Fund will redistribute such amounts to other providers as appropriate. To the extent that the overpayment is not the result of HSN Trust Fund payments, the Commonwealth must recover from the provider the overpayment, and the Commonwealth must properly credit the federal share to the federal government.

The interim reconciliation described above must be performed and completed within twelve months after the filing of the Medicare cost report(s).

Final Reconciliation

Each provider's uncompensated care costs must be recomputed based on the provider's audited CMS 2552 cost report for the actual service period. These recomputed costs must be carried over to the UCCR. The CMS 2552 cost report is audited and settled by the Medicare contractor to determine final allowable costs and reimbursement amounts as recognized by Medicare. For SNCP payments subject to the cost limit pursuant to STC 49(c), each provider's allowable Medicaid, uncompensated care, and uninsured costs must be reconciled against associated applicable payments received for the year for which the payments were made. SNCP uncompensated care payments made to the provider for a cost limit reporting year cannot exceed the recomputed uncompensated care cost limit. If, at the end of the final reconciliation process, it is determined that expenditures claimed exceeded the individual provider's uncompensated care cost limit, thereby causing an overpayment, the Commonwealth must recoup the overpayment from the provider. Specifically, if an overpayment exists, the Commonwealth must determine if the overpayment occurred due to HSN Trust Fund payments or other SNCP payments, or from both payments. To the extent that the overpayment is a result of overpaid funds from the HSN Trust Fund, the Commonwealth must recover from the provider the amount overpaid to the provider from the HSN Trust Fund and credit that amount to the HSN Trust Fund. The HSN Trust Fund will redistribute such amounts to other providers as appropriate. To the extent that the overpayment is not the result of HSN Trust Fund payments, the Commonwealth must recover from the provider the overpayment, and the Commonwealth must properly credit the federal share to the federal government.

For hospitals whose accounting fiscal year aligns with the cost limit reporting fiscal year (Federal fiscal year), the Medicaid and uninsured costs will be reflected in the CMS 2552 and UCCR that is submitted for the accounting fiscal year. For acute hospitals whose accounting fiscal years do not align with the reporting fiscal year, the reporting year cost limit will be calculated by applying the

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appropriate percentage of the two contiguous CMS 2552 and UCCR cost reports that span the reporting fiscal year so that the Federal fiscal year will be represented in the cost limit calculation.

The Commonwealth must recover provider overpayments as it determines necessary based on its reconciliation calculations and availability of federal financial participation.

The final reconciliation described above must be performed and completed within twelve months after all final, audited CMS 2552 cost reports become available online.

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**Institutions for Mental Diseases – Psychiatric Hospitals and Community Based Detoxification
Centers (CBDCs) Protocol for Medicaid and Uncompensated Care Cost**

The Commonwealth will use the reports described below to collect data from these providers.

Psychiatric hospitals will fill out the CMS 2552 and UCCR, as required of other hospitals in the cost limit protocol. CBDCs are non-hospital human and social services contractors that do not file a CMS 2552 cost report; therefore, for the purposes of the protocol, the Commonwealth will use only the Massachusetts **Uniform Financial Statements and Independent Auditor’s Report (UFR)** to determine costs and revenues. The UFR is the set of financial statements and schedules required of human and social service contracting with state departments. For the calculation of provider-specific cost limits, psychiatric hospitals and CBDCs will fill out the necessary reports with the information that is relevant to the services they provide to the Medicaid-eligible and HSN and uninsured populations.

Determination of Allowable Medicaid and Uninsured Costs

- a. DSH Allowable Costs
 - i. Per STC 50(f), the Commonwealth will use the Medicaid DSH statutory, regulatory, and policy definitions of allowable psychiatric hospital services and allowable Medicaid and uninsured costs in determining hospital-specific cost limits in its cost protocols. To the extent that the determination of uncompensated care costs varies from the Medicaid DSH requirements, the process must be accounted for in this document.
 - ii. Pharmacy service costs are separately identified on the CMS 2552 10 cost report and are not recognized as an inpatient or outpatient hospital service. Pharmacy service costs that are not part of an inpatient or outpatient rate and are billed as pharmacy service and reimbursed as such are not considered eligible for inclusion in the hospital-specific uncompensated cost limit allowable under DSH. To the extent that the determination of allowable pharmacy costs varies from the Medicaid DSH requirements, the process must be accounted for in this document.
 - iii. Costs included must be for services that meet the federal definition and the approved Massachusetts State plan definition of “hospital services” for medical assistance. “Medical assistance” is defined as the cost of care and services “for individuals, and, with respect to physicians’ or dentists’ services, at the option of the State, to individuals [who are eligible]...” Section 1905 of the Act.
- b. Medicaid State Plan Allowable Costs
 - i. Massachusetts must use the same definition for all inpatient hospital, outpatient hospital, and physician services, clinic services, non-hospital services, etc. as described in its approved Medicaid State plan, and in accordance with Section 1905 of the Social Security Act and the regulations promulgated thereunder, to define allowable service costs provided by institutions for mental disease. Massachusetts identifies other service costs, subject to CMS approval, that are not included in the Medicaid state plan definitions to be included as allowable uncompensated care costs in this document (see Cost Element table).

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1. Inpatient psychiatric hospital services: Psychiatric treatment provided under the direction of a psychiatrist in a psychiatric inpatient hospital. Such services are as described in Section 1905 of the Social Security Act and the regulations promulgated thereunder.
2. Outpatient psychiatric hospital services: Services provided to members on an outpatient basis in a psychiatric hospital. Such services are as described in Section 1905 of the Social Security Act and the regulations promulgated thereunder.
3. Community Based Detoxification Center (CBDC): CBDCs are eligible to receive Safety Net Care Pool payments as Institutions for Mental Diseases (IMDs) under the section 1115 demonstration. Such services are as described in Section 1905 of the Social Security Act and the regulations promulgated thereunder.
 - a. Acute Inpatient Substance Abuse Treatment Services: Short-term medical treatment for substance withdrawal, individual medical assessment, evaluation, intervention, substance abuse counseling, and post detoxification referrals provided by an inpatient unit, either freestanding or hospital-based, licensed as an acute inpatient substance abuse treatment service by the Massachusetts Department of Public Health under its regulations at 105 CMR 160.000 and 161.000. These services are delivered in a three-tiered system consisting of Levels III-A through III-C that must conform with the standards and patient placement criteria issued and enforced by the Massachusetts Department of Public Health's Bureau of Substance Abuse Services.
 - b. Substance Abuse Outpatient Counseling Service: An outpatient counseling service that is a rehabilitative treatment service for individuals and their families experiencing the dysfunctional effects of the use of substances.
- ii. 1115 Demonstration Population Expenditures: Costs incurred by psychiatric hospitals and CBDCs for providing IMD services to members eligible for Medicaid through the State plan and section 1115 demonstration will be counted as allowable costs. Allowable costs for psychiatric hospital services and CBDC services provided under the 1115 demonstration include service-related expenditures (please note that all services authorized under the section 1115 demonstration are subject to the requirements and limitations specified in the STCs). The list of allowable services is contained in the Cost Element table.
 1. Diversionary Behavioral Health Services
- c. Medicaid Managed Care Costs: Costs incurred by IMDs for providing services to members enrolled in Medicaid managed care organizations including SCOs and ICOs, prepaid inpatient health plans, and any prepaid ambulatory health plans. Eligible costs are determined using the same methodology under this section.
- d. Other Allowable Costs, Approved 1915(c) Waivers. The list of allowable services is contained in the Cost Element table.
- e. Additional Allowable Costs – The list of allowable services is contained in the Cost Element table.

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I. Summary of 2552-10 Cost Report (Psychiatric Hospitals Only)

Worksheet A: Reclassification and Adjustment of Trial Balance of Expenses

Worksheet A provides for recording the trial balance of expense accounts from your accounting books and records. It also provides for the necessary reclassifications and adjustments to certain accounts. Not included on Worksheet A are items that conflict with Medicare regulations, manuals, or instructions but which providers may wish to claim and contest.

The trial balance of expenses is broken down into the following categories to facilitate the transfer of costs to the various worksheets:

- 1) General service cost centers
- 2) Inpatient routine service cost centers
- 3) Ancillary service cost centers
- 4) Outpatient service cost centers
- 5) Other reimbursable cost centers
- 6) Special purpose cost centers
- 7) Other special purpose cost centers not previously identified
- 8) Costs applicable to nonreimbursable cost centers to which general service costs apply
- 9) Nonreimbursable cost center to accumulate the cost incurred by you for services related to the physicians' private practice

Worksheet B

Worksheet B allocates overhead (originally identified as general service cost centers) to all other cost centers, including the non-reimbursable costs identified in lines 96 through 100.

Cost finding is the process of recasting data derived from the accounts ordinarily kept by the provider to ascertain costs of the various types of services rendered; i.e., the allocation of the expenses of each general service cost center to those cost centers which receive the services. The CMS 2552 approved method of cost finding is recognized and outlined in 42 CFR 413.24 and is based on the accrual basis of accounting except where government institutions operate on a cash basis of accounting.

Worksheet C

Worksheet C computes the ratio of cost to charges (RCC) for inpatient services, ancillary services, outpatient services, and other reimbursable services. The total cost for each cost center is derived from Worksheet B after the overhead allocation, and the total charge for each cost center is determined from the provider's records. This RCC is used on Worksheet D, Worksheet D-3, Worksheet D-4, Worksheet H-3, and Worksheet J-2 to determine the program's share of ancillary service costs in accordance with 42 CFR 413.53. This worksheet is also needed to determine the adjusted total costs used on Worksheet D-1.

Worksheet D

This series of worksheets is where the total costs from Worksheet B are apportioned to different payer programs. Apportionment is the process by which a cost center's total cost is allocated to a specific payer or program or service type. Apportionment is used to arrive at Medicare hospital inpatient routine and ancillary cost and Medicare hospital outpatient cost, etc.

Worksheet D consists of the following five parts:

- 1) Part I: Apportionment of Inpatient Routine Service Capital Costs
- 2) Part II: Apportionment of Inpatient Ancillary Service Capital Costs

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- 3) Part III: Apportionment of Inpatient Routine Service Other Pass Through Costs
- 4) Part IV: Apportionment of Inpatient/Outpatient Ancillary Service Other Pass Through Costs
- 5) Part V: Apportionment of Medical and Other Health Services Costs

Worksheet D-1: All providers will complete this worksheet, which provides for the computation of hospital inpatient operating cost in accordance with 42 CFR 413.53 (determination of cost of services to beneficiaries), 42 CFR 413.40 (ceiling on rate of hospital cost increases), and 42 CFR 412.1 through 412.125 (prospective payment).

Worksheet D-2: Worksheet D-2 apportions the cost of services rendered by interns and residents across the following two parts:

- 1) Part I: Not in Approved Teaching Program. This part is used by the provider only if it has interns and residents that are not in an approved teaching program.
- 2) Part II: In an Approved Teaching Program (Title XVIII, Part B Inpatient Routine Costs Only). This part provides for reimbursement for inpatient routine services rendered by interns and residents in approved teaching programs to Medicaid beneficiaries.

Worksheet D-3: Worksheet D-3 apportions inpatient ancillary services.

Worksheet D-4: Worksheet D-4 computes organ acquisition costs and charges for hospitals that are certified transplant centers.

Worksheet D-5: Apportions cost for the services of teaching physicians.

Worksheet E

Worksheet E worksheets will be used to calculate Title XIX settlement for inpatient prospective payment system (IPPS) hospital services, medical and other health services.

NOTES:

For purposes of utilizing the CMS 2552 cost report to determine Medicare reimbursements, the term “as filed 2552 cost report” refers to the cost report filed on or before the last day of the fifth month following the close of the provider’s cost reporting period. The cost reporting period covers a 12-month period of operations based upon the provider’s accounting year.

**II. Uniform Medicaid & Uncompensated Care Cost & Charge Report (UCCR)
(Psychiatric Hospitals Only)**

In relation to Medicaid reimbursement, the CMS 2552 report does not sufficiently capture costs for Massachusetts providers because costs cannot be allocated across other payers, nor are costs reimbursed through the CMS 2552 inclusive of those incurred for providing the types of services that support the Medicaid-eligible and uninsured populations, such as those approved in this cost limit protocol as additional allowable costs.

The Commonwealth must use the CMS 2552⁸ and Uniform Medicaid & Uncompensated Care Cost & Charge Report (UCCR) to determine Medicaid and uninsured costs. To supplement the Medicare

⁸ Community Based Detoxification Centers are the only provider type subject to the cost limit that does not submit the CMS 2552 cost report.

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2552 cost report, hospitals subject to the cost protocol will file the UCCR to allocate allowable 2552 costs to Medicaid and uninsured services and, in accordance with the Cost Element table, recognize additional costs that are not otherwise reimbursed through the CMS 2552.

The UCCR report includes cost-center specific data by payer and its purpose is to capture uncompensated costs that safety net providers incur from supporting a large proportion of Medicaid-eligible and uninsured individuals. The UCCR also captures costs that are specifically allocated toward “funding required for the operation of the Safety Net Health Care System” on Schedule E, which was designed to reflect costs that are incurred disproportionately on behalf of Medicaid-eligible and uninsured patients (e.g., social, financial, and interpreter costs; unreimbursed costs for Dual Eligibles, etc. and other additional allowable costs approved in this cost limit protocol).

Overview

Psychiatric hospitals must submit cost, charge and patient day data via the UCCR, an electronic report developed by the Commonwealth, based on the CMS 2552, and currently used to record Medicaid and uncompensated care costs for certain safety net providers. For the Commonwealth’s use in calculating provider-specific uncompensated care cost limits, data submitted by the provider shall be based on information supplied on the hospital’s CMS 2552, as filed with and audited/settled by the Medicare fiscal intermediary, hospital records, and the UCCR.

NOTES:

The Medicaid-eligible population includes those individuals who are eligible for Medicaid but have private insurance; Medicaid FFS and Medicaid Managed Care, including individuals dually eligible for Medicaid and Medicare.

“Uninsured individuals” for whom uncompensated care costs are allowable includes the population for which HSN payments are made. Costs associated with Medicaid-eligible individuals who are uninsured for the service are allowable under this population, assuming the service meets all other criteria outlined in this protocol, including but not limited to being “medically necessary.” Additionally, costs associated with the Medicaid-eligible population must not be duplicative of the uninsured individual costs.

The costs incurred for providing the services below are approved by CMS as additional allowable services not otherwise captured and/or allocated to the Medicaid-eligible and uninsured population through the CMS 2552 allocation method.

For the purposes of the UCCR, a Massachusetts Medicaid Managed Care Organization (otherwise referred to as “MMCO”) includes MCOs, Integrated Care Organizations (ICOs), Senior Care Organizations (SCOs), Programs of All-inclusive Care for the Elderly (PACE), and Prepaid Inpatient or Ambulatory Health Plan (including the behavioral health PIHP).

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Cost Element	Inpatient Services	Outpatient Hospital Services	Chronic Disease and Rehab – Inpatient	Chronic Disease and Rehab – Outpatient	Psychiatric Inpatient Hospital	Psychiatric Outpatient Hospital	Substance Abuse Treatment – Inpatient	Substance Abuse Treatment – Outpatient
Professional component of provider-based physician costs, including contracted physician costs, which are not part of the inpatient hospital billing	X	X	X	X	X	X		
Provider component of provider-based physician costs reduced by Medicare reasonable compensation equivalency (RCE) limits, subject to applicable Medicare cost principles	X	X	X	X	X	X		
Administrative costs of the hospital's billing activities associated with physician services who are employees of the hospital billed and received by the hospital	X	X	X	X	X	X		
Patient and community education programs, excluding	X	X	X	X	X	X	X	X

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Cost Element	Inpatient Services	Outpatient Hospital Services	Chronic Disease and Rehab – Inpatient	Chronic Disease and Rehab – Outpatient	Psychiatric Inpatient Hospital	Psychiatric Outpatient Hospital	Substance Abuse Treatment – Inpatient	Substance Abuse Treatment – Outpatient
cost of marketing activities								
Telemedicine services	X	X	X	X	X	X	X	X
Addiction Services	X	X	X	X	X	X		X
Community Psychiatric Support and Treatment		X		X		X		X
Medication Administration		X				X		
Vision Care		X						
Health care for the house bound and the homeless, family planning, and pre-natal, labor, and post-natal support for at risk pregnancies. CMS 255-10, Line 193		X						
Social, Financial, Interpreter, Coordinated Care and other services for Medicaid-eligible and uninsured patients	X	X	X	X	X	X	X	X
340b and other pharmacy costs		X						
Graduate Medical Education	X	X	X	X	X	X		
Outlier Day: Each day beyond 20 acute days,	X							

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Cost Element	Inpatient Services	Outpatient Hospital Services	Chronic Disease and Rehab – Inpatient	Chronic Disease and Rehab – Outpatient	Psychiatric Inpatient Hospital	Psychiatric Outpatient Hospital	Substance Abuse Treatment – Inpatient	Substance Abuse Treatment – Outpatient
during a single admission, for which a member remains hospitalized at acute status								
Psychiatric Day Treatment Program Services		X				X		
Dental Services		X						
Intensive Early Intervention Services for Children with Autism Spectrum Disorder	X	X						
Diversionary Behavioral Health Services	X	X	X	X	X	X	X	X
Public Hospital Pensions and Retiree Benefits	X	X						

UCCR Instructions

Schedule A: Computation of MassHealth Fee-for-Service (FFS) Costs

Column 1 – Reported Costs

Enter costs from the hospital’s most recently filed Medicare cost report (CMS 2552) Worksheet B, Part 1, column 24. This column includes costs that have already been reclassified, adjusted and stepped down through the A and B worksheet series and includes costs related to interns and residents.

Column 2 – Reclassification of Observation Costs and Inclusion of Post-Stepdown Costs

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Reclassify observation costs from Line 30 to Line 92. The observation costs are derived from the CMS-2552, Worksheet C, Part I, Column 5, Line 92.

Add post-step-down costs from Supplemental Worksheet B-2, Column 4, Lines 54, 60, 89 & 90, except costs related to interns and residents.

For line 30 (Adults and Pediatrics), include a decreasing adjustment, if applicable, for the swing bed costs reported on Worksheet D-1, Part I, line 26, and for the private room differential costs reported on Worksheet D-1, Part I, line 36.

Column 3 – Total Costs

Sum of costs from column 1 and column 2. [This column will auto-populate.]

Column 4 – Charges

Enter charges from the hospital's most recently filed Medicare cost report (CMS 2552) Worksheet C, Part I, column 8.

Column 5 – Hospital Cost-to-Charge Ratios

Calculate the cost-to-charge ratio for each cost center by dividing the total costs for each cost center from column 3 by the respective charges from column 4. [This column will auto-populate.]

Column 6 – Total MassHealth Fee-for-Service Inpatient Charges:

Enter from hospital records inpatient charges by cost center related to MassHealth Fee-for-Service (FFS) patients.

- MassHealth FFS Charges include only those charges for the following:
 - Medically necessary services as defined in 130 CMR 450.204;
 - MassHealth covered inpatient hospital services provided to MassHealth patients eligible pursuant to Titles XIX and XXI at the time of service delivery.

- MassHealth FFS Charges may not include:
 - Charges associated with services provided to MassHealth members where the service is covered by a Medicaid Managed Care Organization;
 - Charges associated with claims that have been final denied for payment by MassHealth;
 - Charges associated with state programs that are not Title XIX and Title XXI programs (e.g., the Children's Medical Security Plan);
 - Charges associated with the professional component of hospital-based physician services.

Column 7 – MassHealth FFS Inpatient Costs

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For Lines 50 through 117, calculate the MassHealth FFS inpatient costs by multiplying for each cost center the MassHealth FFS inpatient charges from column 8 by the respective hospital cost-to-charge ratios from column 5. [These lines will auto-populate.] For lines 30-46, costs are determined using a per diem methodology; these cells will automatically be populated after Schedule B (column 5) has been completed.

Column 8 – MassHealth Fee-for-Service Outpatient Charges

Enter from hospital records outpatient charges by cost center related to MassHealth Fee-for-Service (FFS) patients.

- MassHealth FFS Outpatient Charges include only those charges for the following:
 - Medically necessary services as defined in 130 CMR 450.204;
 - MassHealth covered outpatient hospital services provided to MassHealth patients eligible pursuant to Titles XIX and XXI at the time of service delivery.

- MassHealth FFS Outpatient Charges may not include:
 - Charges associated with services provided to MassHealth members where the service is covered by a Medicaid Managed Care Organization;
 - Charges associated with claims that have been final denied for payment by MassHealth;
 - Charges associated with state programs that are not Title XIX or Title XXI programs (e.g., the Children’s Medical Security Plan);
 - Charges associated with the professional component of hospital-based physician services.

Column 9 – MassHealth Fee-for-Service Outpatient Costs

MassHealth FFS outpatient costs are determined by multiplying the MassHealth outpatient charges for each cost center from column 8 by the respective hospital cost-to-charge ratios from column 5. [This column will auto-populate.]

Column 10 – Total MassHealth Fee-for-Service Inpatient and Outpatient Costs

Total MassHealth FFS costs are determined by adding the MassHealth inpatient costs from column 7 and the MassHealth outpatient costs from column 9. [This column will auto-populate.]

Schedule B: Computation of Inpatient Routine Cost Center Per Diems

For the purposes of completing Schedule B, patient days entered in Columns 2, 4, 6 and 8 must include only those days wherein a patient fully met, at the time of service, the criteria for the given category (FFS, MMCO, HSN and Uninsured Care), as set forth in the Instructions to Schedules A and C. The SNF, NF, and LTC cost centers must be removed from Schedule B, since these costs cannot be claimed as part of the hospital uncompensated care costs.

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Column 1 – Total Routine Cost Center Inpatient Costs

Enter total costs for each routine cost center as reported on UCCR Schedule A, Column 3, lines 30-46. [This column will auto-populate.]

Column 2 – Total Inpatient Days

Enter total patient days for each routine cost center from CMS-2552 Worksheet S-3, Part 1, Column 8.

Column 3 – Per Diem

Calculate the average cost per day (per diem) by dividing total costs for each cost center in column 1 by the respective total patient days in column 2. [This column will auto-populate.]

Column 4 – MassHealth Fee-for-Service Inpatient Days

Enter total MassHealth FFS inpatient days for each routine cost center on lines 30-46 from provider records.

Column 5 – Total MassHealth FFS Inpatient Costs

Calculate total FFS inpatient costs for each routine cost center by multiplying the days in column 4 by the per diem in column 3. [This column will auto-populate.]

Column 6 – Medicaid Managed Care Inpatient Days

Enter total Medicaid Managed Care inpatient days for each routine cost center on lines 30-46 from provider records.

Column 7 – Total Medicaid Managed Care Inpatient Costs

Calculate total MMCO inpatient costs for each routine cost center by multiplying the days in column 6 by the per diem in column 3. [This column will auto-populate.]

Column 8 – HSN and Uninsured Care Inpatient Days

Enter total HSN and Uninsured Care inpatient days for each routine cost center on lines 30-46 from provider records.

Column 9 – Total HSN and Uninsured Care Inpatient Costs

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Calculate total HSN and Uninsured Care inpatient costs for each routine cost center by multiplying the days in column 8 by the per diem in column 3. [This column will auto-populate.]

Schedule C: Computation of Massachusetts Medicaid Managed Care (MMCO) and HSN and Uninsured Costs

For the purposes of completing Schedule C:

- Massachusetts Medicaid Managed Care Charges include only those charges for the following:
 - Medically necessary services as defined in 130 CMR 450.204;
 - MassHealth covered inpatient and outpatient hospital services provided to MassHealth patients eligible pursuant to Titles XIX and XXI and enrolled in a MassHealth contracting MCO, SCO, PACE, PIHP and PAHP (MMCO) at the time of service delivery.
- Medicaid Managed Care Charges may not include:
 - Charges associated with services provided to MassHealth members where the service is covered under MassHealth Fee-for-Service, including the Primary Care Clinician program;
 - Charges associated with claims that have been final denied for payment by the MMCO;
 - Charges associated with state programs that are not Title XIX and Title XXI programs (e.g., the Children's Medical Security Plan);
 - Charges reported as HSN and Uninsured Care (below).
- HSN and Uninsured Care Inpatient and Outpatient Charges are defined as those charges associated with care provided by hospitals for medically necessary services, including services reasonably calculated to prevent, diagnose, prevent the worsening of, alleviate, correct, or cure conditions in the member that endanger life, cause suffering or pain, cause physical deformity or malfunction, threaten to cause or to aggravate a handicap, or result in illness or infirmity provided to:
 - Individuals with no health insurance coverage;
 - Low-Income Patients (under state regulation 114.6 CMR 12.03 (3) or (4) or its successor regulation) with no health insurance coverage;
 - Low-Income Patients (under state regulation 114.6 CMR 12.03 (3) or (4) or its successor regulation) whose public or private health insurance plan does not cover the cost of the particular service (excluding unpaid coinsurance and/or deductible amounts); or
 - Medicaid-eligible patients whose medical service is not paid by MassHealth or the Massachusetts Medicaid Managed Care Organizations, SCO, ICO, PACE, PIHP or PAHP;
- HSN and Uninsured Care Charges, for the purpose of Schedule C of the UCCR, shall exclude charges associated with:
 - Professional component of physician charges;
 - Overhead charges related to physician services.

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Column 1 – Hospital Cost-to-Charge Ratios

Enter the hospital cost-to-charge ratio for each cost center from Schedule A: MassHealth Fee-for-Service (FFS) Costs column 5. [This column will auto-populate.]

Column 2 – Massachusetts Medicaid Managed Care Inpatient Charges

Enter from hospital records inpatient charges, by cost center, related to Massachusetts Medicaid managed care patients.

Column 3 – Massachusetts Medicaid Managed Care Inpatient Costs

Massachusetts Medicaid managed care inpatient costs are determined by multiplying the Massachusetts Medicaid managed care inpatient charges for each cost center from column 2 by the respective hospital cost-to-charge ratios from column 1. However, for lines 30-46, costs are determined using a per diem methodology via Schedule B. [This column will auto-populate.]

Column 4 – Massachusetts Medicaid Managed Care Outpatient Charges

Enter from hospital records outpatient charges, by cost center, related to Massachusetts Medicaid managed care patients.

Column 5 – Massachusetts Medicaid Managed Care Outpatient Costs

Massachusetts Medicaid managed care outpatient costs are determined by multiplying the Massachusetts Medicaid managed care outpatient charges for each cost center from column 4 by the respective hospital cost-to-charge ratios from column 1.

Column 6 – Total Massachusetts Medicaid managed care Inpatient and Outpatient Costs

Total Massachusetts Medicaid managed care inpatient and outpatient costs are determined by adding the Massachusetts Medicaid managed care inpatient costs from column 3 and the Massachusetts Medicaid managed care outpatient costs from column 5.

Column 7 – HSN and Uninsured Care Inpatient Charges

Enter from hospital records inpatient charges, by cost center, related to HSN and Uninsured Care patients.

Column 8 – HSN and Uninsured Care Inpatient Costs

For Lines 50 through 117, HSN and Uninsured Care inpatient costs are determined by multiplying the HSN and Uninsured Care inpatient charges for each cost center from column 7 by the respective

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hospital cost-to-charge ratios from column 1; for lines 30-46, costs are determined using a per diem methodology via Schedule B. [This column will auto-populate through line 94.]

Column 9 – HSN and Uninsured Care Outpatient Charges

Enter from the hospital records outpatient charges by cost center related to HSN and Uninsured patients.

Column 10 – HSN and Uninsured Care Outpatient Costs

HSN and Uninsured Care outpatient costs are determined by multiplying the HSN and Uninsured Care outpatient charges for each cost center from column 9 by the respective hospital cost-to-charge ratios from column 1.

Column 11 – Total HSN and Uninsured Care Costs

Total uncompensated care inpatient and outpatient costs are determined by adding the HSN and Uninsured Care inpatient costs from column 8 and the HSN and Uninsured Care outpatient costs from column 10.

Schedule D: Computation of Uncompensated Care Physician Costs

For purposes of completing Schedule D:

Uncompensated Physician Costs are limited to those charges incurred by hospital-based physicians for professional services.

- MassHealth FFS Inpatient and Outpatient Charges include only those charges for the following:
 - Medically necessary services as defined in 130 CMR 450.204;
 - MassHealth covered hospital-based physician professional services provided to MassHealth patients eligible pursuant to Titles XIX and XXI at the time of service delivery.
 - Charges associated with the professional component of hospital-based physicians services.
- MassHealth FFS Hospital-Based Physician Professional Charges may not include:
 - Charges associated with services provided to MassHealth members where the service is covered by a Medicaid Managed Care Organization;
 - Charges associated with claims that have been final denied for payment by MassHealth;
 - Charges associated with state programs that are not Title XIX and Title XXI programs (e.g., the Children's Medical Security Plan);
- Massachusetts Medicaid Managed Care Charges include only those charges for the following:
 - Medically necessary services as defined in 130 CMR 450.204;

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- MassHealth covered hospital-based physician professional services provided to MassHealth patients eligible pursuant to Titles XIX and XXI and enrolled in a MassHealth contracting MCO, SCO, PACE, PIHP and PAHP (MMCO) at the time of service delivery;
- Charges associated with professional component of hospital-based physician services.
- Medicaid Managed Care Charges may not include:
 - Charges associated with services provided to MassHealth members where the service is covered under MassHealth Fee-for-Service, including the Primary Care Clinician program;
 - Charges associated with claims that have been final denied for payment by the MMCO;
 - Charges associated with state programs that are not Title XIX and Title XXI programs (e.g., the Children's Medical Security Plan);
 - Charges reported as HSN and Uninsured Care (below).
- HSN and Uninsured Care Physician Charges are defined as those physician charges associated with care provided for medically necessary services, including services reasonably calculated to prevent, diagnose, prevent the worsening of, alleviate, correct, or cure conditions in the member that endanger life, cause suffering or pain, cause physical deformity or malfunction, threaten to cause or to aggravate a handicap, or result in illness or infirmity provided to:
 - Individuals with no health insurance coverage;
 - Low-Income Patients (under state regulation 114.6 CMR 12.03 (3) or (4) or its successor regulation) with no health insurance coverage;
 - Low-Income Patients (under state regulation 114.6 CMR 12.03 (3) or (4) or its successor regulation) whose public or private health insurance plan does not cover the cost of the particular service (excluding unpaid coinsurance and/or deductible amounts); or
 - Medicaid-eligible patients whose medical service is not paid by MassHealth or the Massachusetts Medicaid Managed Care Organizations, SCO, ICO, PACE, PIHP or PAHP;

Column 1 – Professional Component of Physicians' Costs

The professional component of physicians' costs come from the hospital's most recently filed Medicare cost report (CMS 2552) Worksheet A-8-2, column 4.

Column 2 – Overhead Costs Related to Physicians' Services

If the overhead costs related to physicians' services were adjusted out of the physicians' costs entered on Worksheet A-8-2, enter those overhead costs from Worksheet A-8 to the corresponding cost center.

Column 3 – Total Physicians' Costs

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Total Physicians' costs are determined by adding column 1 and column 2. [This column will auto-populate.]

Column 4 – Total Physician Inpatient and Outpatient Charges

Enter the total charges related to physician inpatient and outpatient services from hospital records to the corresponding cost center.

Column 5 – Cost-to-Charge Ratios

For each cost center, a cost-to-charge ratio is calculated by dividing total physicians' costs in column 3 by total physician charges in column 4. [This column will auto-populate.]

Column 6 – MassHealth FFS Physician Inpatient and Outpatient Charges

Enter by cost center the total charges related to physician inpatient and outpatient services for MassHealth FFS patients from hospital records.

Column 7 – MassHealth FFS Physician Inpatient and Outpatient Costs

MassHealth FFS physician inpatient and outpatient costs are determined for each cost center by multiplying the MassHealth FFS inpatient and outpatient physician charges from column 6 by the cost-to-charge ratio from column 5. [This column will auto-populate.]

Column 8 – Massachusetts Medicaid Managed Care Physician Inpatient and Outpatient Charges

Enter the total charges related to physician inpatient and outpatient services for Massachusetts Medicaid managed care patients from hospital records.

Column 9 – Massachusetts Medicaid Managed Care Physician Inpatient and Outpatient Costs

Massachusetts Medicaid managed care physician inpatient and outpatient costs are determined for each cost center by multiplying the Massachusetts Medicaid managed care inpatient and outpatient physician charges from column 8 by the cost-to-charge ratio from column 5. [This column will auto-populate.]

Column 10 – HSN and Uninsured Care Physician Inpatient and Outpatient Charges

From provider records, enter the charges related to physician inpatient and outpatient services for HSN and Uninsured Care patients as defined above.

Column 11 – HSN and Uninsured Care Physician Inpatient and Outpatient Costs

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HSN and Uninsured Care physician inpatient and outpatient costs are determined for each cost center by multiplying the HSN and Uninsured Care inpatient and outpatient physician charges from column 10 by the cost-to-charge ratio from column 5. [This column will auto-populate.]

Column 12 – Total Massachusetts Medicaid Fee-For-Service, Medicaid Managed Care and HSN and Uninsured Care Inpatient and Outpatient Physician Costs

Total Massachusetts Medicaid Fee-For-Service, managed care and HSN and Uninsured Care inpatient and outpatient physician costs are determined by adding column 9 and column 11.

Schedule E: Safety Net Health Care System (SNCHS) Expenditures

Pursuant to Section 49 (c) of the 1115 demonstration Special Terms and Conditions, expenditures for payments to providers is authorized under the safety net care pool to support uncompensated care for “Medicaid FFS, Medicaid managed care, and low-income uninsured individuals.” This Schedule E provides health care providers the opportunity to itemize such system expenditures for the Medicaid-eligible and uninsured population and includes the additional allowable costs outlined in the Development Tool approved by CMS on September 6, 2013 and any additional allowable costs described in the Cost Element table of this document. .

Column 1 – Total System Expenditures

Enter total safety net health care system expenditures for each line item.

Column 2 – Medicaid-eligible / HSN and Uninsured Payer Mix Proportion

To determine the proportion of total system expenditures attributable to Medicaid-eligible and uninsured patients, first estimate the total charges for the year attributable to this group; next, estimate the total charges for the year attributable to all patients served by the SNHCS. The ratio of these two numbers will be used to estimate the amount of system expenditures attributable to Medicaid-eligible and uninsured patients. Enter this ratio in column 2. Should an alternative ratio be more appropriate, enter that number, and then explain the basis for it in the Narrative Description section of Schedule E.

Column 3 – Medicaid-eligible / HSN and Uninsured Share of System Expenditures

Calculate the system expenditures attributable to Medicaid-eligible and uninsured patients by multiplying the total system expenditure in column 1 by the payer mix proportion in column 2. [This column will auto-populate.]

Schedule F: Medicaid and Uninsured Revenue

Note: Hospitals must ensure that any applicable revenues pertaining to Medicaid or uninsured costs

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allowed in Schedule E are captured in Schedule F and are treated as an offset to arrive at net uncompensated care costs.

Line Instructions:

Hospital and Clinic Revenue:

In lines 1-8, enter amounts paid for services provided by the hospital and any provider-based satellites, including hospital-licensed health centers.

Line 1 – Payer Medical Claims Revenue

For each column, enter in line 1 the total amount paid by the payer for medical claims. Do not include payments for that are not related to claims, such as pay-for-performance payments or supplemental payments. The amounts reported must reflect any post-payment reconciliations or recoupments, subject to the availability of that data.

Column 5 - Health Safety Net and Uninsured

In line 1, column 5, report the gross payments received from the HSN and Uninsured. Do not offset the amount of the HSN Assessment.

Line 2 – Pay-for-Performance / Incentive Payment Revenue

This revenue data is reported for informational purposes only. Payments that are not service payments for the provision of medical care are not offset against the eligible cost. Since the following payments are not payments for the provision of medical care, they are not offset against the eligible cost: SNCP grants and performance-based, incentive, and shared savings payments. These include performance-based and incentive-based payments and grants and awards both currently in existence and those that may be approved and implemented during future demonstration renewal periods.

Enter in line 2 any amounts paid by the payer for pay-for-performance or other incentive payments. The amount reported must also include any recoveries made by the payer for performance issue, such as retrospective performance penalties.

Line 3-5 – Supplemental Payments

Enter in lines 3-5 any amounts paid by the payer for supplemental payments. Specify the type of supplemental payment reported by modifying the title of the line. The total gross payment must be reported; do not offset any payment amount by any intergovernmental transfer amounts that may have been made by a related public entity.

Line 6 – Medicare Revenue

Enter in line 6 any payments amounts received by Medicare for services provided to patients who are eligible for both Medicare and the payer noted in the column.

Line 7 – Third Party and Self Pay Revenue

Enter in line 7 any payment amounts received by third parties, the patient, or the patient's guarantor for the cost-sharing or services not covered by the payer noted in the column.

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Line 8 – Other Revenue

Enter in line 8 any additional revenue from the payer for the Medicaid-eligible and uninsured populations not included in lines 1-7. Specify the type of revenue by modifying the title of the line. Additional information may be provided in the Notes tab.

Line 9 – Subtotal Hospital and Clinic

Sum of lines 1-8. [This line will auto-populate.]

Lines 10-15 Physician Revenue

Using the same descriptions in the corresponding lines 1-8, report physician revenue related to the payers.

Line 16 – Subtotal Physician Revenue

Sum of lines 10-15. [This line will auto-populate.]

Line 17 – Total Revenue.

Sum of lines 9 and 16. [This line will auto-populate.]

Column Instructions.

Column 1 – Medicaid FFS Inpatient Revenue

Report in column 1, amounts paid by MassHealth for inpatient services provided to members enrolled in the MassHealth program, excluding those enrolled in MassHealth managed care programs.

Column 2 – Medicaid FFS Outpatient Revenue

Report in column 2, amounts paid by MassHealth for outpatient services provided to members enrolled in the MassHealth program, excluding those enrolled in MassHealth managed care programs.

Column 3 – Medicaid Managed Care Inpatient Revenue

Report in column 3, amounts paid by Medicaid Managed Care Organizations for inpatient services provided to members.

Column 4 – Medicaid Managed Care Outpatient Revenue

Report in column 4, amounts paid by Medicaid Managed Care Organizations for outpatient services provided to members.

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Column 5 – HSN and Uninsured Inpatient and Outpatient Revenue

Report in column 5, amounts paid by the HSN and Uninsured individuals for inpatient and outpatient services provided. Report the gross payments received from the HSN. Do not offset the amount of the HSN Assessment.

Column 6 – Total Revenue

Sum of columns 1 through 5. [This column will auto-populate.]

Schedule G: Notes

Providers may use Schedule G to provide additional information on the data reported.

III. Uniform Financial Report (UFR)

CBDCs are entities that provide health care services for substance abuse that contract with the MassHealth agency, Medicaid Managed Care Entities and the Bureau of Substance Abuse Services, the latter providing services to the uninsured. Each CBDC is licensed by the Bureau of Substance Abuse Services under the requirements set forth in 105 CMR 164.000. Because CBDCs are not a hospital, they do not fill out the Medicare CMS-2552 cost report and instead fill out the Uniform Financial Report (UFR).

UFR reports are filed with the Massachusetts Operational Services Division (OSD) on an annual basis. This report captures administration and support costs, as defined in 808 CMR 1.00, which includes expenditures for the overall direction of the organization, e.g., general record keeping, budgeting, etc., but also the salaries and expenses of the organization's staff. The report will also capture expenditures for health care services, as defined in M.G.L. c. 118 § 2 (b), the pricing of which is set by the Center for Health Information and Analysis

The CBDCs are required to keep necessary data on file to satisfy the UFR reporting requirements, and books and records must be maintained in accordance with generally accepted accounting principles set forth by the American Institute of Certified Public Accountants (AICPA).

The UFR must be submitted on or before the 15th day of the fifth month after the end of the contractor's fiscal year.

The UFR reports the following data elements:

1. Net Assets
2. Total Current Assets
3. Total Assets
4. Total Current Liabilities
5. Total Liabilities
6. Total Liabilities and Net Assets
7. Total Revenue, Gains, and Other Support

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8. Total Expenses and Losses
9. Indirect / Direct Method
10. Cash from Operating Activities
11. Cash from Investing Activities
12. Cash from Financing Activities
13. Total Expenses – Programs
14. Total Expenses – Supporting Services
15. Surplus Percentage
16. Surplus Retention Liability

The UFR allows for revenue to be reported from Medicaid Direct Payments, Medicaid Massachusetts behavioral Health Partnership (MBHP) Subcontracts, Department of Mental Health, Department of Public Health, and other human and social service agencies.

The CBDC's program expense is broken down by provider type for Psychiatric Day Treatment and Substance Abuse Class Rate Services, including:

1. Psychiatrist
2. N.P., Psych N., N.A., R.N.-Masters
3. R.N.-Non Masters
4. L.P.N.
5. Occupational Therapist
6. Psychologist – Doctorate
7. Clinician (formerly Psych. Masters)
8. Social Worker – L.I.C.S.W.
9. Social Worker – L.C.S.W., L.S.W.
10. Licensed Counselor
11. Cert. Voc. Rehab. Counselor
12. Counselor
13. Case Worker/Manager – Masters
14. Case Worker/Manager
15. Direct Care/Program Staff Supervisor
16. Direct Care/Program Staff

Per unit cost from UFR. The provider will calculate a per unit cost from the UFR for inpatient detoxification programs, who do not submit the Medicare 2552 cost report, by dividing the total reimbursable program expense (Schedule B line 53E) by line 6SS (number of service units delivered). The per diem cost will be reported by the CBDC on the CBDC Protocol Form.

Allowable Costs

- i. From the MMIS paid claims database, the State will obtain the number of units of care, including administrative units, provided to all Medicaid patients.
- ii. Providers will be required to file a supplemental schedule with EOHHS that reports the number of units, days of care, including administrative days, for services provided to Medicaid MCO and other uninsured patients.⁹
- iii. The state will calculate costs by multiplying the per unit cost with the number of MassHealth, Medicaid MCO, and uninsured units described above.

⁹ This is not currently available on the UFR report.

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Payments

- i. From the MMIS paid claims database, the state will obtain payments made to programs for services, including administrative days, provided to MassHealth patients.
- ii. Providers will be required to file a supplemental schedule with EOHHS reporting payments received from all sources for services provided to Medicaid MCO and uninsured patients.

Determination of Provider-Specific SNCP Limit for CBDCs

The State will calculate a provider-specific SNCP limit for each CBDC as by subtracting all applicable payments from the allowable costs

IV. Reconciliation

Interim Reconciliation for CMS 2552 and UCCR Methods

Each provider's uncompensated care costs must be computed based on the provider's as-filed CMS 2552¹⁰ cost report and Uniform Medicaid & Uncompensated Care Cost & Charge Report (UCCR) and for the actual service period. The CMS 2552 cost report is filed with the Medicare contractor five months after the close of the cost reporting period. The UCCR must be filed three after months after the CMS 2552 is filed. For SNCP payments subject to the cost limit pursuant to STC 49(c), each provider's allowable Medicaid, uncompensated care, and uninsured costs must be reconciled against associated applicable payments received for the year for which the payments were made.

For hospitals whose accounting fiscal year aligns with the cost limit reporting fiscal year (Federal fiscal year), the Medicaid and uninsured costs will be reflected in the CMS 2552 and UCCR that is submitted for the accounting fiscal year. For acute hospitals whose accounting fiscal years do not align with the reporting fiscal year, the reporting year cost limit will be calculated by applying the appropriate percentage of the two contiguous CMS 2552 and UCCR cost reports that span the reporting fiscal year so that the Federal fiscal year will be represented in the cost limit calculation.

The Commonwealth must recover provider overpayments as it determines necessary based on its reconciliation calculations and availability of federal financial participation.

If an overpayment exists, the Commonwealth must determine if the overpayment occurred due to Health Safety Net (HSN) Trust Fund payments or other SNCP payments, or from both payments. To the extent that the overpayment is a result of overpaid funds from the HSN Trust Fund, the Commonwealth must recover from the provider the amount overpaid to the provider from the HSN Trust Fund and credit that amount to the HSN Trust Fund. The HSN Trust Fund will redistribute such amounts to other providers as appropriate. To the extent that the overpayment is not the result of HSN Trust Fund payments, the Commonwealth must recover from the provider the overpayment, and the Commonwealth must properly credit the federal share to the federal government.

The interim reconciliation described above must be performed and completed within twelve months after the filing of the UCCR(s).

Final Reconciliation for CMS 2552 and UCCR Methods

Each provider's uncompensated care costs must be recomputed based on the provider's audited CMS

¹⁰ Community Based Detoxification Centers are the only provider type subject to the cost limit that does not submit the CMS 2552 cost report.

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2552 cost report for the actual service period. These recomputed costs must be carried over to the UCCR. The CMS 2552 cost report is audited and settled by the Medicare contractor to determine final allowable costs and reimbursement amounts as recognized by Medicare. For SNCP payments subject to the cost limit pursuant to STC 49(c), each provider's allowable Medicaid, uncompensated care, and uninsured costs must be reconciled against associated applicable payments received for the year for which the payments were made. SNCP uncompensated care payments made to the provider for a cost limit reporting year cannot exceed the recomputed uncompensated care cost limit. If, at the end of the final reconciliation process, it is determined that expenditures claimed exceeded the individual provider's uncompensated care cost limit, thereby causing an overpayment, the Commonwealth must recoup the overpayment from the provider. Specifically, if an overpayment exists, the Commonwealth must determine if the overpayment occurred due to HSN Trust Fund payments or other SNCP payments, or from both payments. To the extent that the overpayment is a result of overpaid funds from the HSN Trust Fund, the Commonwealth must recover from the provider the amount overpaid to the provider from the HSN Trust Fund and credit that amount to the HSN Trust Fund. The HSN Trust Fund will redistribute such amounts to other providers as appropriate. To the extent that the overpayment is not the result of HSN Trust Fund payments, the Commonwealth must recover from the provider the overpayment, and the Commonwealth must properly credit the federal share to the federal government.

For hospitals whose accounting fiscal year aligns with the cost limit reporting fiscal year (Federal fiscal year), the Medicaid and uninsured costs will be reflected in the CMS 2552 and UCCR that is submitted for the accounting fiscal year. For acute hospitals whose accounting fiscal years do not align with the reporting fiscal year, the reporting year cost limit will be calculated by applying the appropriate percentage of the two contiguous CMS 2552 and UCCR cost reports that span the reporting fiscal year so that the Federal fiscal year will be represented in the cost limit calculation.

The Commonwealth must recover provider overpayments as it determines necessary based on its reconciliation calculations and availability of federal financial participation.

The final reconciliation described above must be performed and completed within twelve months after all final, audited CMS 2552 cost reports become available online.

Interim Reconciliation for UFR Method

Each provider's uncompensated care costs must be computed based on the provider's as-filed Uniform Financial Report (UFR) and for the actual service period. The UFR is filed five months after the close of the cost reporting period. SNCP uncompensated care payments made to the provider for a cost limit reporting year cannot exceed the recomputed uncompensated care cost limit. Per unit cost will be derived from the as-filed UFR; and Medicaid and uninsured units of service and payments will be derived from the latest available auditable data for the service period. If, at the end of the interim reconciliation process, it is determined that expenditures claimed exceeded the individual provider's uncompensated care cost limit, the overpayment will be recouped from the provider, and the federal share will be properly credited to the federal government.

A provider's uncompensated care cost limit is determined for the twelve month period in each cost limit reporting year. For providers whose accounting fiscal year aligns with the cost limit reporting fiscal year (Federal fiscal year), the Medicaid and uninsured costs will be reflected in UFR and supplemental schedule that is submitted for the accounting fiscal year. For providers whose accounting fiscal years do not align with the reporting fiscal year, the reporting year cost limit will be calculated by applying the appropriate percentage of the two contiguous UFR and supplemental schedule reports that span the reporting fiscal year so that the Federal fiscal year will be represented

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in the cost limit calculation.

The interim reconciliation described above will be performed and completed within twelve months after the filing of the provider's UFR.

Final Reconciliation for the UFR Method

Each provider's uncompensated care costs must be recomputed based on the provider's audited UFR for the actual service period. The UFR is audited and settled by the Commonwealth to determine final allowable costs and reimbursement amounts as recognized by the Commonwealth based on this cost limit protocol. SNCP uncompensated care payments made to the provider for a cost limit reporting year cannot exceed the recomputed uncompensated care cost limit. Per unit cost will be derived from the as-filed UFR; and Medicaid and uninsured units of service and payments will be derived from the latest available auditable data for the service period. If, at the end of the final reconciliation process, it is determined that expenditures claimed exceeded the individual provider's uncompensated care cost limit, the overpayment will be recouped from the provider, and the federal share will be properly credited to the federal government. Settlement of any over- or underpayment to a provider will be treated as a separate transaction rather an adjustment to the following year's interim payment.

A provider's uncompensated care cost limit is determined for the twelve month period in each cost limit reporting year. For providers whose accounting fiscal year aligns with the cost limit reporting fiscal year (Federal fiscal year), the Medicaid and uninsured costs will be reflected in UFR and supplemental schedule that is submitted for the accounting fiscal year. For providers whose accounting fiscal years do not align with the reporting fiscal year, the reporting year cost limit will be calculated by applying the appropriate percentage of the two contiguous UFR and supplemental schedule reports that span the reporting fiscal year so that the Federal fiscal year will be represented in the cost limit calculation.

The final reconciliation described above will be performed and completed within twelve months after the audited provider UFR is made available.

ATTACHMENT I
Reserved

ATTACHMENT J
Reserved

ATTACHMENT K
PUBLIC HOSPITAL TRANSFORMATION AND INCENTIVE INITIATIVE
PROTOCOL

I. PREFACE

1. MassHealth Medicaid Section 1115 Demonstration Waiver

This Attachment K, Public Hospital Transformation and Incentive Initiatives (PHTII) Protocol, applies to the extension period of the Centers for Medicare & Medicaid Services (CMS) approved section 1115 demonstration waiver, entitled MassHealth (11-W-00030/1) (demonstration) from July 1, 2017 through June 30, 2022 (DY 21 through DY 25), as set forth in Attachment E and STC 56.

2. Public Hospital Transformation and Incentive Initiatives (PHTII)

STC 56 of the demonstration authorizes the Commonwealth to implement the Public Hospital Transformation and Incentive Initiatives (PHTII) funded through the Safety Net Care Pool (SNCP).

PHTII payments are intended to support the public hospital system for improvements in delivery systems and payment models that support the simultaneous pursuit of improving the experience of care, improving the health of populations, and reducing per capita costs of health care.

The Public Hospital will be required to develop and implement initiatives and activities, and to achieve performance metrics, as described and approved in this PHTII Protocol in order to receive the incentive payments.

In concert with the Commonwealth of Massachusetts' MassHealth transition from fee-for-service models into integrated accountable, total cost of care models in this demonstration, a defined portion of PHTII funding will be aligned with accountability for Medicaid Accountable Care Organization (ACO) performance accountability for the public hospital's MassHealth patient panel utilizing the Delivery System Reform Incentive Program (DSRIP) measures.

In addition, PHTII transformation initiatives will include a focus on behavioral health integration initiatives as well as other approved initiatives that support the public hospital's ongoing transformation efforts to ensure high-quality health care services for the Medicaid and safety net populations it serves. These initiatives may include:

- a) Integration of Behavioral Health and Primary Care;
- b) Comprehensive Systems for Treating Mental Health & Substance Use (MHSU) Conditions;
- c) Referral Management and Integrated Care Management;
- d) Evidence-Based Practices for Medical Management of Chronic Conditions; and/or
- e) Community Empowered Population Health Initiative (Not Selected).

These initiatives may complement or enhance other federal initiatives in which a hospital may be participating, but they must not duplicate the exact same activities for which the public hospital receives specific funding by the U.S Department of Health and Human Services or any other state or federal funding source.

Pursuant to STC 56, PHTII payments are not direct reimbursement or payment for services, should not be considered patient care revenue, will not be offset against other Medicaid reimbursements

to a hospital system, and will not be counted as payments when calculating hospital-specific cost limits under the Safety Net Care Pool Uncompensated Care Cost Limit Protocol.

3. PHTII Eligibility

STC 56 describes the eligibility for PHTII. Cambridge Public Health Commission d/b/a Cambridge Health Alliance (CHA) (hereby referred to as Public Hospital) is the only acute-care, non-federal, non-state Public Hospital in the Commonwealth and is eligible to earn PHTII payments outlined in Attachment E.

4. PHTII Protocol

In accordance with STC 56, Attachment K governs PHTII initiatives, guidelines, structure, and evaluation processes for reporting for payment, as outlined in Section V.

Following approval of the PHTII protocol by CMS and throughout the demonstration renewal period, the Massachusetts Executive Office of Health and Human Services (EOHHS) may propose revisions to the PHTII protocol, in collaboration with the Public Hospital, to reflect modifications to any component of the final approved protocol, including but not limited to initiatives, measures, metrics, and data sources or to account for other unforeseen circumstances in the implementation of the PHTII program. CMS must render a decision on proposed PHTII protocol revisions within 30 business days of submission by EOHHS. Such revisions must not require a waiver amendment, provided that they comport with all applicable STC requirements.

II. DESCRIPTION OF PHTII TRANSFORMATION FOCUS AREAS

5. PHTII Focus Areas

A defined portion of PHTII funding will be aligned with accountability for Medicaid Accountable Care Organization (ACO) performance accountability for the Public Hospital's MassHealth patient panel utilizing the DSRIP measures. Because the Public Hospital relies on PHTII as an important component of its overall MassHealth funding structure, linking a portion of PHTII funding with these DSRIP performance measures will ensure full alignment across payment streams and focus on improving these outcomes.

Other PHTII transformation initiatives will include a focus on behavioral health integration initiatives as well as other approved initiatives that support the Public Hospital system's ongoing transformation efforts to ensure high-quality health care services for the Medicaid and safety net populations it serves.

Additional PHTII initiatives may include the following:

- a) Integration of Behavioral Health and Primary Care;
- b) Comprehensive Systems for Treating Mental Health & Substance Use (MHSU) Conditions;
- c) Referral Management and Integrated Care Management;
- d) Evidence-Based Practices for Medical Management of Chronic Conditions; and/or
- e) Community Empowered Population Health Initiative (Not Selected).

Integration of Behavioral Health and Primary Care

To continue the advancement in integrated medical and behavioral health care in the context of population health management and alternative payment models, this initiative will leverage evidence-based practices to advance screening, treatment and improved access to behavioral health care based in the primary care setting for adults, children and

adolescents. This suite of initiatives will include a focus on population health, quality outcomes, patient engagement and experience of care improvements, coordinated, cross continuum care, and effective care management and follow-up on targeted conditions including depression, anxiety, and substance use disorders. This will be enabled through the optimization of screening and follow-up workflows, expansion of evidence-based treatment options, provider and staff training and engagement, building relationships among staff and providers across the system, and building community connections to support patient care.

Collaborative care, an evidence based delivery model involving a greater role of non-medical specialists to augment primary care and provide care management, has been shown to support the Triple Aim among patients with depression, the most prevalent mental disorder.^{11,12} The key elements of collaborative care models include: the use of a mental health registry, stepped care approach to depression management (i.e. intensifying treatments when needed), use of validated instruments (such as the Patient Health Questionnaire (PHQ-2 or PHQ-9) for depression, Generalized Anxiety Disorder scale (GAD-7) for anxiety, National Institute on Alcohol Abuse and Alcoholism single item screening tool (NIAAA-1), Alcohol Use Disorders Test (AUDIT), National Institute on Drug Abuse quick screen test (NIDA-1) and the Drug Abuse Screening Test (DAST), and regular caseload consultations by the psychiatrist and the behavioral care manager. Additional elements of integration include the co-location of behavioral health staff (such as therapists and psychiatrists) into primary care, meetings held by primary care and behavioral health team members to discuss cases, training of primary care and behavioral health staff on effective screening and collaborative care, and strategies to address substance use disorder (such as SBIRT) in primary care.¹³

Findings from more than 80 studies demonstrated that collaborative care increased adherence to evidence-based depression treatment by twofold and improved outcomes, including in low-income populations.¹⁴ Studies have also revealed value in terms of cost-effectiveness, cost-benefit analysis, and improved patient satisfaction with care.¹⁵ Substance use and addiction are significant challenges for society and for public payer populations. Unidentified mental health and substance use treatment needs contribute to higher costs and poor health outcomes. A recent publication released by the Substance Abuse and Mental Health Services Administration reported that in Massachusetts, only 53.8 % of adults with any mental illness (approximately 522,000 individuals per year in 2010-2014) actually received mental health treatment within the prior year, and only 7.5% of those with alcohol abuse or dependence received treatment in the prior year.¹⁶ Furthermore, the national problem of opioid use disorder and overdose is increasing year by year in Massachusetts.¹⁷

¹¹ Institute for Clinical and Economic Review. March, 2015. Integrating Behavioral Health into Primary Care.

¹² Unützer J, Katon WJ, Williams JW, Callahan CM, Harpole L, Hunkeler EM, Hoffing M, Areán PA, Hegel MT, Schoenbaum M, Oishi SM, Langston CA. Improving primary care for depression in late life: the design of a multi-center randomized trial. *Medical Care*. 2001; 39:785-799.

¹³ The Diamond Model is based on the Collaborative Care Model for depression by Wayne Katon, MD and the IMPACT Study by Jurgen Unutzer, MD as well as numerous other controlled trials from Institute for Clinical Systems Improvement and Minnesota Family Health Services presentation to the Institute for HealthCare Improvement Annual Forum, Dec 2010.

¹⁴ Archer, Janine, et al. "Collaborative care for depression and anxiety problems." *The Cochrane Library* (2012).

¹⁵ Katon WJ. "Collaborative Depression Care Models: From Development to Dissemination." *American Journal of Preventive Medicine*, 012;42(5):550–552.

¹⁶ Substance Abuse and Mental Health Services Administration. *Behavioral Health Barometer: Massachusetts, 2015*. HHS Publication No. SMA-16-BARO-2015-MA. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2015.

¹⁷ <http://www.mass.gov/eohhs/docs/dph/quality/drugcontrol/county-level-pmp/data-brief-overdose-deaths-may-2016.pdf>

According to the American Academy of Pediatrics (AAP), behavioral and emotional problems during childhood are common, often undetected, and frequently untreated despite. Approximately 11% to 20% of children in the United States have a behavioral or emotional disorder at any given time.^{18,19} Developmental and behavioral health disorders are now the top 5 chronic pediatric conditions causing functional impairment.^{20,21,22} The AAP urges clinicians to screen for developmental and behavioral problems at all health supervision visits using quality tools.²³ There is an opportunity to update routine, comprehensive screening for behavioral and developmental conditions in the child and adolescent population, using validated screening instruments such as the Survey of Wellbeing of Young Children (SWYC) for developmental screening, the Pediatric Symptom Checklist (PSC) and PHQ-9 for depression, and CRAFFT, a short clinical assessment tool for substance related risks and problems, and to develop the associated registries, analyze utilization patterns and service gaps, and optimize follow-up care according to the evidence base.²⁴

Comprehensive Systems for Treating Mental Health & Substance Use (MHSU) Conditions

Poor access to appropriate levels of care is a leading barrier to recovery for individuals with mental health and substance use (MHSU) conditions.²⁵ A comprehensive system for MHSU treatment – offering the right care to the right people at the right time – requires a wide range of services and delivery methods to meet the unique needs of individuals and families. Among others, these services include outpatient counseling (including primary care integration), intermediate care (intensive outpatient, partial hospital), residential and inpatient facilities, support for care transitions, and triage and emergency services. A robust continuum of care helps people access services when they need and want them, improving patient experience and the value of care (quality/cost). A comprehensive treatment system allows individuals and their providers to develop an optimal care plan most likely to help them stay connected to their communities, succeed in daily activities, such as work or school, and engage in family and community supports toward recovery. Individuals who do receive appropriate treatment early in their onset of illness may require less intensive **care**, experience fewer relapses,²⁶ and have better long-term health

¹⁸Costello EJ, Mustillo S, Erkanli A, Keeler G, Angold A. Prevalence and development of psychiatric disorders in childhood and adolescence. *Arch Gen Psychiatry*. 2003;60(8):837–844

¹⁹*Report of the Surgeon General's Conference on Children's Mental Health: A National Action Agenda*. Washington (DC): US Department of Health and Human Services; US Department of Health and Human Services; US Department of Education; US Department of Justice, 2000.

²⁰Slomski, A. Chronic Mental Health Issues in Children Now Loom Larger Than Physical Problems *JAMA*. 2012;308(3):223-225.

²¹Halfon N, Houtrow A, Larson K, Newacheck PW. The changing landscape of disability in childhood. *Future Child*. 2012;22(1):13–42

²²Promoting Optimal Development: Screening for Behavioral and Emotional Problems. Carol Weitzman, Lynn Wegner, the Section on Developmental and Behavioral Pediatrics, Committee on Psychosocial Aspects of Child and Family Health, Council on Early Childhood and Society for Developmental and Behavioral Pediatrics. *Pediatrics* Feb 2015, 135 (2) 384-395.

²³Identifying Infants and Young Children With Developmental Disorders in the Medical Home: An Algorithm for Developmental Surveillance and Screening Council on Children With Disabilities, Section on Developmental Behavioral Pediatrics, Bright Futures Steering Committee, Medical Home Initiatives for Children With Special Needs Project Advisory Committee *Pediatrics* Jul 2006, 118 (1) 405-420.

²⁴Massachusetts Department of Public Health Bureau of Substance Abuse Services. Provider Guide: Adolescent Screening, Brief Intervention, and Referral to Treatment Using the CRAFFT Screening Tool. Boston, MA. Massachusetts Department of Public Health, 2009.

²⁵American Hospital Association, Trendwatch, Bringing Behavioral Health into the Care Continuum, Opportunities to Improve, January 2012. Available at: <http://www.aha.org/research/reports/tw/12jan-tw-behavhealth.pdf>.

²⁶Institute of Medicine (US) Committee on Quality Assurance and Accreditation Guidelines for Managed Behavioral Health Care; Edmunds M, Frank R, Hogan M, et al., editors. *Managing Managed Care: Quality Improvement in Behavioral Health*. Washington (DC): National Academies Press (US); 1997. Available from: <http://www.ncbi.nlm.nih.gov/books/NBK233235/>

outcomes.²⁷ New programs offering integrated, person-centered MHSU care show promising results – greater use of community-based outpatient care, fewer hospital and emergency department (ED) admissions, and better health outcomes.²⁸⁻²⁹

However, left untreated, behavioral health disorders and co-occurring health conditions have harmful economic, interpersonal, and social impacts for the population as a whole.³⁰ This troubling impact is most evident in the 20 to 30 year gap in life expectancy among people living with serious mental illnesses (SMI).³¹⁻³² This disparity is driven by higher rates of chronic disease (e.g. diabetes, hypertension, hyperlipidemia, and obesity), delayed diagnosis and treatment of medical conditions,³³ fragmented delivery of care, medication side effects,³⁴ and higher rates of modifiable risk factors.³⁵ On average, 4.2 percent of Massachusetts residents are living with SMI and 10 percent have a SUD.³⁶ Among adults who access mental health care, 30 percent still report unmet needs, and more than one-third of those treated in the state’s public mental health system say it has not improved their functioning.³⁷

Massachusetts’ MHSU service gaps are due in part to shortages across the entire care continuum, from outpatient care to emergency services, inpatient beds, partial hospital programs, crisis stabilization units, detoxification, residential programs, and so on. This can result in sub-optimal wait times for outpatient therapy; extended hospitalizations due to lack of community-based services; and “boarding” in emergency departments (ED) as people await transfer to intermediate or acute care. Massachusetts faces an opioid use epidemic that has doubled the rate of overdose deaths from 2012 to 2015³⁸, and the need is growing exponentially for expanded Medication-Assisted Treatment (MAT) and evidence-based outpatient care for SUD. Expansion of services in areas that are most lacking, particularly in the intermediate care levels that provide step-down and diversionary services, will assist in shifting care away from more intensive levels and providing care at the appropriate level. Enhancement of treatment modalities will be explored that promote greater efficiency and create capacity within existing services, such as shorter term evidence-based

²⁷Kane JM, Robinson DG, Schooler NR, et al. Comprehensive versus usual community care for first-episode psychosis: 2-year outcomes from the NIMH RAISE early treatment program. *Am J Psychiatry* 2016; 173:362–372.

²⁸Krupski A, West II, Scharf DM, et al. Integrating primary care into community mental health centers: Impact on utilization and costs of health care. *Psychiatric Services in Advance*. 2016:1-7. doi: 10.1176/appi.ps.201500424.

²⁹Gilmer TP, Henwood BF, Goode M, et al. Implementation of integrated health homes and health outcomes for persons with serious mental illness in Los Angeles County. *Psychiatric Services in Advance*. 2016:1-6. doi: 10.1176/appi.ps.201500092.

³⁰American Hospital Association, Trendwatch, Bringing Behavioral Health into the Care Continuum, Opportunities to Improve, January 2012. Available at: <http://www.aha.org/research/reports/tw/12jan-tw-behavhealth.pdf>.

³¹Druss BG, Zhao L, Von Esenwein S, Morrato EH, Marcus SC. Understanding excess mortality in persons with mental illness: 17-year follow up of a nationally representative US survey. *Med. Care*. Jun 2011;49(6):599-604.

³²Colton CW, Manderscheid, RW. Congruencies in increased mortality rates, years of potential life lost, and causes of death among public mental health clients in eight states. *Preventing Chronic Disease*. 2006;3(2):1-14.

³³Nasrallah HA, Meyer JM, Goff DC, et al. Low rates of treatment for hypertension, dyslipidemia and diabetes in schizophrenia: Data from the CATIE schizophrenia trial sample at baseline. *Schizophrenia Research*. 2006;86(1-3):15-2.

³⁴Meyer JM, Davis VG, Goff DC, et al. Change in Metabolic Syndrome Parameters with Antipsychotic Treatment in the CATIE Schizophrenia Trial: Prospective Data from Phase 1. *Schizophr. Res*. 2008;101(1-3):273-286.

³⁵SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2008-2010.

³⁶Substance Abuse and Mental Health Services Administration (SAMHSA). Behavioral Health Barometer: Massachusetts, 2015. HHS Publication No. SMA-16-Baro-2015-MA. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2015.

³⁷Colton CW, Manderscheid, RW. Congruencies in increased mortality rates, years of potential life lost, and causes of death among public mental health clients in eight states. *Preventing Chronic Disease*. 2006;3(2):1-14.

³⁸Massachusetts Department of Public Health. Data Brief: Opioid-related Overdose Deaths Among Massachusetts Residents. May 2016. Available at: <http://www.mass.gov/eohhs/docs/dph/quality/drugcontrol/county-level-pmp/data-brief-overdose-deaths-may-2016.pdf>.

treatments and technology-based services such as telemedicine consultations. Patient care teams may be redefined to include clinicians, paraprofessionals, peer specialists/coaches, community-based providers, social support providers, etc., with the patient at the center of the team.

A substantial portion of the public **care** system for individuals with the most disabling conditions extends beyond **health care** services to rehabilitative and support services, including housing, job counseling, literacy, and other programs. Poor linkage and fractured funding impedes the ability to provide access to these services in a coordinated and integrated way.³⁹ One strategy is the formalization of agreements between healthcare providers and community-based providers who offer complementary services, and providing integrated population case management. A focus on health promotion is essential to impact health outcomes for this population, as a national study estimated 85 percent of the life expectancy gap for people living with schizophrenia was attributable to “natural” causes, such as cardiovascular disease, cancers, pneumonia, and diabetes.⁴⁰ Early screening and intervention for medical conditions is essential, particularly for patients taking antipsychotic medications that increase the risk for certain medical conditions, most notably metabolic syndrome. Modifiable factors such as smoking, diet, physical activity, substance use, and social needs are key drivers that can be addressed through promoting healthy living through education, skills training, and behavioral therapy.⁴¹⁻⁴²

Referral Management and Integrated Care Management

Toward the goals of better health and optimal, more coordinated and cost-effective care, this suite of initiatives is aimed at increasing patient access to high-quality care, promote appropriate referrals and access (i.e. the right provider in the right setting) based on the complexity of the patient’s needs. Providing integrated care across the continuum of care through effective referral management and care coordination is foundational to the accountable care model and alternative payment arrangements with quality, cost and health care utilization accountability. This is particularly important for Medicaid and other vulnerable patient populations that often face barriers to care and care fragmentation. This initiative builds and supports systems to maintain a preferred, high value network and simultaneously provide highly coordinated and quality care in four ways: focus on public hospital system access and effective operational improvements in primary care and medical, surgical and behavioral health specialties, encourage public hospital referrals and the use of care within the public hospital system and with clearly defined high value preferred provider networks enabled to coordinate care and redirect referrals from higher cost, lower-value external referrals, build relationships with key community-based partners such as visiting nurse associations (VNAs), skilled nursing facilities (SNFs), and detoxification facilities, and leverage proven technology to improve access and convenience for the patient panel to specialty opinions and care. The Massachusetts Office of the Attorney General’s report published in September 2015 found wide variation in the prices health insurance companies pay providers for similar services, unexplained by differences in quality, complexity of services, or other common measures of consumer value. The report found that higher priced providers are drawing patient volume from lower priced

³⁹Institute of Medicine (US) Committee on Quality Assurance and Accreditation Guidelines for Managed Behavioral Health Care; Edmunds M, Frank R, Hogan M, et al., editors. *Managing Managed Care: Quality Improvement in Behavioral Health*. Washington (DC): National Academies Press (US); 1997. Available from: <http://www.ncbi.nlm.nih.gov/books/NBK233235/>

⁴⁰Kane JM, Robinson DG, Schooler NR, et al. Comprehensive versus usual community care for first-episode psychosis: 2-year outcomes from the NIMH RAISE early treatment program. *Am J Psychiatry* 2016; 173:362–372.

⁴¹Bartels S, Desilets R. *Health Promotion Programs for People with Serious Mental Illness* (Prepared by the Dartmouth Health Promotion Research Team). Washington, DC. SAMHSA-HRSA Center for Integrated Health Solutions. Jan 2012.

⁴²Bruins J, Jorg F, Bruggeman R, Slooff C, Corpeleijn E, et al. (2014) The Effects of Lifestyle Interventions on (Long-Term) Weight Management, Cardiometabolic Risk and Depressive Symptoms in People with Psychotic Disorders: A MetaAnalysis. *PLoS ONE*, 2014; 9(12); 1-20.

providers, which increases costs as care is shifted from less expensive settings to more expensive settings. Referral networks comprised of high value providers are an opportunity to address this.

In addition, this initiative will refine emergency department (ED) and inpatient case management capabilities to offer alternative treatment modalities and community-based care to patients. This initiative will expand e-consults beyond tele-dermatology in order to increase access to consultations with specialists, reducing cost and enabling more capacity for face-to-face visits when appropriate. This initiative may focus on facilitating transportation to in-network care providers for patients who lack transportation by utilizing a non-medical transportation support service. Convenience and effectiveness also drives efforts to examine text-messaging in care management.

Evidence-Based Practices for Medical Management of Chronic Conditions

Evidence based medicine (EBM) is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients. The goal is to improve outcomes, quality, and cost by reducing the variation of care for key conditions and integrate EBM into the health care delivery system across the continuum. Variation of care was outlined in the 2010 Dartmouth Institute’s reflections on geographic variations; however, similar variations in care may also be observed within health care systems and practices, acknowledging natural differences between patients. Safer, higher-quality care, redesigned systems of care that integrate the use of information technology can best support clinical and administrative processes to adopt EBM and improve patient outcomes.

Efforts to change the culture of medical practice to adopt EBM include education on recommendations from peer-reviewed groups such as Cochrane or the U.S. Preventive Services Task Force (USPTF), integration of EBM into clinical activities via clinical decision support (CDS) for chronic conditions and prevention, and the application of population health data to prioritize and subsequently develop systems to close quality gaps. Planned future initiatives build on capabilities to develop and use population health databases, risk stratify patients, and help connect the most costly and vulnerable patients with complex care management, transitional facilitators, and palliative care services. Medical management programs aim to develop and implement evidence-based clinical guidelines for populations of patients with particular conditions to ensure the right care at the right time in the right context and produce optimal outcomes for quality, safety, cost, and experience. Efforts may focus on improving care and reducing cost for populations of patients with five conditions: chronic obstructive pulmonary disease; congestive heart failure; hypertension; diabetes; and pediatric asthma.

Evidence-based patient engagement strategies may include those such as motivational interviewing in chronic health conditions and for substance use disorders, expansion of nursing, pharmacist, and other care team member roles in chronic disease management, and mental health team integration within primary care. Initiatives may include refining tools, frameworks, analytics, and clinical workforce development in the use of evidence-based guidelines across the care continuum.

Community Empowered Population Health Initiative

In recognition that social, behavioral, and environmental factors account for 70% of what it takes to stay healthy while only 10% are attributable to direct medical care, this initiative will build and support systems to address social determinants of health (SDH) and address health disparities in patients with chronic conditions.⁴³ According to the Institute of Medicine, “an aligned system with a strong interface among public health, health care, and the community and non-health sectors

⁴³McGinnis et al. The Case for More Active Policy Attention to Health Promotion. Health Affairs 2002; 21(2); 78-93

could produce better prevention and treatment outcomes for populations living with chronic illness.”⁴⁴ Healthy People 2020 highlights the importance of addressing the social determinants of health by including “create social and physical environments that promote good health for all” as one of the four overarching goals for the decade.⁴⁵ Based on emerging evidence that addressing social needs through enhanced clinical-community linkages can improve health outcomes and reduce costs, CMS has prioritized addressing SDH through the Accountable Health Communities model to address critical gaps between clinical care and community services.⁴⁶ The initiative also recognizes that health disparities have persisted for families and communities that have systematically experienced social and economic disadvantage and consequently face greater obstacles to optimal health.^{47,48}

Improving SDH and health disparities requires supporting communities in addressing their health needs, implementing screening and referral processes to social service agencies and building programs that identify and address health disparities. Community health improvement teams will work with community based organizations and governmental entities to support their efforts to improve community health. Clinical and community health improvement teams will work together to screen for SDH, refer patients with social needs to existing community services, and rescreen patients with social needs. Clinical and community health improvement teams will also work closely to identify populations with disproportionately higher rates of poor control of chronic health conditions, monitor and improve their care through ensuring they receive interventions such as education, outreach, and linkage to primary, specialty and other ambulatory care services.

III. PROPOSED PUBLIC HOSPITAL TRANSFORMATION AND INCENTIVE INITIATIVES

6. Public Hospital Transformation and Incentive Initiatives

The Public Hospital must implement PHTII initiatives approved by EOHHS and CMS that are outlined within this protocol and that meet all requirements pursuant to STC 56, and all requirements set forth in Section III.

7. Minimum Number of Initiatives

The Public Hospital must select a minimum of four initiatives and no more than five initiatives in total for PHTII, in addition to the portion of PHTII funding linked to DSRIP performance accountability for the Public Hospital’s attributed primary care panel within an ACO. Cambridge Health Alliance has selected four initiative areas 1 – 4 and corresponding Measure Slates 1 – 4 and 6.

8. Public Hospital PHTII Initiative Toolkit

Section VIII, paragraph 23 includes the menu of PHTII Initiatives and corresponding outcomes and improvement Measure Slates from which an eligible public hospital may select. Each initiative description includes:

- a. Rationale for the proposed initiative (evidence base and reasoning behind initiative idea);

⁴⁴IOM. Living well with chronic illness: a call for public health action. Washington, DC: The National Academies Press; 2012

⁴⁵Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health>

⁴⁶Alley DE, et al. Accountable Health Communities — Addressing Social Needs through Medicare and Medicaid. *N Engl J Med* 2016; 374:8-11.

⁴⁷CMS. CMS Equity Plan for Improving Quality in Medicare. Sept 2015. https://www.cms.gov/About-CMS/Agency-Information/OMH/OMH_Dwnld-CMS_EquityPlanforMedicare_090615.pdf

⁴⁸CMS. <https://www.medicaid.gov/medicaid-chip-program-information/by-topics/quality-of-care/quality-of-care-health-disparities.html>

- b. Goals and objectives for the initiative (initiative-specific Triple Aim goals and expected initiative outcomes);
- c. Core components or key activities to guide initiative development and implementation;
 - i. The core components for the initiatives are not required. However, most will be necessary to achieve the required results. The core components provide a guide for how the initiatives are implemented by the public hospital.
- d. Measure Slates required for the initiative, including clinical event outcomes and other specified outcomes and improvement measures.
 - i. The PHTII funding at risk for improved performance on outcomes and improvement indicators will be spread among four (4) Measure Slates associated with ongoing transformation efforts to ensure high-quality health care services for the Medicaid and safety net populations. Each Measure Slate is a list of outcomes and improvement indicators for which the Public Hospital must successfully achieve defined metrics for a specified number of the indicators on the list within each specified demonstration year.
 - ii. Each Measure Slate is designed specifically for a PHTII initiative. For the purposes of the at-risk funding for improved performance on outcomes and improvement indicators, the Measure Slates for PHTII initiatives are as follows:
 - (a) Measure Slate 1 – Integration of Behavioral Health (BH) and Primary Care Initiatives
 - (b) Measure Slate 2 – Comprehensive Systems for Treating Mental Health and Substance Use Conditions
 - (c) Measure Slate 3 – Referral Management Initiatives and Integrated Care Management
 - (d) Measure Slate 4 – Evidence-Based Practices for Medical Management of Chronic Conditions
 - (e) Measure Slate 5 – Community Empowered Population Health Initiative (Not Selected).
 - iii. A specified number of outcomes and improvement indicators will need to be achieved in each DY, according to the table below.

The Public Hospital receives payment when a measure is individually achieved and reported, up to the established number of outcomes and improvement indicators assigned funding in a given demonstration year. For example in Measure Slate 2 in DY 22, if the Public Hospital achieves 4 indicators (out of the defined number for that year which is set at 5 indicators), the public hospital will be paid for those 4 indicators during that demonstration year. However, if the Public Hospital achieves a greater number than the defined number of improvement indicators established for a given year (for example, 6 indicators compared to the defined number established at 5 indicators), the Public Hospital will only be paid for the first 5 indicators that it achieves on that Measure Slate during that demonstration year.

	DY21	DY22	DY23	DY24	DY25
Measure Slate 1	Achieve 2 of 4 Indicator Goals	Achieve 4 of 11 Indicator Goals	Achieve 5 of 11 Indicator Goals	Achieve 6 of 11 Indicator Goals	Achieve 7 of 11 Indicator Goals
Measure Slate 2	Achieve 2 of 5 Indicator Goals	Achieve 5 of 13 Indicator Goals	Achieve 7 of 13 Indicator Goals	Achieve 8 of 13 Indicator Goals	Achieve 8 of 13 Indicator Goals
Measure Slate 3	Achieve 2 of 5	Achieve 4 of 10	Achieve 7 of 13	Achieve 6 of 10	Achieve 8 of 13

	DY21	DY22	DY23	DY24	DY25
	Indicator Goals	Indicator Goals	Indicator Goals	Indicator Goals	Indicator Goals
Measure Slate 4	Achieve 2 of 3 Indicator Goals	Achieve 4 of 13 Indicator Goals	Achieve 7 of 13 Indicator Goals	Achieve 8 of 13 Indicator Goals	Achieve 8 of 13 Indicator Goals
Measure Slate 5	N/A (Not Selected)	Achieve 3 of 9 Indicator Goals (Not Selected)	Achieve 5 of 9 Indicator Goals (Not Selected)	Achieve 5 of 9 Indicator Goals (Not Selected)	Achieve 6 of 9 Indicator Goals (Not Selected)

- iv. The Public Hospital is not required to pre-determine which outcomes and improvement indicators will be achieved in terms of performance goals in each year; instead, the Public Hospital must achieve the established performance goals for the specified number of outcomes and improvement indicators applicable to a demonstration year, which are individually payable when an indicator is individually achieved and reported up to the established number of outcomes and improvement indicators assigned funding in that demonstration year. Beginning in DY23, for each of the Measure Slates 1 – 5, at least 2 measures are required to continue achievement from the year immediately previous. A description of the funding allocation for the at-risk outcomes and improvement indicators can be found in Section VI, paragraph 18. Updates to technical specifications of outcomes and improvement measures in Measures Slates 1 – 5 shall not require a protocol modification and can be implemented by the Commonwealth without further approval.
- e. Pay-for-Reporting Measure Slate
Measure Slate 6 reflects Population-Wide Public Health Measures. Measure Slate 6 will be Pay-for-Reporting for DYs 21 – 25.

	DY21	DY22	DY23	DY24	DY25
Measure Slate 6	Pay-for-Reporting	Pay-for-Reporting	Pay-for-Reporting	Pay-for-Reporting	Pay-for-Reporting

A description of the funding allocation for the pay-for-reporting measure slate can be found in Section VI, paragraph 18.

- 9. Medicaid ACO Performance Accountability for Public Hospital’s MassHealth Panel**
The public hospital will report on measures associated with Medicaid Accountable Care Organization (ACO) performance accountability for the Public Hospital’s MassHealth patient panel utilizing the DSRIP measures.

IV. NON-FEDERAL SHARE OF PHTII PAYMENTS AND ALIGNED MASSHEALTH ACO PERFORMANCE ACCOUNTABILITY FUNDS INCORPORATED INTO PHTII FUNDING STREAM

11. Identification of Allowable Funding Sources

a. Allowable Funding Sources

Allowable funding sources for the non-federal share of PHTII payments must include all sources authorized under Title XIX and federal regulations promulgated thereunder.

- i. The source of non-federal share of DYs 21 – 25 PHTII payments to the Public Hospital will be an intergovernmental funds transfer. The Executive Office of Health and Human Services (EOHHS) will issue a request to the Public Hospital for an intergovernmental transfer in the amount of the non-federal share of the applicable incentive payment amounts at least 15 days prior to the scheduled date of payment. The Public Hospital will make an intergovernmental transfer of its funds to EOHHS in the amount specified by a mutually agreed timeline determined by EOHHS in consultation with the Public Hospital, and in accordance with the terms of an executed payment and funding agreement, and all applicable laws. Upon receipt of the intergovernmental transfer, EOHHS will draw the federal funding and pay both the nonfederal and federal shares of the applicable DYs 21 – 25 payment(s) to the Public Hospital according to a mutually agreed upon timeline determined by EOHHS in the consultation with the Public Hospital, and subject to state legislative appropriation and availability of funds, the terms of a payment and funding agreement, and all necessary approvals.

b. Change in Funding Source

If the source of non-federal share of PHTII payments changes during the renewal period, EOHHS must notify CMS and seek CMS' approval of such change prior to claiming FFP for any payment utilizing such funding source. No waiver amendment is required.

V. PHTII REPORTING AND PAYMENT IN DYs 21 – 25

12. PHTII Initiatives and Measure Slate 1 – 6

Three times per year, the Public Hospital seeking payment under PHTII must submit reports to the Commonwealth demonstrating progress on PHTII initiatives that the Public Hospital has selected pursuant to paragraph 7. The Commonwealth must provide such reports to the assigned independent assessor. The reports must be submitted using the standardized reporting form approved by EOHHS. The reports must include the incentive payment amount being requested for the progress achieved on PHTII initiative activities in accordance with payment mechanics (see Section VI). The report must include data on the progress with the initiative and must provide a narrative description of the progress made. The reports must contain sufficient data and documentation to allow CMS, the state, and the independent assessor to determine if the hospital is achieving progress with the initiative. The hospital system must have available for review by the Commonwealth or CMS, upon request, all supporting data and back-up documentation. These reports will be due as indicated below after the end of each reporting period:

- a. Reporting period of July 1 through October 31: the report and request for payment is due November 30.
- b. Reporting period of November 1 through February 28/29: the report and request for payment is due March 31.
- c. Reporting period of March 1 to June 30: the report and request for payment is due July 31. The Commonwealth may permit the reporting for payment of specified outcomes measures subsequent to the July 31 reports for each demonstration year in recognition that additional time may be needed for necessary data to be available.

These reports will serve as the basis for authorizing incentive payments to the Public Hospital. The actual payment amounts will be determined by EOHHS in accordance with the provisions of

Section VI. EOHHS will schedule the payment transaction for the hospital within 30 days following EOHHS approval of the hospital report, subject to state legislative appropriation and availability of funding, execution of a payment agreement provided by EOHHS, and all necessary approvals. The state must inform CMS of the funding of PHTII payments to the provider through a quarterly payment report to be submitted to CMS within 60 days after the end of each quarter.

An independent assessor will review each report, to ensure accurate reporting of the hospital's achievement, and make recommendations to the state regarding approvals, denials or recommended changes in order to approve payment. EOHHS will provide final approval of all PHTII payments. The hospital must be allowed an opportunity to respond to, and correct, any recommendation for denial of payment, for a metric that the hospital believes it achieved, through the resubmission of required clarifications and/or data.

13. MassHealth DSRIP Performance Accountability for Public Hospital's MassHealth Panel

The public hospital will also follow the reporting process as defined by EOHHS for the Medicaid DSRIP performance accountability measures for the Public Hospital's MassHealth panel.

Generally, EOHHS will make payments to the Public Hospital for the DSRIP performance measures at the same time as it makes payments associated with the Public Hospital's third annual reporting cycle, as described in paragraph 12c above. However, if any DSRIP performance measures or domains are completed and approved by EOHHS pursuant to the DSRIP process at another time during the year, EOHHS shall make payments to the Public Hospital in the most proximate report for payment. For DSRIP performance measures that may rely on claims and/or other lagged sources of data administered by MassHealth, EOHHS shall make estimated payments to the Public Hospital, which shall be subject to final reconciliation outlined in this paragraph and paragraph 14 below. If it is determined that the progress by the Public Hospital had not been achieved as calculated in the estimated payment and that such progress would have resulted in a lower payment amount, the Public Hospital will be required to re-pay the federal portion of the overpayment amount. If the review determines that actual progress exceeded the estimate and the estimated payment amount, then the Public Hospital will be able to receive the appropriate additional payment in conjunction with the intergovernmental transfer process outlined in Section IV, paragraph 11.

14. Year-end Payment Reconciliation

Based on its review and verification of the Public Hospital's third annual report for payment, EOHHS will perform reconciliation as an additional check to verify that all PHTII payments made to the hospital were correct. If, after the reconciliation process EOHHS determines that the hospital was overpaid, the overpayment will be properly credited to the Commonwealth and the federal government or will be withheld from the next PHTII payment for the hospital, as determined by EOHHS. If, after the reconciliation process EOHHS determines that the hospital was underpaid, then subject to state legislative appropriation and availability of funds, the terms of a payment and funding agreement, and all necessary approvals, EOHHS will schedule necessary payment transaction(s), or will add the additional amount to the next PHTII payment for the hospital, as determined by EOHHS.

15. Commonwealth Reporting to CMS in DYs 21 – 25

PHTII will be a component of the Commonwealth's quarterly operational reports and annual reports related to the demonstration. These reports will include:

- a. All PHTII payments made to the specific hospital that occurred in the quarter;

- b. Expenditure projections reflecting the expected pace of future disbursements for the participating hospital;
- c. An assessment by summarizing the hospital’s PHTII activities during the given period; and
- d. Evaluation activities and interim findings of the evaluation design.

16. Claiming Federal Financial Participation

The Commonwealth will claim federal financial participation (FFP) for PHTII incentive payments on the CMS 64.9 waiver form on a quarterly basis, using a specific waiver group set up exclusively for PHTII payments. FFP will be available only for PHTII payments made in accordance with all pertinent STCs and the stipulations of this master PHTII plan, including Section VI. The Commonwealth and the hospital system receiving PHTII payment must have available for review by CMS, upon request, all supporting data and back-up documentation. FFP will be available only for payments related to activities listed in the approved PHTII protocol.

VI. DISBURSEMENT OF PHTII FUNDS

17. PHTII Incentive Payments

a. Eligibility for PHTII Incentive Payments

PHTII payments for the Public Hospital are contingent on that provider reporting progress on the PHTII initiatives and achieving performance for at risk outcomes and improvement measures as defined in the approved protocol. As outlined in Sections V and VI of the PHTII protocol, the hospital will be able to receive PHTII incentive payments related to approval of the required reports for payment. PHTII incentive payments may equal but not exceed the allotment outlined in Attachment E.

b. DYs 21 – 25 PHTII Payments

In DYs 21 – 25, PHTII funds will be available as incentive payments to the Public Hospital based on successfully executing and reporting on approved PHTII initiatives. The Public Hospital shall be eligible to receive the full amount of PHTII Initiatives Progress Reporting and Measure Slate 6 Reporting funding for successful completion of the progress reporting requirements during the first and second reports for payment, as specified in paragraph 12.

c. Funding At Risk for Outcomes and Improvement

Inclusive of the funding allotted to PHTII Outcomes and Improvement Measure Slates and MassHealth DSRIP performance accountability measures, the percentage of PHTII funding at risk for improved performance on outcomes and improvement indicators will gradually increase from 15 percent in DY 21 to 30 percent in DY 25.

18. PHTII Funding Allocation Formula

The following chart depicts the percentage and dollar amount of total PHTII funds available per demonstration year for PHTII initiatives and the at-risk amounts for performance on the outcome and quality indicators.

	MassHealth DSRIP Performance Accountability for Public Hospital’s MassHealth Panel		PHTII At-Risk Measure Slates 1 – 4 Outcomes and Improvement Indicators		PHTII Initiatives Progress Reporting and Measure Slate 6 Reporting		Total
DY 21	5%	\$15.45M	10%	\$30.9M	85%	\$262.65M	\$309M
DY 22	5%	\$12.15M	10%	\$24.3M	85%	\$206.55M	\$243M
DY 23	10%	\$10M	10%	\$10M	80%	\$80M	\$100M
DY 24	15%	\$15M	10%	\$10M	75%	\$75M	\$100M
DY 25	20%	\$20M	10%	\$10M	70%	\$70M	\$100M

a. Funding for MassHealth DSRIP Performance Accountability for Public Hospital’s MassHealth Panel

In DY 21, 5% of total PHTII funds are available as incentive payments for meeting all qualification criteria for and participating in one of MassHealth’s ACO models for the Public Hospital’s MassHealth primary care patient panel. The funding allocation available for successful performance on MassHealth DSRIP performance accountability measures for the Public Hospital’s MassHealth primary care patient panel members is 5% in DY 22, 10% in DY 23, 15% in DY 24, and 20% in DY 25.

b. Funding Allocation for PHTII At Risk Outcomes and Improvement Indicators

The amount of funding at risk for performance on the outcome and improvement indicators will be 10% of the total annual PHTII funding in DYs 21 – 25. Payment for performance on these outcome milestones will be based on an objective demonstration of improvement using a valid, standardized method, outlined in Section VI, paragraph 19. The defined number of outcome and improvement indicators targeted for achievement in a given demonstration year have an annual base value that is uniform across all indicators within a specific Measure Slate 1 – 5 during a given demonstration year. The annual outcomes and improvement indicator value related to each of the applicable initiatives (Measure Slates 1 – 5) is calculated by dividing the annual total available amount of PHTII outcomes and improvement indicator funds by the number of applicable initiatives for a given year.

	DY 21	DY 22	DY 23	DY 24	DY 25
Measure Slate 1	\$7.725M	\$6.075M	\$2.5M	\$2.5M	\$2.5M
Measure Slate 2	\$7.725M	\$6.075M	\$2.5M	\$2.5M	\$2.5M
Measure Slate 3	\$7.725M	\$6.075M	\$2.5M	\$2.5M	\$2.5M
Measure Slate 4	\$7.725M	\$6.075M	\$2.5M	\$2.5M	\$2.5M
Measure Slate 5	Not Selected	Not Selected	Not Selected	Not Selected	Not Selected
Total	\$30.90M	\$24.30M	\$10.00M	\$10.00M	\$10.00M

The PHTII at-risk outcomes and improvement indicator funds will be earned by Measure Slate based on the individual achievement of established performance goals for the specified number

of indicators for each respective measure slate as outlined in Section III, paragraph 8. For each Measure Slate, the available funds are divided by the established number of measures specified for achievement during a given demonstration year. Payment will be made to the Public Hospital when a measure is individually achieved and reported, up to the established number of measures assigned funding in a given demonstration year.

c. Funding Allocation for PHTII Initiatives and Measure Slate 6

In DY 21, 85% of total PHTII funds are available as incentive payments for successful achievement of progress reporting on PHTII initiative activities as described in Section V, paragraph 12. The funding allocation available for PHTII initiatives is 85% in DY 22, 80% in DY 23, 75% in DY 24, and 70% in DY 25.

Of such annual PHTII funds available for successful achievement of reporting initiative activities in DYs 21 – 25, five percent of such annual initiative metric funding is associated with Measure Slate 6 (Population-Wide Public Health Measures), which is pay-for-reporting throughout the demonstration. The table below specifies the annual base values for PHTII initiatives and Measure Slate 6.

	DY 21	DY 22	DY 23	DY 24	DY 25
PHTII Initiatives Progress Reporting	\$249.52M	\$196.22M	\$76.00M	\$71.25M	\$66.50M
Measure Slate 6	\$13.1325M	\$10.3275M	\$4.00M	\$3.75M	\$3.50M
Total PHTII Initiatives Progress Reporting and Measure Slate 6	\$262.65M	\$206.55M	\$80.00M	\$75.00M	\$70.00M

19. PHTII Improvement Measurement Approach

As stated in Section V, paragraph 12 of this attachment, the Public Hospital will report outcomes and improvement indicators related to PHTII Initiatives (Measure Slates 1 – 4). The public hospital will also follow the reporting process as defined by EOHHS for the Medicaid DSRIP performance accountability measures for the Public Hospital’s attributed panel, outlined in paragraph 13.

a. PHTII Measure Slates 1 – 5

In order to receive funding for Measure Slates 1 – 5, the Public Hospital must achieve established performance goals for a specified number of indicators which are individually payable when an indicator is individually achieved and reported up to the established number of outcomes and improvement indicators assigned funding in a given demonstration year, as described in Section III, paragraph 8. Payment-for-performance on the outcomes and improvement indicators on the Measure Slates will be based on an objective demonstration of improvement over baseline or achievement of established performance thresholds using a valid, standardized method, as described below.

The following is the PHTII Measure Slate 1 – 5 payment framework for outcomes and improvement indicators.

- i. DY 21 - 25 – This is pay-for-performance for designated measures.

- (a) The Public Hospital must achieve established performance goals for the specified number of indicators for the demonstration year, as outlined in Section III, paragraph 8.
- (b) Baselines will also be reported for designated measures in specified demonstration years.
- ii. In the event that the Public Hospital meets the specified performance benchmark in a particular demonstration year, the organization must maintain performance at or above the benchmark in the remaining demonstration years. Variation in performance is acceptable as long as the performance for each demonstration year is at or better than benchmark in this case. Beginning in DY22, the Public Hospital would also be required to achieve at least one measure in each measure slate for which it did not meet or exceed the benchmark in the previous year.
- iii. The Public Hospital must have a target for outcome and quality improvement indicators in Measure Slates 1 – 5. The specified targets will be used to determine whether or not success is achieved on the associated outcomes or improvement indicator. Measure Slate 6 is pay-for-reporting only on population-wide public health measures, and is not included in the at-risk funding for outcomes and improvement indicators, as described in Section VI, paragraph 18.
- iv. The following is a guiding hierarchy for the selection of improvement benchmarks or targets for outcomes and improvement indicators on Measure Slates 1 – 5. All performance targets are set forward in this protocol for Measure Slates 1 – 5 and will be in place for the entire demonstration period.
 - (a) Select the latest available 90th percentile Massachusetts Medicaid at the time of protocol development. For CMS core inpatient measures and other inpatient measures, utilize available Massachusetts performance data.
 - (b) If above is not available, select the latest available 90th percentile National Medicaid data at the time of protocol development. For CMS core inpatient measures and other inpatient measures, utilize available National performance data.
 - (c) If above is not available, select other available benchmark (such as other latest available National benchmark) or hospital-defined target at the time of protocol development. If above is not available or if the specific measure is more appropriate to improvement over hospital baseline (such as non-risk adjusted or utilization improvement measures), any improvement over DY21/SFY18 hospital baseline will be the improvement measurement method or as specified.
- v. Outcomes and Improvement Indicators Classifications for Measure Slates 1 – 5
 - (a) Outcomes and improvement indicators will be classified into the following groups: (i) Clinical care delivery improvement measures; (ii) Clinical outcomes measures; and (iii) other delivery/outcomes measures where there is not a standardized benchmark and/or if the specific measure is more appropriate to improvement over hospital baseline.
 - (i) Clinical care delivery improvement measures quantify a performance exhibited by clinical care practices, such as health screenings, and therefore are usually directly observable and can be directly impacted. In general, these metrics fit with a gap-to-goal methodology. All metrics classified as clinical care delivery measures must have an acceptable benchmark. To meet the threshold for success, the Public Hospital must achieve closure of 10% of the difference between the Public Hospital's baseline performance and the established benchmark or maintain at or above the benchmark. Each subsequent year would continue to be set with a target using the most recent year's data, unless otherwise specified.

$$\text{Performance Year} - \text{Baseline} \geq (\text{Benchmark} - \text{Baseline}) * 10\%$$

An example of a clinical care delivery measure is influenza immunization (NQF 0041).

- (ii) Clinical outcome measures are metrics influenced by patient case mix, multiple processes, and environmental factors. In general, these metrics fit with a gap-to-goal methodology, depending on the availability of performance benchmarks. Since improvement on outcomes measures requires considerable amounts of resources and time and is dependent on foundational care delivery improvements and patient factors, closure of 10% of the difference between the Public Hospital's baseline performance and the established benchmark is included, unless otherwise specified. To meet the threshold for success, the Public Hospital must meet the 10% gap to goal, where the Public Hospital must achieve a closure of a minimum of 10% of the difference between the benchmark and the baseline performance or maintain at or above the benchmark. Each subsequent year would continue to be set with a target using the most recent year's data, unless otherwise specified.

$$\text{Performance Year} - \text{Baseline} \geq (\text{Benchmark} - \text{Baseline}) * 10\%$$

Examples of clinical outcome measures are Controlling High Blood Pressure (NQF 0018) and Comprehensive Diabetes Care: Hemoglobin A1c Control (NQF 0575).

- (iii) Non-standardized benchmark delivery/outcomes measures are metrics that do not have an available or acceptable benchmark and/or are specific measures that are more appropriate for improvement over hospital baseline (such as non-risk adjusted or utilization improvement measures). For example, to meet the threshold for success, for pay-for-performance measures applicable to DY 22, the Public Hospital must show improvement from baseline (DY 21) to performance year (DY 22). To meet the threshold for success, for pay-for-performance measures applicable to DY 23, the Public Hospital must show improvement from baseline (DY 21) to performance year (DY 23) or as specified.

Examples of a non-standardized benchmark delivery/outcomes measure are emergency department utilization rates and reducing the proportion of out-of-network referrals, thereby improving patient continuity of care. These measures are influenced by many factors (which may include patient case mix, multiple processes, and environmental factors). Given that these measures are not risk-adjusted approach, the use of the Public Hospital's historical performance is a pragmatic approach to PHTII. Other examples of a non-standardized benchmark delivery/outcomes measures are the CMS Inpatient Psychiatric Facility Quality Reporting Screening for Metabolic Disorders in Inpatient Psychiatric Care, which is a new measure for which a benchmark is unavailable.

b. MassHealth DSRIP Performance Accountability Funds Incorporated into PHTII Funding Stream

The Public Hospital will follow the reporting process established for the MassHealth DSRIP accountability measures. A DSRIP Accountability Score will be calculated for the Public Hospital using the methodology as described in the DSRIP Protocol, except that the Accountability Score will be calculated based specifically on performance for MassHealth members related to the Public Hospital's primary care panel (versus the whole ACO's primary

care panel, if the ACO includes other primary care providers in addition to the Public Hospital). The amount of these at-risk funds the Public Hospital earns will be determined as outlined in the DSRIP Protocol. The DSRIP domains and measures, and the methodology for calculating accountability scores, are further defined in the DSRIP Protocol.

VII. INITIATIVE MODIFICATION, GRACE PERIODS, AND CARRY FORWARD AND RECLAMATION

20. Initiative Modification Process

- a. Consistent with the recognized need to provide the Public Hospital some flexibility to evolve its initiatives over time and take into account evidence and learning from experience and from the field, as well as for unforeseen circumstances or other good cause, the hospital may request modifications to the PHTII Toolkit for an initiative or to its portfolio of selected PHTII initiatives, with the exception of ACO performance accountability, which may not be modified except at EOHHS' direction and as applicable to the broader DSRIP program. The hospital must submit a request for modification to EOHHS. Requests for initiative modification must be in writing and must describe the basis for the proposed modification. Updates to technical specifications of outcomes and improvement measures in the Measure Slates (1 – 6) shall not require a plan modification and can be implemented by the Commonwealth without further approval.
- b. Initiative modifications include proposed changes to core components of the initiative, replacement metrics on the improvement and outcome measure slates (Measure Slates 1 – 5), replacement measures to Measure Slate 6, or a change to the overall portfolio of selected PHTII initiatives. Acceptable reasons to approve an initiative modification request are:
 - i. Learning and knowledge acquired from initiative experience and/or external sources indicate that revising or reorienting initiative components or metrics would improve and/or enhance the initiative;
 - ii. Information that was believed to be available to achieve or report on a metric or measure is unavailable or unusable, necessitating a modification to the hospital initiative to revise or replace the metric or measure;
 - iii. The hospital identifies superior information to demonstrate achievement of a metric and requests a modification to incorporate that data source;
 - iv. External issues occur outside of the hospital's control that require the hospital to modify or replace a metric, measure, or core component of an initiative;
 - v. New federal or state policies are implemented, or changes in Massachusetts market dynamics occur, that impact a PHTII initiative and the hospital seeks to update the affected initiative to reflect the new environment;
 - vi. The hospital encounters an unforeseen operational or budgetary change in circumstances that impacts initiative components or metrics; and
 - vii. Other acceptable reasons, subject to review and approval by EOHHS and CMS that are reasonable and support the goals of the PHTII program.
- c. The Public Hospital may request initiative modifications during DYs 21 – 25. Initiative modification requests must be submitted to EOHHS a minimum of 75 days prior to the end of the Demonstration Year. EOHHS must take action on the initiative modification request and submit recommended requests to CMS for approval within 15 days of receiving a modification request. CMS must take action on the initiative modification request within 30 days of receipt

from EOHHS. Any CMS approved initiative modification must be considered an approved modification to the PHTII protocol.

- d. Plan modifications associated with grace period requests, including EOHHS and CMS review timeframes, are further addressed in paragraph below.

21. Grace Periods

- a. If the Public Hospital needs additional time to achieve a metric beyond the demonstration year, a grace period may be granted for up to 180 days from the end of the demonstration year if it requests. However, no grace period is available for DY 25 beyond June 30, 2022, with the exception of specified outcomes and improvement measures where there is state and federal approval for a later reporting date in recognition that the data will not be available for reporting until after the July 31, 2022 report for payment. The hospital must have a valid reason, as determined by the Commonwealth and CMS, why it should be granted a grace period and demonstrate that the hospital is able to achieve the metric within the timeframe specified in the request. Grace periods will not be granted for ACO performance accountability. Acceptable reasons to approve a grace period request include:
 - i. Additional time is needed to collect and prepare data necessary to report on a metric;
 - ii. Unexpected delays by third parties outside of hospital's control (e.g., vendors) impact the timing of a metric achievement date;
 - iii. An approved plan modification delays the timing for completing an approved metric; and
 - iv. Other acceptable reasons, subject to review and approval by EOHHS and CMS that are reasonable and support the goals of the PHTII program.
- b. The Public Hospital may submit a grace period request in writing to EOHHS accompanied by a proposed initiative modification if the initiative modification is deemed necessary by the Public Hospital, pursuant to paragraph 21 above. The hospital must submit the request 75 days prior to the end of the Demonstration year for which the grace period is being sought. EOHHS must determine its recommended action on a grace period request and initiative modification, if the grace period request is accompanied by an initiative modification, and submit the request to CMS, with its recommendation, within 15 days. CMS must take action on the request within 30 days of receipt from EOHHS. The grace period request and any associated initiative modification must be decided by the Commonwealth and CMS 30 days prior to the end of the Demonstration year.
- c. The Public Hospital that requests a grace period related to a metric is not precluded from alternatively claiming the incentive payment associated with the same metric under the carry-forward policy described in paragraph 22 below.
- d. If after submitting the grace period request, a hospital achieves the metric before June 30, the hospital may withdraw the grace period request and claim the incentive payment associated with the metric under the regular PHTII reporting process described in Section V.
- e. Allowable Time Periods for Grace Period Requests: the allowable time period for a grace period is 180 days from June 30 for DYs 21 – 24. No grace period is available for DY 25 beyond June 30, 2022 except as expressly described in paragraph 21(a) above.

22. Carry Forward and Reclamation

The Public Hospital may carry forward unclaimed incentive payments applicable to PHTII

initiative reports and PHTII Measure Slates 1 – 6 for up to 12 months from the end of the demonstration year and be eligible to claim reimbursement for the incentive payment according to the rules below. No carry-forward is available for DY 25 or for DSRIP performance accountability.

- a. If the Public Hospital does not achieve improvement on a measure that was specified for achievement in a particular year, it will be able to carry forward the available incentive funding associated with that measure for up to 12 months and receive full payment if EOHHS determines, based on documentation provided by the hospital, that the hospital meets the corresponding measure associated with the year in which the payment is made. For purposes of carry-forward in this paragraph, a corresponding measure is a measure that is a continuation of a prior year measure and is readily quantifiable. An example of corresponding measures includes a metric that shows a number or percentage increase in the same specific activity from the previous year.
- b. If there is no corresponding measure associated with the year in which the payment is made, the hospital will be able to carry forward the available incentive funding associated with the missed measure for up to 12 months and receive full payment if EOHHS determines, based on documentation provided by the hospital, that the hospital meets the missed measure in addition to at least 25 percent of measures associated with that initiative in the year in which the payment is made. If at the end of that subsequent demonstration year, an eligible safety net hospital has not fully achieved a measure, it will no longer be able to claim that funding related to its completion of that measure.

VIII. MENU OF PHTII INITIATIVES AND CORRESPONDING OUTCOMES AND IMPROVEMENT MEASURE SLATES

23. PHTII Initiatives and Measure Slates

This section presents a menu of PHTII Initiatives and corresponding outcomes and improvement Measure Slates from which an eligible public hospital may select. Cambridge Health Alliance has selected PHTII Initiatives 1 – 4 and corresponding Measure Slates 1 – 4 and 6.

Initiative Title	1. Integration of Behavioral Health and Primary Care
Description/Rationale	
<p>To continue the advancement in integrated medical and behavioral health care in the context of population health management and alternative payment models, this initiative will leverage evidence-based practices to advance screening, treatment and improved access to behavioral health care based in the primary care setting for adults, children and adolescents.</p> <p>This suite of initiatives will include a focus on population health, quality outcomes, patient engagement and experience of care improvements, coordinated, cross continuum care, and effective care management and follow-up on targeted conditions including depression, anxiety, and substance use disorders. This will be enabled through the optimization of screening and follow-up workflows, expansion of evidence-based treatment options, provider and staff training and engagement, building relationships among staff and providers across the system, and building community connections to support patient care.</p> <p>Collaborative care, an evidence based delivery model, has been shown to support the Triple Aim among patients with depression, the most prevalent mental disorder.^{49 50} The key elements of collaborative care models include: the use of a mental health registry, stepped care approach to depression management (i.e. intensifying treatments when needed), use of validated instruments (such as the Patient Health Questionnaire (PHQ-2 or PHQ-9) for depression, Generalized Anxiety Disorder scale (GAD-7) for anxiety, National Institute on Alcohol Abuse and Alcoholism single item screening tool (NIAAA-1), Alcohol Use Disorders Test (AUDIT), National Institute on Drug Abuse quick screen test (NIDA-1) and the Drug Abuse Screening Test (DAST), and regular caseload consultations by the psychiatrist and the behavioral care manager. Additional elements of integration include the co-location of behavioral health staff (such as therapists and psychiatrists) into primary care settings, meetings held by primary care and behavioral health team members to discuss cases, training of primary care and behavioral health staff on effective screening and collaborative care, and strategies to address substance use disorder (such as SBIRT) in primary care.⁵¹</p> <p>Collaborative care models, structured care involving a greater role of non-medical specialists to augment primary care and provide care management, have been shown to be more effective than standard care in improving depression outcomes in the short- and long-term.⁵² There is strong evidence supporting benefits of care management for depression.⁵³ Findings from more than 80 studies demonstrated that collaborative care increased adherence to evidence-based depression treatment by twofold and improved outcomes, including in low-income populations.⁵⁴ Studies have also revealed value in terms of cost-effectiveness, cost-benefit analysis, and improved</p>	

⁴⁹Institute for Clinical and Economic Review. March, 2015. Integrating Behavioral Health into Primary Care.

⁵⁰Unützer J, Katon WJ, Williams JW, Callahan CM, Harpole L, Hunkeler EM, Hoffing M, Areán PA, Hegel MT, Schoenbaum M, Oishi SM, Langston CA. Improving primary care for depression in late life: the design of a multi-center randomized trial. *Medical Care*. 2001; 39:785-799.

⁵¹The Diamond Model is based on the Collaborative Care Model for depression by Wayne Katon, MD and the IMPACT Study by Jurgen Unutzer, MD as well as numerous other controlled trials from Institute for Clinical Systems Improvement and Minnesota Family Health Services presentation to the Institute for HealthCare Improvement Annual Forum, Dec 2010.

⁵²Gilbody S, Bower P, Fletcher J, Richards D, Sutton A. "Collaborative Care for Depression: A Cumulative Meta-analysis and Review of Longer-term Outcomes." *ARCH INTERN MED/VOL 166, NOV 27, 2006*

⁵³Williams J et.al. "Systematic review of multifaceted interventions to improve depression care." *General Hospital Psychiatry*, 29 (2007) 91–116.

⁵⁴Archer, Janine, et al. "Collaborative care for depression and anxiety problems." *The Cochrane Library* (2012).

Initiative Title	1. Integration of Behavioral Health and Primary Care
<p>patient satisfaction with care.⁵⁵ The Agency for Healthcare Research and Quality has found in their research that the integration of mental health/substance abuse and primary care has achieved positive outcomes.⁵⁶ Furthermore, the Center for Integrated Health Solutions sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA) and Health Resources and Services Administration (HRSA) include evidence-based practices in integrated primary care and behavioral health services to better address the needs of individuals with mental health and substance use concerns and that have demonstrated positive impacts, including on health care costs, for integration in many environments.⁵⁷</p> <p>Substance use and addiction are significant challenges for society and for public payer populations. Unidentified mental health and substance use treatment needs contribute to higher costs and poor health outcomes. Alcohol and substance use disorders are frequently co-occurring with other mental health and physical health conditions. A recent publication released by the Substance Abuse and Mental Health Services Administration (SAMHSA) reported that in Massachusetts, only 53.8 % of adults with any mental illness (approximately 522,000 individuals per year in 2010-2014) actually received mental health treatment within the year prior to being surveyed, and only 7.5% of those with alcohol abuse or dependence received treatment in the prior year.⁵⁸ Furthermore, the national problem of death related to opioid use disorder and overdose is increasing year by year in Massachusetts.⁵⁹</p> <p>Utilization of necessary treatments has been shown to have a return on investment with impacts in health care and other public programs. According to the National Institute on Drug Abuse, for every dollar spent on addiction treatment programs there is an estimated \$4 to \$7 reduction in the criminal-justice-related costs and a \$12 reduction in costs if health-care costs are included.⁶⁰ Evidence-based approaches are available to support population health strategies and address such conditions in primary care. The United States Preventive Services Task Force has given a rating of ‘B’ to alcohol misuse screening for adults, indicating strong recommendation of this service and high certainty of moderate to substantial net benefit.⁶¹</p> <p>Over the past few years, efforts have been initiated to build a system for screening for high risk alcohol use and substance use disorder in primary care, and interventions as appropriate. With this initiative, future work may entail: a) increasing the percentage of the primary care patient population who receives these screenings; b) improving the quality of the interventions provided for those who screen ‘positive’; c) expanding the range of treatment offerings provided in primary care, and d) optimizing primary-care-based pain management offerings including</p>	

⁵⁵Katon WJ. “Collaborative Depression Care Models: From Development to Dissemination.” *American Journal of Preventive Medicine*, 012;42(5):550–552.

⁵⁶Agency for Healthcare Research and Quality website: <http://www.ahrq.gov/research/findings/evidence-based-reports/mhsapctp.html>

Integration of Mental Health/Substance Abuse and Primary Care, Structured Abstract. October 2008. Agency for Healthcare Research and Quality, Rockville, MD. <http://www.ahrq.gov/clinic/tp/mhsapctp.htm>

⁵⁷Substance Abuse and Mental Health Services Administration (SAMHSA) Center for Integrated Health Solutions research: http://www.integration.samhsa.gov/about-us/CIHS_NACHC_BH_Integration_September_19_2013_FINAL.pdf

⁵⁸Substance Abuse and Mental Health Services Administration. *Behavioral Health Barometer: Massachusetts, 2015*. HHS Publication No. SMA-16-BARO-2015-MA. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2015.

⁵⁹<http://www.mass.gov/eohhs/docs/dph/quality/drugcontrol/county-level-pmp/data-brief-overdose-deaths-may-2016.pdf>

⁶⁰<https://www.drugabuse.gov/publications/teaching-packets/understanding-drug-abuse-addiction/section-iv/6-cost-effectiveness-drug-treatment>

⁶¹<http://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/alcohol-misuse-screening-and-behavioral-counseling-interventions-in-primary-care>

Initiative Title	1. Integration of Behavioral Health and Primary Care
<p>alternatives to chronic opioid therapy, as providers increasingly optimize the use of opioid-based regimens for patient that require this modality of treatment.</p> <p>According to the American Academy of Pediatrics, behavioral and emotional problems during childhood are common, often undetected, and frequently untreated despite primary role in significant morbidity and mortality. According to current estimates, approximately 11% to 20% of children in the United States have a behavioral or emotional disorder at any given time.^{62 63} Estimated prevalence rates are similar in young 2- to 5-year-old children. Developmental and behavioral health disorders are now the top 5 chronic pediatric conditions causing functional impairment.^{64 65 66} The American Academy of Pediatrics (AAP) urges clinicians to screen for developmental and behavioral problems at all health supervision visits using quality tools.⁶⁷ Indeed, population health starts with population screening.</p> <p>Children and adolescents comprise a significant portion of the patient panel or public providers and Medicaid populations. Primary care providers caring for children and adolescents in the Commonwealth are required to use routine screening for developmental, behavioral and mental health disorders and the evidence and practice standards around screening in this population have evolved significantly in recent years. As such, there is an opportunity to update routine, comprehensive screening for behavioral and developmental conditions in the child and adolescent population, using validated screening instruments such as the Survey of Wellbeing of Young Children (SWYC) for developmental screening, the Pediatric Symptom Checklist (PSC) and PHQ-9 for depression, and CRAFFT (mnemonic acronym of first letters of key words in the six screening questions) short clinical assessment tool for substance related risks and problems, and to develop the associated registries and analyze utilization patterns and service gaps. In addition, the identification and deployment of key, evidence-based interventions intended to have a beneficial impact on the behavioral and developmental outcomes in the patient population of children and adolescents. In conjunction with implementation of the CRAFFT instrument for alcohol and substance use among adolescents, primary care providers will optimize follow-up workflows according to the evidence base for SBIRT among adolescents.⁶⁸</p>	
Goals/Objectives	
<p>Goals include leveraging the foundation for primary care-behavioral health (BH) integration to advance integrated approach for adults and pediatrics to improve key intermediate and outcomes measures for high-prevalence BH conditions (e.g.</p>	

⁶²Costello EJ, Mustillo S, Erkanli A, Keeler G, Angold A. Prevalence and development of psychiatric disorders in childhood and adolescence. *Arch Gen Psychiatry*. 2003;60(8):837–844

⁶³*Report of the Surgeon General's Conference on Children's Mental Health: A National Action Agenda*. Washington (DC): US Department of Health and Human Services; US Department of Health and Human Services; US Department of Education; US Department of Justice, 2000.

⁶⁴Slomski, A. Chronic Mental Health Issues in Children Now Loom Larger Than Physical Problems *JAMA*. 2012;308(3):223-225.

⁶⁵Halfon N, Houtrow A, Larson K, Newacheck PW. The changing landscape of disability in childhood. *Future Child*. 2012;22(1):13–42

⁶⁶Promoting Optimal Development: Screening for Behavioral and Emotional Problems. Carol Weitzman, Lynn Wegner, the Section on Developmental and Behavioral Pediatrics, Committee on Psychosocial Aspects of Child and Family Health, Council on Early Childhood and Society for Develop Mental and Behavioral Pediatrics. *Pediatrics* Feb 2015, 135 (2) 384-395.

⁶⁷Identifying Infants and Young Children With Developmental Disorders in the Medical Home: An Algorithm for Developmental Surveillance and Screening Council on Children With Disabilities, Section on Developmental Behavioral Pediatrics, Bright Futures Steering Committee, Medical Home Initiatives for Children With Special Needs Project Advisory Committee *Pediatrics* Jul 2006, 118 (1) 405-420.

⁶⁸Massachusetts Department of Public Health Bureau of Substance Abuse Services. Provider Guide: Adolescent Screening, Brief Intervention, and Referral to Treatment Using the CRAFFT Screening Tool. Boston, MA. Massachusetts Department of Public Health, 2009.

Initiative Title	1. Integration of Behavioral Health and Primary Care
<p>depression, anxiety, alcohol and substance use disorder (SUD)). Additional goals include optimizing primary care based treatment for pain and opioid addiction. Furthermore, aims include cardiovascular, metabolic, and diabetes monitoring for patients on antipsychotic medications, and cross-disciplinary care coordination improvements for mental illness.</p> <p>Specific objectives include:</p> <ul style="list-style-type: none"> • Increase screening and follow-up for high prevalence behavioral health conditions (depression, anxiety, SUD) among adults, adolescents and pediatric patients. • Improve depression response and remission. • Improve rates of screening, intervention, engagement for drug and alcohol use disorder • Improve training and competency among relevant providers. • Improve provider satisfaction and confidence in diagnosing and managing key conditions. • Improve management of opioid prescribing, as a means for preventing opioid dependence and promoting alternative treatments for chronic pain management. • Improve management and expand options for treatment of pain. • Improved collaboration related to the care continuum for mental health and substance use, including cardiovascular risk optimization for persons on antipsychotic medications • Improve transitions in care. • Ongoing evaluation of evidence-base supporting the expansion of treatment options for behavioral health and pain management in primary care. 	
Core Components	
<p>This initiative, if undertaken, may include the following components:</p> <p>1. Improve screening, treatment, and outcomes for depression and anxiety</p> <ul style="list-style-type: none"> • Build upon overall adult wellbeing screening using validated instruments including the PHQ-9, GAD-7, NIAAA-1, NIDA-1, AUDIT and DAST • Evaluate local and national protocols for suicide risk assessment and management; design and implement appropriate local practices. • Improve referral management across the care continuum according to the Stepped Model of Care, including ongoing assessment of patient severity and type seen by integrated behavioral health staff and those referred to specialty mental health. Work to formalize tools to manage capacity and prioritization of patients as appropriate. • Promote patient engagement in care by expanding access to initiatives such as mindfulness-based stress reduction groups, self-help mobile technology, and peer-support groups. • Monitor and continuously improve primary care and behavioral health staff confidence in managing appropriate behavioral health conditions, satisfaction and skills with Primary Care Behavioral Health Integration. • Optimize care for moderate and severe mood disorder patients in primary care (i.e. those who require specialty mental health care for conditions like bi-polar and schizoaffective disorders, but do not connect there) • Improve rates of screening/follow-up/improvement /remission in depression/anxiety 	

Initiative Title	1. Integration of Behavioral Health and Primary Care
<p>2. Optimize primary care screening, diagnosis, and treatment for substance use disorders (SUD)</p> <ul style="list-style-type: none"> • Enhance offerings for patients with substance use disorders in primary care (e.g. medication treatment for severe alcohol use disorder). Medication-assisted treatment (MAT) in combination with counseling and behavioral therapies can provide a whole-person approach to treatment of substance use disorders. <ul style="list-style-type: none"> • Expand offerings in groups in primary care setting (peer support or staff-facilitated) • Enhanced training for primary care providers • Expand use of medication-assisted treatment (MAT) for opioid use disorders in primary care, including buprenorphine and naltrexone, which are medications currently approved by the Food and Drug Administration for the treatment of opioid dependence through medication-assisted treatment. Naltrexone may also be used in the treatment of alcohol use disorders.⁶⁹ • Conduct ongoing program evaluation and adaptation of protocols for Screening, Brief Intervention and Referral to Treatment (SBIRT) for treatment of less-severe disorders in primary care • Improve communication and shared decision-making among staff at points of transition in care, including inpatient/outpatient. • Develop peer support programming for SUD. <p>3. Develop programming for chronic pain management in primary care</p> <ul style="list-style-type: none"> • Explore alternatives to chronic opioid therapy for pain management as warranted • Evaluate evidence base, payor coverage, landscape of local services, feasibility, and patient needs for chronic pain management services (including psychotherapy, mindfulness, acupuncture, biofeedback, and tai chi / yoga) • Build and expand group- and individual-based Cognitive Behavioral Therapy and mindfulness treatment strategies, based on above-mentioned evaluation (including through training of integrated mental health staff) • Develop expedited referral pathways to physical therapy to support effective chronic pain management. • Establish a system-wide provider-to-provider peer committee for review of challenging cases • Create a registry for chronic opioid and other high-risk prescriptions and develop a system for reviewing and optimizing care • Ensure screening and monitoring of chronic pain co-morbidities. <p>4. Screen and follow-up for high prevalence BH conditions for children and adolescents</p> <ul style="list-style-type: none"> • Ensure routine behavioral health screening for the child and adolescent population using validated screeners, such as the SWYC, PSC, and CRAFFT, that comply with Massachusetts legal requirements and support the most current clinical practice guidelines. • Standardize screening for developmental and behavioral health conditions, including depression and substance use. • Incorporate routine screening for post-partum depression into pediatric primary care visits. 	

⁶⁹ <http://www.samhsa.gov/medication-assisted-treatment>

Initiative Title	1. Integration of Behavioral Health and Primary Care
	<ul style="list-style-type: none">• Develop and deploy registries to facilitate and track appropriate referrals and care.• Introduce SBIRT for adolescents with or at risk for substance use disorders• Assess and analyze gaps in services and care for other childhood behavioral and developmental conditions, and improve care as warranted.• Improve referral management across the care continuum, including ongoing assessment of patient severity and type seen by integrated behavioral health staff and those referred to specialty mental health. Work to formalize tools to manage capacity and prioritization of patients as appropriate.

Required Measure Slate: Improvement and Outcomes Measures <i>(Achieve 2 out of 4 in Year 1, 4 of 11 Outcome Measures in Year 2, 5 out of 11 in Year 3, 6 out of 11 in Year 4, and 7 out of 11 in Year 5).</i>										
Measure Slate 1		1: Behavioral Health and Primary Care Integration			Achieve 2 of 4 Measures	Achieve 4 of 11 Measures	Achieve 5 of 11 Measures	Achieve 6 of 11 Measures	Achieve 7 of 11 Measures	
#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
1	Depression Response at 6 Months - Progress Towards Remission (across all core primary care sites)	NQF 1884	No external benchmark; hospital-specific improvement target = 45%	Gap to Goal (10%) or attainment at target	O	O	O	O	O	This target is based on literature on collaborative care indicating that a rate of 45% on the depression response measures represents the highest level of statistically meaningful improvement that has currently been achieved ⁷⁰ .
2	Depression Response at 12 Months - Progress Towards Remission (across all core primary care sites)	NQF 1885	No external benchmark; hospital-specific improvement target = 45%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	This target is, based on literature on collaborative care indicating that a rate of 45% on the depression response measures represents the highest level of statistically meaningful improvement that has currently been achieved ⁷¹ .
3	Primary Care Provider confidence in management of depression, measured through annual survey	PCMH	No external benchmark; hospital specific improvement target = 90%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target based on evidence-based depression programming in primary care.
4	Primary Care Provider confidence in management of substance use disorders, measured through annual survey	PCMH	No external benchmark; hospital specific improvement target = 70%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target based on newness of initiative introducing universal screening for substance use disorders in primary care and care management initiatives.

⁷⁰Thota Et al (2012). Collaborative Care to Improve the Management of Depressive Disorders. Am J Prev Med. 42(5): 525-538.; Unutzer et al (2002). Collaborative Care Mgmt of Late Life Depression in the Primary Care Setting. JAMA 288 (22).

⁷¹Thota Et al (2012). Collaborative Care to Improve the Management of Depressive Disorders. Am J Prev Med. 42(5): 525-538.; Unutzer et al (2002). Collaborative Care Mgmt of Late Life Depression in the Primary Care Setting. JAMA 288 (22).

Required Measure Slate: Improvement and Outcomes Measures <i>(Achieve 2 out of 4 in Year 1, 4 of 11 Outcome Measures in Year 2, 5 out of 11 in Year 3, 6 out of 11 in Year 4, and 7 out of 11 in Year 5).</i>										
Measure Slate 1		1: Behavioral Health and Primary Care Integration			Achieve 2 of 4 Measures	Achieve 4 of 11 Measures	Achieve 5 of 11 Measures	Achieve 6 of 11 Measures	Achieve 7 of 11 Measures	
#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
5	Screening and Brief Intervention for Alcohol Use for adults (across all core primary care sites)	NQF 2152	No external benchmark; hospital specific improvement target = 65%	Gap to Goal (10%) or attainment at target	O	O	O	O	O	Target based on literature review of best practice performance levels. ⁷²
6	Screening and Brief Intervention for Drug Use for adults (across all core primary care sites)	NQF 2152, adapted to include substance use	No external benchmark; hospital specific improvement target = 65%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Same as above.
7	Patients on Chronic Opioid Therapy with a Controlled Substance Agreement (across all core primary care sites)	N/A	No external benchmark; hospital-specific improvement target = 80%	Gap to Goal (10%) or attainment at target	O	O	O	O	O	Target aligned to initiative to optimize opioid prescribing practice.
8	Patients on Chronic Opioid Therapy with urine drug screening (across all core primary care sites)	N/A	No external benchmark; hospital-specific improvement target = 80%	Gap to Goal (10%) or attainment at target	O	O	O	O	O	Target aligned to initiative to optimize opioid prescribing practice.
9	Patients with chronic pain who had functional assessment (across all core primary care sites)	NQF 0050, adapted to include all chronic pain conditions	No external benchmark; hospital specific improvement target = 50%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target based on newness of initiative, and literature indicating the value of functional assessment in patients with chronic pain ⁷³ .

⁷²Bertholet N, Daeppen JB, Wietlisbach V, Fleming M, Burnand B. Reduction of Alcohol Consumption by Brief Alcohol Intervention in Primary Care. Archives of Internal Medicine. 2005;165:986-995; Babor TF, Higgins-Biddle JC, Dauser D, Bureson JA, Zarkin GA, Bray J. Brief Interventions for At-Risk Drinking: Patient Outcomes and Cost-Effectiveness in Managed Care Organizations. Alcohol and Alcoholism. 2006;41(6):624-631.

⁷³Institute for Clinical Systems Improvement, Assessment and Management of Chronic Pain 2013

Required Measure Slate: Improvement and Outcomes Measures <i>(Achieve 2 out of 4 in Year 1, 4 of 11 Outcome Measures in Year 2, 5 out of 11 in Year 3, 6 out of 11 in Year 4, and 7 out of 11 in Year 5).</i>										
Measure Slate 1		1: Behavioral Health and Primary Care Integration			Achieve 2 of 4 Measures	Achieve 4 of 11 Measures	Achieve 5 of 11 Measures	Achieve 6 of 11 Measures	Achieve 7 of 11 Measures	
#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
10	Screening and Brief Intervention for Alcohol and Drug Use for adolescents (across all core primary care sites)	NQF 2152, adapted to expand to new age range for adolescents	No external benchmark; hospital specific improvement target = 50%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Expansion of measure to the adolescent patient population. Improvement target based on newness of initiative for adolescent patients.
11	Maternal Depression Screening (across all core primary care sites)	NQF 1401	No external benchmark; hospital specific improvement target = 75%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target based on literature indicating value of maternal depression screening in conjunction pediatric visits to identify developmental risk factors. ⁷⁴

⁷⁴Report of the Surgeon General's Conference on Children's Mental Health: A National Action Agenda. Washington (DC): US Department of Health and Human Services; US Department of Health and Human Services; US Department of Education; US Department of Justice, 2000.

Initiative Title	2. Comprehensive Systems for Treating Mental Health & Substance Use (MHSU) Conditions
Description/Rationale	
<p>Poor access to appropriate levels of care is a leading barrier to recovery for individuals with mental health and substance use (MHSU) conditions.⁷⁵ A comprehensive system for MHSU treatment – offering the right care to the right people at the right time – requires a wide range of services and delivery methods to meet the unique needs of individuals and families. Among others, these services include outpatient counseling (including primary care integration), intermediate care (intensive outpatient, partial hospital), residential and inpatient facilities, support for care transitions, and triage and emergency services. A robust continuum of care helps people access services when they need and want them, improving patient experience and the value of care (quality/cost).</p> <p>A comprehensive treatment system allows individuals and their providers to develop an optimal care plan most likely to help them stay connected to their communities and succeed in daily activities, such as work or school. This, in turn, promotes greater engagement of family and community supports, ensuring that more resources are in place to support one’s recovery. Individuals who do receive appropriate treatment early in their onset of illness may require less intensive care, experience fewer relapses,⁷⁶ and have better long-term health outcomes.⁷⁷ New programs offering integrated, person-centered MHSU care show promising results – greater use of community-based outpatient care, fewer hospital and emergency department (ED) admissions, better health outcomes⁷⁸⁻⁷⁹ – and offer hope for developing more effective, sustainable care models.</p> <p>However, left untreated, behavioral health disorders and co-occurring health conditions have harmful economic, interpersonal, and social impacts for the population as a whole.⁸⁰ This troubling impact is most evident in the 20 to 30 year gap in life expectancy among people living with serious mental illnesses (SMI).⁸¹⁻⁸² This disparity is driven largely by higher rates of chronic disease (e.g. diabetes, hypertension, hyperlipidemia, and obesity), delayed diagnosis and treatment of medical conditions,⁸³ fragmented delivery of inadequate care, medication side effects,⁸⁴ and higher rates of modifiable risk</p>	

⁷⁵American Hospital Association, Trendwatch, Bringing Behavioral Health into the Care Continuum, Opportunities to Improve, January 2012. Available at: <http://www.aha.org/research/reports/tw/12jan-tw-behavhealth.pdf>.

⁷⁶Institute of Medicine (US) Committee on Quality Assurance and Accreditation Guidelines for Managed Behavioral Health Care; Edmunds M, Frank R, Hogan M, et al., editors. *Managing Managed Care: Quality Improvement in Behavioral Health*. Washington (DC): National Academies Press (US); 1997. Available from: <http://www.ncbi.nlm.nih.gov/books/NBK233235/>

⁷⁷Kane JM, Robinson DG, Schooler NR, et al. Comprehensive Versus Usual Community Care for First-Episode Psychosis: 2-Year Outcomes From the NIMH RAISE Early Treatment Program. *American Journal of Psychiatry AJP*. 2016;173(4):362-372. doi:10.1176/appi.ajp.2015.15050632.

⁷⁸Krupski A, West II, Scharf DM, et al. Integrating Primary Care Into Community Mental Health Centers: Impact on Utilization and Costs of Health Care. *PS Psychiatric Services*. 2016. doi:10.1176/appi.ps.201500424.

⁷⁹Gilmer TP, Henwood BF, Goode M, Sarkin AJ, Innes-Gomberg D. Implementation of Integrated Health Homes and Health Outcomes for Persons With Serious Mental Illness in Los Angeles County. *PS Psychiatric Services*. 2016. doi:10.1176/appi.ps.201500092.

⁸⁰American Hospital Association, Trendwatch, Bringing Behavioral Health into the Care Continuum, Opportunities to Improve, January 2012. Available at: <http://www.aha.org/research/reports/tw/12jan-tw-behavhealth.pdf>.

⁸¹Druss BG, Zhao L, Esenwein SV, Morrato EH, Marcus SC. Understanding Excess Mortality in Persons With Mental Illness: 17-year Follow Up of a Nationally Representative US Survey. *Medical Care*. 2011;49(6):599-604. doi:10.1097/mlr.0b013e31820bf86e.

⁸²Colton CW, Manderscheid, RW. Congruencies in increased mortality rates, years of potential life lost, and causes of death among public mental health clients in eight states. *Preventing Chronic Disease*. 2006;3(2):1-14.

⁸³Nasrallah HA, Meyer JM, Goff DC, et al. Low rates of treatment for hypertension, dyslipidemia and diabetes in schizophrenia: Data from the CATIE schizophrenia trial sample at baseline. *Schizophrenia Research*. 2006;86(1-3):15-22. doi:10.1016/j.schres.2006.06.026.

⁸⁴Meyer JM, Davis VG, Goff DC, et al. Change in metabolic syndrome parameters with antipsychotic treatment in the CATIE

Initiative Title	2. Comprehensive Systems for Treating Mental Health & Substance Use (MHSU) Conditions
<p>factors⁸⁵ – all of which are more common among people with SMI and/or substance use disorders (SUD).</p> <p>Based on data from 2010 to 2014, on average 4.2 percent of Massachusetts residents are living with SMI and 10 percent have a SUD,⁸⁶ and the majority of state residents who need MHSU services do not receive any. Among adult residents with any mental illness, about 46 percent receive no care each year; for SUD, the figure is closer to 90 percent.⁸⁷ Even for those who do access care, not all treatment is appropriate or sufficient. Among adults who access mental health care, 30 percent still report unmet needs, and more than one-third of those treated in the state’s public mental health system say it has not improved their functioning.⁸⁸</p> <p>Massachusetts’ MHSU service gaps are due in part to shortages across the entire care continuum, from outpatient care to emergency services, inpatient beds, partial hospital programs, crisis stabilization units, detoxification, residential programs, and so on. This can result in sub-optimal wait times for outpatient therapy; extended hospitalizations due to lack of community-based services; and “boarding” in emergency departments (ED) as people await transfer to intermediate or acute care. These access issues can be more pronounced for MassHealth enrollees because many providers do not contract with Medicaid to serve its members. Massachusetts now faces an opioid use epidemic that has doubled the rate of overdose deaths from 2012 to 2015.⁸⁹ The problem and need for care is growing exponentially. Improving access to opioid treatment will require expanding capacity for Medication-Assisted Treatment (MAT) and providing more timely access to comprehensive evidence-based outpatient care for SUD.</p> <p>A substantial portion of the public care system for individuals with the most disabling conditions extends beyond health care services to rehabilitative and support services, including housing, job counseling, literacy, and other programs. The coordination of these services requires collaborative and cooperative relationships among many agencies, service providers, and community organizations. Most of these services are not covered by private insurance and have not been developed by most private behavioral health care companies. Poor linkage and fractured funding impedes the ability to provide access to these services in a coordinated and integrated way.⁹⁰ One strategy that may be employed to address this barrier to care is formalization of agreements between healthcare providers and community-based providers who offer complementary services, and providing integrated population case management.</p>	

Schizophrenia Trial: Prospective data from phase 1. *Schizophrenia Research*. 2008;101(1-3):273-286. doi:10.1016/j.schres.2007.12.487.

⁸⁵SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2008-2010.

⁸⁶Substance Abuse and Mental Health Services Administration (SAMHSA). Behavioral Health Barometer: Massachusetts, 2015. HHS Publication No. SMA-16-Baro-2015-MA. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2015.

⁸⁷Massachusetts Department of Public Health. State Health Plan: Behavioral Health, Dec 2014. Available at: <http://www.mass.gov/eohhs/docs/dph/health-planning/hpc/deliverable/behavioral-health-state-health-plan.pdf>.

⁸⁸Colton CW, Manderscheid, RW. Congruencies in increased mortality rates, years of potential life lost, and causes of death among public mental health clients in eight states. *Preventing Chronic Disease*. 2006;3(2):1-14.

⁸⁹Massachusetts Department of Public Health. Data Brief: Opioid-related Overdose Deaths Among Massachusetts Residents. May 2016. Available at: <http://www.mass.gov/eohhs/docs/dph/quality/drugcontrol/county-level-pmp/data-brief-overdose-deaths-may-2016.pdf>.

⁹⁰Institute of Medicine (US) Committee on Quality Assurance and Accreditation Guidelines for Managed Behavioral Health Care; Edmunds M, Frank R, Hogan M, et al., editors. *Managing Managed Care: Quality Improvement in Behavioral Health*. Washington (DC): National Academies Press (US); 1997. Available from: <http://www.ncbi.nlm.nih.gov/books/NBK233235/>

Initiative Title	2. Comprehensive Systems for Treating Mental Health & Substance Use (MHSU) Conditions
<p>Along with improving access to MHSU treatment and reliable coordination among all service providers, a focus on health promotion is essential to impact health outcomes for this population. A national study estimated 85 percent of the life expectancy gap for people living with schizophrenia was attributable to “natural” causes, such as cardiovascular disease, cancers, pneumonia, diabetes, and so on.⁹¹ Early screening and intervention for these medical conditions is essential to improving health outcomes. This is particularly true for patients taking antipsychotic medications that increase the risk for certain medical conditions, most notably metabolic syndrome. While these diseases can develop for numerous reasons, modifiable factors such as smoking, diet, physical activity, substance use, and social needs are key drivers. Promoting healthy living through education, skills training, and behavioral therapy will be necessary to improve population health. Certain interventions have improved health outcomes among people with psychotic disorders.⁹²⁻⁹³</p> <p>Improving access to MHSU care overall requires attention to all aspects of the care continuum, from the professional care provided by trained clinicians to self care and social support. Expansion of services in those areas of the continuum that are most lacking, particularly in the intermediate levels of care that provide step-down and diversionary services, will assist with shifting care away from more intensive levels and providing patients with care at the appropriate level of service. Providers must also consider adopting treatment modalities that can improve efficiency and create capacity within existing services, such as shorter term evidence-based treatments and technology-based services, such as telemedicine consultations. Patient care teams may be redefined to include all who work with the patient, including clinicians, paraprofessionals, peer specialists/coaches, community-based providers, social support providers, etc., with the patient at the center of the team.</p>	
Goals/Objectives	
<p>The ultimate goal of this project is to achieve Triple Aim results – improved population health, better experience of care, and lower costs – and deliver higher-value care for people with serious mental illness and/or substance use disorders. To pursue the Triple Aim for this vulnerable population, the initiative aims to:</p> <ul style="list-style-type: none"> • Improve access (proximity and timeliness) to specialty MHSU care; • Provide access to outpatient appointments within 7 days for patients discharged from inpatient psychiatry units and within 14 days for non-urgent MHSU referrals; • Expand capacity for Medication-Assisted Treatment (MAT) for patients with SUD; • Increase utilization of routine primary care and outpatient behavioral health services; • Increase utilization of alternatives to traditional care, including tele-medicine consultations; • Implement population health management initiatives that support integrated specialty behavioral health and physical health and improved patient outcomes; • Improve the population’s metabolic and cardiovascular health, both modifiable causes of premature death; • Provide key screening and intervention activities for hospitalized patients; 	

⁹¹Kane JM, Robinson DG, Schooler NR, et al. Comprehensive Versus Usual Community Care for First-Episode Psychosis: 2-Year Outcomes From the NIMH RAISE Early Treatment Program. *American Journal of Psychiatry AJP*. 2016;173(4):362-372. doi:10.1176/appi.ajp.2015.15050632.

⁹²Bartels S, Desilets R. Health Promotion Programs for People with Serious Mental Illness (Prepared by the Dartmouth Health Promotion Research Team). Washington, DC. SAMHSA-HRSA Center for Integrated Health Solutions. Jan 2012.

⁹³Bruins J, Jörg F, Bruggeman R, Slooff C, Corpeleijn E, Pijnenborg M. The Effects of Lifestyle Interventions on (Long-Term) Weight Management, Cardiometabolic Risk and Depressive Symptoms in People with Psychotic Disorders: A Meta-Analysis. *PLoS ONE*. 2014;9(12). doi:10.1371/journal.pone.0112276.

Initiative Title	2. Comprehensive Systems for Treating Mental Health & Substance Use (MHSU) Conditions
<ul style="list-style-type: none"> • Improve the experience of care among people using specialty MHSU treatment services; • Improve reliable communication and coordination among entire care teams across different levels of care, including primary care/medicine, behavioral health, medical specialty, and community-based service providers; • Increase utilization of patient-informed plans of care; • Reduce utilization of avoidable emergency department visits for adults with serious mental illness (target population of high acute care and/or emergency services utilization); • Provide alternatives to higher cost services for this particularly high-cost Medicaid sub-population.⁹⁴ 	
Core Components	
<p><i>This initiative, if undertaken, may include the following components:</i></p> <p>Health promotion and chronic disease management for populations with mental health and substance use (MHSU) disorders</p> <ul style="list-style-type: none"> • Identify evidence-based practices for development and implementation of metabolic and cardiovascular screening protocols for people prescribed antipsychotic medications. • Reliably screen for frequent co-morbid diseases that are key drivers of premature mortality: diabetes, hyperlipidemia, hypertension, obesity, etc. • Offer health promotion activities, such as behavioral activation strategies for healthy eating, exercise, weight management. • Develop processes to screen for social service needs and develop follow-up plan. • Perform screening, brief intervention, and referral to treatment for tobacco cessation. • Reliable medication management and reconciliation across multiple providers. • Evaluation and screening for use of long-acting antipsychotics for people for serious mental illness. • Screen patients hospitalized on inpatient psychiatry units for unhealthy alcohol use, and initiate treatment if indicated by providing brief intervention during the patient’s hospitalization. • Improve screening for medical conditions for patients on inpatient psychiatry units, with special attention to metabolic disorders and other medical conditions that may result from use of psychiatric medications. <p>Promote timely access to ambulatory MHSU treatment through greater variety and efficiency of services</p> <ul style="list-style-type: none"> • Distribute ambulatory MHSU services across service area based on panel size and local needs. • Expand capacity for more evidence-based group treatment modalities, such as Problem Solving Therapy, Cognitive Behavioral Therapy, Internal Family Systems Therapy, neurobiofeedback, etc. • Increase capacity for Medication-Assisted Treatment (MAT) for opioid use disorder among primary care and specialty BH providers, and improve access to MAT for patients with opioid use disorder. • Partner (informally or contractually) with community-based providers of social and health services to reliably link patients to local supports. • Greater adoption of tele-medicine technology for specialty mental health and addiction care in order to provide ready access to psychiatric consultation for medical service providers, other community-based providers, and/or direct consultation with patients. 	

⁹⁴Buck JA, Teich JL, Miller K. Use of mental health and substance abuse services among high-cost Medicaid enrollees. *Administration and Policy in Mental Health*. Sep 2003;31(1):3-14. PMID: 14650645.

Initiative Title	2. Comprehensive Systems for Treating Mental Health & Substance Use (MHSU) Conditions
<ul style="list-style-type: none"> • Enhance administrative systems to increase provider productivity by reducing unused appointments. • Expand resources for case management and service coordination so all providers can work to the top of their license. • Integrate paraprofessional service providers and peer specialists/recovery coaches into existing clinical teams. <p>Fill service gaps with greater variety and volume of intermediate and ambulatory MHSU care options</p> <ul style="list-style-type: none"> • Increase access and decrease wait times for patients in need of ambulatory services through development of assessment service. • Improve access to Partial Hospital Programs (PHP) and Intensive Outpatient Programs (IOP) as part of the continuum to provide appropriate treatment and decrease utilization of high intensity inpatient care. • Provide greater access to more immediate outpatient care through a transition or bridge service that serves as a holding place for patients transitioning through different levels of care, and/or patients who have a longer wait for an appointment with an outpatient provider. • Explore ways to expand the continuum of care for substance use, which may include adding new capacity for inpatient detoxification and residential services through partnerships. • Expand MHSU services in geographic areas with limited capacity. • Improve access to timely post-discharge follow-up appointments for patients discharged from inpatient psychiatry via direct access to transition service, PHP and IOP. <p>Comprehensive coordination and management of care for populations</p> <ul style="list-style-type: none"> • Use risk stratification approaches to identify high-risk cases and/or frequent service users. • Provide access to intensive case management for individuals identified as having greater risk/cost, such as patients with SMI who are high utilizers of acute care and ED services. • Develop centralized preventative management capabilities for patients with opioid use disorder, which may include electronic registry functionality to facilitate management and coordination of care. • Enhance patient outreach, either through the use of paraprofessionals or through partnership with community-based providers. • Promote use of a central, integrated care plan in EMR shared by primary care and specialty providers. • Implement an integrated approach to coordinate both the primary care and behavioral health needs for patient populations with SMI and SUD. • Develop systems for providing comprehensive transitional care. • Proactively monitor the quality of care and outcomes experienced by MHSU patients. • Develop systems to facilitate transitions of care for patients discharged from inpatient psychiatry units through the development of a transition record with clinically important information that is given to the patient upon discharge. <p>Develop new EMR functionality and IT tools that enable coordinated management of population health</p> <ul style="list-style-type: none"> • Create patient registries in the electronic medical record (EMR) for discrete MHSU subpopulations to support delivery of best practice. • Implement real-time electronic alerts for acute care admissions, discharges, or transfers. 	

Initiative Title	2. Comprehensive Systems for Treating Mental Health & Substance Use (MHSU) Conditions
<ul style="list-style-type: none"> • Build discharge follow-up reports (for ED and inpatient discharges) within EMR for target sub-populations. • Educate and train providers to improve adoption of EMR functionality and other IT tools that support efficient documentation, care coordination, care transitions, and population management. <p>Promote greater patient engagement and self-management of their health needs</p> <ul style="list-style-type: none"> • Support patients in developing skills to effectively collaborate in care planning with their providers. • Foster integrated approaches to chronic illness care. • Address self-management challenges posed by behavioral health conditions. • Educate patients about wellness recovery, maintenance, and crisis prevention/recovery planning using evidence-based practices. • Integrate peer specialists/recovery coaches into discharge planning process and overall care delivery system. • Support development of a robust peer recovery community and facilitate the process of connecting patients with MHSU conditions to these services. • Develop and implement mechanisms to obtain ongoing patient and/or family satisfaction and feedback. • Continue to assess patient, family, community, and provider needs to address ongoing gaps in the MHSU continuum of care. • Evaluate ED and readmission utilization to identify candidates for specialized consultation in integrated care planning. • Establish relationships with home health and/or other community-based providers to provide home-based education, monitoring, and self-care support for patients with significant barriers to care. <p>Reliably connect patients and families to necessary health resources and services in community</p> <ul style="list-style-type: none"> • Screen for social determinants of health conditions. • Promote strategies for addressing social determinants of health in care planning. • Develop collaborative referral relationships with appropriate community-based services. • Evaluate progress in addressing social determinants of health in the population served. • Collaborate with community-based partners to reduce the impact of social factors on health outcomes. • Integrate community-based providers into care team meetings and discharge planning for hospitalized patients. <p>Develop a clinical workforce that successfully integrates medical and behavioral health care</p> <ul style="list-style-type: none"> • Provide training and education in strategies that address the unique self-management challenges posed by co-morbid physical and behavioral health conditions. • Provide team-based consultation designed to improve clinical skills and treatment plans for individuals with such co-morbid conditions. • Provide education in behavioral medicine for providers across the care delivery system. • Align competency assessment with goals for improving clinical outcomes for population served. • Provide training for the next generation of clinicians and providers that incorporates strategies for integrating medical and behavioral health care. 	

Required Measure Slate: Improvement and Outcomes Measures <i>(Achieve 2 out of 5 in Year 1, 5 of 13 Outcome Measures in Year 2, 7 out of 13 in Year 3, 8 out of 13 in Year 4, and 8 out of 13 in Year 5).</i>										
Measure Slate 2		2: Comprehensive Systems for Treating Mental Health & Substance Use (MHSU) Conditions			Achieve 2 of 5 Measures	Achieve 5 of 13 Measures	Achieve 7 of 13 Measures	Achieve 8 of 13 Measures	Achieve 8 of 13 Measures	
#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
1	Controlling high blood pressure for people with serious mental illness (for BH Home population)	NQF 2602	MA Medicaid (HEDIS) 2015 75 th percentile: 65.09% (proxy benchmark from NQF 0018 for overall population)	Gap to Goal (10%) or attainment at target	O	O	O	O	O	Using related benchmark for NQF 0018 for overall population.
2	Proportion of patients with identified opioid use disorder accessing medication-assisted treatment (MAT)	N/A	No external benchmark; Hospital target = 50.00%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target of 50% informed by experience with patient engagement in opioid treatment
3	Hospitalized patients screened within 72 hours of admission using a validated screening tool for unhealthy alcohol use (all public hospital system inpatient psychiatric discharges, age 18 and above)	NQF 1661 SUB-1	Joint Commission (2014) 75 th percentile = 94.20%	Gap to Goal (10%) or attainment at target	O (CY2017)	O (CY2018)	O (CY2019)	O (CY2020)	O (CY2021)	Using Joint Commission benchmark for SUB-1
4	Alcohol use brief intervention provided or offered (during public hospital system psychiatric hospitalization, age 18 and above)	NQF 1663 SUB-2	Joint Commission (2014) average = 48.20%	Gap to Goal (10%) or attainment at target	B (CY2017)	O (CY2018)	O (CY2019)	O (CY2020)	O (CY2021)	New measure as of 1/1/16; using related benchmark for NQF 1663, which is a similar measure for all inpatient admissions
5	Follow-up after hospitalization for mental illness (for BH Home population) – 7 days for public hospital system hospitalizations	NQF 0576 (7-day)	National (HEDIS) Medicaid 2015 90 th percentile = 63.85%	Gap to Goal (10%) or attainment at target	O	O	O	O	O	

Required Measure Slate: Improvement and Outcomes Measures <i>(Achieve 2 out of 5 in Year 1, 5 of 13 Outcome Measures in Year 2, 7 out of 13 in Year 3, 8 out of 13 in Year 4, and 8 out of 13 in Year 5).</i>										
Measure Slate 2		2: Comprehensive Systems for Treating Mental Health & Substance Use (MHSU) Conditions			Achieve 2 of 5 Measures	Achieve 5 of 13 Measures	Achieve 7 of 13 Measures	Achieve 8 of 13 Measures	Achieve 8 of 13 Measures	
#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
6	Transition record with specified elements received by discharged patients (for public hospital system psychiatric hospitalizations)	NQF 0647	MA IPFQR-HBIPS 2014 average = 83.27%	Gap to Goal (10%) or attainment at target	B (CY2017)	O (CY2018)	O (CY2019)	O (CY2020)	O (CY2021)	New IPFQR measure to be implemented 1/1/17; using related measure for NQF 0557, which is HBIPS-6 for creation of the transition continuing care plan
7	Access to public hospital system ambulatory mental health care: Scheduled intakes within 14 days of referral (for in-network referrals)	N/A	National Medicaid (HEDIS) 2015 90th percentile = 48.10%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Using proxy benchmark derived from National Medicaid (HEDIS) Initiation and Engagement of AOD treatment (initiation component only), NQF 0004.
8	Increase number of synchronous and asynchronous tele-consultations with psychiatrists	N/A	No external benchmark; Hospital target = 400 per year	Gap to Goal (10%) or attainment at target	O	O	O	O	O	Target informed by roll-out and expansion of tele-psychiatry
9	Diabetes screening for people with Schizophrenia or Bipolar Disorder who are using antipsychotic medications (for active primary care patients and BH home patients)	NQF 1932	MA Medicaid (HEDIS) 2015 90th percentile = 86.96%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	
10	Cardiovascular health screening for people with Schizophrenia or Bipolar Disorder who are prescribed antipsychotic medications (for active primary care patients and BH home patients)	NQF 1927	No external benchmark; hospital-specific target = 75.00%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target informed by experience with screening measures for other populations

Required Measure Slate: Improvement and Outcomes Measures <i>(Achieve 2 out of 5 in Year 1, 5 of 13 Outcome Measures in Year 2, 7 out of 13 in Year 3, 8 out of 13 in Year 4, and 8 out of 13 in Year 5).</i>										
Measure Slate 2		2: Comprehensive Systems for Treating Mental Health & Substance Use (MHSU) Conditions			Achieve 2 of 5 Measures	Achieve 5 of 13 Measures	Achieve 7 of 13 Measures	Achieve 8 of 13 Measures	Achieve 8 of 13 Measures	
#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
11	Diabetes Monitoring for People with Diabetes and Schizophrenia (for active primary care patients and BH home patients)	NQF 1934	National (HEDIS) Medicaid 2014 90th percentile = 76.67%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	
12	Screening for metabolic disorders (psychiatric inpatient discharges on routinely-scheduled antipsychotic screened during/before stay)	CMS IPFQR	No external benchmark	Improvement over CY 2017 baseline	B (CY2017)	O (CY2018) 2% increase over CY2017	O (CY2019) 5% increase over CY2017	O (CY2020) 8% increase over CY2017	O (CY2021) 10% increase over CY2017	No existing benchmark; CMSIPFQR measure to be implemented 1/1/17
13	Increase the percentage of BH Home target population patients who have a care plan (care plans may include CHA coordinated care plan and/or ACO behavioral health community partner care plan)	NCQA Medical Home	NCQA 2014 Medical Home Standard = 75.00%	Gap to Goal (10%) or attainment at target	O	O	O	O	O	Target of 75% is 2014 NCQA Medical Home standard.

Initiative Title	3. Referral Management and Integrated Care Management
Description/Rationale	
<p>Toward the goals of better health and optimal, more coordinated and cost-effective care, this suite of initiatives is aimed at increasing patient access to high-quality care, promote appropriate referrals and access (i.e. the right provider in the right setting) based on the complexity of the patient’s needs. Providing integrated care across the continuum of care through effective referral management and care coordination is foundational to the accountable care model and alternative payment arrangements with quality, cost and health care utilization accountability. This is particularly important for Medicaid and other vulnerable patient populations that often face barriers to care and care fragmentation.</p>	
<p>This initiative builds and supports systems to maintain a preferred, high value network and simultaneously provide highly coordinated and quality care. This initiative aims to accomplish this in four ways: focus on public hospital system access and effective operational improvements in primary care and specialties, encourage public hospital referrals and the use of care within the public hospital system and with clearly defined high value preferred provider networks enabled to coordinate care, build relationships with key community-based partners such as visiting nurse associations (VNAs), skilled nursing facilities (SNFs), and detoxification facilities, and leverage proven technology to improve access and convenience for the patient panel to specialty opinions and care. The Massachusetts Office of the Attorney General’s report published in September, 2015 found wide variation in the prices health insurance companies pay providers for similar services, unexplained by differences in quality, complexity of services, or other common measures of consumer value. The report found that higher priced providers are drawing patient volume from lower priced providers, which increases costs as care is shifted from less costly community settings to higher relative price settings.⁹⁵ To address this, payers and employers in Massachusetts have embraced referral networks comprised of high value providers as an opportunity to address costs. Initial analysis of this strategy based on state experience within a Massachusetts state employees plan has shown up to a 36% reduction in expenditures for patient panels that switch to a narrow network insurance plan.⁹⁶</p>	
<p>Encouraging a preferred and narrow network requires multidisciplinary leadership, systems and collaboration in primary care, medical and surgical specialties, behavioral health and the emergency department. Providers and patients need to feel confident that the choice in care is patient-centered and high-quality. Integration and clinical teams will work to develop relationships and business arrangements to align the value-based interests of non-traditional caregivers often critical during care transitions such as VNAs and SNFs. This initiative will expand the capacity of the public hospital’s medical, surgical and behavioral health specialists to coordinate and manage referrals internally, including redirected referrals from higher cost, lower-value external referrals. Toward this end, this initiative will focus on monitoring and improving the rate of referrals within the public hospital system and with in-network clinical affiliates, and measures of quality, productivity and access to specialists.</p>	

⁹⁵Examination of Health Care Cost Trends and Cost Drivers Pursuant to G.L. c. 12, § 11N Report for Annual Public Hearing Under G.L. c. 6D, § 8

⁹⁶Gruber J, & McKnight R. (2014). Controlling health care costs through limited network insurance plans: Evidence from Massachusetts state employees.” NBER working paper #20462.

Initiative Title	3. Referral Management and Integrated Care Management
<p>In addition, this initiative will refine emergency department (ED) and inpatient case management capabilities to offer alternative treatment modalities and community-based care to patients who do not need admission. This initiative will expand e-consults beyond tele-dermatology based on success and evidence from both the public hospital and other systems in order to increase access to consultations with specialists, reduce cost and enable more capacity for face-to-face visits when appropriate.⁹⁷ This initiative may also focus on facilitating transportation to in-network care providers for patients who lack transportation by utilizing a non-medical transportation support service. Convenience and effectiveness also drives efforts to examine and take advantage of text-messaging in care management. Evidence for the potential of text messages providing improvements in disease prevention and management interventions have been observed for weight loss, smoking cessation, and diabetes management. These effects appeared to exist among adolescents and adults, among minority and non-minority populations, and across nationalities.⁹⁸</p>	
Goals/Objectives	
<p>This initiative will use referral and outmigration processes to drive high value, coordinated care for patients and advance Accountable Care Organization (ACO), total cost of care strategies, and increased retention of appropriate care within the public hospital system.</p> <ul style="list-style-type: none"> • Improve patient care coordination, continuity of care, and referral to services within a high value, clinically integrated network with emphasis on the public hospital system, other community-based services, and with clinical affiliates. • Increase access and efficiency of the public hospital system’s clinical services by retaining services when appropriate. • Reduce out-migration of inpatient and ED services for patient panel to non-public hospital facilities, where appropriate. Preliminary analysis of Medicaid inpatient stays and ED utilization outside the public hospital system confirms the opportunity to improve performance through care coordination within integrated community networks. Data reveals that a significant portion of inpatient care (up to 60%) and ED visits (up to 30%) across various payor cohorts occur outside of the system, frequently at higher-cost institutions, which add cost and care fragmentation. • Support the delivery of care by the right provider, in the right care setting and at the right time by reducing care received outside of the public hospital system when clinically indicated and increasing access to specialty health care and other community-based services outside of the acute care setting. • Promote alternate care modalities, as clinically appropriate, as options in lieu of avoidable emergency department and/or inpatient care. • Launch innovations, such as e-consults, patient care communications/messaging, and patient transportation options to overcome barriers to access to ambulatory care and promote patient self-management of their health conditions. • Encourage in-depth clinical collaborations and the use of defined provider partnerships, including VNAs, SNFs, and substance use treatment. • Advance total cost of care strategies. 	

⁹⁷Utilization, Benefits, and Impact of an e-Consultation Service Across Diverse Specialties and Primary care. Liddy et al. Telemedicine and e-Health 2013 Apr; 19(10):733-738

⁹⁸Text Messaging as a Tool for Behavior Change in Disease Prevention and Management. Epidemiology Reviews 2010 Apr; 32(1) 56-59

Core Components

This initiative if undertaken, may include the following components:

1. Build on current on specialty care coordination within the public hospital system and advance up to three specialty access improvement initiatives along measurable dimensions for timeliness of appointments, access, quality, and reduction in out-of-network specialty care referrals.
2. Develop capabilities for referral systems for mental health and substance use disorder services within the public hospital system and a coordinated care network.
3. Encourage patients to receive care at the public hospital system for inpatient, ED, and specialty services or at high-value preferred partners when clinical conditions such as tertiary care are beyond the scope of the public hospital system.
 - Engage case management in the ED to organize home-based services tailored to the needs of the patient such as community-based integrated transition facilitators, visiting nurses, and/or home visits by nurse practitioners to ensure post-ED aftercare is in place. This builds on the ED commitment to providing the highest and most needs-sensitive care possible for patient populations and fosters clinical partnerships with post-ED community-based providers.
 - Patient education by public hospital system primary care teams to reinforce the value and care coordination benefits of “staying within the public hospital system” campaign. This may include patient education materials and after visit summaries that emphasize referrals and follow-up appointments.
 - Use recent and ongoing surveys of public hospital system specialists and primary care teams to develop and communicate standardized specialty-specific key interventions prior to a referral which makes the specialty visit more productive and may prevent avoidable referrals or tests.
 - Review patterns of referrals by primary care region, referring provider, and specialty to determine opportunities to influence decisions to utilize the public hospital system whenever possible.
4. Leverage effective post-acute and community-based providers to address gaps in care or to increase care coordination.
 - a. Define, develop and refine formal agreements with post-acute providers, such as VNAs, SNFs and detoxification facilities, with both programmatic support and skilled clinical personnel.
5. Develop transportation solutions (such as Uber / Lyft / taxi) for patients to ensure that they can make their scheduled medical appointments and to facilitate usage of the appropriate facilities and network of providers.
6. Execute newly designed mobile paramedic program which may deploy highly skilled paramedics to the home to assess and evaluate patients with the goal to match the patient’s needs with the appropriate level of care, thereby allowing patients to remain in the community and avoid potentially preventable emergency and inpatient utilization when appropriate.

7. Develop tools and processes for active referrals to mental health and addictions providers
8. Further expand the electronic platform for consultations (e-consults) to maximize specialty access and minimize patient inconvenience and cost.
9. Establish patient communication tools to enhance care coordination such as enhanced use of the patient portal platform of electronic medical record (EMR) as well as texting programs for care management, care coordination and appointment reminders.
10. Expand preferred provider relationships to include clinical services not provided at the public hospital system and include these in the EMR Referral Guidance directory in order to maximize quality and clinical connectivity.
11. Engage an appropriate leadership team including multidisciplinary stakeholders on referral management work.
12. Refine existing patient attribution and outreach efforts to identify and schedule appointments with new or unengaged patients.
13. Restructure primary care triaging processes to address patients' immediate and urgent care needs.
14. Continue to develop/refine reporting tools to support referral management work.
15. Develop, adopt, and monitor referral management policies and procedures that align with defined ACO strategies (such as escalation for ED transfers, etc).
16. Identify practice region and specialty-specific challenges to adopting referral management policies and tailor support to these issues beyond system-wide infrastructure.
17. Support staff and providers in referral management efforts to achieve quality outcomes when they are linked to access.

Required Measure Slate: Improvement and Outcomes Measures <i>(Achieve 2 out of 5 in Year 1, 4 of 10 Outcome Measures in Year 2, 7 out of 13 in Year 3, 6 out of 10 in Year 4, and 8 out of 13 in Year 5).</i>										
Measure Slate 3		3: Referral Management and Integrated Care Management			Achieve 2 of 5 Measures	Achieve 4 of 10 Measures	Achieve 7 of 13 Measures	Achieve 6 of 10 Measures	Achieve 8 of 13 Measures	
#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
1	Overall Reduce proportion of Emergency Department Outmigration to Non-Public Hospital System Facilities within specific payer contracts	Customized Measure: Claims based (units of service) ⁹⁹	No external benchmark; hospital specific improvement target = 25%	Gap to Goal (10%) or attainment at target	B (CY2016)	O (CY2018)	O (CY2019)	O (CY2020)	O (CY2021)	Target of 25% informed by out-migration improvement opportunity
2	Overall Reduce proportion of Inpatient Outmigration to – Public Hospital System Facilities within specific payer contracts	Customized Measure: Claims based (units of service) ⁵	No external benchmark; hospital specific improvement target = 50%	Gap to Goal (10%) or attainment at target	B (CY2016)	O (CY2018)	O (CY2019)	O (CY2020)	O (CY2021)	Target of 50% informed by out-migration improvement opportunity
3	Overall Reduce proportion of out-of-network Medical & Surgical specialty referrals (outpatient)	Customized Measure	No external benchmark; hospital specific improvement target = 10%	Gap to Goal (10%) or attainment at target	O (4/1/17 - 3/31/18)	O (4/1/18 - 3/31/19)	O (4/1/19 - 3/31/20)	O (4/1/20 – 3/31/21)	O (4/1/21 - 3/31/22)	Target of 10% informed by out-of-network referral improvement opportunity
4	Selected Public Hospital Primary Care Practice(s) Initiative: Primary care reduce proportion of out-of-network Medical & Surgical specialty referrals (outpatient) referrals	Customized Measure	No external benchmark; hospital specific improvement target = 10%	Gap to Goal (10%) or attainment at target	B (4/1/17 - 3/31/18)	O (4/1/18 - 3/31/19)	O (4/1/19 - 3/31/20) Initial Practice (s)	O (4/1/20 – 3/31/21)	O (4/1/21 - 3/31/22)	Target of 10% informed by out-of-network referral improvement opportunity
					Initial Practice (s)	Initial Practice (s)	New Practice (s)	New Practice (s)	New Practice (s)	

⁹⁹Baseline and outcome measures are dependent on stable populations and relevant claims data. Should there be material changes in populations, payor contracts and access to claims data these measures will need to be re-based.

Required Measure Slate: Improvement and Outcomes Measures <i>(Achieve 2 out of 5 in Year 1, 4 of 10 Outcome Measures in Year 2, 7 out of 13 in Year 3, 6 out of 10 in Year 4, and 8 out of 13 in Year 5).</i>										
Measure Slate 3		3: Referral Management and Integrated Care Management			Achieve 2 of 5 Measures	Achieve 4 of 10 Measures	Achieve 7 of 13 Measures	Achieve 6 of 10 Measures	Achieve 8 of 13 Measures	
#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
5	Reduce the proportion of out-of-network referrals for selected specialty care areas within the public hospital system: (SFY 2018 will continue Gastroenterology) (SFYs 2019 – 2020 will be a 2 nd Specialty Area) (SFYs 2021 – 2022 will be a 3 rd Specialty Area)	Customized Measure	No external benchmark; hospital specific improvement target (Gastroenterology = 6%; Applicable to SFY 2018) New Specialty Target will be submitted with baseline data for each new specialty	Gap to Goal (10%) or attainment at target	O (4/1/17 - 3/31/18)	B (4/1/18 - 3/31/19)	O (4/1/19 - 3/31/20)	B (4/1/20 - 3/31/21)	O (4/1/21 - 3/31/22)	Target for new specialties will be specified at the time of the selection of the specialty and reported with baseline data
					Gastroenterology	New Specialty 1	New Specialty 1	New Specialty 2	New Specialty 2	
6	Completed appointments per FTE or total number of completed appointments for selected specialties within the public hospital system: (SFY 2018 will continue Gastroenterology) (SFYs 2019 – 2020 will be a 2 nd Specialty Area) (SFYs 2021 – 2022 will be a 3 rd Specialty Area)	Customized Measure	No external benchmark; hospital specific improvement target (Gastroenterology = 1300 appointments per FTE; Applicable to SFY 2018) New Specialty Target will be submitted with baseline data for each new specialty	Gap to Goal (10%) or attainment at target	O (4/1/17 - 3/31/18)	B (4/1/18 - 3/31/19)	O (4/1/19 - 3/31/20)	B (4/1/20 - 3/31/21)	O (4/1/21 - 3/31/22)	Target for new specialties will be specified at the time of the selection of the specialty and reported with baseline data
					Gastroenterology	New Specialty 1	New Specialty 1	New Specialty 2	New Specialty 2	
7	Time to first appointment: percentage of referrals to scheduled within 60 days for selected specialties within	Customized Measure	No external benchmark; hospital specific improvement target (Gastroenterology=50%;	Gap to Goal (10%) or attainment at target	O (4/1/17 - 3/31/18)	B (4/1/18 - 3/31/19)	O (4/1/19 - 3/31/20)	B (4/1/20 - 3/31/21)	O (4/1/21 - 3/31/22)	Target for new specialties will be specified at the time of the selection of the specialty and reported with

Required Measure Slate: Improvement and Outcomes Measures <i>(Achieve 2 out of 5 in Year 1, 4 of 10 Outcome Measures in Year 2, 7 out of 13 in Year 3, 6 out of 10 in Year 4, and 8 out of 13 in Year 5).</i>										
Measure Slate 3		3: Referral Management and Integrated Care Management			Achieve 2 of 5 Measures	Achieve 4 of 10 Measures	Achieve 7 of 13 Measures	Achieve 6 of 10 Measures	Achieve 8 of 13 Measures	
#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
	the public hospital system: (SFY 2018 will continue Gastroenterology) (SFYs 2019 – 2020 will be a 2 nd Specialty Area) (SFYs 2021 – 2022 will be a 3 rd Specialty Area)		Applicable to SFY 2018) New Specialty Target will be submitted with baseline data for each new specialty		Gastroenterology	New Specialty 1	New Specialty 1	New Specialty 2	New Specialty 2	baseline data
8	Increase the # of E-Consults referrals made by public hospital primary care providers to defined public hospital specialists	Customized Measure	No external benchmark; hospital specific improvement over SFY 2018 baseline	Defined improvement over SFY 2018 baseline	B (4/1/17 - 3/31/18)	O 10% improvement over SFY18 baseline (4/1/18 - 3/31/19)	O 20% improvement over SFY18 baseline (4/1/19 - 3/31/20)	O 30% improvement over SFY18 baseline (4/1/20 - 3/31/21)	O 40% improvement over SFY18 baseline (4/1/21 - 3/31/22)	Increased access for consultative services to facilitate care and access for patients to critical specialties
9	Demonstrate improvement in colorectal cancer screening rates (for active public hospital primary care patients)	NQF 0034	National (HEDIS) Commercial 2014 90th percentile = 72%	Gap to Goal (10%) or attainment at target	O	O	O	O	O	

Required Measure Slate: Improvement and Outcomes Measures <i>(Achieve 2 out of 5 in Year 1, 4 of 10 Outcome Measures in Year 2, 7 out of 13 in Year 3, 6 out of 10 in Year 4, and 8 out of 13 in Year 5).</i>										
Measure Slate 3		3: Referral Management and Integrated Care Management			Achieve 2 of 5 Measures	Achieve 4 of 10 Measures	Achieve 7 of 13 Measures	Achieve 6 of 10 Measures	Achieve 8 of 13 Measures	
#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
10	Improvement in inpatient discharge referral rate to in-network skilled nursing facilities for Medical/Surgical inpatients discharged from the public hospital system	Numerator: Discharges to In- Network SNFs Denominator: Medical/ Surgical Inpatient Discharges from the Public Hospital System to all SNFs ¹⁰⁰	No external benchmark; hospital specific improvement target= 75%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Appropriate post acute placement of patients based on clinical need
11	Improvement in inpatient discharge referral rate to in network Visiting Nurse Association (VNAs) Medical/Surgical inpatients discharged from the public hospital system	Numerator: Discharges to In- Network VNAs Denominator: Medical/ Surgical Inpatient Discharges from the Public Hospital System to all VNAs ¹⁰¹	No external benchmark; hospital specific improvement target = 80%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Appropriate post acute community-based care for patients based on clinical need

¹⁰⁰ Any Visiting Nurses Association (VNA) with whom public hospital system has a signed preferred provider agreement. Preferred provider relationships are evaluated annually and are subject to change if VNAs are not in compliance with the terms of the agreement. Changes in preferred VNA relationships may require a rebasing of the measures.

¹⁰¹ Any Skilled Nursing Facility (SNF) approved by the public hospital network development committee as being "in-network" at any point during the measurement year. The network development committee oversees the collaborative relationships in which the public hospital system participates. The committee abides by specific principles related to access, continuity of care, communication expectations and quality improvement. Changes to in-network SNF relationships may require a rebasing of the measures.

Required Measure Slate: Improvement and Outcomes Measures <i>(Achieve 2 out of 5 in Year 1, 4 of 10 Outcome Measures in Year 2, 7 out of 13 in Year 3, 6 out of 10 in Year 4, and 8 out of 13 in Year 5).</i>										
Measure Slate 3		3: Referral Management and Integrated Care Management			Achieve 2 of 5 Measures	Achieve 4 of 10 Measures	Achieve 7 of 13 Measures	Achieve 6 of 10 Measures	Achieve 8 of 13 Measures	
#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
12	% of patient appointments at which the AVS was printed for the patient at the conclusion of their medical specialty appointment at the public hospital system	MU P220	No external benchmark; hospital specific improvement	Gap to Goal (10%) or attainment at target: Target 90%	B (4/1/17 - 3/31/18)	O (4/1/18 - 3/31/19)	O (4/1/19 - 3/31/20)	O (4/1/20 - 3/31/21)	O (4/1/21 - 3/31/22)	Target of 90% established based on clinical operations standards, taking into account the spectrum of patient routine and urgent visit types
13	% of patient appointments at which the AVS was printed for the patient at the conclusion of their surgical appointment at the public hospital system	MU P220	No external benchmark; hospital specific improvement	Gap to Goal (10%) or attainment at target: Target 90%	B (4/1/17 - 3/31/18)	O (4/1/18 - 3/31/19)	O (4/1/19 - 3/31/20)	O (4/1/20 - 3/31/21)	O (4/1/21 - 3/31/22)	Target of 90% established based on clinical operations standards, taking into account the spectrum of patient routine and urgent visit types

Initiative Title	4. Evidence-Based Practices for Medical Management of Chronic Conditions
Description/Rationale	
<p>Evidence Based Medicine (EBM) is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients.¹⁰² The goal is to improve outcomes, quality, and cost by reducing the variation of care for key conditions and integrate EBM into the health care delivery system across the continuum. The concept of variation of care was outlined in the 2010 Dartmouth Institute’s reflections on geographic variations¹⁰³; however, a similar deviation from EBM and variations in care may also be observed <i>within</i> health care systems and practices, acknowledging natural differences between patients. Toward safer, higher-quality care, redesigned systems of care, including the use of information technology, can best support clinical and administrative processes to adopt EBM and improve patient outcomes.¹⁰⁴</p> <p>Efforts to change the culture of medical practice to adopt EBM include education on recommendations from peer-reviewed groups such as Cochrane or the U.S. Preventive Services Task Force (USPTF), integration of EBM into clinical activities via clinical decision support (CDS), and the application of population health data to prioritize and subsequently develop systems to close quality gaps.¹⁰⁵</p> <p>Building on systematic efforts in medical management such as those sponsored by the Institute for Health Care Improvement learning collaborative known as “Pursuing Perfection”¹⁰⁶ and foundational transformation work under the current Waiver, planned future initiatives build on capabilities to develop and use population health databases, risk stratify patients, and help connect the most costly and vulnerable patients with complex care management, transitional facilitators, and palliative care services.</p> <p>Evidence-based patient engagement strategies may include those such as motivational interviewing in chronic health conditions and for substance use disorders, electronic medical record clinical decision support for chronic conditions and prevention, expansion of nursing, pharmacist, and other care team member roles in chronic disease management, and mental health team integration within primary care. Initiatives may include refining tools, frameworks, analytics, and clinical workforce development in the use of evidence-based guidelines across the care continuum to care for specific populations of patients. A goal is to “hard wire” enhanced quality by utilizing evidence-based practices to support providers and patients in making informed decisions about treatments, medications, risks, costs, and benefits.¹⁰⁷</p>	

¹⁰²Sackett DL, Rosenberg WMC, Gray JAM et al. Evidence-based medicine: what it is and what it isn’t. Br Med J 1996;312:71-72

¹⁰³Jonathan Skinner and Elliott S. Fisher “Reflections on Geographic Variations in U.S. Health Care,” The Dartmouth Institute for Health Policy & Clinical Practice, updated May 12

¹⁰⁴Crossing the Quality Chasm: A New Health System for the 21st Century Institute of Medicine 2001

¹⁰⁵McCarthy, Mueller, Wrenn. Geisinger Health System: Achieving the Potential of System Integration through Innovation, Leadership, Measurement, and Incentives. The Commonwealth Fund, Case Study Organized Health Care Delivery System June 2009

¹⁰⁶Pursuing Perfection: Raising the Bar for Healthcare Performance Robert Wood Johnson Foundation Results Report Grant ID: CPC Updated January 10, 2014

¹⁰⁷Remarks by Carolyn Clancy, M.D., Director of the Agency for Healthcare Research and Quality (AHRQ) World Healthcare Innovation and Technology Congress, Washington, DC, November 1, 2006

Initiative Title	4. Evidence-Based Practices for Medical Management of Chronic Conditions
Goals/Objectives	
<p>A medical management program is one of the pillars of health care reorganization to function effectively as an Accountable Care Organization (ACO) to improve population health outcomes. Medical management programs aim to develop and implement evidence-based clinical guidelines for populations of patients with particular conditions to ensure the right care at the right time in the right context and produce optimal outcomes for quality, safety, cost, and experience. Efforts will focus on improving care and reducing cost for populations of patients with five conditions: chronic obstructive pulmonary disease; congestive heart failure; hypertension; diabetes; and pediatric asthma.</p> <p>Specific objectives may include:</p> <ul style="list-style-type: none"> • Improve health indicators for primary care panel patients with selected chronic health conditions (which may include chronic obstructive pulmonary disease (COPD), congestive heart failure (CHF), hypertension, diabetes, and pediatric asthma), including those with co-occurring mental health conditions and substance use disorders; • Improve transitions in care and reduce avoidable hospital readmission for patients with targeted chronic health conditions; • Foster advance care planning and use of palliative care services for patients with advanced stage illness related to the targeted chronic health conditions; • Articulate institutional evidence-based guidelines for selected chronic health conditions for care across the continuum (self care, primary care, specialty care, emergency department and hospital care) that recognize the importance of attention to co-occurring mental health needs and the social determinants of health; • Embed evidence-based guidelines into standard workflows and the electronic medical record; • Train key staff and providers in population health management skills and improving multidisciplinary collaboration and team-based across the care continuum including thoughtful engagement of pharmacists, nurses, and other allied health professionals. • Engage patients and families as design partners and in effective self management of their health condition(s) through multidisciplinary health education and coaching; • Develop a registry that permits risk stratification and monitoring of adherence to care guidelines; • Evaluate medical management programs for chronic conditions to determine successful management for decreases in the rate of hospitalization, re-hospitalization, emergency department (ED utilization), and total medical expense, based on the availability of claims data for payer populations; • Adhere to evidence-based guidelines in selected targeted conditions (COPD, CHF, hypertension, and/or diabetes) that include adherence to nationally validated measures for clinical care processes and treatments; and • Advance team-based care within a patient centered medical home model with a distinctive approach to medical management that recognizes the importance of integrated mental health care and attention to the social determinants of health. 	
Core Components	
<p><i>This initiative, if undertaken, may include the following components:</i></p> <p>We plan to develop and implement medical management programs for targeted conditions in a staggered fashion over a 5-year period.</p>	

Initiative Title	4. Evidence-Based Practices for Medical Management of Chronic Conditions
<p>1. Essential elements for evidence-based disease management program (s), based on a review of the literature and from experience may include the following:</p> <ul style="list-style-type: none"> • Engage an appropriate leadership team including multidisciplinary clinical stakeholders as well as patients and families; • Identify key evidence-based practices from review of literature; <ul style="list-style-type: none"> • Build an understanding of the population of patients with the target condition through review of both quantitative and qualitative data; • Design strategies for embedding best practices into clinical workflows across the care continuum and build appropriate decision support strategies within the electronic medical record integrating innovative technology platforms whenever possible; • Develop materials and forums for enhancing patient and family understanding of the condition and capacity for self care, including the use of care planning with patients and families for selected conditions; • Develop and use a registry database for risk stratification, for use in identifying and closing gaps in care, and for use in monitoring adherence to best practices; • Support staff and providers to learn and use new skills in population health management, in multidisciplinary team-based care and collaboration, and in care-giving relationships with patients that enable self care through coaching and goal setting; <ul style="list-style-type: none"> • Build referral pathways to special programs for high risk patients such as complex care management, house calls for frail homebound patients, elder services, palliative care, and emerging partnerships with home care services, skilled nursing facilities, and other community-based partnerships. <p>2. Improve transitions in care for patients with chronic health conditions with a focus on reducing 30 day hospital readmission through timely follow up phone calls, clinic visits, and home visits after inpatient hospitalization and emergency department visits.</p> <p>3. Continue to cultivate institutional improvement work in chronic disease management in primary care and through patient-centered medical homes in primary care and expand population health management tools and team-based care into medical specialty clinics.</p> <p>4. Adopt a holistic approach to chronic disease management that includes attention to mental health and substance abuse, with expanded screening and treatment for depression and appropriate referral to special programs such as the behavioral health home, integrated mental health providers within primary care, and multi-level substance abuse treatment supports, to address the high burden of co-morbid mental health and substance abuse with the target population(s).</p> <p>5. Evaluate medical management programs for chronic conditions to determine successful management for decreases in the rate of hospitalization, re-hospitalization, emergency department (ED utilization), and total medical expense, based on the availability of claims data for payer populations.</p> <p>6. Improve end of life care for patients with chronic conditions including more frequent use of advanced directives and referral to specialized palliative care services.</p>	

Required Measure Slate: Improvement and Outcomes Measures <i>(Achieve 2 of 3 Outcome Measures in Year 1, 4 out of 13 in Year 2, 7 out of 13 in Year 3, 8 out of 13 in Year 4, 8 out of 13 in Year 5).</i>										
Measure Slate 4		4: Evidence-Based Practices for Medical Management of Chronic Conditions			Achieve 2 of 3 Measures	Achieve 4 of 13 Measures	Achieve 7 of 13 Measures	Achieve 8 of 13 Measures	Achieve 8 of 13 Measures	
#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
	Chronic Obstructive Pulmonary Disease (COPD)									
1	The percentage of active primary care patients 40 years of age and older with a new diagnosis of COPD or newly active COPD, who received appropriate spirometry testing to confirm the diagnosis.	NQF 0577	2015 90 th percentile National Medicaid = 47.0%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target reflects the 2015 th 90 th Percentile National Medicaid.
2	Percentage of active primary care patients aged 18 years and older with a diagnosis of COPD and who have an FEV1/FVC < 60% and have symptoms who were prescribed an inhaled bronchodilator.	NQF 102	2015 90 th percentile National Medicaid= 90.0%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target reflects the 2015 th 90 th Percentile National Medicaid.
3	Improve the percentage of patients with COPD who received patient education for COPD by a member of their inpatient care team prior to discharge (across public hospital's inpatient hospital campuses)	Customized Measure	No external benchmark; hospital specific improvement target = 85%	Gap to Goal (10%) or attainment at target	O	O	O	O	O	Target of 85% reflects best practice adoption of the required workflows.
	Congestive Heart Failure (CHF)									
4	Improve the percentage of patients with CHF who received patient education for CHF by a member of their inpatient care team prior to discharge (across public hospital's inpatient hospital campuses)	Customized Measure	No external benchmark; hospital specific improvement target = 85%	Gap to Goal (10%) or attainment at target	O	O	O	O	O	Target of 85% reflects best practice adoption of the required workflows.
	Diabetes									

Required Measure Slate: Improvement and Outcomes Measures <i>(Achieve 2 of 3 Outcome Measures in Year 1, 4 out of 13 in Year 2, 7 out of 13 in Year 3, 8 out of 13 in Year 4, 8 out of 13 in Year 5).</i>										
Measure Slate 4		4: Evidence-Based Practices for Medical Management of Chronic Conditions			Achieve 2 of 3 Measures	Achieve 4 of 13 Measures	Achieve 7 of 13 Measures	Achieve 8 of 13 Measures	Achieve 8 of 13 Measures	
#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
5	Diabetes: HbA1c Control- % of active primary care patients ages 18 to 75 with diabetes whose most recent HbA1c control is <8.0%	NQF 0575	2015 90 th percentile National Medicaid: 59.0%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target reflects the 2015 th 90 th Percentile National Medicaid
6	Comprehensive Diabetes Care: Eye Exam (retinal) performed (for active primary care patients)	NQF 0055	2015 90 th percentile National Medicaid: 68.0%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target reflects the 2015 th 90 th Percentile National Medicaid
7	Improve the proportion of active primary care patients 18-75 years of age with diabetes with poorly controlled Hemoglobin HbA1C (most recent >=8.0%) who have a care plan	NCQA	No external benchmark; hospital specific improvement Target = 75%	Gap to Goal (10%) or attainment at target	O	O	O	O	O	Target of 75% is NCQA 2014 Medical Home Standard.
8	Percentage of high risk diabetic primary care patients receiving enhanced diabetes management services, including nursing-led patient education and self-management coaching, pharmacist-led medication management services, or other care team member support.	Customized Measure (denominator linked to NQF 0575)	No external benchmark; hospital specific improvement target	Improvement over SFY 2018 baseline SFY 19: Improve 2% over SFY 2018 baseline SFY 20: Improve 4% over SFY 2018 baseline SFY 21: Improve 6% over SFY 2018 baseline SFY 22: Improve 8% over SFY 2018 baseline	B	O	O	O	O	Target reflects roll-out implementation and capacity for new workflows.
Hypertension (HTN)										

Required Measure Slate: Improvement and Outcomes Measures <i>(Achieve 2 of 3 Outcome Measures in Year 1, 4 out of 13 in Year 2, 7 out of 13 in Year 3, 8 out of 13 in Year 4, 8 out of 13 in Year 5).</i>										
Measure Slate 4		4: Evidence-Based Practices for Medical Management of Chronic Conditions			Achieve 2 of 3 Measures	Achieve 4 of 13 Measures	Achieve 7 of 13 Measures	Achieve 8 of 13 Measures	Achieve 8 of 13 Measures	
#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
9	Percentage of high risk hypertensive primary care patients receiving enhanced hypertension management services, including nursing-led patient education and self-management coaching, pharmacist-led medication management services, or other care team member support.	Customized Measure	No external benchmark; hospital specific improvement target	Improvement over SFY 2018 baseline SFY 19: Improve 2% over SFY 2018 baseline SFY 20: Improve 4% over SFY 2018 baseline SFY 21: Improve 6% over SFY 2018 baseline SFY 22: Improve 8% over SFY 2018 baseline	B	O	O	O	O	Target reflects roll-out implementation and capacity for new workflows.
Composite Measures										
10	Hospitalization Follow-up: The percentage of discharges for patients 18 years of age and older (with any of the following conditions Diabetes, Hypertension COPD, and/or CHF) who were discharged to home from public hospital's medical/surgical inpatient services and who had an outpatient visit within 7 days or contact within 2 days with a care team member documented in EMR.	Customized Measure	No external benchmark; hospital specific improvement target = 80%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target derived to improve follow up after hospitalization for chronic health conditions

Required Measure Slate: Improvement and Outcomes Measures <i>(Achieve 2 of 3 Outcome Measures in Year 1, 4 out of 13 in Year 2, 7 out of 13 in Year 3, 8 out of 13 in Year 4, 8 out of 13 in Year 5).</i>										
Measure Slate 4		4: Evidence-Based Practices for Medical Management of Chronic Conditions			Achieve 2 of 3 Measures	Achieve 4 of 13 Measures	Achieve 7 of 13 Measures	Achieve 8 of 13 Measures	Achieve 8 of 13 Measures	
#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
11	% of active primary care patients 3 years and older with the following conditions: Diabetes, Pediatric Asthma, Hypertension, COPD, and CHF, for whom a public hospital follow-up contact or visit is completed within seven calendar days post ED discharge	Customized Measure	No external benchmark; hospital specific improvement target =50%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target derived to improve follow up after ED visits for chronic health conditions
12	Screening for Depression in active primary care patients 18 years and older with Diabetes, HTN, CHF, and/or COPD	Approximate Match- NQF 0418 (Adjusted for Chronic Conditions at high risk)	No external benchmark; hospital specific improvement target = 80%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target derived to improve depression screening for patients with chronic health conditions at high risk..
13	Co-morbid Conditions: Depression Follow-Up in active primary care patients with Diabetes, HTN, CHF, and/or COPD	Customized Measure	No external benchmark; hospital specific improvement target = 60%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target derived to improve follow up for depression care for patients with chronic health conditions.

Initiative Title	5. Community Empowered Population Health Initiative (Not Selected)
Description/Rationale	
<p>The Community Empowered Population Health Initiative builds and supports systems to address social determinants of health (SDH) and to address health disparities in patients with chronic conditions. This may be accomplished by implementing a screening and referral system for SDH, leveraging close ties with social service agencies, strengthening communities through collaboration with community and governmental agencies, and developing systems to improve chronic disease disparities.</p>	
<p>The initiative is in recognition that social, behavioral and environmental factors account for 70% of what it takes to stay healthy while only 10% are attributable to direct medical care.¹⁰⁸ According to the Institute of Medicine, “an aligned system with a strong interface among public health, health care, and the community and non health sectors could produce better prevention and treatment outcomes for populations living with chronic illness.”¹⁰⁹ Understanding the critical role of SDH, Healthy People 2020 highlights the importance of addressing the social determinants of health by including “Create social and physical environments that promote good health for all” as one of the four overarching goals for the decade.¹¹⁰ Based on emerging evidence that addressing social needs through enhanced clinical-community linkages can improve health outcomes and reduce costs, CMS has prioritized addressing SDH through the Accountable Health Communities model to address critical gaps between clinical care and community services.¹¹¹ The initiative also recognizes that health disparities have persisted for families and communities that have systematically experienced social and economic disadvantage and consequently face greater obstacles to optimal health. In appreciation of the importance of addressing health disparities, CMS has laid out work.^{112,113}</p>	
<p>Improving SDH and health disparities requires supporting communities in addressing their health needs, implementing screening and referral processes to social service agencies and building programs that identify and address health disparities. Community health improvement teams will work with community based organizations and governmental entities to support their efforts to improve community health. Clinical and community health improvement teams will work together to screen for SDH, refer patients with social needs to existing community services, and rescreen patients with social needs. Clinical and community health improvement teams will also work closely to identify populations with disproportionately higher rates of poor control of chronic health conditions, monitor and improve their care through ensuring they receive interventions such as education, outreach, and linkage to primary, specialty and other ambulatory care services.</p>	
Goals/Objectives	
<p>This initiative will build on community relationships and clinical care infrastructure to drive coordinated care across the medical to community continuum for panel patients and to improve the health of the communities we serve. The initiative aims to increase screening for social determinants of health, referral to social service agencies, and improvement in chronic disease care for patients with disproportionately lower rates of chronic disease control. Thus, this project is intended to support high quality patient-centered care by more completely addressing the full spectrum of needs for patients. This will in turn support efforts to improve the health of patients and communities.</p>	
<p>Specific objectives include:</p>	

¹⁰⁸McGinnis et al. The Case for More Active Policy Attention to Health Promotion. Health Affairs 2002; 21(2); 78-93

¹⁰⁹IOM. Living well with chronic illness: a call for public health action. Washington, DC: The National Academies Press; 2012

¹¹⁰Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health>

¹¹¹Alley DE, et al. Accountable Health Communities — Addressing Social Needs through Medicare and Medicaid. N Engl J Med 2016; 374:8-11.

¹¹²CMS. CMS Equity Plan for Improving Quality in Medicare. Sept 2015. https://www.cms.gov/About-CMS/Agency-Information/OMH/OMH_Dwnld-CMS_EquityPlanforMedicare_090615.pdf

¹¹³CMS. <https://www.medicaid.gov/medicaid-chip-program-information/by-topics/quality-of-care/quality-of-care-health-disparities.html>

Initiative Title	5. Community Empowered Population Health Initiative (Not Selected)
<ul style="list-style-type: none"> • Address social determinants of health through screening of defined patient panel population in order to refer to responsive community and social services • Increase use of social determinant screening tools and implement follow-up rescreening to assess social determinants of health and progress made through active referrals to community and social supports. • Develop systems for referrals to community and social service organizations. • Explore and initiate the use of innovative technologies for social determinant screening, referrals to community and social service resources, patient education and/or self-management support. • Evaluate patient panel for health disparities as defined by disproportionately higher rates of poor control of chronic health conditions such as hypertension and diabetes control to select target population(s) for improvement initiatives. • As measured by nationally validated measures for hypertension control and diabetes blood glucose control, monitor and improve health outcomes for targeted patient population(s) identified with disproportionately poorer control of their health condition. • Develop and implement patient-centered education, outreach, and/or other interventions to support the effective management of chronic health conditions. • Increase community-based, primary care, specialty care, complex care management and ambulatory care utilization for targeted patient populations with higher rates of poor control of their chronic health condition. • Foster community partnerships that link community and public health with patient panel health promotion initiatives. 	
Core Components	
<p>This initiative, if undertaken, may include the following components:</p> <ol style="list-style-type: none"> 1. Build systems to screen for social determinants of health across defined patient panel population segment(s), such as vulnerable patients with chronic conditions and/or behavioral health conditions, high risk/ high utilizers, clinical practice sites and/or others. 2. Identify social determinant(s) tools and develop and implement processes for screening and follow-up rescreening to assess social determinants of health and progress made through active referrals to community and social supports. <ul style="list-style-type: none"> • Implementation of innovative technology for initial and reassessment of social determinants of health for selected patient populations. 3. Develop and implement a referral system to community and social services and supports, which may include a range of services such as organizations addressing food insecurity, housing concerns, legal assistance. Establish relationships and referral systems with community services and social services organizations in order to refer patients for services, including those who have been screened for social determinants of health. 4. Based on an assessment of patient populations with disproportionately poorer outcomes on effective control of health conditions such as hypertension and diabetes, develop strategies which may include small tests of change and other population-specific initiatives, to improve how the health care delivery system in partnership with community and social services support patients in managing their health condition(s) and impacts the defined health outcome measure(s). 5. Implement and measure the proportion of patients in the defined patient panel population(s) with disproportionately poorer health outcomes for hypertension and diabetes control that receive patient education, outreach, or another intervention to support effective chronic health condition management. 6. Devise and implement activities to increase primary care and other ambulatory care utilization for the defined patient population(s) with health disparities as a usual source of care. 7. Build on relationships with communities to: 	

Initiative Title	5. Community Empowered Population Health Initiative (Not Selected)
	<ul style="list-style-type: none">• Provide communities with information about the health and well being of their community by providing a health assessment in targeted communities• Provide educational programs in the targeted communities on topics to prevent or address chronic medical conditions, such as hypertension/heart health, diabetes, chronic obstructive pulmonary disease, asthma, and/or mental health and substance use.• Foster community and clinically-linked population efforts through ongoing collaborations with community, public health and social services organizations to discuss common health priorities, the needs of their communities and to work together on responsive efforts.<ul style="list-style-type: none">• Work with community, public health and social services organizations to support efforts to address healthy living, physical activity, nutrition and mental illness/substance abuse• Incorporates social service partners into care planning, coordination and case review efforts to facilitate resolution of identified social determinants for specific regionally-based patient populations.

Required Measure Slate: Improvement and Outcomes Measures – (Not Selected) <i>(Achieve 3 of 9 Outcome Measures in Year 2, 5 of 9 in Year 3, 5 of 9 in Year 4, and 6 of 9 in Year 5).</i>										
Measure Slate 5		5: Community Empowered Population Health Initiative			Baseline	Achieve 3 of 9 Measures	Achieve 5 of 9 Measures	Achieve 5 of 9 Measures	Achieve 6 of 9 Measures	
#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
1	Social Determinant Screenings: Utilizing implemented social determinant(s) screening tool, increase percentage of defined patient panel population segment(s) (such as patients with chronic conditions and/or behavioral health conditions, high risk/high utilizers, specific primary or specialty practices) within the ACO/public payor population) screened for selected Social Determinants	Customized Measure	No external benchmark; hospital specific improvement target =70%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target is based on population screening measures for this new initiative.
2	Referrals to Community and Social Services: The percentage of defined patient panel screened for social determinant(s) (in measure 1 above) with referrals to community and social services and supports	Customized Measure	No external benchmark; hospital specific improvement target =60%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target is informed by referrals to community and social services.

Required Measure Slate: Improvement and Outcomes Measures – (Not Selected) <i>(Achieve 3 of 9 Outcome Measures in Year 2, 5 of 9 in Year 3, 5 of 9 in Year 4, and 6 of 9 in Year 5).</i>										
Measure Slate 5		5: Community Empowered Population Health Initiative			Baseline	Achieve 3 of 9 Measures	Achieve 5 of 9 Measures	Achieve 5 of 9 Measures	Achieve 6 of 9 Measures	
#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
3	Expansion of Social Determinant Screening to Additional Patient Cohorts: Expand patient panel subpopulations or practice sites whose patients receive social determinant screening	Customized Measure	No external benchmark; hospital specific target = Add at least 1 additional patient subpopulation or practice site per year	Defined Increase Per Year	B	O	O	O	O	Target based on phased implementation of new social determinants initiative.
4	Follow-up Social Determinant Screening: Percentage of identified & active patient panel populations with follow-up social determinant(s) rescreening for appropriate determinants	Customized Measure	No external benchmark; hospital specific improvement Target= 50%	Gap to Goal (10%) or attainment at target		B	O	O	O	Rescreening rates to begin in year two to measure presence or resolution of social determinants
5	Reducing Health Disparities for Hypertension: Controlling High Blood Pressure Measure (2015 HEDIS Definition) for defined patient panel population(s) with disproportionately poorer outcomes for good control of hypertension	NQF 0018 (for hospital-defined patient panel population(s) with health disparities	MA Medicaid (HEDIS) 2014 90 th percentile = 85.67%	Gap to Goal (5%) or attainment at target	B	O	O	O	O	Gap to Goal adjusted to reflect populations with health disparities.

Required Measure Slate: Improvement and Outcomes Measures – (Not Selected) <i>(Achieve 3 of 9 Outcome Measures in Year 2, 5 of 9 in Year 3, 5 of 9 in Year 4, and 6 of 9 in Year 5).</i>										
Measure Slate 5		5: Community Empowered Population Health Initiative			Baseline	Achieve 3 of 9 Measures	Achieve 5 of 9 Measures	Achieve 5 of 9 Measures	Achieve 6 of 9 Measures	
#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
6	Reducing Health Disparities for Hypertension Control in Patients with Diabetes: Comprehensive Diabetes Care: Blood Pressure Control (<140/90) for defined patient panel population(s) with diabetes and disproportionately poorer outcomes for good control of hypertension	NQF 0061 (for hospital-defined patient panel population(s) with health disparities)	MA Medicaid (HEDIS) 2014 90 th percentile = 82.74%	Gap to Goal (5%) or attainment at target	B	O	O	O	O	Gap to Goal adjusted to reflect populations with health disparities.
7	Comprehensive Diabetes Care: A1c Poor Control or A1c Good Control for defined patient panel population(s) with disproportionately poorer outcomes for diabetes blood glucose control	NQF 0059 or NQF 0575 (one of the two measures above will be selected and confirmed in the baseline year based on hospital evaluation of health disparities. (for hospital-defined patient panel population(s) with health disparities)	NQF 0059 MA Medicaid (HEDIS) 2014 90 th percentile = 18.57% or NQF 0575 MA Medicaid (HEDIS) 2014 90 th percentile = 59.37%	Gap to Goal (5%) or attainment at target	B	O	O	O	O	Gap to Goal adjusted to reflect populations with health disparities.

Required Measure Slate: Improvement and Outcomes Measures – (Not Selected) <i>(Achieve 3 of 9 Outcome Measures in Year 2, 5 of 9 in Year 3, 5 of 9 in Year 4, and 6 of 9 in Year 5).</i>										
Measure Slate 5		5: Community Empowered Population Health Initiative			Baseline	Achieve 3 of 9 Measures	Achieve 5 of 9 Measures	Achieve 5 of 9 Measures	Achieve 6 of 9 Measures	
#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
8	<p>Composite Diabetes & Hypertension Patient Education, outreach or Intervention: Proportion of patients in defined patient panel population(s) with disproportionately poorer health outcomes for hypertension and diabetes control in measures 5, 6, and 7 above that received patient education, outreach, or another intervention to support chronic health condition management</p>	Customized Measure (for hospital-defined patient panel population(s) with health disparities	No external benchmark; hospital specific improvement target = 60%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target derived to improve patient education, outreach, and/or interventions for patients with disproportionately poorer health outcomes.

Required Measure Slate: Improvement and Outcomes Measures – (Not Selected) <i>(Achieve 3 of 9 Outcome Measures in Year 2, 5 of 9 in Year 3, 5 of 9 in Year 4, and 6 of 9 in Year 5).</i>										
Measure Slate 5		5: Community Empowered Population Health Initiative			Baseline	Achieve 3 of 9 Measures	Achieve 5 of 9 Measures	Achieve 5 of 9 Measures	Achieve 6 of 9 Measures	
#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
9	<p>Primary Care and Ambulatory Care Utilization Among Panel Population(s) with Health Disparities: Increase the proportion of patients in defined patient panel population(s) with disproportionately poorer health outcomes for hypertension and diabetes control in measures 5, 6, and 7 above who had at least one community health, primary care and/or other ambulatory care visit during the measurement period</p>	Customized Measure (for hospital-defined patient panel population(s) with health disparities	No external benchmark; Improvement over SFY 2018 baseline by defined % point(s)	Improvement compared to SFY 2018 baseline.	B	O Improve by at least 1% point above the SFY 2018	O Improve by at least 2% point above the SFY 2018	O Improve by at least 3% points above the SFY 2018	O Improve by at least 4% points above the SFY 2018	Target derived to improve utilization of primary care and ambulatory care for patients with disproportionately poorer health outcomes.

Measure Slate 6	Population-Wide Community and Public Health Indicators	Source	Geography	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022
1	Age-adjusted rate* per 100,000 for premature death (below age 75), <i>by race and ethnicity, as available</i>	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
2	Age-adjusted rate* per 100,000 for hospital discharges for primary care manageable conditions: asthma - <i>by age, race and ethnicity as available</i>	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
3	Age-adjusted rate* per 100,000 for suicide mortality	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
4	Age-adjusted rate* per 100,000 for Hepatitis C incidence	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
5	Percentage of children fully immunized at kindergarten entry	Immunization Program, Massachusetts Department of Public Health and Massachusetts Department of Elementary and Secondary Education	Cambridge, Somerville, Everett, Malden, Statewide	R	R	R	R	R
6	Percent of adolescents reporting specific risk behaviors (as available), from the Youth Risk Behavior Survey (YRBS)- high school and middle school surveys	Youth Risk Behavior Survey (YRBS) (Bi-Annual)	Cambridge, Somerville, Everett, Malden, (as available by community) Statewide	R	R	R	R	R
7	Age-adjusted rate* per 100,000 for Opioid poisoning mortality	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
8	Ranking top cause of 1) hospitalizations and 2) Emergency Department visits, by city: Age-adjusted rate* per 100,000 for hospitalizations (by individual cause) Age-adjusted rate* per 100,000 for Emergency Department visits (by individual cause).	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
9	Age-specific rate* per 100,000 for 1) Emergency Department -visits and 2) mortality related to falls among those age 65 years and over by city.	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R

Measure Slate 6	Population-Wide Community and Public Health Indicators	Source	Geography	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022
10	Age-adjusted rate* per 100,000 for Emergency Department visits related to alcohol or substance use.	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
11	Age-adjusted rate* per 100,000 for Emergency Department visits related to Opioid poisoning.	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
12	Age-adjusted rate* per 100,000 for hospitalizations related to Hypertension.	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
13	Age-adjusted rate* per 100,000 for 1) hospitalizations and 2) Emergency Department visits related to Renal Failure or Renal Disorder.	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R

*Age-adjusted and age-specific rates are expressed per 100,000 persons.

^ Measures are reported using the most recent available data from public sources.

Appendix: Measure Slates 1-6

Required Measure Slate: Improvement and Outcomes Measures <i>(Achieve 2 out of 4 in Year 1, 4 of 11 Outcome Measures in Year 2, 5 out of 11 in Year 3, 6 out of 11 in Year 4, and 7 out of 11 in Year 5).</i>										
Measure Slate 1		1: Behavioral Health and Primary Care Integration			Achieve 2 of 4 Measures	Achieve 4 of 11 Measures	Achieve 5 of 11 Measures	Achieve 6 of 11 Measures	Achieve 7 of 11 Measures	Baseline (B) Outcome (O) Reporting (R)
#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
1	Depression Response at 6 Months - Progress Towards Remission (across all core primary care sites)	NQF 1884	No external benchmark; hospital-specific improvement target = 45%	Gap to Goal (10%) or attainment at target	O	O	O	O	O	This target is based on literature on collaborative care indicating that a rate of 45% on the depression response measures represents the highest level of statistically meaningful improvement that has currently been achieved ¹¹⁴ .
2	Depression Response at 12 Months - Progress Towards Remission (across all core primary care sites)	NQF 1885	No external benchmark; hospital-specific improvement target = 45%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	This target is, based on literature on collaborative care indicating that a rate of 45% on the depression response measures represents the highest level of statistically meaningful improvement that has currently been achieved ¹¹⁵ .
3	Primary Care Provider confidence in management of depression, measured through annual survey	PCMH	No external benchmark; hospital specific improvement target = 90%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target based on evidence-based depression programming in primary care.

¹¹⁴Thota Et al (2012). Collaborative Care to Improve the Management of Depressive Disorders. Am J Prev Med. 42(5): 525-538.; Unutzer et al (2002). Collaborative Care Mgmt of Late Life Depression in the Primary Care Setting. JAMA 288 (22).

¹¹⁵Thota Et al (2012). Collaborative Care to Improve the Management of Depressive Disorders. Am J Prev Med. 42(5): 525-538.; Unutzer et al (2002). Collaborative Care Mgmt of Late Life Depression in the Primary Care Setting. JAMA 288 (22).

4	Primary Care Provider confidence in management of substance use disorders, measured through annual survey	PCMH	No external benchmark; hospital specific improvement target = 70%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target based on newness of initiative introducing universal screening for substance use disorders in primary care and care management initiatives.
5	Screening and Brief Intervention for Alcohol Use for adults (across all core primary care sites)	NQF 2152	No external benchmark; hospital specific improvement target = 65%	Gap to Goal (10%) or attainment at target	O	O	O	O	O	Target based on literature review of best practice performance levels. ¹¹⁶
6	Screening and Brief Intervention for Drug Use for adults (across all core primary care sites)	NQF 2152, adapted to include substance use	No external benchmark; hospital specific improvement target = 65%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Same as above.
7	Patients on Chronic Opioid Therapy with a Controlled Substance Agreement (across all core primary care sites)	N/A	No external benchmark; hospital-specific improvement target = 80%	Gap to Goal (10%) or attainment at target	O	O	O	O	O	Target aligned to initiative to optimize opioid prescribing practice.
8	Patients on Chronic Opioid Therapy with urine drug screening (across all core primary care sites)	N/A	No external benchmark; hospital-specific improvement target = 80%	Gap to Goal (10%) or attainment at target	O	O	O	O	O	Target aligned to initiative to optimize opioid prescribing practice.
9	Patients with chronic pain who had functional assessment (across all core primary care sites)	NQF 0050, adapted to include all chronic pain conditions	No external benchmark; hospital specific improvement target = 50%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target based on newness of initiative, and literature indicating the value of functional assessment in patients with chronic pain ¹¹⁷ .

¹¹⁶Bertholet N, Daepfen JB, Wietlisbach V, Fleming M, Burnand B. Reduction of Alcohol Consumption by Brief Alcohol Intervention in Primary Care. Archives of Internal Medicine. 2005;165:986-995; Babor TF, Higgins-Biddle JC, Dauser D, Bureson JA, Zarkin GA, Bray J. Brief Interventions for At-Risk Drinking: Patient Outcomes and Cost-Effectiveness in Managed Care Organizations. Alcohol and Alcoholism. 2006;41(6):624-631.

¹¹⁷Institute for Clinical Systems Improvement, Assessment and Management of Chronic Pain 2013

10	Screening and Brief Intervention for Alcohol and Drug Use for adolescents (across all core primary care sites)	NQF 2152, adapted to expand to new age range for adolescents	No external benchmark; hospital specific improvement target = 50%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Expansion of measure to the adolescent patient population. Improvement target based on newness of initiative for adolescent patients.
11	Maternal Depression Screening (across all core primary care sites)	NQF 1401	No external benchmark; hospital specific improvement target = 75%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target based on literature indicating value of maternal depression screening in conjunction pediatric visits to identify developmental risk factors. ¹¹⁸

Required Measure Slate: Improvement and Outcomes Measures
(Achieve 2 out of 5 in Year 1, 5 of 13 Outcome Measures in Year 2, 7 out of 13 in Year 3, 8 out of 13 in Year 4, and 8 out of 13 in Year 5).

Measure Slate 2		2: Comprehensive Systems for Treating Mental Health & Substance Use (MHSU) Conditions			Achieve 2 of 5 Measures	Achieve 5 of 13 Measures	Achieve 7 of 13 Measures	Achieve 8 of 13 Measures	Achieve 8 of 13 Measures	Baseline (B) Outcome (O) Reporting (R)
#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
1	Controlling high blood pressure for people with serious mental illness (for BH Home population)	NQF 2602	MA Medicaid (HEDIS) 2015 75 th percentile: 65.09% (proxy benchmark from NQF 0018 for overall population)	Gap to Goal (10%) or attainment at target	O	O	O	O	O	Using related benchmark for NQF 0018 for overall population.
2	Proportion of patients with identified opioid use disorder accessing medication-assisted treatment (MAT)	N/A	No external benchmark; Hospital target = 50.00%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target of 50% informed by experience with patient engagement in opioid treatment

¹¹⁸Report of the Surgeon General's Conference on Children's Mental Health: A National Action Agenda. Washington (DC): US Department of Health and Human Services; US Department of Health and Human Services; US Department of Education; US Department of Justice, 2000.

3	Hospitalized patients screened within 72 hours of admission using a validated screening tool for unhealthy alcohol use (all public hospital system inpatient psychiatric discharges, age 18 and above)	NQF 1661 SUB-1	Joint Commission (2014) 75 th percentile = 94.20%	Gap to Goal (10%) or attainment at target	O (CY2017)	O (CY2018)	O (CY2019)	O (CY2020)	O (CY2021)	Using Joint Commission benchmark for SUB-1
4	Alcohol use brief intervention provided or offered (during public hospital system psychiatric hospitalization, age 18 and above)	NQF 1663 SUB-2	Joint Commission (2014) average = 48.20%	Gap to Goal (10%) or attainment at target	B (CY2017)	O (CY2018)	O (CY2019)	O (CY2020)	O (CY2021)	New measure as of 1/1/16; using related benchmark for NQF 1663, which is a similar measure for all inpatient admissions
5	Follow-up after hospitalization for mental illness (for BH Home population) – 7 days for public hospital system hospitalizations	NQF 0576 (7-day)	National (HEDIS) Medicaid 2015 90 th percentile = 63.85%	Gap to Goal (10%) or attainment at target	O	O	O	O	O	
6	Transition record with specified elements received by discharged patients (for public hospital system psychiatric hospitalizations)	NQF 0647	MA IPFQR-HBIPS 2014 average = 83.27%	Gap to Goal (10%) or attainment at target	B (CY2017)	O (CY2018)	O (CY2019)	O (CY2020)	O (CY2021)	New IPFQR measure to be implemented 1/1/17; using related measure for NQF 0557, which is HBIPS-6 for creation of the transition continuing care plan
7	Access to public hospital system ambulatory mental health care: Scheduled intakes within 14 days of referral (for in-network referrals)	N/A	National Medicaid (HEDIS) 2015 90 th percentile = 48.10%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Using proxy benchmark derived from National Medicaid (HEDIS) Initiation and Engagement of AOD treatment (initiation component only), NQF 0004.
8	Increase number of synchronous and asynchronous tele-consultations with psychiatrists	N/A	No external benchmark; Hospital target = 400 per year	Gap to Goal (10%) or attainment at target	O	O	O	O	O	Target informed by roll-out and expansion of tele-psychiatry

9	Diabetes screening for people with Schizophrenia or Bipolar Disorder who are using antipsychotic medications (for active primary care patients and BH home patients)	NQF 1932	MA Medicaid (HEDIS) 2015 90th percentile = 86.96%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	
10	Cardiovascular health screening for people with Schizophrenia or Bipolar Disorder who are prescribed antipsychotic medications (for active primary care patients and BH home patients)	NQF 1927	No external benchmark; hospital-specific target = 75.00%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target informed by experience with screening measures for other populations
11	Diabetes Monitoring for People with Diabetes and Schizophrenia (for active primary care patients and BH home patients)	NQF 1934	National (HEDIS) Medicaid 2014 90th percentile = 76.67%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	
12	Screening for metabolic disorders (psychiatric inpatient discharges on routinely-scheduled antipsychotic screened during/before stay)	CMS IPFQR	No external benchmark	Improvement over CY 2017 baseline	B (CY2017)	O (CY2018) 2% increase over CY2017	O (CY2019) 5% increase over CY2017	O (CY2020) 8% increase over CY2017	O (CY2021) 10% increase over CY2017	No existing benchmark; CMSIPFQR measure to be implemented 1/1/17
13	Increase the percentage of BH Home target population patients who have a care plan (care plans may include CHA coordinated care plan and/or ACO behavioral health community partner care plan)	NCQA Medical Home	NCQA 2014 Medical Home Standard = 75.00%	Gap to Goal (10%) or attainment at target	O	O	O	O	O	Target of 75% is 2014 NCQA Medical Home standard.

Required Measure Slate: Improvement and Outcomes Measures <i>(Achieve 2 out of 5 in Year 1, 4 of 10 Outcome Measures in Year 2, 7 out of 13 in Year 3, 6 out of 10 in Year 4, and 8 out of 13 in Year 5).</i>									
Measure Slate 3	3: Referral Management and Integrated Care Management			Achieve 2 of 5 Measures	Achieve 4 of 10 Measures	Achieve 7 of 13 Measures	Achieve 6 of 10 Measures	Achieve 8 of 13 Measures	Baseline (B) Outcome (O) Reporting (R)

#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
1	Overall Reduce proportion of Emergency Department Outmigration to Non-Public Hospital System Facilities within specific payer contracts	Customized Measure: Claims based (units of service) ¹¹⁹	No external benchmark; hospital specific improvement target = 25%	Gap to Goal (10%) or attainment at target	B (CY2016)	O (CY2018)	O (CY2019)	O (CY2020)	O (CY2021)	Target of 25% informed by out-migration improvement opportunity
2	Overall Reduce proportion of Inpatient Outmigration to – Public Hospital System Facilities within specific payer contracts	Customized Measure: Claims based (units of service) ⁵	No external benchmark; hospital specific improvement target = 50%	Gap to Goal (10%) or attainment at target	B (CY2016)	O (CY2018)	O (CY2019)	O (CY2020)	O (CY2021)	Target of 50% informed by out-migration improvement opportunity
3	Overall Reduce proportion of out-of-network Medical & Surgical specialty referrals (outpatient)	Customized Measure	No external benchmark; hospital specific improvement target = 10%	Gap to Goal (10%) or attainment at target	O (4/1/17 - 3/31/18)	O (4/1/18 - 3/31/19)	O (4/1/19 - 3/31/20)	O (4/1/20 – 3/31/21)	O (4/1/21 - 3/31/22)	Target of 10% informed by out-of-network referral improvement opportunity
4	Selected Public Hospital Primary Care Practice(s) Initiative: Primary care reduce proportion of out-of-network Medical & Surgical specialty referrals (outpatient) referrals	Customized Measure	No external benchmark; hospital specific improvement target = 10%	Gap to Goal (10%) or attainment at target	B (4/1/17 - 3/31/18)	O (4/1/18 - 3/31/19)	O (4/1/19 - 3/31/20) Initial Practice (s)	O (4/1/20 – 3/31/21)	O (4/1/21 - 3/31/22)	Target of 10% informed by out-of-network referral improvement opportunity
					Initial Practice (s)	Initial Practice (s)	New Practice (s)	New Practice (s)	New Practice (s)	

¹¹⁹Baseline and outcome measures are dependent on stable populations and relevant claims data. Should there be material changes in populations, payor contracts and access to claims data these measures will need to be re-based.

5	Reduce the proportion of out-of-network referrals for selected specialty care areas within the public hospital system: (SFY 2018 will continue Gastroenterology) (SFYs 2019 – 2020 will be a 2 nd Specialty Area) (SFYs 2021 – 2022 will be a 3 rd Specialty Area)	Customized Measure	No external benchmark; hospital specific improvement target (Gastroenterology = 6%; Applicable to SFY 2018) New Specialty Target will be submitted with baseline data for each new specialty	Gap to Goal (10%) or attainment at target	O (4/1/17 - 3/31/18)	B (4/1/18 - 3/31/19)	O (4/1/19 - 3/31/20)	B (4/1/20 - 3/31/21)	O (4/1/21 - 3/31/22)	Target for new specialties will be specified at the time of the selection of the specialty and reported with baseline data
					Gastroenterology	New Specialty 1	New Specialty 1	New Specialty 2	New Specialty 2	
6	Completed appointments per FTE or total number of completed appointments for selected specialties within the public hospital system: (SFY 2018 will continue Gastroenterology) (SFYs 2019 – 2020 will be a 2 nd Specialty Area) (SFYs 2021 – 2022 will be a 3 rd Specialty Area)	Customized Measure	No external benchmark; hospital specific improvement target (Gastroenterology = 1300 appointments per FTE; Applicable to SFY 2018) New Specialty Target will be submitted with baseline data for each new specialty	Gap to Goal (10%) or attainment at target	O (4/1/17 - 3/31/18)	B (4/1/18 - 3/31/19)	O (4/1/19 - 3/31/20)	B (4/1/20 - 3/31/21)	O (4/1/21 - 3/31/22)	Target for new specialties will be specified at the time of the selection of the specialty and reported with baseline data
					Gastroenterology	New Specialty 1	New Specialty 1	New Specialty 2	New Specialty 2	
7	Time to first appointment: percentage of referrals to scheduled within 60 days for selected specialties within	Customized Measure	No external benchmark; hospital specific improvement target (Gastroenterology=50%;	Gap to Goal (10%) or attainment at target	O (4/1/17 - 3/31/18)	B (4/1/18 - 3/31/19)	O (4/1/19 - 3/31/20)	B (4/1/20 - 3/31/21)	O (4/1/21 - 3/31/22)	Target for new specialties will be specified at the time of the selection of the specialty and reported with

	the public hospital system: (SFY 2018 will continue Gastroenterology) (SFYs 2019 – 2020 will be a 2 nd Specialty Area) (SFYs 2021 – 2022 will be a 3 rd Specialty Area)		Applicable to SFY 2018) New Specialty Target will be submitted with baseline data for each new specialty		Gastroenterology	New Specialty 1	New Specialty 1	New Specialty 2	New Specialty 2	baseline data
8	Increase the # of E-Consults referrals made by public hospital primary care providers to defined public hospital specialists	Customized Measure	No external benchmark; hospital specific improvement over SFY 2018 baseline	Defined improvement over SFY 2018 baseline	B (4/1/17 - 3/31/18)	O 10% improvement over SFY18 baseline (4/1/18 - 3/31/19)	O 20% improvement over SFY18 baseline (4/1/19 - 3/31/20)	O 30% improvement over SFY18 baseline (4/1/20 - 3/31/21)	O 40% improvement over SFY18 baseline (4/1/21 - 3/31/22)	Increased access for consultative services to facilitate care and access for patients to critical specialties
9	Demonstrate improvement in colorectal cancer screening rates (for active public hospital primary care patients)	NQF 0034	National (HEDIS) Commercial 2014 90th percentile = 72%	Gap to Goal (10%) or attainment at target	O	O	O	O	O	
10	Improvement in inpatient discharge referral rate to in-network skilled nursing facilities for Medical/Surgical inpatients discharged from the public hospital system	Numerator: Discharges to In- Network SNFs Denominator: Medical/ Surgical Inpatient Discharges from the Public Hospital System to all SNFs ¹²⁰	No external benchmark; hospital specific improvement target= 75%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Appropriate post acute placement of patients based on clinical need

¹²⁰ Any Visiting Nurses Association (VNA) with whom public hospital system has a signed preferred provider agreement. Preferred provider relationships are evaluated annually and are subject to change if VNAs are not in compliance with the terms of the agreement. Changes in preferred VNA relationships may require a rebasing of the measures.

11	Improvement in inpatient discharge referral rate to in network Visiting Nurse Association (VNAs) Medical/Surgical inpatients discharged from the public hospital system	Numerator: Discharges to In- Network VNAs Denominator: Medical/ Surgical Inpatient Discharges from the Public Hospital System to all VNAs ¹²¹	No external benchmark; hospital specific improvement target = 80%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Appropriate post acute community-based care for patients based on clinical need
12	% of patient appointments at which the AVS was printed for the patient at the conclusion of their medical specialty appointment at the public hospital system	MU P220	No external benchmark; hospital specific improvement	Gap to Goal (10%) or attainment at target: Target 90%	B (4/1/17 - 3/31/18)	O (4/1/18 - 3/31/19)	O (4/1/19 - 3/31/20)	O (4/1/20 - 3/31/21)	O (4/1/21 - 3/31/22)	Target of 90% established based on clinical operations standards, taking into account the spectrum of patient routine and urgent visit types
13	% of patient appointments at which the AVS was printed for the patient at the conclusion of their surgical appointment at the public hospital system	MU P220	No external benchmark; hospital specific improvement	Gap to Goal (10%) or attainment at target: Target 90%	B (4/1/17 - 3/31/18)	O (4/1/18 - 3/31/19)	O (4/1/19 - 3/31/20)	O (4/1/20 - 3/31/21)	O (4/1/21 - 3/31/22)	Target of 90% established based on clinical operations standards, taking into account the spectrum of patient routine and urgent visit types

Required Measure Slate: Improvement and Outcomes Measures

(Achieve 2 of 3 Outcome Measures in Year 1, 4 out of 13 in Year 2, 7 out of 13 in Year 3, 8 out of 13 in Year 4, 8 out of 13 in Year 5).

Measure Slate 4	4: Evidence-Based Practices for Medical Management of Chronic Conditions	Achieve 2 of 3 Measures	Achieve 4 of 13 Measures	Achieve 7 of 13 Measures	Achieve 8 of 13 Measures	Achieve 8 of 13 Measures	Baseline (B) Outcome (O) Reporting (R)

¹²¹ Any Skilled Nursing Facility (SNF) approved by the public hospital network development committee as being "in-network" at any point during the measurement year. The network development committee oversees the collaborative relationships in which the public hospital system participates. The committee abides by specific principles related to access, continuity of care, communication expectations and quality improvement. Changes to in-network SNF relationships may require a rebasing of the measures.

#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
	Chronic Obstructive Pulmonary Disease (COPD)									
1	The percentage of active primary care patients 40 years of age and older with a new diagnosis of COPD or newly active COPD, who received appropriate spirometry testing to confirm the diagnosis.	NQF 0577	2015 90 th percentile National Medicaid = 47.0%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target reflects the 2015 th 90 th Percentile National Medicaid.
2	Percentage of active primary care patients aged 18 years and older with a diagnosis of COPD and who have an FEV1/FVC < 60% and have symptoms who were prescribed an inhaled bronchodilator.	NQF 102	2015 90 th percentile National Medicaid= 90.0%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target reflects the 2015 th 90 th Percentile National Medicaid.
3	Improve the percentage of patients with COPD who received patient education for COPD by a member of their inpatient care team prior to discharge (across public hospital's inpatient hospital campuses)	Customized Measure	No external benchmark; hospital specific improvement target = 85%	Gap to Goal (10%) or attainment at target	O	O	O	O	O	Target of 85% reflects best practice adoption of the required workflows.
	Congestive Heart Failure (CHF)									
4	Improve the percentage of patients with CHF who received patient education for CHF by a member of their inpatient care team prior to discharge (across public hospital's inpatient hospital campuses)	Customized Measure	No external benchmark; hospital specific improvement target = 85%	Gap to Goal (10%) or attainment at target	O	O	O	O	O	Target of 85% reflects best practice adoption of the required workflows.
	Diabetes									

5	Diabetes: HbA1c Control- % of active primary care patients ages 18 to 75 with diabetes whose most recent HbA1c control is <8.0%	NQF 0575	2015 90 th percentile National Medicaid: 59.0%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target reflects the 2015 th 90 th Percentile National Medicaid
6	Comprehensive Diabetes Care: Eye Exam (retinal) performed (for active primary care patients)	NQF 0055	2015 90 th percentile National Medicaid: 68.0%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target reflects the 2015 th 90 th Percentile National Medicaid
7	Improve the proportion of active primary care patients 18-75 years of age with diabetes with poorly controlled Hemoglobin HbA1C (most recent >=8.0%) who have a care plan	NCQA	No external benchmark; hospital specific improvement Target = 75%	Gap to Goal (10%) or attainment at target	O	O	O	O	O	Target of 75% is NCQA 2014 Medical Home Standard.
8	Percentage of high risk diabetic primary care patients receiving enhanced diabetes management services, including nursing-led patient education and self-management coaching, pharmacist-led medication management services, or other care team member support.	Customized Measure (denominator linked to NQF 0575)	No external benchmark; hospital specific improvement target	Improvement over SFY 2018 baseline SFY 19: Improve 2% over SFY 2018 baseline SFY 20: Improve 4% over SFY 2018 baseline SFY 21: Improve 6% over SFY 2018 baseline SFY 22: Improve 8% over SFY 2018 baseline	B	O	O	O	O	Target reflects roll-out implementation and capacity for new workflows.
Hypertension (HTN)										

9	Percentage of high risk hypertensive primary care patients receiving enhanced hypertension management services, including nursing-led patient education and self-management coaching, pharmacist-led medication management services, or other care team member support.	Customized Measure	No external benchmark; hospital specific improvement target	Improvement over SFY 2018 baseline SFY 19: Improve 2% over SFY 2018 baseline SFY 20: Improve 4% over SFY 2018 baseline SFY 21: Improve 6% over SFY 2018 baseline SFY 22: Improve 8% over SFY 2018 baseline	B	O	O	O	O	Target reflects roll-out implementation and capacity for new workflows.
Composite Measures										
10	Hospitalization Follow-up: The percentage of discharges for patients 18 years of age and older (with any of the following conditions Diabetes, Hypertension COPD, and/or CHF) who were discharged to home from public hospital's medical/surgical inpatient services and who had an outpatient visit within 7 days or contact within 2 days with a care team member documented in EMR.	Customized Measure	No external benchmark; hospital specific improvement target = 80%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target derived to improve follow up after hospitalization for chronic health conditions
11	% of active primary care patients 3 years and older with the following conditions: Diabetes, Pediatric Asthma, Hypertension, COPD, and CHF, for whom a public hospital follow-up contact or visit is completed within seven calendar days post ED discharge	Customized Measure	No external benchmark; hospital specific improvement target =50%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target derived to improve follow up after ED visits for chronic health conditions

12	Screening for Depression in active primary care patients 18 years and older with Diabetes, HTN, CHF, and/or COPD	Approximate Match- NQF 0418 (Adjusted for Chronic Conditions at high risk)	No external benchmark; hospital specific improvement target = 80%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target derived to improve depression screening for patients with chronic health conditions at high risk..
13	Co-morbid Conditions: Depression Follow-Up in active primary care patients with Diabetes, HTN, CHF, and/or COPD	Customized Measure	No external benchmark; hospital specific improvement target = 60%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target derived to improve follow up for depression care for patients with chronic health conditions.

Required Measure Slate: Improvement and Outcomes Measures – (Not Selected)
(Achieve 3 of 9 Outcome Measures in Year 2, 5 of 9 in Year 3, 5 of 9 in Year 4, and 6 of 9 in Year 5).

Measure Slate 5		5: Community Empowered Population Health Initiative			Baseline	Achieve 3 of 9 Measures	Achieve 5 of 9 Measures	Achieve 5 of 9 Measures	Achieve 6 of 9 Measures	Baseline (B) Outcome (O) Reporting (R)
#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
1	Social Determinant Screenings: Utilizing implemented social determinant(s) screening tool, increase percentage of defined patient panel population segment(s) (such as patients with chronic conditions and/or behavioral health conditions, high risk/high utilizers, specific primary or specialty practices) within the ACO/public payor population) screened for selected Social Determinants	Customized Measure	No external benchmark; hospital specific improvement target =70%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target is based on population screening measures for this new initiative.

2	Referrals to Community and Social Services: The percentage of defined patient panel screened for social determinant(s) (in measure 1 above) with referrals to community and social services and supports	Customized Measure	No external benchmark; hospital specific improvement target =60%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target is informed by referrals to community and social services.
3	Expansion of Social Determinant Screening to Additional Patient Cohorts: Expand patient panel subpopulations or practice sites whose patients receive social determinant screening	Customized Measure	No external benchmark; hospital specific target = Add at least 1 additional patient subpopulation or practice site per year	Defined Increase Per Year	B	O	O	O	O	Target based on phased implementation of new social determinants initiative.
4	Follow-up Social Determinant Screening: Percentage of identified & active patient panel populations with follow-up social determinant(s) rescreening for appropriate determinants	Customized Measure	No external benchmark; hospital specific improvement Target= 50%	Gap to Goal (10%) or attainment at target		B	O	O	O	Rescreening rates to begin in year two to measure presence or resolution of social determinants
5	Reducing Health Disparities for Hypertension: Controlling High Blood Pressure Measure (2015 HEDIS Definition) for defined patient panel population(s) with disproportionately poorer outcomes for good control of hypertension	NQF 0018 (for hospital-defined patient panel population(s) with health disparities	MA Medicaid (HEDIS) 2014 90 th percentile = 85.67%	Gap to Goal (5%) or attainment at target	B	O	O	O	O	Gap to Goal adjusted to reflect populations with health disparities.

6	<p>Reducing Health Disparities for Hypertension Control in Patients with Diabetes: Comprehensive Diabetes Care: Blood Pressure Control (<140/90) for defined patient panel population(s) with diabetes and disproportionately poorer outcomes for good control of hypertension</p>	<p>NQF 0061 (for hospital-defined patient panel population(s) with health disparities</p>	<p>MA Medicaid (HEDIS) 2014 90th percentile = 82.74%</p>	<p>Gap to Goal (5%) or attainment at target</p>	B	O	O	O	O	<p>Gap to Goal adjusted to reflect populations with health disparities.</p>
7	<p>Comprehensive Diabetes Care: A1c Poor Control or A1c Good Control for defined patient panel population(s) with disproportionately poorer outcomes for diabetes blood glucose control</p>	<p>NQF 0059 or NQF 0575 (one of the two measures above will be selected and confirmed in the baseline year based on hospital evaluation of health disparities. (for hospital-defined patient panel population(s) with health disparities</p>	<p>NQF 0059 MA Medicaid (HEDIS) 2014 90th percentile = 18.57% or NQF 0575 MA Medicaid (HEDIS) 2014 90th percentile = 59.37%</p>	<p>Gap to Goal (5%) or attainment at target</p>	B	O	O	O	O	<p>Gap to Goal adjusted to reflect populations with health disparities.</p>

8	<p>Composite Diabetes & Hypertension Patient Education, outreach or Intervention: Proportion of patients in defined patient panel population(s) with disproportionately poorer health outcomes for hypertension and diabetes control in measures 5, 6, and 7 above that received patient education, outreach, or another intervention to support chronic health condition management</p>	Customized Measure (for hospital-defined patient panel population(s) with health disparities	No external benchmark; hospital specific improvement target = 60%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target derived to improve patient education, outreach, and/or interventions for patients with disproportionately poorer health outcomes.
9	<p>Primary Care and Ambulatory Care Utilization Among Panel Population(s) with Health Disparities: Increase the proportion of patients in defined patient panel population(s) with disproportionately poorer health outcomes for hypertension and diabetes control in measures 5, 6, and 7 above who had at least one community health, primary care and/or other ambulatory care visit during the measurement period</p>	Customized Measure (for hospital-defined patient panel population(s) with health disparities	No external benchmark; Improvement over SFY 2018 baseline by defined % point(s)	Improvement compared to SFY 2018 baseline.	B	O Improve by at least 1% point above the SFY 2018	O Improve by at least 2% point above the SFY 2018	O Improve by at least 3% points above the SFY 2018	O Improve by at least 4% points above the SFY 2018	Target derived to improve utilization of primary care and ambulatory care for patients with disproportionately poorer health outcomes.

				Baseline (B), Outcome (O), Reporting (R)				
Measure Slate 6	Population-Wide Community and Public Health Indicators	Source	Geography	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022
1	Age-adjusted rate* per 100,000 for premature death (below age 75), <i>by race and ethnicity, as available</i>	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
2	Age-adjusted rate* per 100,000 for hospital discharges for primary care manageable conditions: asthma - <i>by age, race and ethnicity as available</i>	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
3	Age-adjusted rate* per 100,000 for suicide mortality	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
4	Age-adjusted rate* per 100,000 for Hepatitis C incidence	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
5	Percentage of children fully immunized at kindergarten entry	Immunization Program, Massachusetts Department of Public Health and Massachusetts Department of Elementary and Secondary Education	Cambridge, Somerville, Everett, Malden, Statewide	R	R	R	R	R
6	Percent of adolescents reporting specific risk behaviors (as available), from the Youth Risk Behavior Survey (YRBS)- high school and middle school surveys	Youth Risk Behavior Survey (YRBS) (Bi-Annual)	Cambridge, Somerville, Everett, Malden, (as available by community) Statewide	R	R	R	R	R
7	Age-adjusted rate* per 100,000 for Opioid poisoning mortality	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
8	Ranking top cause of 1) hospitalizations and 2) Emergency Department visits, by city: Age-adjusted rate* per 100,000 for hospitalizations (by individual cause) Age-adjusted rate* per 100,000 for Emergency Department visits (by individual cause).	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R

9	Age-specific rate* per 100,000 for 1) Emergency Department -visits and 2) mortality related to falls among those age 65 years and over by city.	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
10	Age-adjusted rate* per 100,000 for Emergency Department visits related to alcohol or substance use.	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
11	Age-adjusted rate* per 100,000 for Emergency Department visits related to Opioid poisoning.	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
12	Age-adjusted rate* per 100,000 for hospitalizations related to Hypertension.	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
13	Age-adjusted rate* per 100,000 for 1) hospitalizations and 2) Emergency Department visits related to Renal Failure or Renal Disorder.	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R

**MassHealth 1115 Demonstration
Attachment L: Pilot Accountable Care Organization (ACO) Payment
Methodology**

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 Other sources of information are reviewed, as needed, such as regional and national economic indicators that can provide broad perspectives of industry trends in the United States and in the Northeast. **Error! Bookmark not defined.**

 3.5. Program changes 5

 MassHealth will account for program changes occurring between the base and performance periods that are expected to affect the TCOC. Data will be adjusted for any known programmatic, benefit, fee, population changes occurring between the base period and the performance period. 3.6.

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Note: The methodology described in this attachment is wholly distinct from the methodology used for the full implementation of MassHealth’s ACO program rolling out late 2017.

Overview: MassHealth providers will be paid on a fee-for-service basis for care provided to members attributed to Pilot AOCs. For each ACO, MassHealth will track the total costs of care (TCOC) for the ACO's attributed members during the performance periods, and will retrospectively compare these costs against an ACO-specific target. Based on the difference between an ACO's TCOC performance and its TCOC target, EOHHS may share savings with the ACO or require the ACO to pay a share of losses. This attachment describes the methodology MassHealth will use to calculate these payments.

The Commonwealth may modify this Attachment with the approval of CMS without amending the STCs.

Section 1.2 Section 1. Eligible and Enrolled Population

1.1. Performance Period

For ACOs that do not choose to extend, the ACO Pilot performance period will begin December 1, 2016 and end November 30, 2017. ACOs that extend to February 28, 2017 will have two performance periods. Performance Period A will match the original pilot performance period of December 1, 2016 through November 30, 2017. Performance Period B will begin on December 1, 2016 and extend through February 28, 2018.

1.2. Member eligibility

MassHealth members must be enrolled in the MassHealth PCC Plan during either performance period in order to be attributed to a Pilot ACO. The eligible population is therefore the same population eligible for the PCC Plan, which includes disabled and non-disabled children and adults under age 65 (i.e., RC I, II, IX, and X). Similarly, MassHealth members who are not eligible for the PCC Plan will not be eligible for the Pilot ACO program, including members who are Medicare dually eligible, limited standard eligible, family planning waiver, women eligible due to pregnancy, Health Safety Net members, and third party liability members. In developing the Pilot ACO TCOC targets, MassHealth is using data for PCC Plan members during the base period.

Rating Category	Description
RC I Child	Temporary Assistance to Needy Families (TANF) less than 21 years of age.
RC I Adult	Temporary Assistance to Needy Families (TANF), ages 21 through 64.
RC II Child	Disabled members, including Supplemental Security Income (SSI) and SSI-related less than 21 years of age.
RC II Adult	Disabled members, including Supplemental Security Income (SSI) and SSI-related, ages 21 through 64.
RC IX	Individuals ages 21 through 64 with incomes up to 133% federal poverty level (FPL), who are not pregnant, disabled, or a parent or caretaker relative of a child under age 19, or eligible for other MassHealth coverage.

Rating Category	Description
RC X	Individuals ages 21 through 64 with incomes up to 133% FPL, who are not pregnant, disabled, or a parent or caretaker relative of a child under age 19, or eligible for other MassHealth coverage, who are also receiving EAEDC through the Massachusetts Department of Transitional Assistance

1.3. Member attribution to ACO

Members in the PCC Plan are each enrolled with a PCC. Each Pilot ACO has a unique, exclusive group of PCCs who have contracted to participate with that ACO; PCC Plan members enrolled with a Pilot ACO's PCCs are considered attributed members for that Pilot ACO.

Section 2. Services included in Total Cost of Care (TCOC)

The services included in TCOC will be broadly consistent with services included in the base capitation for MassHealth's managed care organizations, with some differences. In particular, there are select services (e.g., Hepatitis C drugs) that MassHealth will exclude from the TCOC calculation in order to prevent unpredictable, rare, high-cost events from driving substantial losses for an individual ACO. Additionally, Home Health and LTC services are also excluded from the TCOC, but will be tracked and reported to providers.

2.1. List of services included in Total Cost of Care (TCOC)

Below is a list of service categories included in the TCOC under the ACO Pilot program:

Category	Definition
Inpatient PH — Non-maternity	Inpatient services that have not been identified as maternity, behavioral health or LTC. Includes services provided in acute and chronic hospital settings; includes both room and board data and ancillary data billed by the facility during the stay.
Inpatient PH — Maternity	Inpatient PH — Maternity Acute hospital inpatient services related to maternity care and deliveries.
Emergency Room	Emergency room services provided in acute hospital settings; does not include ancillary data associated with the visit if not coded "emergency room" on the claim. Emergency room discharges that result in an admission are not included in this category.
Lab and Radiology — Facility	Laboratory and radiology services provided as outpatient services by acute or chronic care hospitals and freestanding facilities.
Other Outpatient Hospital	Outpatient services provided by acute care hospitals, chronic care hospitals, and ambulatory surgical centers, except those meeting categorization criteria for behavioral health, emergency room, and laboratory and radiology.
Clinics (CHC)	Services provided by Community Health Centers.

Category	Definition
Professional Services	PH services provided by medical professionals; including physicians, nurse practitioners, podiatrists, chiropractors, and physical therapists. This category includes professional laboratory services, as well as physician inpatient services billed separately.
DME & Supplies	DME and medical supplies; including hearing aids, orthotics, prosthetics, and oxygen/respiratory care equipment.
Emergency Transportation	Transportation services provided by emergency transportation providers.
Pharmacy	Retail pharmacy.
Other Medical Services	Speech and hearing services, renal dialysis, dental care, hospice care, and other miscellaneous services.
Inpatient Behavioral Health	Inpatient services related to behavioral health care, provided in acute care hospitals, chronic care hospitals, behavioral health hospitals, or other specialty behavioral health residential facilities.
Outpatient Behavioral Health	Outpatient behavioral health services provided by behavioral health hospitals, mental health clinics, acute care hospitals, physicians, and other appropriate behavioral health service providers. Does not include CBHI services.
Diversionary Behavioral Health	Diversionary behavioral health services are home and community-based mental health and substance use disorder services furnished as clinically appropriate alternatives to and diversions from inpatient mental health and substance use disorder services in more community-based, less structured environments. Diversionary services are also provided to support an individual's return to the community following a 24-hour acute placement; or to provide intensive support to maintain functioning in the community.

2.2. Excluded services

MassHealth's current MCO capitation rates include certain high-cost services that are relatively new to the MassHealth program, which may result in a large and unpredictable impact on ACOs' TCOC. Some such services, specifically Hepatitis C drugs, Cystic Fibrosis drugs, and Applied Behavioral Analysis, will therefore be excluded from TCOC calculations.

TCOC will also exclude services that are currently excluded from MCO capitation rates. Long Term Supports & Services (LTSS) will be excluded, as will services rendered by state agencies outside of MassHealth or the health safety net.

Section 3. Calculation of TCOC target

Prior to the start of the performance year, MassHealth will establish a preliminary TCOC target for each Pilot ACO. This section describes how that target will be calculated.

3.1. Base data

The TCOC target will be based on a one-year historical base period of October 1, 2014 through September 30, 2015. MassHealth selected this base period after reviewing the most recent three years of available and reliable data for the ACO-eligible population.

All base data for PCC Plan members and included services will be utilized to inform adjustments such as trend. The base data will consist of MassHealth eligibility records, Primary Care Clinician (PCC) Plan claims and Massachusetts Behavioral Health Partnership (BHP) contractor encounter data for PCC and BHP covered services. Each Pilot ACO's TCOC target will be based on the data for members attributed to that ACO's participating PCCs, specifically, during the base period. For Performance Period B, additional trend and seasonality adjustments will be made to reflect the 15 month performance period.

3.2. Risk/acuity adjustment

For each ACO, MassHealth will adjust for any observed changes in acuity between the members attributed during the base period (October 1, 2014 - September 30, 2015) and the ACO performance periods (December 1, 2016 to November 30, 2017 or December 1, 2016 to February 28, 2018). Specifically, MassHealth will normalize each ACO's risk score to the overall PCC program during the base period, and again for each performance period.

MassHealth will use a statistically developed risk adjustment tool and standard DxCG grouper to develop individual member-level risk scores; this tool also incorporates independent variables related to social determinants of health.

3.3. Stop-loss adjustment

Consistent with the stop-loss approach described in Section 4.1, MassHealth will adjust the base data in order to mitigate the risk to providers from claims incurred for individual members beyond the stop-loss thresholds (\$50,000 for RC I, \$110,000 for RC II). Expenditures beyond these thresholds will be reduced by 90% in the base data; ACOs are therefore "at risk" for only 10% of these outlier costs.

3.4. Trend

Trend is an estimate of the change in the overall cost of medical services over a finite period of time. A trend factor is necessary to estimate the expenses of providing health care services in a future time period. As part of the TCOC development process, unit cost and utilization trend factors by RC, region, and service category will be developed.

The primary data sources used in trend development will consist of ACO-eligible members' eligibility records, PCC Plan claims, and BHP encounter data for PCC and BHP covered services. The data reflects a variety of influences, including potential changes in medical management practices, network construction, and population risk. Some of these influences may be accounted for in other aspects of rate setting, such as program changes, and, as such, the data must be considered within the broader context of other assumptions. Any services excluded from TCOC will also be excluded from the trend development.

3.5. Program changes

MassHealth will account for program changes occurring between the base and performance

periods that are expected to affect the TCOC. Data will be adjusted for any known programmatic, benefit, fee, population changes occurring between the base period and the performance periods.

Section 4. Calculation of shared savings and losses

4.1. Retrospective calculation of TCOC performance and savings / losses

Within one year from the end of each performance period, MassHealth will calculate each ACO's TCOC performance for the list of covered services described in Section 2.1. Several potential adjustments may be made at that time to account for additional changes between the base and performance periods:

- **Shifts in risk:** MassHealth will calculate each ACO's benchmark to reflect the actual risk scores of the ACO's covered population, as well as reflect the ACO's final enrollment mix by rating category (i.e., rating category and age group).
- **Program changes:** To the degree that MassHealth introduces substantial shifts in policy during the performance periods that has an effect on TCOC, calculations of performance may be adjusted to reflect the impact of those policy changes
- **Stop-loss:** In order to appropriately incent ACOs to manage costs, it is important to insulate those ACOs' performance from the impact of unmanageable catastrophic costs incurred by a small number of members. Therefore, MassHealth will count only 10% of claims beyond \$50,000 for individual members in Rating Category I and \$110,000 for individual members in Rating Category II in the calculation of TCOC performance. This approach is consistent with the discounting of those claims from the base data, as described in Section 3. The threshold amounts for each rating category were determined based on Monte Carlo simulations using the distribution in member-level spending and the expected number of attributed lives in the expected Pilot ACOs. By testing the financial impact of different stop-loss thresholds on each ACO's TCOC performance under the assumption that members are randomly assigned to ACOs, MassHealth determined an appropriate threshold that protected ACOs from suffering significant losses due to random variation alone while maintaining a meaningful incentive to manage utilization for high-cost members.

After the adjustments described above, the difference in each ACO's TCOC performance and its target (each expressed as a PMPM) will be calculated on a PMPM basis.

For ACOs that have signed a contract extension, MassHealth will calculate TCOC performance for both the original 12 month performance period (Performance Period A) and the extended 15 month performance period (Performance Period B), against corresponding PMPM targets. ACOs will be accountable to whichever performance period leads to the larger total shared savings or smaller total shared losses payment.

4.2. Determination of shared portion of savings / losses

Once the total savings or losses have been calculated, MassHealth will follow a series of steps that determine the portion of savings or losses retained by the ACO:

- Savings / losses cap: MassHealth will recognize savings or losses for each individual ACO up to a cap of 15% of the ACO's TCOC target. For example, if an ACO's target TCOC is \$500 PMPM, then its cap on recognized savings or losses is $\$500 * 15\% = \75 PMPM. If the ACO achieves TCOC performance of \$400 PMPM, MassHealth would only recognize \$75 PMPM of the savings. Similarly, if the ACO has a TCOC performance of \$580 PMPM, only \$75 PMPM of losses would be recognized. For the ACO, 100% of savings or losses would be recognized if the ACO performed between \$425 and \$575 PMPM.
- Share of savings: After the determination of savings and losses, MassHealth will pay 50% of recognized savings to ACOs with TCOC performance below target. In the example where an ACO performs at \$400 PMPM on a \$500 PMPM target, MassHealth would therefore pay the ACO $\$75 * 50\% = \37.50 PMPM. Therefore, the maximum financial upside in the ACO Pilot is 7.5% of target.
- Share of losses: MassHealth will recoup 10% of the recognized losses from ACOs with TCOC performance above target. In the example where ACO A performs at \$580 PMPM on a \$500 PMPM target, MassHealth would therefore recoup from ACO A $\$75 * 10\% = \7.50 PMPM. Therefore, the maximum financial upside beyond target TCOC is 1.5% of target.
- Minimum savings / loss ratio: If total savings or losses are less than 2% of the TCOC target, MassHealth will not pay shared savings or recoup shared losses. This approach prevents payments or recoupments from being incurred due to random variation. For example, if an ACO's target TCOC is \$500 PMPM, and its performance is between \$490.01 and \$509.99 PMPM, no savings or losses will be shared. If performance was \$490.00 and below or \$510.00 and above, then the full difference between performance and target would be recognized (per the prior three bullets)

4.3. Impact of quality reporting on shared savings / losses

Pilot ACOs will be required to report on certain clinical quality measures. ACOs that fail to satisfy quality reporting requirements will not be eligible to share in savings.

Attachment M
Massachusetts Delivery System Reform Incentive Payment (DSRIP) Protocol

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Section 1. DSRIP Overview and Goals

1.1 MassHealth Medicaid Section 1115 Demonstration

The DSRIP Protocol provides additional detail to the State's DSRIP proposal, beyond those set forth in the Section 1115 Demonstration and Special Terms and Conditions (STCs). The DSRIP Protocol applies during the demonstration Approval Period (July 1, 2017 - June 30, 2022).

1.2 Overview - Delivery System Reform Incentive Payment Program (DSRIP)

In accordance with STC 60(e) and as set forth in this document, the State may allocate DSRIP funds to four purposes: (1) Accountable Care Organization (ACO) funding, which supports the implementation of three ACO models, including transitional funding for certain safety net hospitals; (2) Community Partners (CP) funding, which supports the formation and payment of Behavioral Health (BH) and Long Term Services and Supports (LTSS) CPs and funding for Community Service Agencies (CSAs); (3) Statewide Investments, which are initiatives related to statewide infrastructure and workforce capacity to support successful reform implementation; and (4) State Operations and Implementation, which includes the State's oversight of the DSRIP program.

1.3 Goals of DSRIP Program

Massachusetts' DSRIP program provides an opportunity for the State to emphasize value in care delivery, better meet members' needs through more integrated and coordinated care, and moderate the cost trend while maintaining the clinical quality of care. The State's DSRIP goals are to (1) implement payment and delivery system reforms that promote member-driven, integrated, coordinated care and hold providers accountable for the quality and total cost of care; (2) improve integration among physical health, behavioral health, long-term services and supports and health-related social services; and (3) sustainably support safety net providers to ensure continued access to care for Medicaid and low-income, uninsured individuals.

1.4 DSRIP Funding Streams

To accomplish the goals of the DSRIP program, Massachusetts plans to launch and support with DSRIP funding the following initiatives:

- **Accountable Care Organizations** – Generally provider-led health systems or organizations with an explicit focus on integration of physical health, behavioral health, long term services and supports and health-related social service needs. ACOs will be financially accountable for the cost and quality of their members' care.
- **Community Partners / Community Service Agencies (CSAs)** – Community-based BH and LTSS organizations who support eligible members with BH and LTSS needs.
- **Statewide Investments** – Set of direct state investments in scalable infrastructure and workforce capacity.

Additionally, the State will utilize DSRIP funding to support Statewide Operations and Implementation, including oversight, of the DSRIP program.

Exhibit 1 shows anticipated amounts of funding per DSRIP funding stream by demonstration year as well as the overall anticipated percentage of funding distributed to each stream in total. Please see Section 4.7 for discussion of situations in which funding may be shifted between funding streams or carried forward from one demonstration year to the next.

EXHIBIT 1 – DSRIP Anticipated Funding Streams By Demonstration Year (\$M)

Funding Stream	Demo Y1	DY2	DY3	DY4	DY5	Total	% of Total*
ACOs	\$329.2M	\$289.9M	\$229.4M	\$152.0M	\$65.1M	\$1,065.6M	59%
Community Partners (including CSAs)	\$57.0M	\$95.9M	\$132.2M	\$133.6M	\$128.0M	\$546.6M	30%
Statewide Investments	\$24.2M	\$24.6M	\$23.8M	\$24.8M	\$17.4M	\$114.8M	6%
State Operations and Implementation	\$14.6M	\$14.6M	\$14.6M	\$14.6M	\$14.6M	\$73.0M	4%
Total:	\$425.0M	\$425.0M	\$400.0M	\$325.0M	\$225.0M	\$1,800.0M	

*Percentages do not sum to 100% due to rounding

1.4.1 Accountable Care Organizations

To achieve Massachusetts’ DSRIP goals as described above, the State intends to launch a new Accountable Care Organization program. Massachusetts has designed three ACO payment models that respond to the diversity of the State’s delivery system, and intends to select ACOs across all three models through a competitive procurement. Massachusetts intends to contract with ACOs across all three ACO models starting in 2017.

Massachusetts’ three ACO models are:

- **Accountable Care Partnership Plan (a Partnership Plan):** either a MCO with a separate, designated ACO partner, or a single, integrated entity that meets the requirements of both. Partnership Plans are vertically integrated between the health plan and ACO delivery system, and take accountability for the cost and quality of care under prospective capitation
- **Primary Care Accountable Care Organization:** a provider-led health care system or other provider-based organization, contracting directly with MassHealth, with savings and risk shared retrospectively
- **MCO-Administered ACO:** a provider-led health care system or other provider-based organization that contracts with MCOs and takes financial accountability for shared savings and risk as part of MCO networks

1.4.2 Community Partners and CSAs

Community Partners will provide support to eligible members with complex BH and LTSS needs, including linkages to community resources, allowing providers to deliver comprehensive care for the whole person and improvement in member health outcomes. Community Partners (CPs) will receive DSRIP funds for care coordination activities, as well as to support infrastructure and workforce capacity building. CPs will be required to partner with the ACOs and MCOs. ACOs and MCOs will similarly be required to partner with both BH and LTSS CPs. The goals of Community Partners include:

- Creating explicit opportunities for ACOs and MCOs to leverage existing community-based expertise and capabilities to best support members with LTSS and BH needs
- Breaking down existing silos in the care delivery system across BH, LTSS and physical health
- Ensuring care is person-centered, and avoiding over-medicalization of care for members with LTSS needs

- Preserving conflict-free principles including consideration of care options for members and limitations on self-referrals
- Making investments in community-based infrastructure within an overall framework of performance accountability
- Requiring ACOs, MCOs and Community Partners to formalize how they work together, e.g., for care coordination and performance management

Massachusetts will selectively procure two types of Community Partners:

- **Behavioral Health Community Partners (BH CPs):** BH CPs will support eligible adult members with a diagnosis of Serious Mental Illness (SMI) and/or Substance Use Disorders (SUD) as well as adult members who exhibit SMI and SUD needs, but have not been diagnosed, as defined by the State.
- **LTSS Community Partners (LTSS CPs):** LTSS CPs will support eligible members ages three and older with complex LTSS needs, which may include members with physical disabilities, members with acquired or traumatic brain injury, members with intellectual or developmental disabilities (ID/DD) and others, as defined by the State.

Community Service Agencies (CSAs): Additionally, existing provider entities, known as Community Service Agencies (CSAs) currently provide State Plan intensive care coordination services to eligible MassHealth members under 21 years of age with Serious Emotional Disturbances (SED). These CSAs will be eligible to receive DSRIP funds for infrastructure and workforce capacity building. CSAs will not receive DSRIP funds as payment for the provision of Massachusetts State Plan services.

1.4.3 Statewide Investments

Statewide Investments are part of the State’s strategy to efficiently scale up statewide infrastructure and workforce capacity, and will play a key role in moving Massachusetts towards achievement of its care delivery and payment reform goals. Massachusetts will utilize DSRIP funds to invest in the following eight high priority initiatives:

1. Student loan repayment program
2. Primary care integration models and retention program
3. Expanded support of residency slots at community health centers
4. Workforce professional development grant program
5. Technical assistance to ACOs and CPs (scalable, state-procured approach)
6. Alternative payment methods preparation fund
7. Enhanced diversionary behavioral health services
8. Improved accessibility for people with disabilities or for whom English is not a primary language

These eight initiatives are further detailed in Section 4.6.

1.4.4 State Operations and Implementation

The State will allocate a portion of DSRIP funding to support robust operations, implementation and oversight of the DSRIP program (see Section 6 for detail). An integrated team of state administrative staff will implement and oversee general and day-to-day administration of ACOs, CPs and Statewide Investments programs to ensure success and movement towards state goals. This team will manage several contracted vendors that support key aspects of program implementation. In addition, several independent

entities will support the State's oversight of the DSRIP program, including the DSRIP Steering Committee, DSRIP Advisory Committee on Quality, Independent Assessor and Independent Evaluator (see Sections 3.4.1.2 and 6.4 for further details on each). The State Operations and Implementation funding stream will support these personnel/fringe and contractual costs.

Section 2. Delivery System Models

Please see Appendix A for discussion of Delivery System Models, including a description of the procurement process for ACOs and CPs, as well as a high-level description of selection criteria for these entities.

Section 3. Participation Plans, Budgets, and Budget Narratives

In order to receive DSRIP funding, each ACO, CP and CSA will be required to submit for the State's approval: (1) a Participation Plan for the five-year demonstration period; and (2) a Budget and Budget Narrative for each annual budget period. These documents will detail how ACOs, CPs and CSAs will use DSRIP funding. The Participation Plan will cover the five years of the demonstration period. There will be two Participation Plans submitted – (1) "Preliminary Participation Plan" – providing an initial five-year plan and (2) "Full Participation Plan" – submitted to provide a revised five-year plan based on refined estimates of projected funding amounts. The State will use its review and approval processes of these documents to align with ACOs, CPs and CSAs on initiatives, goals and investments and to hold ACOs, CPs and CSAs accountable to the State's delivery system reform goals. The State will also use these documents to report to CMS, as requested.

Because the DSRIP Participation Plans are based around the ACOs', CPs' and CSAs' budget periods, this section begins by explaining the DSRIP budget periods that will apply to these entities. The section then discusses the details of the Preliminary Participations Plans, Full Participation Plans, Budgets and Budget Narratives that ACOs, CPs and CSAs will submit to the State, including what information will be included in each. The Section then details the State's review and approval process for each of these documents.

3.1 DSRIP Budget Periods

3.1.1 ACO Budget Periods

The State's 1115 demonstration aligns with the State's fiscal year (July 1 to June 30). Performance years (PYs) for the State's ACO Program (i.e., the time periods which the State will use to calculate cost and quality accountability for ACOs) align with the calendar year (January 1 to December 31), and are thus offset from the State's demonstration years by 6 months.

The State will disburse DSRIP funding to ACOs using six "Budget Periods" (BPs) that align with ACO performance years. The State anticipates that the first BP, the "Preparation Budget Period," will begin on July 1, 2017 or when contracts between the State and the ACOs are executed (whichever is later) and end December 31, 2017. ACOs will therefore have completed their contracting with the State prior to the start of the Preparation Budget Period. During this Preparation Budget Period, ACOs will have the opportunity to make investments and arrangements necessary to succeed as an ACO. Moving to a Total Cost of Care (TCOC) model is a significant undertaking that requires preparation and investment such as training staff, purchasing appropriate infrastructure, and setting up electronic, secure communications. The Preparation Budget Period will allow for such actions to occur. Investments may include, but are not limited to: health information technology, performance management infrastructure, network development/contracting, project management, and care coordination/management investment.

During this Preparation Budget Period, the State will work with ACOs to ensure they are ready for the responsibilities of the full TCOC model (e.g., enrolling members, taking financial risk, receiving data supports) including holding regular meetings with ACOs, performing a structured "readiness review" process similar to the one the State undertakes for its MCOs, and providing preliminary data supports.

Additionally, ACOs will be required to submit Budgets and Budget Narratives that lay out their plans and goals for DSRIP funding. The State will review and approve such plans, requesting additional information where necessary.

Budget Periods 1-5 (BP 1-5) will each last for one full calendar year, with Budget Period 1 beginning January 1, 2018 and ending December 31, 2018, etc. Please see Exhibit 2 for the schedule of the DSRIP ACO Budget Periods.

EXHIBIT 2 – Schedule of DSRIP ACO Budget Periods

CY2017		CY2018				CY2019				CY2020				CY2021				CY2022			
Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
State Demonstration Y1		Demo Y2				Demo Y3				Demo Y4				Demo Y5							
		ACO Performance Y1				ACO PY 2				ACO PY 3				ACO PY 4				ACO PY 5			
Prep Budget Period		Budget Period 1				BP 2				BP 3				BP 4				BP 5			

The budget period approach will not change the amount of funding that an ACO receives for a given demonstration year. Specifically, the Preparation Budget Period funds will be sourced from demonstration year 1 funds. Budget Period 1 funds will be sourced from demonstration year 1 and year 2 funds. Budget Periods 2 through 4 will be sourced by the same funding pattern as Budget Period 1. Budget Period 5 funds will be sourced only from demonstration year 5 funds.

3.1.2 Community Partner and CSA Budget Periods

The State’s 1115 demonstration years align with the State’s fiscal year (July 1 to June 30). Performance years for the State’s CP program (i.e., the time periods the State will use to calculate accountability for CPs) align with the calendar year (January 1 to December 31), with the exception of Performance Year 1, which is six months from July 1, 2018 to December 31, 2018. CP performance years are thus generally offset from the State’s demonstration years by six months.

The State will disburse DSRIP funding to CPs and CSAs using six “Budget Periods” (BPs) that align with CP and CSA Performance Years. The first BP, the “Preparation Budget Period” will begin when contracts between the State and the CPs and CSAs are executed (anticipated October/November 2017) and end May 31, 2018. During the Preparation Budget Period, CPs will utilize infrastructure dollars to invest in technology, workforce development, business startup costs and/or operational infrastructure. During the Preparation Budget Period, CSAs will utilize infrastructure dollars to invest in technology, workforce development and/or operational infrastructure.

CP and CSA Budget Period 1 will be seven months from June 1, 2018 to December 31, 2018. The remaining four budget periods (BP 2-5) will each last for one full calendar year, with Budget Period 2 beginning January 1, 2019 and ending December 31, 2019, etc. If the State changes the schedule for CP and CSA performance years, the State may adjust the CP and CSA Budget Periods to align with the performance years. Please see Exhibit 3 for the anticipated schedule of the DSRIP CP and CSA Budget Periods.

EXHIBIT 3 – Schedule of DSRIP CP/CSAs Budget Periods

CY2017		CY2018				CY2019				CY2020				CY2021				CY2022			
Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
State Demonstration Y1		Demo Y2				Demo Y3				Demo Y4				Demo Y5							
		CP Performance Y1 (6 mo.)		CP PY 2				CP PY 3				CP PY 4				CP PY 5					
Prep Budget Period		Budget Period 1 (7 mo.)		BP 2				BP 3				BP 4				BP 5					

This budget period approach will not change the amount of funding that a CP or CSA receives for a given demonstration year. Specifically, the Preparation Budget Period funds will be sourced from demonstration year 1 funds. Budget Period 1 funds will be sourced from demonstration year 1 and year 2 funds. Budget Periods 2 through 4 will be sourced by the same funding pattern as Budget Period 1. Budget Period 5 funds will be sourced only from demonstration year 5 funds.

3.1.3 Funding Adjustments for Budget Period 5 and Close-Out Activities

The second half of Budget Period 5 (July 1, 2022 to December 31, 2022), as well as the time period during which DSRIP close-out activities will occur, falls outside of the approved demonstration period (July 1, 2017 to June 30, 2022). To account for this, the following programmatic and administrative close-out payments will be attributed to the relevant Budget Periods:

Programmatic Payments

- ACO Startup/Ongoing payments (see Section 4.4.1)
- ACO DSTI Glide Path payments (see Section 4.4.3)
- ACO Flexible Services payments (see Section 4.2.2)
- CP and CSA Infrastructure and Capacity Building payments (see Sections 4.5.2, 4.5.5, and 4.5.7)
- CP Care Coordination payments (see Sections 4.5.1 and 4.5.4)
- CP Outcomes-Based Payments (see Sections 4.5.3 and 4.5.6)
- ACO, CP, and CSA Earned At-Risk payments (see Section 5.1.2)
- ACO, CP, and CSA Performance Remediation Plan payments (see Sections 5.3.4.2 and 5.4.6.1)

The ACO Startup/Ongoing, DSTI Glide Path, and CP/CSA Infrastructure and Capacity Building payments attributed to the first half of BP5 will be twice the amount as what they would have been if payments had been attributed throughout the whole BP. For example, if an ACO had \$100 total of non-at-risk startup/ongoing funds for BP5, payments attributed to BP5 would be split between the first two quarters of BP5 (\$50 each), as opposed to \$25 attributed across each of the four quarters of BP5 (see Section 4.4.1 for more specific funding details). Similarly, if a CP had \$100 total of non-at-risk infrastructure and capacity building funding for BP5, the total amount would be attributed to the first half of BP5 (see Section 4.5.2 for more specific funding details).

For ACO flexible services funding, during the first half of BP5, the State will pay out the full BP5 flexible services funding prospectively, based on the ACO’s approved BP5 flexible services budgets. ACOs will still need to submit their flexible services documentation and claims during BP5. If the ACOs do not use all of their flexible services allocation in BP5, or if the ACOs make expenditures that are deemed unacceptable by the State, then the ACOs will have to return the appropriate amount of flexible services funding to the State. See Section 4.2.2 for more specific funding details.

The State pays CPs for care coordination supports provided on a monthly basis, based on qualifying activities submitted by the CPs. The CPs have a limited time period from the delivery of care coordination supports to submit a qualifying activity for payment, as determined by the State. All

payments associated with qualifying activities submitted during this allowable time period will be attributed to the budget period during which the supports were provided. For example, payments associated with care coordination supports provided in June 2022 will be attributed to BP5, as long as the qualifying activities are submitted during the allowable time period.

BH CP outcomes-based payments (see Section 4.5.3) and LTSS CP outcomes-based payments (see Section 4.5.6), which are tied to performance in specific budget period, starting with Budget Period 3, will be attributed to that budget period.

ACO, CP, and CSA earned at-risk payments (see Section 5.1.2) and performance remediation plan payments (see Sections 5.3.4.2 and 5.4.6.1), which are tied to performance in a specific budget period, will be attributed to that budget period.

Administrative Close-Out Activities

- Work of Independent Assessor (see Section 6.2.2)
- Work of Independent Evaluator (see Section 6.4.2)
- Work of Member Experience Survey vendor (see Section 5.5.3)
- Work of Statewide Investments vendor (see Section 4.6)

The Independent Assessor, Independent Evaluator, member experience survey vendor, and the Statewide Investments vendors all will perform DSRIP close-out activities occurring after the demonstration period. Associated payments will be attributed to either the relevant budget period or to the first half of Budget Period 5, as determined by the State. For example, if the member experience survey vendor is fielding a survey to assess BP4 member experience, then the associated payments for those activities will be attributed to BP4. As another example, payments to the Statewide Investments vendor administering close-out activities for the student loan repayment program will be attributed to the first half of BP5.

3.2 Participation Plans

3.2.1 Preliminary Participation Plans

Preliminary Participation Plans document ACOs', CPs' and CSAs' plans for DSRIP expenditure. For the Preparation Budget Period and the first quarterly payment of Budget Period 1, the State will not disburse DSRIP funds to an ACO, CP or CSA that does not have a state-approved Preliminary Participation Plan. The State may withhold DSRIP funds from an ACO, CP or CSA if there are outstanding State requests for amendments to its Preliminary Participation Plan.

3.2.1.1 ACOs

Each ACO will submit for the State's approval a Preliminary Participation Plan with its response to the ACO procurement. Once approved, the State may request amendments to the Preliminary Participation Plan as necessary. At a minimum, this Preliminary Participation Plan will include information such as:

- The ACO's five-year business plan, including the ACO's goals and identified challenges under the ACO contract with MassHealth
- The ACO's planned investments and spending plan, including specific investments or programs the ACO anticipates supporting with DSRIP funds. Such investments and programs may include but are not limited to:
 - Care coordination or care management programs, including any programs to manage high-risk populations or other population health initiatives and including the ACO's transitional care management program
 - Efforts to address members' health-related social needs, including expanding community linkages between the ACO and providers, Community Partners or other social service

organizations, and including any spending on allowable flexible services to address health-related social needs

- Ensuring appropriate workforce capacity and professional development opportunities to meet increased expectations for care coordination, management and integration
- Investments in the ACO's and providers' data and analytics capabilities
- Programs to shift service volume or capital away from avoidable inpatient care toward outpatient, community-based primary and preventive care, or from institutional care towards community-based LTSS, including capital investments to downsize or repurpose inpatient or institutional capacity¹²², investments in expanding outpatient and community capacity and costs associated with piloting new care delivery models, such as those involving alternate settings of care and the use of telehealth or home-based services
- Investments in improved linguistic and cultural competency of care, including hiring translators and providers fluent in members' preferred languages
- Other investments or programs identified and proposed by the ACO that align with other requirements that MassHealth will have of the ACO

3.2.1.2 Community Partners/CSAs

Each CP and CSA will submit for the State's approval a Preliminary Participation Plan with their procurement responses and requests for funding respectively. Once approved, the State may request amendments to Preliminary Participation Plans as necessary. The Preliminary Participation Plan may include:

- Executive Summary: This section will summarize the CP's or CSA's DSRIP Participation Plan and describe the CP's or CSA's five-year business plan, goals and identified challenges.
- Partnerships: This section will list providers with which the CP or CSA will partner and describe these relationships and how they will align with the CP's or CSA's proposed investments and programs, as well as the CP's or CSA's core goals, such as improving the quality of member care.
- Member and Community Population: This section will include a description of the CP's or CSA's member population and surrounding communities, regions and service areas covered and how the CP or CSA will both promote the health and well-being of these individuals, and also actively initiate and maintain engagement with them.
- Narrative: The narrative will describe
 - The CP's Care Model (CPs only):
 - Proposed staffing models
 - Proposed outreach and engagement strategies
 - Proposed process for assessment and person-centered care planning
 - Proposed process for managing transitions of care
 - Proposed methods for how the CP will address members' health and wellness issues

¹²² Payments will be made to support providers' reform efforts that focus on the goals of reducing hospitalization and promotion of preventative care in the community, not directly to offset revenue from reduced hospital utilization.

- Proposed methods for how CP will connect the member to community resources and social services
- Proposed methods and processes for how the CP will enable continuous quality and member experience improvement
- The CP's or CSA's investment plan:
 - Identifying specific investments or programs that the CP or CSA will support with DSRIP funds
 - Estimating the amount and structure (e.g., one-time vs. annual) of costs associated with each investment or program
 - Explaining how each investment or program will support the CP's or CSA's core goals, such as improving the quality of member care and ensuring integration of care across different settings of care
 - Specifying goals, internal evaluation, measurement or performance management strategies the CP or CSA will apply to these investments or programs to demonstrate effectiveness and inform subsequent revisions to the Participation Plan
 - Examples of domains for potential CP or CSA investments or programs include but are not limited to:
 - Workforce capacity development
 - Data and analytics
 - HIT
 - Performance management capabilities
 - Contracting/networking development
 - Project management capabilities
 - Care coordination and community linkages
- Implementation of care model requirements
 - Spending Categories and Amounts: This section will include the CP's or CSA's anticipated spend over the five years in broad based funding categories.
 - Timeline: This section will include a five-year timeline for the CP's or CSA's proposed investments and programs.
 - Sustainability: This section will describe the CP's or CSA's plan to sustainably fund proposed investments and programs after the five-year period. This section may include information about other funding opportunities available to the CP or CSA, as well as information about any tools, resources or processes that the CP or CSA intends to develop using DSRIP funding and continue using after the end of the DSRIP investment.
 - Metrics and Measures: This section will describe the CP's or CSA's plan to report on the various DSRIP accountability metrics set forth in Appendix D.

3.2.2 Full Participation Plans

Full Participation Plans build on the information contained in Preliminary Participation Plans. For all DSRIP payments except the Preparation Budget Period and the first quarter's payments for Budget Period 1, the State will not disburse DSRIP funds to an ACO, CP or CSA that does not have a state-approved Full

Participation Plan. The State may withhold DSRIP funds from an ACO, CP or CSA if there are outstanding State requests for amendments to its Full Participation Plans.

3.2.2.1 ACOs

Once each ACO is notified of (1) its anticipated amount of Budget Period 1 funds, and (2) its tentative amount of Budget Period 2 through 5 funds, the ACO will submit a Full Participation Plan (see section 3.4.2 for timeline). The Full Participation Plan will expand on the information submitted with the Preliminary Participation Plan, and will include information such as:

- The ACO's five-year business plan, including the ACO's goals and identified challenges under the ACO contract with MassHealth
- The providers and organizations with which the ACO is partnering or plans to partner, the governance structure and a description of how these partnerships will support the ACO's planned activities and proposed investments
- A population and community needs assessment
- The ACO's planned investments and spending plan, including specific investments or programs the ACO anticipates supporting with DSRIP funds. Such investments and programs may include but are not limited to:
 - Care coordination or care management programs, including any programs to manage high-risk populations or other population health initiatives and including the ACO's transitional care management program
 - Efforts to address members' health-related social needs, including expanding community linkages between the ACO and providers, Community Partners or other social service organizations, and including any spending on allowable flexible services to address health-related social needs
 - Ensuring appropriate workforce capacity and professional development opportunities to meet increased expectations for care coordination, management and integration
 - Investments in the ACO's and providers' data and analytics capabilities
 - Programs to shift service volume or capital away from avoidable inpatient care toward outpatient, community-based primary and preventive care or from institutional care towards community-based LTSS, including capital investments to downsize or repurpose inpatient or institutional capacity, investments in expanding outpatient and community capacity and costs associated with piloting new care delivery models, such as those involving alternate settings of care and the use of telehealth or home-based services
 - Investments in improved linguistic and cultural competency of care, including hiring translators and providers fluent in members' preferred languages
 - Other investments or programs identified and proposed by the ACO that align with other requirements that MassHealth will have of the ACO
- Estimates of the amount and structure (e.g., one-time vs. annual) of costs associated with each investment or program identified in the ACO's Participation Plan
- Descriptions of how each investment or program will support the ACO's performance

- Specific goals, evaluation plans, measurable outcomes and performance management strategies the ACO will apply to each investment or program
- A five-year timeline of the ACO’s proposed investments and programs
- A description of the ACO’s plan to sustainably fund proposed investments and programs over the five-year period as DSRIP funding levels decrease
- Descriptions of how the ACO will fulfill its contract requirements, including:
 - Investments, value-based payment arrangements and performance management for its primary care providers
 - Care delivery improvement and care management strategies
 - Relationships with other providers, state agencies and other entities involved in the care of its members
 - Relationships with CPs
 - Activities to ensure the ACO’s compliance with contract management, reporting and administrative requirements described in the ACO contract
- A plan to increase the ACO’s capabilities to share information among providers involved in care of its members. Such plan will include, at a minimum:
 - The ACO’s current event notification capabilities and procedures to ensure that the ACO’s primary care providers are aware of members’ inpatient admissions and emergency department visits
 - The ACO’s self-assessed gaps in such capabilities and procedures, and how the ACO plans to address such gaps
 - A description of the ACO’s plans, if any, to increase the use of EHR technologies certified by the Office of the National Coordinator (ONC)
 - A description of how the ACO plans to ensure the ACO’s providers consistently use the statewide health information exchange to send or receive legally and clinically appropriate patient clinical information and support transitions of care
- Attestations to ensure non-duplication of funding

3.2.2.2 Community Partners

Once the CP or CSA is notified of (1) the amount of Budget Period 1 funds, and (2) the tentative amount of Budget Period 2 through 5 funds, the CP or CSA will be required to submit a Full Participation Plan. The Full Participation Plan will expand on the information submitted within the Preliminary Participation Plan and will reflect the new information available to CPs or CSAs about their anticipated funding amounts (see section 3.4.3 for timeline). Examples of additional detail that CPs and CSAs will be contractually required to provide include:

- The community-based organizations and providers with which the CP or CSA is partnering or plans to partner, the CSA or CP consortium governance structure and a description of how these partnerships will support the CP’s or CSA’s planned activities and proposed investments

- Descriptions of specific investments or programs the CP or CSA will support with DSRIP funds, including cost estimates, measures, goals and performance management and sustainability plans in the following areas:
 - Relationships with state agencies, community-based organizations, providers and other entities involved in the care of its members
 - Relationships with ACOs and MCOs
 - Activities to ensure the CP's or CSA's compliance with contract management, reporting and administrative requirements described in the CP's or CSA's contract with MassHealth and agreements with ACOs and MCOs
 - Workforce development and stability
- A plan to increase the CP's or CSA's capabilities to share information with ACOs and MCOs and among providers involved in care of its members. Such plan will include, at a minimum:
 - The CP's or CSA's current communication practices and capabilities
 - The CP's or CSA's self-assessed gaps in such capabilities and procedures, and how the CP or CSA plans to address such gaps
 - A description of the CP's or CSA's plans, if any, to increase the use of Electronic Health Record and Care Management technology
 - A description of how the CP or CSA plans to ensure the CP or CSA and its partners consistently use the statewide health information exchange to send or receive legally and clinically appropriate patient clinical information and support transitions of care
- Details about how the CP or CSA will not duplicate existing infrastructure with their planned DSRIP investments

3.3 Budgets and Budget Narratives

Each ACO, CP and CSA will submit a Budget and Budget Narrative to MassHealth for approval for each budget period. ACOs will submit a Budget and Budget Narrative to the State prior to each budget period. CPs and CSAs may submit a Budget and Budget Narrative to the State after the start of a budget period. The Budget is an itemized budget for the ACO's, CP's or CSA's proposed DSRIP-funded investments and programs for the Budget Period; the accompanying Budget Narrative explains uses of the funds. The State will provide a budget template for ACOs, CPs and CSAs to utilize. The State will not disburse DSRIP funds for a given budget period to an ACO, CP or CSA that does not have a state-approved Budget and Budget Narrative for that Budget Period, except that the State may make care coordination supports payments to CPs during the first three months of BP2 before the BP2 budgets have been approved. The State may withhold DSRIP funds from an ACO, CP or CSA if there are outstanding State requests for amendments to its Budgets or Budget Narratives.

3.4 Review and Approval Process and Timelines

3.4.1 Roles and Responsibilities

3.4.1.1 State

The State will review, approve and/or request revisions to ACOs', CPs' and CSAs' Preliminary and Full

Participation Plans, Budgets and Budget Narratives. If necessary, the State will work collaboratively with ACOs, CPs and CSAs on revisions to Participation Plans, Budgets and Budget Narratives.

3.4.1.2 Independent Assessor

The Independent Assessor will review ACOs', CPs' and CSAs' Full Participation Plans, Budgets (from BP 1 onwards) and Budget Narratives (from BP 1 onwards), as well as any formal requests for modification to these documents submitted by ACOs, CPs and CSAs. The Independent Assessor will make recommendations to the State for each such document or request; these recommendations may be recommendations to approve, deny or propose certain changes to these documents or requests. The State will work closely with the Independent Assessor, and consider its recommendations during the review process. The State retains final decision-making authority regarding approvals, denials or requests for changes to Participation Plans, Budgets and Budget Narratives, as well as to any modification requests. If the Independent Assessor makes a recommendation to the State that differs from the State's final decision, the State will document its decision in the State's quarterly reports to CMS. The Independent Assessor will not determine whether a request to amend a Participation Plan, Budget, Budget Narrative, or Performance Remediation Plan is a material deviation, as this is the responsibility solely of the State.

3.4.1.3 CMS

CMS may request to review Participation Plans (Preliminary and Full), Budgets and Budget Narratives. The State will provide requested documents within 45 calendar days of receiving the request. All final approved Participation Plans, Budgets, and Budget Narratives will be sent to CMS. The State will provide the following information to be posted on Medicaid.gov: (1) an executive summary of each ACO's and CP's participation plan; (2) list of each ACO and CP as well as the populations they serve and their website; (3) an executive summary of each ACO's and CP's progress reports; and (4) each ACO's and CP's DSRIP yearly funding amount.

3.4.2 Process for State Approval of ACO Participation Plans

3.4.2.1 Preliminary Participation Plan Approval for ACOs

The State's process for submission, review and approval of Preliminary Participation Plans for ACOs will be as follows:

- ACOs submit Preliminary Participation Plans with their procurement response
- The State reviews Preliminary Participation Plans with ACOs' procurement submissions
- At the end of this review process, the State will approve or deny the Preliminary Participation Plans or request additional information and resubmissions of the Preliminary Plans before approval.
- The State anticipates completing approval of ACOs' Preliminary Participation Plans in July/August 2017.

3.4.2.2 Full Participation Plans for ACOs

The process for submission, review and approval of Full Participation Plans for ACOs will be as follows:

- The State notifies ACOs of anticipated BP1 funding amounts and tentative BP2 through BP5 funding amounts and requests a Full Participation Plan
- ACOs submit Full Participation Plans to the State (the State will provide ACOs up to 30 calendar days from the date of notification). The State intends to work with ACOs who request additional time or fail to respond in a timely fashion to ensure prompt submission
- The State and Independent Assessor review Full Participation Plans in parallel. The State intends to complete its review of the Full Participation Plans, including evaluating the Independent

Assessor's recommendations, within 45 calendar days of ACOs' submission. Requests for additional information and resubmissions may require additional time.

- At the end of this review process, the State approves, denies or requests additional information regarding the ACOs' Full Participation Plans.
- **The State therefore anticipates completing approvals of Full Participation Plans within 75 calendar days of requesting them from ACOs as follows:**
 - The State anticipates approving Full Participation Plans in April 2018

3.4.3 Process for State Approval of CPs and CSAs Participation Plans

3.4.3.1 Preliminary Participation Plan approval for CPs and CSAs

The State's process for submission, review and approval of Preliminary Participation Plans for CPs and CSAs will be as follows:

- CPs submit Preliminary Participation Plans with their request for funding
- CSAs submit Preliminary Participation Plans with their request for funding
- The State reviews CP and CSA Preliminary Participation Plans within 75 calendar days of their submission
- At the end of this review process, the State will approve, deny or request additional information regarding the Preliminary Participation Plan. The State intends to work with CPs and CSAs who request additional time or fail to respond in a timely fashion to ensure prompt submission.
- **The State therefore anticipates completing reviews and approvals of Preliminary Participation Plans within 75 calendar days of submission as follows:**
 - The State anticipates approval of Preliminary Participation Plans in August 2017

3.4.3.2 Full Participation Plans for CPs and CSAs

The process for submission, review and approval of Full Participation Plans will be as follows:

- The State notifies CPs and CSAs of actual BP1 funding and tentative BP2 through BP5 funding amounts and requests a Full Participation Plan
- CPs and CSAs submit Full Participation Plans to the State within 30 calendar days from the date of notification).
 - The State intends to work with CPs and CSAs who request additional time or fail to respond in a timely fashion to ensure prompt submission
- The State and Independent Assessor review Full Participation Plans in parallel. The State intends to complete its review of the Full Participation Plans, including evaluating the Independent Assessor's recommendations, within 45 calendar days of CPs' and CSAs' submission. Requests for additional information and resubmissions may require additional time.
- At the end of this review process, the State approves, denies or requests additional information regarding the Full Participation Plans.
- **The State therefore anticipates completing approvals of Full Participation Plans within 75 calendar days of requesting them from CPs and CSAs as follows:**
 - For CPs and CSAs, the State anticipates approving Full Participation Plans in May 2018

3.4.4 Process for State approval of Budgets and Budget Narratives

3.4.4.1 Process for State approval of ACO Budgets and Budget Narratives

The process for submission, review and approval of Budgets and Budget Narratives for Budget Period 1-5 for ACOs will be as follows:

- The State notifies ACOs of the upcoming budget period's anticipated funding amounts, and requests each ACO submit a Budget and a Budget Narrative for the upcoming budget period (See Section 4.4).
- ACOs submit to the State their Budgets and Budget Narratives for the upcoming BP within 30 calendar days of receiving the State's request. The State intends to work with ACOs who request additional time or fail to respond in a timely fashion to ensure prompt submission
- The State and Independent Assessor review Budgets and Budget Narratives in parallel. The State intends to complete its review of the Budgets and Budget Narratives, including evaluating the Independent Assessor's recommendations, within 45 calendar days of their submission. Requests for additional information and resubmissions may require additional time.
- At the end of this review process, the State approves, denies or requests additional information regarding the Budgets and Budget Narratives.
 - After approval, the State will disburse the first quarterly DSRIP payment for the new Budget Period.
- If the data required to calculate funding amounts for a given budget period are not available by August of the preceding Budget Period, then the State may provide ACOs with a preliminary funding amount to construct their Budgets and Budget Narratives. The State would disburse the first quarterly payment based on the preliminary funding amount, and then calculate final funding amounts as well as a reconciliation amount to be added to or subtracted from the ACO's subsequent quarterly DSRIP payments in that Budget Period, such that payments for the budget period total the final funding amount for that budget period.
 - If the funding amount for a given ACO changes by more than 20% from the preliminary funding amount on which the ACO based its Budget and Budget Narrative, the State will ask the ACO to revise and resubmit its Budget and Budget Narrative. The State may also request revisions in its discretion.
- **The State therefore anticipates completing approvals of Budgets and Budget Narratives within 75 calendar days of requesting them from ACOs as follows:**
 - For Preparation Budget
 - The State anticipates notifying ACOs of anticipated Preparation Budget funding amounts in June 2017
 - The State anticipates ACOs submitting Preparation Budgets and Budget Narratives in July 2017
 - The State anticipates approving Budgets and Budget Narratives in August 2017
 - For BP 1-5:
 - The State anticipates providing ACOs with anticipated funding amounts in October of the preceding budget period
 - The State anticipates ACOs will submit to the State their Budgets and Budget Narratives and their updated safety net revenue calculation in November of the preceding budget period

- The State anticipates approving ACOs' Budgets and Budget Narratives in January of the new budget period
- If the preliminary member count for BP 1 is estimated prior to the Operational Start Date of the program and therefore prior to actual member enrollments being effective, the State may postpone this timeline by several months for BP 1, and delay the first quarterly payment of BP 1 at its discretion. This process may allow the State to adjust for changes in enrollment levels if, for example, member movement exceeds expectations

3.4.4.2 Process for State Approval of CP and CSA Budget and Budget Narratives

CPs will receive bi-annual infrastructure development funding as well as be reimbursed monthly for care management and care coordination activities based on the number of members assigned and engaged. CSAs will receive DSRIP funding for Infrastructure development only.

The process for submission, review and approval of CP and CSA Budgets and Budget Narratives for Budget Period 1-5 will be as follows:

- The State notifies CPs and CSAs of preliminary upcoming budget period's funding amounts and requests the Budgets and Budget Narratives for the upcoming budget period
 - Infrastructure development payments will be based on a member snapshot
 - For CPs, the BP1 member snapshot will be an estimate of member engagement
 - For CSAs, the member snapshots will be based on actual caseload
- Within 30 calendar days, CPs and CSAs submit to the State their Budgets and Budget Narratives for the upcoming BP
 - The State intends to work with CPS and CSAs who request additional time or fail to respond in a timely fashion to ensure prompt submission
- The State and Independent Assessor review Budgets and Budget Narratives in parallel. The State intends to complete its review of the Budgets and Budget Narratives, including evaluating the Independent Assessor's recommendations, within 45 calendar days of their submission. Requests for additional information and resubmissions may require additional time.
- At the end of this review process, the State approves, denies or requests additional information regarding the Budgets and Budget Narratives.
- After approval, the State will disburse funding bi-annually for infrastructure funding and monthly for care coordination funding
- **The State therefore anticipates completing approvals of Budgets and Budget Narratives within 75 calendar days of requesting them from CPs and CSAs as follows:**
 - For Preparation Budget
 - The State anticipates notifying CPs and CSAs of Preparation Budget funding in August 2017
 - The State anticipates CPs and CSAs submitting Preparation Budgets and Budget Narratives in September 2017
 - The State anticipates approving Budgets and Budget Narratives in October 2017
 - For BP 1:
 - The State anticipates providing CPs and CSAs with a preliminary version of their anticipated payments in February 2018
 - The State anticipates that CPs and CSAs will submit their BP1 Budgets and Budget Narratives to the State in March 2018

- The State anticipates approving CP and CSA Budgets and Budget Narratives in May 2018
 - For BP 2-5:
 - The State anticipates providing CPs and CSAs with a preliminary version of their anticipated payments in December of the preceding budget period
 - The State anticipates that CPs and CSAs will submit their current year budget period Budgets and Budget Narratives to the State in January of the budget period
 - The State anticipates approving CP and CSA Budgets and Budget Narratives in March of the budget period
 - The State anticipates making bi-annual infrastructure payments in April and October of the budget period and monthly care coordination payments

3.4.5 Process for State Approval of Modifications to Participation Plans, Budgets and Budget Narratives

ACOs, CPs and CSAs may submit ad hoc requests to amend their Participation Plans, Budgets, and Budget Narratives at any time except within 75 days of the end of the Budget Period. ACOs, CPs or CSAs will not be allowed to materially deviate from their approved spending plans without formally requesting such modification and having the modification approved by the State. The State has sole discretion to determine whether an amendment request is a material deviation, and thus a modification. In addition, the State may require ACOs, CPs or CSAs to modify their Full Participation Plans, Budgets or Budget Narratives in certain circumstances (e.g., if a primary care practice where an ACO had previously proposed making investments goes out of business).

The State's process for submission, review and approval of modification requests will be as follows:

- ACOs, CPs or CSAs submit a modification request
- The State and Independent Assessor review the modification request in parallel. The State intends to complete its review of modification requests, including evaluating the Independent Assessor's recommendations, within 45 calendar days of their submission. Further requests for additional information and resubmissions may require additional time.
- At the end of this review process, the State approves, denies or requests additional information
- The State therefore anticipates completing approvals of modification requests within 45 calendar days of requesting them from ACOs, CPs and CSAs

If the State denies the modification request, the State and Independent Assessor will provide feedback about why the request was denied, and the State may allow the entity to resubmit their modification request after revisions, as appropriate. The timeline for review would restart upon resubmission, and the same processes would be followed as for an initial submission.

The State may withhold or deduct a portion of ACO, CP, or CSA DSRIP funds for contract management purposes (e.g. in response to significant delays in responding to DSRIP deliverable submission deadlines). If funds are deducted, such funds may be reallocated by the State according to the parameters described in Section 5.1.3 of this Protocol.

Section 4. DSRIP Payments (ACOs, CPs, CSAs and Statewide Investments)

DSRIP funding will support four streams, as described in Section 1. This Section (Section 4) outlines parameters for DSRIP payments to ACOs, CPs, CSAs and Statewide Investments including sub-streams. A portion of payments from the State to ACOs, CPs and CSAs are at risk based on the ACO, CP and CSA Accountability Framework described in Section 5. Section 5 also describes the linkage between ACO, CP and CSA accountability to the State. Section 4 explores DSRIP payments to ACOs, CPs or CSAs and the

sub-streams within them.

Each of ACO and CP payment streams has several “sub-streams,” which differ from each other with respect to three characteristics: (1) purpose/allowable uses; (2) calculation methodology; (3) and accountability. These three characteristics are detailed for each sub-stream in the following three subsections 4.1-4.3, respectively. Section 4.5 provides additional detail on how Accountability Scores are calculated using the accountability framework laid out in Section 4.4.

- Section 4.1: provides an overview of the sub-streams of DSRIP funding for ACOs, CPs and CSAs, as well as their amounts and the process for the State to vary those amounts
- Section 4.2: provides detail on purpose and allowable uses for ACO sub-streams
- Section 4.3: provides detail on purpose and allowable uses for CP and CSA sub-streams
- Section 4.4: provides detail on payment calculation and timing for ACO sub-streams
- Section 4.5: provides detail on payment calculation and timing for CP and CSA sub-streams
- Section 4.6: provides funding information on Statewide Investments
- Section 4.7: provides detail on DSRIP carry forward capacity

4.1 Overview and Outline

The State has divided the ACO, CPs and CSA DSRIP funding streams into eleven sub-streams: four for ACOs, three each for BH CPs and LTSS CPs and one for CSAs.

EXHIBIT 4 – ACO, CP and CSA Sub-Streams

ACO Funding Stream 4 sub-streams	CP and CSA Funding Stream 7 sub-streams		
	BH CPs: <i>3 sub-streams</i>	LTSS CPs: <i>3 sub-streams</i>	CSAs: <i>1 sub-stream</i>
<ul style="list-style-type: none"> • Startup/Ongoing: primary care investment • Startup/Ongoing: discretionary • Flexible services • DSTI Glide Path 	<ul style="list-style-type: none"> • Care coordination • Infrastructure and Capacity Building • Outcomes-based 		<ul style="list-style-type: none"> • Infrastructure and Capacity Building

Per STC 60(e), the State may reallocate funding amounts between the “ACO Funding Stream” and the “CP and CSA Funding Stream” at its discretion. If the actual funding amounts for the ACO Funding Stream or the CP and CSA Funding stream differ from the amounts set forth in Table G of STC 60(e) by more than 15%, the State must notify CMS 60 calendar days prior to the effective reallocation of funds. CMS reserves the right to disapprove any such reallocations prior to the effective date of the reallocation.

Within the “ACO Funding Stream” or “CP Funding Stream”, the State may distribute payments for a given demonstration year among the sub-streams to best meet the State’s programmatic needs, in its discretion without notifying CMS, subject to the parameters described in STC 60(e). Because the mechanisms for holding ACOs and CPs financially accountable differ among these sub-streams, changes in the distribution of funding among the sub-streams may change the amount of funding for an individual ACO or CP that is at risk. For example, if funding is shifted from the “Startup/Ongoing: Discretionary” ACO sub-stream to the “Startup/Ongoing: Primary Care Investment” ACO sub-stream, this would lead to less at-risk funding because funds have shifted from a sub-stream with an at-risk component to a sub-stream without an at-risk component (see Exhibit 19). Exhibit 5 below shows the State’s distribution of DSRIP payments to ACOs, CPs and CSAs by funding stream for each budget period, as well as the State’s anticipated sample distribution of DSRIP payments within the ACO and CP funding streams by sub-stream. The table also shows the percent and total funding for each stream and sub-stream that is at-risk based on the ACOs’, CPs’ and CSAs’ accountability to the State (see Section 5 for more information on accountability). This Exhibit

is provided for illustrative purposes only and is an estimate of anticipated funding among funding streams and sub-streams at this point in time.

EXHIBIT 5 – Provider Accountability to State

		Prep BP	BP1	BP2	BP3	BP4	BP5	Total
ACOs (Accountability to State)	Total Funds	\$138.2M	\$284.1M	\$238.0M	\$192.5M	\$132.7M	\$64.0M	\$1,049.5M
	At-Risk %	0%	4%	10%	19%	27%	20%	11%
	At-Risk Funds	\$0.0M	\$10.0M	\$24.1M	\$36.8M	\$36.4M	\$12.9M	\$120.3M
<i>Startup/Ongoing: Primary Care Investment (Not At-Risk)</i>	Total Funds	\$21.8M	\$43.6M	\$29.6M	\$30.5M	\$10.5M	\$10.8M	\$146.7M
<i>Startup/Ongoing: Discretionary</i>	Total Funds	\$94.9M	\$165.1M	\$153.3M	\$117.2M	\$86.5M	\$23.7M	\$640.7M
	At-Risk %	0%	5%	15%	30%	40%	50%	18%
	At-Risk Funds	\$0.0M	\$8.3M	\$23.0M	\$35.2M	\$34.6M	\$11.9M	\$112.9M
<i>Flexible Services (Not At-Risk)</i>	Total Funds	\$0.0M	\$40.8M	\$32.1M	\$27.9M	\$23.6M	\$24.3M	\$148.7M
<i>DSTI Glide Path Funding</i>	Total Funds	\$21.5M	\$34.6M	\$23.0M	\$16.8M	\$12.2M	\$5.2M	\$113.4M
	At-Risk %	0%	5%	5%	10%	15%	20%	7%
	At-Risk Funds	\$0.0M	\$1.7M	\$1.1M	\$1.7M	\$1.8M	\$1.0M	\$7.4M
Community Partners (Accountability to State)	Total Funds	\$15.8M	\$59.0M	\$105.6M	\$125.5M	\$122.0M	\$118.9M	\$546.7M
	At-Risk %	0%	0%	3%	11%	16%	20%	11%
	At-Risk Funds	\$0.0M	\$0.0M	\$3.6M	\$14.3M	\$19.9M	\$23.6M	\$61.4M
Behavioral Health CPs	Total Funds	\$11.7M	\$46.3M	\$80.2M	\$91.1M	\$86.5M	\$83.1M	\$398.9M
	At-Risk %	0%	0%	3%	11%	16%	20%	11%
	At-Risk Funds	\$0.0M	\$0.0M	\$2.5M	\$9.9M	\$13.7M	\$16.2M	\$42.3M
<i>Care Coordination Supports</i>	Total Funds	\$0.0M	\$21.9M	\$60.3M	\$66.4M	\$66.2M	\$65.9M	\$280.6M
<i>Infrastructure and Capacity Building (including CSAs)</i>	Total Funds	\$11.7M	\$24.4M	\$19.9M	\$23.6M	\$19.3M	\$16.2M	\$115.3M
	At-Risk %	0%	0%	13%	42%	71%	100%	37%
	At-Risk Funds	\$0.0M	\$0.0M	\$2.5M	\$9.9M	\$13.7M	\$16.2M	\$42.3M
<i>Outcomes-Based Stream (Incentive Pool, Not At-Risk)</i>	Total Funds	\$0.0M	\$0.0M	\$0.0M	\$1.0M	\$1.0M	\$1.0M	\$3.0M
LTSS CPs	Total Funds	\$4.0M	\$12.7M	\$25.3M	\$34.4M	\$35.5M	\$35.8M	\$147.8M
	At-Risk %	0%	0%	4%	13%	18%	21%	13%
	At-Risk Funds	\$0.0M	\$0.0M	\$1.0M	\$4.5M	\$6.2M	\$7.4M	\$19.1M
<i>Care Coordination Supports</i>	Total Funds	\$0.0M	\$5.7M	\$17.1M	\$23.3M	\$26.3M	\$27.9M	\$100.3M
<i>Infrastructure and Capacity Building</i>	Total Funds	\$4.0M	\$6.9M	\$8.2M	\$10.7M	\$8.8M	\$7.4M	\$46.0M
	At-Risk %	0%	0%	13%	42%	71%	100%	41%
	At-Risk Funds	\$0.0M	\$0.0M	\$1.0M	\$4.5M	\$6.2M	\$7.4M	\$19.1M
<i>Outcomes-Based Stream (Incentive Pool, Not At-Risk)</i>	Total Funds	\$0.0M	\$0.0M	\$0.0M	\$0.5M	\$0.5M	\$0.5M	\$1.5M

4.2 Purpose and Allowable Uses for ACO Funding Sub-Streams

4.2.1 ACO Sub-Streams 1 & 2: Startup/Ongoing Funding (Primary Care & Discretionary)

ACO sub-streams 1 and 2 are for Startup/Ongoing funds. Startup/Ongoing funds are split into two sub-streams. Sub-stream 1 is explicitly dedicated for primary care investment. ACOs will be required to spend these funds on state-approved investments that support the ACO’s primary care providers such as capital

investments in primary care practices (e.g., inter-operable EHR systems), trainings for primary care providers and support staff in population health management protocols, administrative staff to support front-line providers with clinical quality initiatives, etc. Having a dedicated funding stream for primary care investment is an important mechanism for the State to ensure that ACOs and their PCPs are mutually committed to each other, having mutual discussions about business decisions and working together to meet the State's delivery system reform goals. In order to ensure that primary care investments supported by DSRIP do not duplicate other federal or state investments, ACOs will be required to disclose in their Full Participation Plans what state and federal investments the ACO is using to support primary care investments, and how the ACO is ensuring non-duplication with proposed DSRIP funding uses.

Sub-stream 2 is for discretionary Startup/Ongoing funding and may be used by the ACO for other state-approved investments. Some examples of investment opportunities for ACOs include, but are not limited to: health information technology, contracting/network development, project management, and care coordination/management investment, assessments for members with identified LTSS needs, workforce capacity development and new or expanded telemedicine capability.

The funding amounts for these two sub-streams decrease over the five demonstration years and are intended to support ACO investments as they start their ACO models and provide operating funds to support (during initial years) the ongoing costs of these models. As ACOs progress through the five demonstration years, the State expects ACOs to increasingly self-fund these investments and expenses out of their TCOC-based revenue (e.g., medical gains under capitation rates, or shared savings payments).

4.2.2 ACO Sub-Stream 3: Flexible Services Funding

A portion of ACO DSRIP funds will be dedicated to spending on flexible services. Flexible services funding will be used to address health-related social needs by providing supports that are not currently reimbursed by MassHealth or other publicly-funded programs. These flexible services must satisfy the criteria described in STC 63(b)(ii), 63(c), and 63(d). ACOs will receive a Flexible Services allocation each Budget Period, as determined by the State. Please see the Flexible Services Protocol for more details on how ACOs will be able to access their Flexible Services funding allocation for BP1 through BP4. During the first half of BP5, the State will pay out the full BP5 flexible services funding amount prospectively, based on the ACO's approved BP5 flexible services budgets. ACOs will still need to submit their flex services documentation and claims during BP5. If the ACOs do not use all of their flexible services allocation in BP5, or if the ACOs make expenditures that are deemed unacceptable by the State, then the ACOs will have to return the appropriate amount of flexible services funding to the State. Additional details about flexible services will be delineated in the Flexible Services Protocol (Attachment R), which is to be reviewed and approved by CMS by July 2017.

If CMS does not approve the Flexible Services Protocol by August 2017, then the State may reallocate the Budget Period 1 flexible services funding allocation detailed in Exhibit 5 to other Budget Period 1 DSRIP funding streams so that the State's expenditure authority is not reduced due to non-approval of the Flexible Services Protocol, or it may carry forward the expenditure authority into subsequent Budget Periods without counting against the 15% benchmark described in STC 60(d)(ii). Similarly, the State may continue to reallocate the flexible services funding allocation for each Budget Period to other DSRIP funding streams for that Budget Period if CMS does not approve the Flexible Services Protocol by the July of the preceding Budget Period. Any such reallocation will be included in an updated funding allocation table in the next quarterly progress report to CMS. CMS will have 90 calendar days to request modifications to the reallocation proposal.

4.2.3 ACO Sub-Stream 4: DSTI Glide Path Funding

During the five-year demonstration, the State will restructure demonstration funding for safety net hospital systems to be more sustainable and aligned with value-based care delivery and payment incentives. The seven safety net hospitals currently receiving funding through the Delivery System Transformation Initiatives (DSTI) program will instead receive a reduced amount of ongoing operational support through Safety Net Provider payments authorized under the State's restructured Safety Net Care Pool. To create a

sustainable transition from current funding levels to these new, reduced levels, the State will provide transitional DSRIP funding to these DSTI safety net hospitals.

Payment of the DSTI Glide Path funding is contingent on a safety net hospital's approved participation with a MassHealth ACO (and therefore on their financial accountability for cost and quality). To receive this funding, a safety net hospital must have a provider arrangement or contract with an ACO that demonstrates its participation in that ACO's efforts, including at a minimum documented participation in the ACO's transitional care management and other contractual responsibilities (e.g., data integration), and financial accountability including the potential for the safety net hospital to share gains from savings and share responsibility for losses.

This DSTI Glide Path funding will be paid directly to any ACO that has a provider arrangement or contract with one of these seven DSTI safety net hospitals. The ACO will be required to give the full amount of this funding to the participating safety net hospitals. The amount of DSTI Glide Path funding will decrease each year, sustainably transitioning safety net hospitals to lower levels of supplemental support.

4.3 Purpose and Allowable Uses for CP and CSA Funding Sub-Streams

MCOs and ACOs will delegate comprehensive care management responsibility to the BH CP for members diagnosed with Serious Mental Illness (SMI) and/or Substance Use Disorder (SUD), as well as adult members who exhibit SMI and SUD, but have not been diagnosed, and who are assigned to the BH CPs. BH CPs are required to coordinate care for members enrolled with the BH CP across the full healthcare continuum, including physical and behavioral health, LTSS and social service needs. This section describes the purpose and allowable uses for the three funding sub-streams for each CP (care coordination, infrastructure and capacity building and outcome-based payments) and one sub-stream for CSAs (infrastructure and capacity building):

4.3.1 BH CP Sub-Stream 1: Care Coordination Supports Funding

BH CPs will receive funds under BH CP sub-stream 1 to perform the following functions for assigned members:

1. Outreaching to and actively engaging members
2. Identifying and facilitating a care team for every engaged member
3. Person-centered treatment planning for every engaged member
4. Coordinating services across the care continuum to ensure that the member is in the right place for the right services at the right time
5. Supporting transitions between care settings
6. Providing health and wellness coaching
7. Facilitating access and referrals to social services and other community services

4.3.2 BH CP Sub-Stream 2: Infrastructure and Capacity Building Funding

BH CPs will receive funds under BH CP sub-stream 2 to make infrastructure investments to advance their capabilities to support their member populations and to form partnerships with MCOs and ACOs. Infrastructure funding for BH CPs will be disbursed across four categories:

1. Technology – e.g., HIT and care management software, IT project management resources, data analytics capabilities, mobile technology including tablets, laptops and smartphones for CP staff, service delivery technology such as remote monitoring or electronic medication dispensers, and reporting software
2. Workforce Development - e.g., recruitment support, training and coaching programs and certifications
3. Business Startup Costs – e.g., staffing and startup costs to develop full caseloads.
4. Operational Infrastructure – e.g., project management, system change resources and performance management capabilities, additional operational support.

4.3.3 BH CP Sub-Stream 3: Outcomes-Based Payments

BH CPs will have the opportunity to earn additional payments under BH CP sub-stream 3 in Budget Periods 3 through 5 by reaching high levels of achievement on avoidable utilization metrics. The State anticipates submitting performance targets to CMS for approval in Q3 CY2021, in alignment with when it anticipates submitting benchmarks to CMS for the avoidable utilization metrics.

4.3.4 LTSS CP Sub-Stream 1: Care Coordination Supports Funding

MCOs and ACOs will have responsibility for conducting the comprehensive assessment for enrollees assigned to LTSS CPs and other enrollees identified by EOHHS as having LTSS needs, as specified in their contracts with the State. The LTSS CP will review the results of the comprehensive assessment with a LTSS assigned member as part of the person-centered LTSS care planning process and will inform the member about his or her options for specific LTSS services, programs and providers that may meet the member's identified LTSS needs. LTSS CPs will receive funds under LTSS CP sub-stream 1 to perform the following functions for assigned members:

1. Providing disability expertise consultation as requested by MassHealth, the member's MassHealth managed care entity, or the member on the comprehensive assessment
2. Providing LTSS care planning using a person-centered approach and choice counseling
3. Participating on the member's care team to support LTSS care needs decisions and LTSS integration, as directed by the member
4. Providing LTSS care coordination and support during transitions of care
5. Providing health and wellness coaching
6. Connecting the member to social services and community resources.

The State also intends to allow LTSS CPs to provide optional enhanced functions for members with complex LTSS needs who would benefit from comprehensive care management provided by a LTSS CP. The enhanced supports care model will be similar to that of the BH CP, including the performance of a comprehensive assessment, although adapted to the specific LTSS population to be served, and will include a PMPM rate reflective of the BH CP model. The State will select LTSS CPs to perform enhanced supports via a competitive procurement.

4.3.5 LTSS CP Sub-Stream 2: Infrastructure and Capacity Building Funding

LTSS CPs will receive funds under LTSS CP sub-stream 2 to make investments to advance the organization's overall capabilities to support its member population and form partnerships with MCOs and ACOs. Infrastructure funding for LTSS CPs will be disbursed across four categories:

1. Technology – e.g., HIT and care management software, mobile technology including tablets, laptops and smartphones for CP staff, service delivery technology such as remote monitoring, electronic medication dispensers and reporting software;
2. Workforce Development - e.g., recruitment support, training and coaching programs and certifications;
3. Business Startup Costs – e.g., staffing and startup costs to develop full caseload capacities
4. Operational Infrastructure – e.g., IT project management, system change resources, data analytics capabilities performance management capabilities and additional operational support

4.3.6 LTSS CP Sub-Stream 3: Outcomes-Based Payments

LTSS CPs will have the opportunity to earn additional payments under LTSS CP sub-stream 3 in Budget Periods 3 through 5 by reaching high levels of achievement on avoidable utilization metrics. The State anticipates submitting performance targets to CMS for approval in Q3 CY2021, in alignment with when it anticipates submitting benchmarks to CMS for the avoidable utilization metrics.

4.3.7 CSA Sub-Stream 1: Infrastructure and Capacity Building Funding

CSAs will receive funds under CSA sub-stream 1 to make investments to advance their overall capabilities

to support their member populations and to form partnerships with MCOs and ACOs. Infrastructure funding for CSAs will be disbursed across three categories:

1. Technology – e.g., HIT and care management software, mobile technology including tablets, laptops and smartphones for CP staff, service delivery technology such as remote monitoring, electronic medication dispensers reporting software
2. Workforce Development - e.g., recruitment support, training and coaching programs and certifications;
3. Operational Infrastructure – e.g., IT project management, system change resources, data analytics capabilities performance management capabilities and additional operational support

4.4 Payment Calculation and Timing for ACO Sub-Streams

4.4.1 ACO Sub-Streams 1 & 2: Startup/Ongoing Funding (Primary Care & Discretionary)

Each ACO will receive an amount of Startup/Ongoing funds (combined across sub-streams 1 and 2) for each Budget Period that is determined by multiplying the number of members enrolled in or attributed to the ACO by a per member per month (PMPM) amount. The State will determine the number of members. The State will determine each ACO’s PMPM amount during the Preparation Budget Period and BP 1 – 5 as follows:

- Step 1: The State will set a base rate
- Step 2: The State will increase this rate for each ACO based on the ACO’s safety net category
 - The State will calculate each ACO’s payer revenue mix based on the percentage of its gross patient service revenue that comes from care for MassHealth members or uninsured individuals
 - The State will categorize ACOs into five categories based on their payer revenue mix (each category has a percentage increase associated with it)
 - During the DSRIP program, the State may adjust the safety net PMPM adjustment methodology as described later in this section
- Step 3: The State will further increase this rate for each ACO based on the ACO’s choice of model and risk track (each model/risk track combination has a percentage increase associated with it – (as detailed in Exhibit 8))

Exhibit 6 shows the State’s anticipated average adjusted PMPMs for the ACO Startup/Ongoing sub-streams, after following the steps described above.

EXHIBIT 6 – Average Adjusted PMPMs for ACO Startup/Ongoing Support

Average Adjusted PMPMs for ACO Startup/Ongoing Support					
Prep BP	BP 1	BP 2	BP 3	BP 4	BP 5
\$21.43	\$19.16	\$18.14	\$14.24	\$9.17	\$3.12

Given the potential for variation in anticipated ACO and member participation, these average adjusted PMPMs represent an estimate, and the State may disburse, on average, PMPMs that differ from the PMPMs displayed in Exhibit 6 by up to +/- \$6. Individual ACO PMPMs may vary by greater amounts due to the adjustments described in this section. If a new ACO joins after BP1, e.g. in BP3, it will have the same BP3 base PMPMs as the existing ACOs and will not be assigned PMPMs differently.

ACOs with a higher percentage of revenue generated from Medicaid and uninsured patient services revenue will be placed into a higher safety net category, corresponding to a larger percentage PMPM increase. To determine each ACO’s safety net category, ACOs must submit a payer revenue mix attestation form. The form contains detailed instructions on how to calculate revenue as well as the types of revenue that ACOs

must provide. For example, the State requires ACOs to include patient health care service revenue from various categories, which include but are not limited to: (1) MassHealth, inclusive of Medicaid and the Children’s Health Insurance Plan, (2) Health Safety Net, (3) Medicare, (4) Commercial Health Plans, (5) Other Government Sources, such as Veterans Affairs and Tricare and (6) Other Revenue Sources, such as Self-pay and Workers’ Compensation). Using this information, the State will determine the Gross Patient Service Revenue (GPSR) from MassHealth and uninsured patients and place each ACO in the appropriate safety net category. See Exhibit 7 for the PMPM adjustment schedule based on safety net category.

EXHIBIT 7 – Safety Net PMPM Adjustment

Safety Net PMPM Adjustment					
Safety Net Category	5	4	3	2	1
% PMPM Increase	40%	30%	20%	10%	0%

As mentioned earlier, the State may also adjust the safety net PMPM adjustment methodology during the DSRIP program, as follows:

- Startup/ongoing PMPMs for members attributed to community health centers may receive a higher safety net PMPM adjustment (e.g., the maximum safety net adjustment of +40%), as described in Exhibit 7, regardless of the ACO’s safety net category, reflecting the unique safety net status of these providers
- Under this revised methodology, startup/ongoing PMPMs for members attributed to other PCPs would receive a PMPM adjustment based on the ACO’s overall safety net category (i.e., unchanged from current methodology)

The State will also apply a PMPM adjustment each year depending on the ACO’s chosen model and risk track. This adjustment will be additive with the safety net PMPM adjustment. If an ACO switches models or risk tracks during the DSRIP period, then its PMPM adjustment will be updated to align with the new ACO model type. See Exhibit 8 for the PMPM adjustment schedule based on ACO Model and Risk Track.

EXHIBIT 8 – ACO Model and Risk Track PMPM Adjustment

ACO Model PMPM Adjustment						
ACO Model	Accountable Care Partnership Plan (Model A)	Primary Care ACO (Model B)		MCO-Contracted ACO (Model C)		
		Risk Track 2 (more risk)	Risk Track 1 (less risk)	Risk Track 3 (more risk)	Risk Track 2 (medium risk)	Risk Track 1 (less risk)
% PMPM Increase	40%	40%	30%	30%	10%	0%

For example, using the standard safety net PMPM adjustment methodology, if the base PMPM rate is \$10, and the ACO is a Primary Care ACO (Risk Track 2) and a safety net category 3 provider, then the adjusted startup/ongoing PMPM would be $\$10 * (100\% + 40\% + 20\%) = \16 . If the State modifies its safety net PMPM adjustment methodology, as described above, and this ACO has 60% of members attributed to community health centers, then the ACO would have two different PMPMs for the members attributed to CHCs vs. other PCPs:

- PMPM for members attributed to CHC: $\$10 * (100\% + 40\% + 40\%) = \18
- PMPM for other members: $\$10 * (100\% + 40\% + 20\%) = \16

The PMPMs would be multiplied by their associated member counts, and the sum of these products would be the ACO’s startup/ongoing funding amount.

The amount of funding that ACOs will need to allocate for primary care investment will be based on the following PMPM schedule:

PMPM Schedule for Startup/Ongoing Funds (Primary Care Investment)

	Prep Budget Period	BP1	BP2	BP3	BP4	BP5
Startup/Ongoing Funds Designated for Primary Care Investment (\$PMPM)	\$4	\$4	\$3	\$3	\$1	\$1

All remaining startup/ongoing support (i.e. “discretionary” startup/ongoing funds) can be distributed amongst the ACO’s participating providers, as decided by the ACO. This funding could be used to support additional primary care investment or assessments for members with identified LTSS needs, among other things.

Generally speaking, ACO funding sub-streams 1 and 2 will be paid in four quarterly installments for each Budget Period. The State anticipates these installments will be roughly equal; however, the State may alter the payment amounts, frequency, and timing in its discretion. For example, the State may pay a reduced amount for the first quarterly payment, which may be based on preliminary funding amount calculations, to minimize ACO disruption when funding amounts are finalized and the remaining three payments are adjusted accordingly. During BP5, payments will be attributed to the first half of the year; as such, these attributed amounts will be twice the amount as what they would have been if payments had been attributed throughout the whole BP. For example, if an ACO had \$100 total of non-at-risk startup/ongoing funds for BP5, payments attributed to BP5 would be split between the first two quarters of BP5 (\$50 each), as opposed to \$25 attributed across each of the four quarters of BP5.

If an ACO’s contract with the State is terminated midway through a budget period due to the ACO leaving the ACO program, then the ACO will not receive new startup/ongoing funds for that budget period.

4.4.2 ACO Sub-Stream 3: Flexible Services Funding

Each ACO will receive an allotment of flexible services funding for each Budget Period, except for the Preparation Budget Period during which there are no flexible services funds (because ACOs do not yet have enrolled/attributed members). The allotment will be determined on a PMPM basis, as set forth in Exhibit 9. Details for how ACOs will be able to access their Flexible Services funding allotments can be found in the Flexible Services Protocol. The State may redistribute any undisbursed flexible services funding among the other DSRIP funding streams at the State’s discretion, following the same parameters as described in Section 5.1.3 for redistribution of funding not distributed to ACOs, CPs, and CSAs. Any such redistributions would be reported to CMS in the State's quarterly progress reports.

The PMPMs for flexible services allotments are set forth in Exhibit 9. The State may vary these PMPMs in its discretion without obtaining CMS approval. If an ACO’s contract with the State is terminated midway through a budget period due to the ACO leaving the ACO program, then the State at its discretion may provide new flexible services funding to the leaving ACO. If the State decides to provide new flexible services funding to the leaving ACO, then different flexible services base PMPM rates may be used for the leaving ACO and ACOs staying in the program.

EXHIBIT 9 – PMPMs for Flexible Services

PMPMs for Flexible Services						
Prep BP	BP 1	BP 2	BP 3	BP 4	BP 5	
\$0.00	\$3.75	\$3.25	\$2.75	\$2.25	\$2.25	

4.4.3 ACO Sub-Stream 4: DSTI Glide Path Funding

The amount of DSTI glide path funding the State will pay to each safety net hospital is detailed in Exhibit 10 below.

EXHIBIT 10 – DSTI Glide Path Funding by State Fiscal Year (\$ Millions)

DSTI Glide Path Funding (\$M) by State Fiscal Year						
Hospital Provider	SFY 18	SFY 19	SFY 20	SFY 21	SFY 22	Total
Boston Medical Center	\$23.74M	\$13.53M	\$10.10M	\$7.82M	\$6.30M	\$61.49M
Cambridge Health Alliance	\$12.07M	\$8.45M	\$6.36M	\$4.09M	\$3.00M	\$33.99M
Holyoke Medical Center	\$2.67M	\$1.58M	\$1.22M	\$0.99M	\$0.63M	\$7.09M
Lawrence General Hospital	\$0.58M	\$0.34M	\$0.26M	\$0.20M	\$0.43M	\$1.81M
Mercy Medical Center	\$1.18M	\$0.69M	\$0.53M	\$0.13M	\$0.00M	\$2.54M
Signature Healthcare Brockton Hospital	\$1.04M	\$0.61M	\$0.47M	\$0.37M	\$0.08M	\$2.56M
Steward Carney Hospital	\$1.80M	\$1.00M	\$0.81M	\$0.30M	\$0.05M	\$3.96M

These hospitals will only receive DSTI glide path funding through DSRIP if they participate in a MassHealth ACO, where participation means that the DSTI hospital has a provider arrangement or contract with the ACO that involves financial accountability, including the potential for the safety net hospital to share gains from savings and share responsibility for losses. For the purposes of this glide path funding, a DSTI hospital can only have a provider arrangement or contract with one ACO. This funding is not PMPM-based, but was developed to establish a glide path from current safety net care pool (SNCP) supplemental payments to reduced SNCP payments

This glide path funding needs to be converted from the state fiscal year framework to the Budget Period framework in order to align with the at-risk schedule described in Exhibit 20. Funds for the 6 month Preparation Budget Period for each DSTI hospital will be equal to half of the hospital's glide path payments in SFY18. Budget Period 1 funds for each DSTI hospital will be equal to the sum of half of the hospital's glide path payments in SFY18 and SFY19. Budget Periods 2 through 4 for each DSTI hospital will be sourced by the same funding pattern as Budget Period 1. Budget Period 5 funds for each DSTI hospital will be equal to half of the hospital's glide path payments in SFY22. See Exhibit 11 for a table displaying the DSTI glide path funding by Budget Period.

EXHIBIT 11 – DSTI Glide Path Funding by Budget Period (\$ Millions)

DSTI Glide Path Funding (\$M) by Budget Period							
Hospital Provider	Prep BP	BP 1	BP 2	BP 3	BP 4	BP 5	Total
Boston Medical Center	\$11.87M	\$18.64M	\$11.81M	\$8.96M	\$7.06M	\$3.15M	\$61.49M
Cambridge Health Alliance	\$6.04M	\$10.27M	\$7.41M	\$5.23M	\$3.55M	\$1.50M	\$33.99M
Holyoke Medical Center	\$1.33M	\$2.12M	\$1.40M	\$1.11M	\$0.81M	\$0.32M	\$7.09M
Lawrence General Hospital	\$0.29M	\$0.46M	\$0.30M	\$0.23M	\$0.32M	\$0.21M	\$1.81M
Mercy Medical Center	\$0.59M	\$0.93M	\$0.61M	\$0.33M	\$0.07M	\$0.00M	\$2.54M
Signature Healthcare Brockton Hospital	\$0.52M	\$0.82M	\$0.54M	\$0.42M	\$0.22M	\$0.04M	\$2.56M
Steward Carney Hospital	\$0.90M	\$1.40M	\$0.91M	\$0.56M	\$0.18M	\$0.03M	\$3.96M

Generally speaking, DSTI glide path funding will be paid in four quarterly installments for each Budget Period. The State anticipates these installments will be roughly equal; however, the State may alter the payment amounts, frequency, and timing in its discretion. During BP5, payments will be attributed to the first half of the year; as such, these attributed amounts will be twice the amount as what they would have been if payments had been attributed throughout the whole BP. For example, if an ACO had \$100 total of

non-at-risk DSTI glide path funds for BP5, payments attributed to BP5 would be split between the first two quarters of BP5 (\$50 each), as opposed to \$25 attributed across each of the four quarters of BP5.

If a DSTI hospital has an affiliated provider arrangement or contract with an ACO whose contract with the State ends midway through a budget period due to the ACO leaving the ACO program, and the DSTI hospital does not enter into a contract or other arrangement with a different ACO and bear risk through ACO participation for the remainder of the budget period, then that DSTI hospital will not receive DSTI Glide Path Funding for the entirety of that budget period. If the DSTI hospital enters into a contract or other arrangement with a different ACO and bears risk through ACO participation, then the leaving ACO will receive half of the non-at-risk DSTI Glide Path funding to pay to the DSTI hospital during the first half of the budget period, as well as the earned at-risk funding that is tied to the first half of the budget period once the ACO DSRIP accountability scores are calculated. Once the DSTI hospital joins a new ACO, it may receive the remainder of its DSTI glide path funding for that budget period. The ACO DSRIP accountability scores (see Section 5.3) used to calculate the amount of at-risk DSTI glide path funding earned for the first and second halves of the year in which the ACO leaves will be the scores earned by the DSTI hospital's original and new ACOs in that budget period, respectively.

4.4.4 Detail on calculating member-months

Each ACO will be accountable for a defined population of members. Because ACOs' responsibilities scale with their populations, the State will use the size of this population to determine the amount of Startup/Ongoing funding and the Flexible Services allotment for each ACO. For Partnership Plans and Primary Care ACOs, the number of members is simply the number of members enrolled in each ACO. Eligible MassHealth members will either choose to enroll or be assigned to these ACOs. MassHealth records members' enrollments in the agency's MMIS system and Data Warehouse. The State will tally a count of members enrolled in each ACO based on this record; this count will be multiplied by the DSRIP PMPM values to calculate the payment amounts per ACO.

For MCO-Administered ACOs, the State will use the number of members attributed to each ACO for the purposes of cost and quality accountability. These attributed members are the subset of MassHealth MCO enrollees who have primary care assignments in their MCOs to PCPs who participate in MCO-Administered ACOs. Massachusetts will know who these Participating PCPs are for each MCO-Administered ACO, and will record this information in its Data Warehouse. Each MCO will report to the State on a regular basis the primary care assignments for the MCO's enrollees. The State will use this information to determine the number of MCO enrollees who have primary care assignments to each MCO-Administered ACO; this number will be multiplied by the DSRIP PMPM values to calculate the payment amounts per MCO-Administered ACO.

The State may use a point-in-time ("snapshot") count of members for each ACO, or may calculate the average members each ACO has over a particular period (e.g., the most recent quarter) in order to ensure DSRIP payment calculations are robust to temporary fluctuations in member enrollments. Once Massachusetts has selected ACOs and is able to perform more analytics on historical ACO-level member enrollment movement, Massachusetts intends to finalize such operational details of this calculation.

4.5 Payment Calculation and Timing for CP and CSA Sub-Streams

4.5.1 BH CP Sub-Stream 1: Care Coordination Supports Funding

The State will pay each BH CP a PMPM rate for care coordination supports for each member assigned to and engaged with the BH CP during the month. The PMPM rate has been developed to account, in part, based on the staff required to support the BH CP model, including the need for Registered Nurses, licensed clinicians, and access to a medical director for the performance of supports such as comprehensive assessments and medication reconciliation, as well as community health workers, health outreach workers, peer specialists and recovery coaches for the SMI and/or SUD population. Caseloads for each BH CP are

expected to be between 35-50 engaged enrollees per FTE. The rate is anticipated to be \$180 PMPM. The State anticipates that the rate will remain constant for the first two years of the program, at which time the State plans to evaluate the program and revisit the PMPM rate. The State may vary the amount of the PMPM in its discretion at any time during the demonstration.

The State will pay the PMPM rate to the BH CP for each month in which the BH CP performs and documents a qualifying activity, beginning in the month when the member is assigned to the BH CP. If the BH CP does not perform any qualifying activities during a month, it will not be paid for that month. A BH CP will be paid for outreach only during the first 90 days of a member’s assignment to the BH CP if outreach is attempted and documented during that 90-day period. For members assigned to a BH CP between July 1, 2018 and October 31, 2018, inclusive, the BH CP may be paid for qualifying activities other than outreach during the first 10 months of a member’s assignment. After the first 10 months of assignment, the State will not make payments to a BH CP for qualifying activities performed for a member, unless that member is engaged. For members assigned to a BH CP beginning November 1, 2018, the BH CP may be paid for qualifying activities other than outreach during the first 150 days of a member’s assignment. After the first 150 days of assignment, the State will not make payments to the BH CP for any qualifying activities performed for a member, unless that member is engaged. A member is considered engaged with the BH CP when a comprehensive assessment is completed and care plan is approved by the member’s PCP or PCP designee. The PCP may designate appropriate MCO or ACO clinical staff as the PCP designee. The BH CP must coordinate with the member’s PCP or PCP designee, as appropriate, in performing qualifying activities, such as to support or review medication reconciliation for the member, including during the first 10 months of assignment. The State will report to CMS in its quarterly and annual reports the BH CP engagement rates, as data are available.

Example payment calculation with PMPM of \$160:

Example payment amount for one month = (Total number of members assigned but not engaged + total number of members engaged)*\$160

4.5.2 BH CP Sub-Stream 2: Infrastructure and Capacity Building Funding

Each BH CP will receive an initial amount of infrastructure and capacity building funds during the Preparation Budget Period. BH CPs will propose allocation of funds across the four categories listed in section 4.3.2 in their Preparation Budget Period Budgets and Budget Narratives. The State anticipates disbursing up to \$500,000 to each BH CP for initial infrastructure funding. The State may adjust the amount of the Preparation Budget Period funds disbursed to BH CPs in its discretion.

For Budget Period 1, BH CPs will receive infrastructure funds based on the anticipated number of engaged members, as determined by the State. For Budget Period 2 through 5, BH CPs will receive infrastructure funds based on the number of enrolled members (both assigned and engaged), as determined by the State. Exhibit 12 sets forth the anticipated PMPM schedule for BH CP infrastructure and capacity building funding. The State anticipates making infrastructure payments on a bi-annual basis, except during BP1 and BP5. During BP1, the State anticipates making only one payment to BH CPs and CSAs. During BP5, payments will be attributed to the first half; as such, the attributed amount will be twice the amount as what each bi-annual payment would have been if payments had been attributed throughout the whole BP. For example, if a CP had \$100 total of non-at-risk infrastructure and capacity building funding for BP5, the total payment would be attributed to the first half of BP5.

EXHIBIT 12 – Anticipated Schedule for BH CP for Infrastructure and Capacity Building (PMPM)

BH CP Infrastructure and Capacity Building PMPMs				
BP 1	BP 2	BP 3	BP 4	BP 5
\$35.00 - \$45.00	\$25.00 - \$35.00	\$15.00 - \$25.00	\$10.00 - \$20.00	\$5.00 - \$15.00

The State may vary the amount of the infrastructure PMPMs in its discretion.

As part of the Budget and Budget Narratives, BH CPs will indicate how they intend to use the infrastructure funding for amounts up to a maximum amount of possible funding (i.e., the CP’s PMPM multiplied by the

number of members engaged). The State may approve a lower amount based on its review of the Budgets and Budget Narratives.

For example, for a BH CP with 1,000 engaged members with a PMPM of \$40.00:

Maximum amount of Budget Period 1 Infrastructure Funds = $\$40.00 \times 12 \times 1000 = \$480,000$

4.5.3 BH CP Sub-Stream 3: Outcomes-Based Payments

Starting in Budget Period 3, the State will designate an annual pool of funding to award to high performing BH CPs based on metrics related to avoidable utilization (see Section 5.4.5). The State anticipates this pool to be approximately \$1M annually, but may vary this amount in its discretion. The State will set the achievement standards following analysis of baseline data from Performance Year 1 and Performance Year 2, subject to CMS approval. The total bonus the State allots yearly will be divided amongst the CPs that meet or exceed the achievement standards based on the number of CPs that meet or exceed the achievement standards. See Section 5.4.5 for more details about how the funding will be distributed to the eligible CPs. The State will not require CPs to submit budgets for Outcomes Based Payments.

4.5.4 LTSS CP Sub-Stream 1: Care Coordination Supports Funding

The State will pay each LTSS CP a PMPM rate for care coordination supports for each member assigned to and engaged with the LTSS CP during the month. The PMPM rate has been developed, in part, based on the staff required to support the LTSS CP model, including the need for care coordinators with appropriate supervision at sufficient staffing levels to perform LTSS CP supports. Caseloads for LTSS CPs are expected to be between 70-100 engaged enrollees per FTE. The rate is anticipated to be \$80 PMPM for each member assigned and engaged with the LTSS CPs during the month. The State will set an additional PMPM for enhanced LTSS CP functions and anticipates caseload for enhanced LTSS CP supports to be 35-50 engaged enrollees. The State may vary the amount of the PMPMs in its discretion at any time during the demonstration.

The State will pay the PMPM rate to the LTSS CP for each month in which the LTSS CP performs and documents a qualifying activity, beginning in the month when the member is assigned to the LTSS CP. If the LTSS CP does not perform any qualifying activities during a month, it will not be paid for that month. An LTSS CP will be paid for outreach only during the first 90 days of a member's assignment to the LTSS CP if outreach is attempted and documented during that 90-day period. For members assigned to an LTSS CP between July 1, 2018 and October 31, 2018, inclusive, the LTSS CP may be paid for qualifying activities other than outreach during the first 10 months of a member's assignment. After the first 10 months of assignment, the State will not make payments to an LTSS CP for qualifying activities performed for a member, unless that member is engaged. For members assigned to an LTSS CP beginning November 1, 2018, the LTSS CP may be paid for qualifying activities other than outreach during the first 150 days of a member's assignment. After the first 150 days of assignment, the State will not make payments to the LTSS CP for any qualifying activities performed for a member, unless that member is engaged. A member is considered engaged with the LTSS CP when the person-centered care plan is approved by the member's PCP or PCP designee. The PCP may designate appropriate MCO or ACO clinical staff as the PCP designee. The LTSS CP must coordinate with the member's PCP or PCP designee, as appropriate, in performing qualifying activities, including during the first 10 months of assignment. The State will report to CMS in its quarterly and annual reports the LTSS CP engagement rates, as data are available.

Example payment calculation with PMPM of \$80:

Example payment amount for one month = (Total number of members assigned but not engaged + total number of members engaged)*\$80

4.5.5 LTSS CP Sub-Stream 2: Infrastructure and Capacity Building Funding

Each LTSS CP will receive an initial amount of infrastructure and capacity building funds during the Preparation Budget Period. LTSS CPs will propose allocation of funds across the four categories listed in section 4.3.2 in their Preparation Budget Period Budgets and Budget Narratives. The State anticipates disbursing up to \$500,000 to each LTSS CP for initial infrastructure funding. The State has the discretion

to adjust the amount of the Preparation Budget Period funds disbursed to LTSS CPs without obtaining CMS approval.

For Budget Period 1, LTSS CPs will receive infrastructure funds based on the anticipated number of members engaged, as determined by the State. For Budget Period 2 through 5, LTSS CPs will receive infrastructure funds based on the number of enrolled members (both assigned and engaged), as determined by the State. The State anticipates making infrastructure payments on a bi-annual basis, except during BP1 and BP5. During BP1, the State anticipates making only one payment to LTSS CPs. During BP5, payments will be attributed to the first half; as such, the attributed amount will be twice the amount as what each bi-annual payment would have been if payments had been attributed throughout the whole BP. For example, if a CP had \$100 total of non-at-risk infrastructure and capacity building funding for BP5, the total payment would be attributed to the first half of BP5.

EXHIBIT 13 – Anticipated Schedule for LTSS CP for Infrastructure and Capacity Building (PMPM)

LTSS CP Infrastructure and Capacity Building PMPMs				
BP 1	BP 2	BP 3	BP 4	BP 5
\$30.00 - \$40.00	\$20.00 - \$30.00	\$10.00 - \$20.00	\$8.00 - \$18.00	\$5.00 - \$15.00

The final PMPM will vary based on actual overall enrollment in CPs. The State may vary the amount for the PMPM without CMS approval.

CPs will submit Budgets and Budget Narratives for approval for amounts up to a maximum amount of PMPM * number of members engaged. The State will review and revise budgets as appropriate.

For example, for a LTSS CP with 1,000 engaged members with a PMPM of \$35.00:

$$\text{The maximum amount of Budget Period 1 Infrastructure Funds} = \$35.00 * 12 * 1000 = \$420,000$$

The State may approve a lower amount based on its review of the Budget and Budget Narrative, without CMS approval.

4.5.6 LTSS CP Sub-Stream 3: Outcomes-Based Payments

Starting in Budget Period 3, the State will designate an annual pool of funding (anticipated to be approximately \$500,000 annually) to award to high performing LTSS CPs based on metrics related to avoidable utilization (see Section 5.4.5). The State will set the achievement standards following analysis of baseline data from Performance Year 1 and Performance Year 2, subject to CMS approval. Total bonus allotted yearly will be divided amongst the CPs that meet or exceed the achievement standards based on the number of CPs that meet or exceed the achievement standards. See Section 5.4.5 for more details about how the funding will be distributed to the eligible CPs. The State will not require CPs to submit budgets for Outcomes Based Payments.

4.5.7 CSA Sub-Stream 1: Infrastructure and Capacity Building Funding

CSAs will receive an initial amount of infrastructure and capacity building funds during the Preparation Budget Period of between \$75,000 and \$350,000. The State will categorize CSAs based on the number of members they serve and the number of CSA contracts held and will advise CSA of their budget for the Preparation Budget Period. CSAs will propose allocation of funds across the three infrastructure categories listed in section 4.3.7 in their Preparation Budgets and Budget Narratives. The State will then disburse initial infrastructure funding to CSAs based on the approved budget. The State may adjust the amount of the Preparation Budget Period funds disbursed to CSAs in its discretion.

Exhibit 14 sets forth the anticipated PMPM schedule for CSA infrastructure and capacity building funding. The State may vary the infrastructure PMPM amount in its discretion.

EXHIBIT 14 – Anticipated Schedule for CSAs for Infrastructure and Capacity Building (PMPM)

CSA Infrastructure and Capacity Building PMPMs				
BP 1	BP 2	BP 3	BP 4	BP 5
\$35.00 - \$45.00	\$25.00 - \$35.00	\$15.00 - \$25.00	\$10.00 - \$20.00	\$5.00 - \$15.00

The State anticipates making infrastructure payments on a bi-annual basis, except during BP1 and BP5. During BP1, the State anticipates making only one payment to CSAs. During BP5, payments will be attributed to the first half; as such, the attributed amount will be twice the amount as what each bi-annual payment would have been if payments had been attributed throughout the whole BP. For example, if a CSA had \$100 total of non-at-risk infrastructure and capacity building funding for BP5, the total payment would be attributed to the first half of BP5.

4.6 Statewide Investments Funding Determination Methodology

The DSRIP Statewide Investment funding stream may be utilized by the State to fund the following initiatives: (1) Student Loan Repayment Program, (2) Primary Care Integration Models and Retention, (3) Investments in Primary Care Residency Training, (4) Workforce Development Grant Program, (5) Technical Assistance, (6) Alternative Payment Methods Preparation Fund, (7) Enhanced Diversionary Behavioral Health Activities and (8) Improved Accessibility for People with Disabilities or for Whom English Is Not a Primary Language. Exhibit 15 shows the anticipated funding breakdown for each initiative by demonstration year.

EXHIBIT 15 – Statewide Investments Funding Breakdown

Statewide Investments	Y1	Y2	Y3	Y4	Y5	Total
Student Loan Repayment Program	\$3.9M	\$5.5M	\$3.2M	\$3.5M	\$2.3M	\$18.4M
Primary Care Integration Models and Retention	\$1.7M	\$1.9M	\$1.5M	\$1.2M	\$1.0M	\$7.3M
Investment in Primary Care Residency Training	\$0.2M	\$1.1M	\$2.7M	\$2.1M	\$2.4M	\$8.4M
Workforce Development Grant Program	\$1.7M	\$2.9M	\$.8M	\$4.1M	\$2.4M	\$11.9M
Technical Assistance for ACOs and CPs	\$10.3M	\$10.6M	\$5.6M	\$11.3M	\$6.2M	\$44.0M
Alternative Payment Methodology Preparation Funds	\$2.2M	\$0.0M	\$0.0M	\$8.5M	\$1.2M	\$11.9M
Enhanced Diversionary Behavioral Health Activities	\$1.3M	\$0.0M	\$0.0M	\$1.9M	\$0.0M	\$3.2M
Improved Accessibility for Members with Disabilities or for Whom English Is Not a Primary Language	\$0.3M	\$2.4M	\$.5M	\$4.7M	\$2.0M	\$9.9M
Total	\$21.6M	\$24.4M	\$14.2M	\$37.3M	\$17.4M	\$114.8M

*Displayed numbers are rounded; therefore, totals and updated expenditure authority numbers may not add up exactly

The State may shift funding among and within the eight Statewide Investment initiatives at its discretion, such that the funding totals for each initiative identified in Exhibit 15 and in initiative descriptions in Appendix B may change. The State must obtain CMS approval for any funding shifts within a demonstration year from one investment to another if the shifted amount is (1) greater than 15% of the original funding amount for the investment contributing the shifted amount or (2) if the shifted amount is greater than \$1M, whichever is greater. Otherwise, the State will notify CMS of any funding shifts in its quarterly reports.

Sections 4.6.1 – 4.6.8 discuss the general nature and funding methodology of each Statewide Investment initiative, including which entities or providers will be eligible to apply for DSRIP funds. Appendix B provides additional details on each initiative.

4.6.1 Student Loan Repayment Program

The student loan repayment program will repay a portion of awardees’ student loans in exchange for a minimum of an 18 month commitment to work in a community setting. Applicants may either be individual providers working at community mental health centers, or the centers themselves. The program will offer a specified amount of funding in each recipient category per year. Provider applicants may be eligible for different amounts of loan repayment based on their discipline and credentialing level. For providers selected to receive awards, the State will pay their student loan servicer directly. The anticipated provider categories and maximum award amounts are as follows:

- Primary Care Physician – Each awardee is eligible for up to \$50K in total student loan repayments

- Psychiatrists and psychologists – Each awardee is eligible for up to \$50K in total student loan repayments
- Advance Practice Registered Nurses, Physician Assistants and Nurse Practitioners – Each awardee is eligible for up to \$30K in total student loan repayments
- Licensed Social Workers, Licensed Behavioral Health Professionals, and Masters-Prepared Unlicensed Social Workers and Behavioral Health Professionals – Each awardee is eligible for up to \$30K in total student loan repayments
 - Among other eligibility requirements determined by the State, Master-Prepared Unlicensed Social Workers and Behavioral Health Professionals must expect to obtain their license within twelve months from application submission.
- Behavioral Health Professionals (community health workers, peer specialists, recovery support specialists) – Each awardee is eligible for up to \$20K in total student loan repayments

The State may vary the provider categories and award amounts in its discretion. The State may also develop enhancements to the student loan repayment program, such as learning collaboratives that engage distinct cohorts of student loan repayment recipients, which provide additional training and mentorship for providers and deepen their commitment to careers in community settings. The State will define application criteria and eligibility, and then select awardees through a competitive process that will allow the State to evaluate the applicants relative to the criteria established.

4.6.2 Primary Care Integration Models and Retention

The investment in primary care integration models and retention will support a grant program to community health centers (CHCs), community mental health centers, and entities participating in CPs and CSAs that allows primary care and behavioral health providers to design and carry out one-year projects related to accountable care. The State will define application criteria and eligibility, and will select awardees through a competitive process that will allow the State to evaluate the proposed projects for scope, impact, feasibility, cost and need, among other factors. The State anticipates that awardees will receive up to \$40K per project but the amount of funding may vary by project, as determined by the State. The CHC, CMHC, or entity participating in a CP or CSA will be the primary applicant with a primary care or behavioral health provider as a partner. The State will disburse funds directly to the CHC, CMHC, or entity participating in a CP or CSA.

4.6.3 Investment in Primary Care Residency Training

The investment in primary care residency training will help offset hospital and community health center costs of filling community health center (CHCs) and community mental health center (CMHC) residency slots. The State will fund hospitals, community health centers, and community mental health centers that are selected for awards. Hospitals and CHCs/CHMCs will apply jointly for the award in the case of PCPs. The State anticipates that funding will vary based on the resident's discipline as follows:

- Primary Care Provider (PCP) – For each PCP residency slot filled, the State will pay the community health center or community mental health center up to \$150K and the hospital up to \$20K for a total of up to \$170K for each year of residency.
- Nurse Practitioner (NP) – For each NP residency slot filled, the State will pay the community health center or community mental health center up to \$85K for each year of residency.

The State will define application criteria and eligibility, and then select awardees through a competitive process that allows the State to evaluate the applications relative to the criteria established.

4.6.4 Workforce Development Grant Program

The workforce development grant program will support a range of activities to increase and enhance the State's healthcare workforce capacity (e.g., creation or support for workforce training programs, help providers to attend educational events, help ACOs/CPs/CSAs develop programs (one-on-one and group), outreach to potential workforce). The State will administer the funded activities with internal staffing resources, or designees determined through competitive procurements, interagency service agreements (ISAs) or other means. The State will determine the funding amounts for various activities within this initiative based on project scope, impact, feasibility, cost and need, among other criteria.

4.6.5 Technical Assistance for ACOs, CPs and CSAs

The technical assistance (TA) program aims to provide ACOs, CPs and CSAs with the training and expertise necessary to implement evidence-based interventions that meet the needs of the new healthcare landscape. For entities that apply and are awarded funding, the State will pay their TA vendor(s) directly. The State will also use this TA funding to invest in resources to ensure the long-term sustainability of the TA provided to eligible recipients.

Recipients may be required to contribute a certain percentage (e.g., up to 30 percent) of the overall TA costs, which will create an incentive for the recipient to work diligently with the TA vendors and the State to effect change.

TA funding may be allocated to ACOs, CPs and CSAs on a PMPM basis, or based on other factors, such as experience with alternative payment methodologies, or the number of entities receiving TA funding. If the State decides to allocate TA funding based on PMPM amount, the State could set the PMPM amount and may vary the amount in its discretion, for example, based on enrollment or TA applicant volume. The TA funding amount will represent a funding cap; i.e., the State will not award more than this amount to a recipient, but may ultimately pay less than the full TA funding allocation if the recipient's TA costs are lower than anticipated. The State may redistribute or reallocate unused TA funding in its discretion. If the overall cost of TA exceeds the TA funding allocation and recipient contribution combined, the recipient will be responsible for covering the excess cost. For example, if an ACO is required to pay 30% of the overall TA cost and is allocated \$700,000 in TA funding:

- ACO could propose TA plan costing \$1,000,000
 - ACO pays \$300,000 and the State pays \$700,000
- ACO could propose TA plan costing \$1,100,000
 - ACO pays \$400,000 and the State pays \$700,000
- ACO could propose TA plan costing \$900,000
 - ACO pays \$270,000 and the State pays \$630,000
 - State may redistribute or reallocate remaining \$70,000 funding at its discretion

In order to receive TA funds, applicants must submit a detailed TA plan that explains how funding will be used and demonstrates that funding is not duplicative of TA efforts supported by other funding sources (e.g., federal, state, private). The State will evaluate the proposed plans for scope, impact, feasibility, cost and need, among other factors prior to approval.

4.6.6 Alternative Payment Methods (APM) Preparation Fund

The APM preparation fund will support providers who are not yet ready to participate in an APM but demonstrate interest in and intent to participate in the near future. The State will define application criteria and eligibility, and will select awardees through a competitive process that will allow the State to evaluate the proposed projects for scope, impact, feasibility, cost and need, among other factors. The State will

determine the funding amounts based on its evaluation of successful applications. The APM preparation fund may also be used to raise awareness about APM among providers not yet engaged in a MassHealth ACO, CP, or CSA.

4.6.7 Enhanced Diversionary Behavioral Health Activities

The investment in enhanced diversionary behavioral health activities will support the implementation of strategies to ensure members with behavioral health needs receive care in the most appropriate, least restrictive settings. The State will consider a broad spectrum of strategies for investment (e.g., technological solutions to facilitate providers' access to patients' medical histories upon arrival to the ED, data collection and analysis platforms, etc.).

The State will administer the funded activities with internal staffing resources, or designees determined through competitive procurements, interagency service agreements (ISAs) or other means. The State will determine the funding amounts for various activities within this initiative based on project scope, impact, feasibility, cost and need, among other criteria.

4.6.8 Improved Accessibility for People with Disabilities or for whom English is not a Primary Language

This investment will fund programs to support providers in the acquisition of equipment, resources and expertise that meet the needs of people with disabilities or for whom English is not a primary language. The State will consider a broad spectrum of strategies for investments (e.g., funding for purchasing items necessary to increase accessibility for members, accessible communication assistance and development of educational materials for providers and members).

The State will administer the funded activities with internal staffing resources, or designees determined through competitive procurements, interagency service agreements (ISAs) or other means. The State will determine the funding amounts for various activities within this initiative based on project scope, impact, feasibility, cost and need, among other criteria.

4.7 DSRIP Carry Forward

Given that a significant portion of DSRIP funds will be disbursed on a PMPM basis, lower than anticipated member participation in the ACO or CP programs may lead to lower actual expenditures in a given DSRIP year. Therefore, the State may carry forward prior year DSRIP expenditure authority from one year to the next for reasons related to member participation fluctuations. This carry forward authority will extend to the following funding streams; as these areas are directly related to and impacted by member participation fluctuation.

- All ACO funding streams
- All CP funding streams
- Statewide Investments: technical assistance and workforce development grant programs
- State operations/implementation

The State may carry forward the DY2 and DY3 funding for the APM Preparation Fund and the Enhanced Diversionary Behavioral Health Activities Program, and the DY3 funding for the technical assistance program, workforce development grant program, and the Improved Accessibility for Members with Disabilities or for Whom English Is Not a Primary Language statewide investment into DY4 without counting against the carryforward 15% benchmark described in STC 60(d)(ii).

The State does not have carry forward authority for other funding streams within statewide investments. Per STC 60(d)(ii), if the expenditure authority carried forward from one year to another is more than 15% of the prior year's expenditure authority as set forth in Exhibit 1, then the State will submit a request to carry forward the expenditure authority for review and approval by CMS. Flexible Services funding will

not be included in expenditure authority carry forward calculations. CMS will respond to the State's request within 60 business days. If approved, the State will provide an updated funding allocation table to CMS in the next quarterly progress report to CMS. If the carry forward amount is less than or equal to 15% of the prior year's expenditure authority, then the State will provide an updated funding allocation table to CMS in the next quarterly progress report to CMS. The State must ensure that carry over does not result in the amount of DSRIP expenditure authority for DSRIP Year 5 being greater than the amount for DSRIP Year 4. Flexible Services funding will not be counted in either the DSRIP Year 4 or DSRIP Year 5 expenditure authority amounts for the purposes of this comparison.

Section 5. DSRIP Accountability Framework (State Accountability to CMS; ACO, CP and CSA Accountability to State)

5.1 Overview

The State has structured an accountability framework for its DSRIP program, under which the State is accountable to CMS for the State's achievement of delivery system reform goals. The State's failure to achieve the standards set for these goals may result in the loss of DSRIP expenditure authority according to the at-risk schedule set forth in STC 71(b). Any lost expenditure authority will result in parallel reduced DSRIP expenditures by the State. If the State experiences reduced expenditure authority from CMS, the State has discretion to determine whether and to what extent to reduce any of the four funding streams to best meet the State's programmatic needs while adhering to the State's DSRIP expenditure authority.

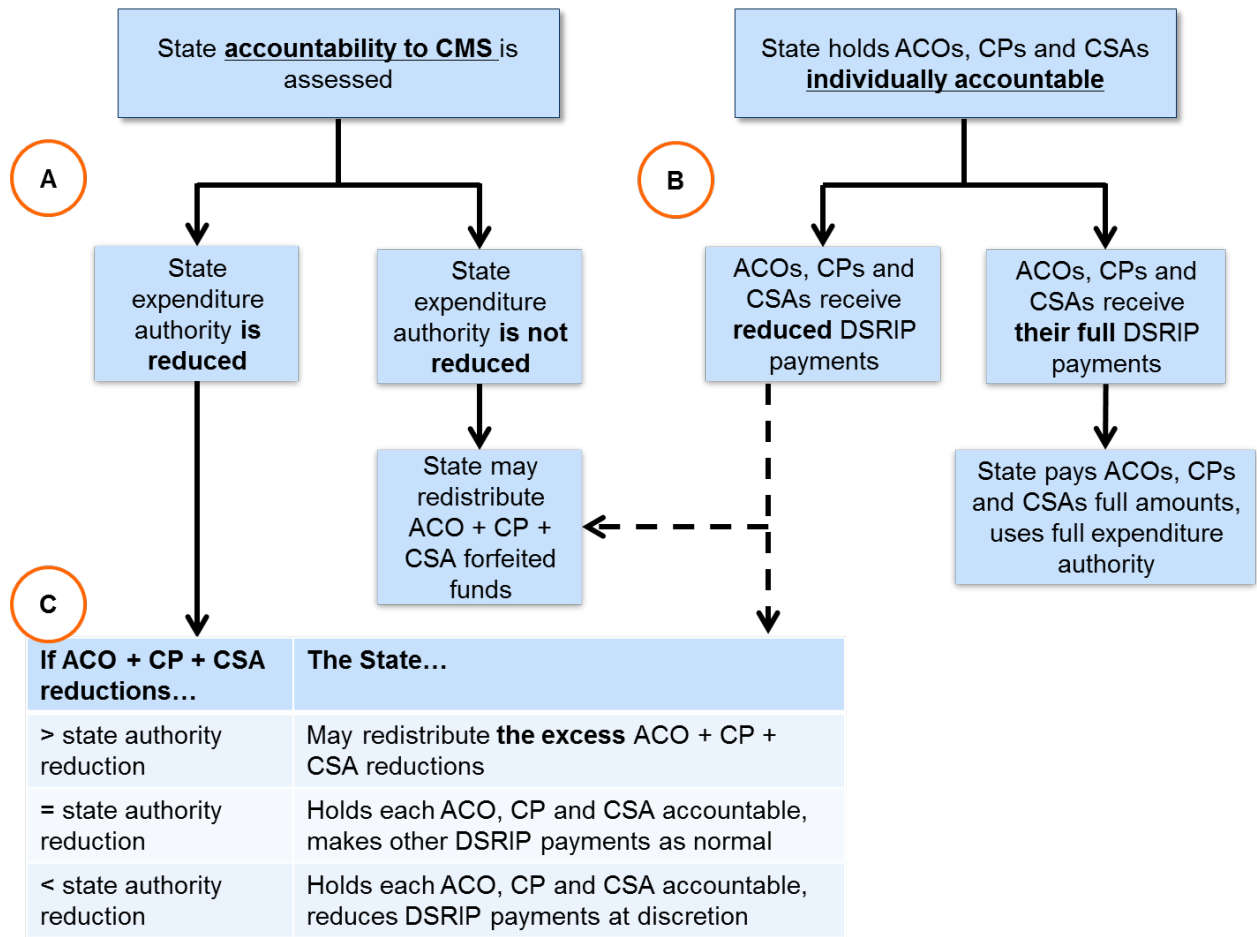
Separately, to maximize incentives for delivery system reform, ACOs, CPs and CSAs that receive DSRIP funds are each accountable to the State for their individual performance. An ACO's, CP's or CSA's failure to achieve the individual accountability standards set by the State may result in the ACO, CP or CSA receiving less DSRIP funding from the state. Any reduction in DSRIP funding experienced by an individual ACO, CP or CSA will not necessarily impact the State's overall DSRIP expenditure authority under the demonstration.

Exhibit 16 below illustrates the State's accountability to CMS, and also illustrates ACOs', CPs' and CSAs' accountability to the State and how these two accountability mechanisms interact.

This section will describe each step of these accountability mechanisms as follows:

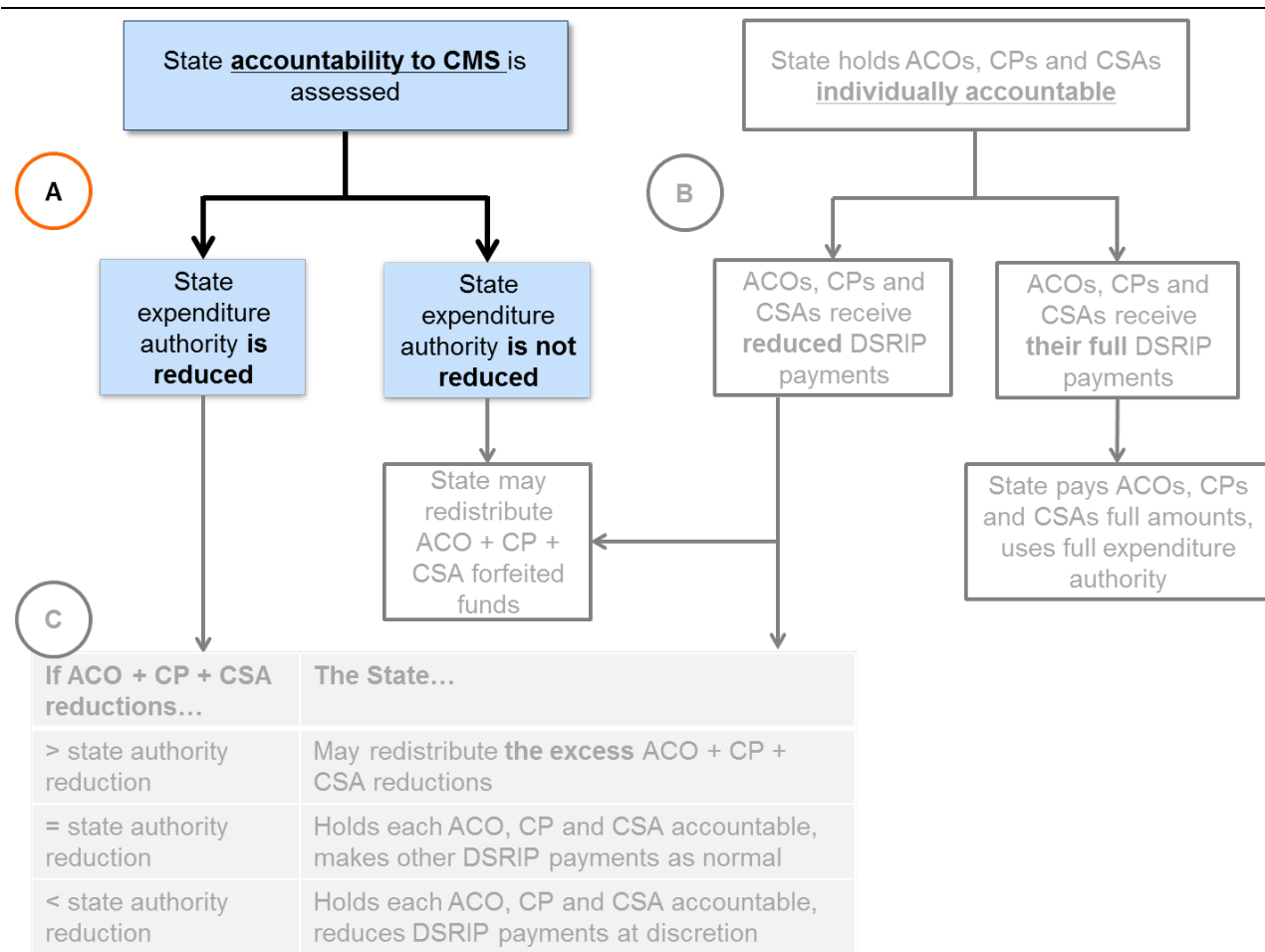
- Section 5.1: provides an overview of DSRIP Accountability Framework for the State to CMS and ACOs, CPs and CSAs to the State
- Section 5.2: provides detail on State Accountability to CMS
- Section 5.3: provides detail on accountability framework and performance based payments for ACOs
- Section 5.4: provides detail on accountability framework and performance based payments for CPs and CSAs
- Section 5.5: outlines reporting requirements for ACOs, CPs and CSAs

EXHIBIT 16 – Process Flow for State Accountability to CMS and Accountability of ACOs, CPs, and CSAs to the State



5.1.1 State Accountability to CMS

EXHIBIT 17 – Process Flow for State Accountability to CMS



A portion of the State’s DSRIP expenditure authority will be at-risk based on the State’s DSRIP Accountability Score according to the schedule set forth in STC 71(b). The portion of the State’s DSRIP expenditure authority that is at-risk will follow the same at-risk Budget Period structure as for the ACOs, CPs and CSAs.

The Preparation Budget Period and BP1 will not have any at-risk expenditure authority. BP 2 has at-risk expenditure authority, and the State anticipates that its Accountability Score will not be determined until the second quarter of BP4 at the earliest. Thus, the State anticipates that any reduced expenditure authority may be reflected in the State’s reduction of DSRIP payments during BP 5. As an example, if the State’s Accountability Score for BP 2 is 70%, then the State will lose the remaining 30% of its \$20.625M of BP 2 at-risk expenditure authority (i.e., \$6.1875M). The State may reflect this by subtracting up to \$6.1875M from its anticipated \$112M BP 5 DSRIP expenditure authority.

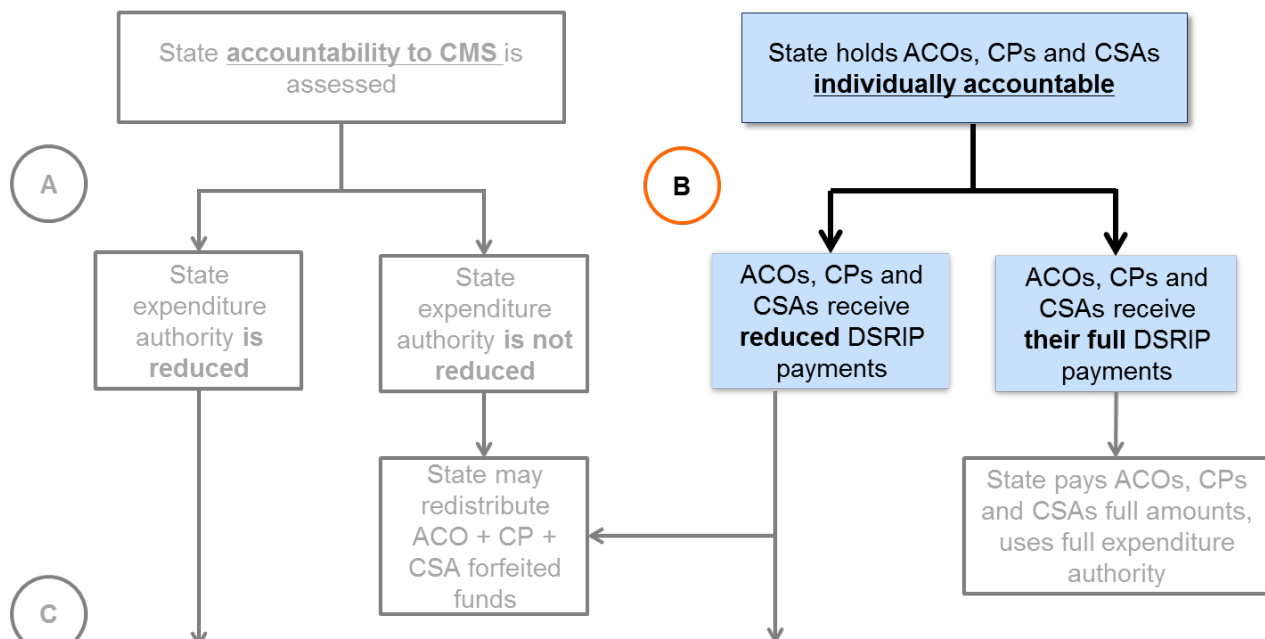
The State may also satisfy any reductions in DSRIP expenditure authority through retroactive recoupments from recipients of DSRIP funds, or through the State paying CMS back for any Federal Financial Participation the State retroactively owes for such reductions. For example, for Budget Periods 4 and 5, the State anticipates that there will be no upcoming Budget Periods for which to reduce DSRIP expenditures by the time the Accountability Scores for these Budget Periods are calculated; the State may therefore satisfy any reductions in DSRIP expenditure authority for these Budget Periods through such recoupments, through paying CMS back, or through identifying other cost savings in the DSRIP program, such as in the statewide investments or implementation/oversight funding streams.

If the State decides to recoup funding from ACOs or CPs, then it will first distribute the recoupment amounts among the ACOs and CPs as a class. One potential approach for this initial distribution is to

divide the recoupment amount according to the 5-year DSRIP expenditure authority for the ACO and CP funding streams, as detailed in Table G of the STCs (i.e., ACOs: \$1,065.6M, or 66.1%; CPs: \$546.6M, or 33.9%). To determine how much funding is recouped from individual ACOs, the State may take each ACO's DSRIP Accountability Score and calculate the difference from 100%. The State will then calculate a weight for each ACO that is equal to that ACO's "difference from 100%" divided by the summed total of all the ACOs' "difference from 100%". That weight will then be multiplied by the ACO portion of the recoupment amount to determine the amount of funding that the State will recoup from the ACO. As an example, if the State needs to recoup \$100 for BP4, then it will first divide the recoupment between the ACOs and CPs according to Table G of the STCs (i.e., ACOs and CPs will need to pay back \$66.10 and \$33.90, respectively). If there are two ACOs, and ACO 1 scored a 90%, and ACO 2 scored a 60% (corresponding to "differences from 100%" of 10% and 40%, respectively), then ACO 1 would need to pay back $\$66.10 * (10\% / (10\% + 40\%)) = \13.22 , and ACO 2 would need to pay back $\$66.10 * (40\% / (10\% + 40\%)) = \52.88 . The State may implement a different methodology for recouping funds from CPs and CSAs. The State will make a final determination of its recoupment methodology once it decides that it will recoup funds, and once it understands why the State had to recoup funds. For example, the recoupment methodology described above may be appropriate for poor statewide quality performance, but inappropriate for poor statewide APM adoption.

5.1.2 ACO, CP and CSA Accountability to the State

EXHIBIT 18 – Process Flow for ACO, CP and CSA Accountability to the State



If ACO + CP + CSA reductions...	The State...
> state authority reduction	May redistribute the excess ACO + CP + CSA reductions
= state authority reduction	Holds each ACO, CP and CSA accountable, makes other DSRIP payments as normal
< state authority reduction	Holds each ACO, CP and CSA accountable, reduces DSRIP payments at discretion

Regardless of the State’s performance with respect to its accountability to CMS, the State will separately hold each ACO, CP and CSA that receives DSRIP funds individually accountable for its performance on a slate of quality and performance measures. This structure maximizes performance incentives for these recipients.

This individual accountability is applied to each ACO’s, CP’s and CSA’s at-risk DSRIP funding for each budget period. The State intends to withhold the at-risk portion of ACO’s, CP’s and CSA’s funding until the respective Accountability Scores are calculated. The ACOs, CPs and CSAs will then receive a percentage of their withheld funds based on their Accountability Score (e.g., if an entity scores 0.6, it will receive 60% of the at risk funds) and will not receive the remainder. The State will not require ACOs, CPs and CSAs to submit budgets for these earned at risk funds.

As described above, ACOs receive four sub-streams of DSRIP payment. The mechanism for accountability differs slightly by stream, as explained in the table below.

EXHIBIT 19 – ACO ACCOUNTABILITY MECHANISM BY FUNDING SUB-STREAM

ACO Accountability Mechanism by Funding Sub-Stream		
Provider Type	Funding Sub-Stream	Mechanism for Individual Accountability
ACOs	Startup/Ongoing: <i>Primary Care Investment</i>	Fixed amount, not withheld or at-risk
	Startup/Ongoing: <i>Discretionary</i>	Withheld portion is fully at-risk each BP based on ACO’s Accountability Score
	DSTI Glide Path	Withheld portion is fully at-risk each BP based on ACO’s Accountability Score
	Flexible Services	Not at performance risk. ACOs fully at risk for any expenses not approved by the State.

The portion of Startup/Ongoing funding that is provided for each ACO to support primary care investments are not at performance risk in order to provide some measure of predictability and stability in this funding stream, to encourage innovative investments in primary care infrastructure, and to mitigate the risk of costly delays or changes in funding that might make front-line primary care providers more hesitant to invest in practice-level change.

The at-risk withheld amount differs between the discretionary Startup/Ongoing stream, and the DSTI Glide Path. In general, a smaller percentage of the DSTI Glide Path funding is at risk. This difference reflects the safety net status of these hospitals.

EXHIBIT 20 – Percent of ACO Funding At Risk by Budget Period

Percent of ACO Funding At Risk by Budget Period						
DSRIP Budget Period	Prep BP	BP 1	BP 2	BP 3	BP 4	BP 5
Startup/Ongoing (Discretionary) At-Risk	0%	5%	15%	30%	40%	50%
Glide Path Funding At-Risk	0%	5%	5%	10%	15%	20%

For ACOs that join after BP1, their at-risk schedule will start at the BP1 percent (i.e. 5%), and then follow

the schedule above with appropriate lag. For example, if an ACO joins in BP3, their at-risk schedule for the discretionary startup/ongoing funds would be: BP3 – 5%, BP4 – 15%, BP5 – 30%

CPs and CSAs also receive several funding streams, as described below. Funds for Infrastructure and Capacity Building are at risk for BH and LTSS CPs, and for CSAs. The amount of CP and CSA funds that are at-risk increases over the course of the program.

The accountability mechanisms for CPs and CSAs also vary by funding sub-streams, as described below. Funds for Infrastructure and Capacity Building are at risk for BH and LTSS CPs, and for CSAs.

EXHIBIT 21 – CP and CSA Accountability Mechanism by Funding Sub-Stream

CP and CSA Accountability Mechanism by Funding Sub-Stream		
Provider Type	Funding Sub-Stream	Mechanism for Individual Accountability
BH CPs	Care Coordination Supports	Funds are not at-risk
	Infrastructure & Capacity Building	Withheld portion is fully at-risk each BP based on CP's Accountability Score
	Outcome-Based Payments	Incentive pool based on performance on avoidable utilization measures
CSAs	Infrastructure & Capacity Building	At-risk portion of each BP based on CSA's Accountability Score
LTSS CPs	Care Coordination Supports	Funds are not at-risk
	Infrastructure & Capacity Building	Withheld portion is fully at-risk each BP based on CP's Accountability Score
	Outcome-Based Payments	Incentive pool based on performance on avoidable utilization measures

Exhibit 22 sets forth the anticipated amount of CP and CSA funding that is at risk by budget period.

EXHIBIT 22 – Amount of At-Risk CP and CSA Infrastructure and Capacity Building Funding by Budget Period

Percent of CP and CSA Infrastructure and Capacity Building Funding At-Risk by Budget Period						
DSRIP Budget Period	Prep BP	BP1	BP2	BP3	BP4	BP5
% of CP Infrastructure and Capacity Building Funding At-Risk	0%	0%	13%	42%	71%	100%
% of CSA Funding At-Risk	0%	0%	5%	10%	15%	20%

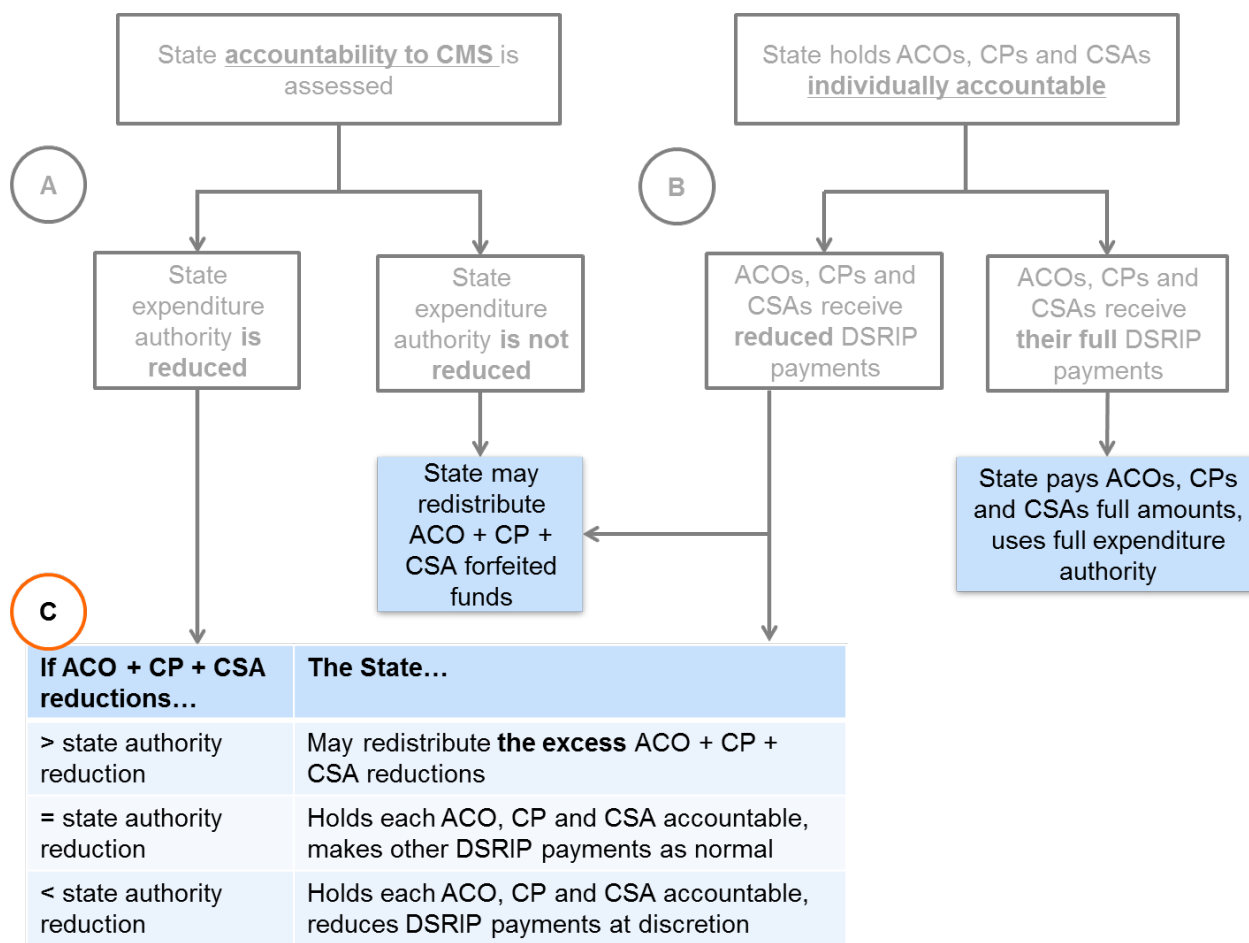
The State may update the at-risk percentages for CP infrastructure funding such that the total amount of at-risk CP funding is comparable to the original \$58.2M of at-risk CP funding, to the greatest extent possible based on the State's understanding of CP enrollment trends and other assumptions at the time of the update. For CPs or CSAs that join after BP1, their at-risk schedule will start at the BP1 percent (i.e. 0%), and then follow the schedule above with appropriate lag. For example, if a CP joins in BP3, their at-risk schedule for the DSRIP funds would be: BP3 – 0%, BP4 – 71%, BP5 – 100%.

In addition to holding ACOs, CPs, and CSAs accountable by designating a portion of their DSRIP funding as at-risk, the State will manage its contracts with these entities to ensure compliance with and satisfactory

performance of contractual requirements related to the DSRIP program. In the event of noncompliance or unsatisfactory performance, the State will determine the appropriate recourse, which may include contract management activities such as, but not limited to: working collaboratively with the ACOs, CPs, or CSAs to identify and implement new strategies to meet their contractual requirements, requiring the ACOs, CPs, or CSAs to implement corrective action plans, or reducing DSRIP payments to the ACOs, CPs, or CSAs. If the State reduces DSRIP payments to ACOs, CPs, or CSAs as part of its contract management efforts, the undisbursed funds may be redistributed among the other DSRIP funding streams at the State's discretion, following the parameters described in Section 5.1.3.

5.1.3 Distribution of Funds Based on Accountability

EXHIBIT 23 – Process Flow for Distribution of Funds Based on Accountability



Based on the State's assessments of individual accountability for each ACO, CP and CSA, individual ACOs, CPs and CSAs may not receive a certain amount of DSRIP funds each Budget Period, relative to the maximum each could potentially receive.

If the State's expenditure authority is not reduced based on its accountability to CMS, the State has discretion to redistribute the DSRIP funds not distributed to ACOs, CPs, and CSAs (e.g., to determine how much each of the funding streams and sub-streams is increased) to best meet the State's programmatic needs, subject to any limits described elsewhere in this Protocol. For example, the State will identify the amount of forfeited DSRIP funds it has available to redistribute, and then determine how it might reallocate the funds to other DSRIP funding streams. Any such redistributions would be reported with CMS in the

State's quarterly progress reports.

For example, as early as the end of Q2 of BP4, the State anticipates that the BP2 Accountability Scores for the State, ACOs, CPs and CSAs will become available. If ACOs lost \$1M of at-risk BP2 funds and the State earned a 100% DSRIP Accountability Score, then the State could reallocate that \$1M to a different funding stream or sub-stream, at the State's discretion, based on the State's assessment of program needs, in the remaining time left in BP4 (e.g., increase flexible services allocation for ACOs, increase care coordination funding amounts or the outcomes-based incentive pool for CPs, increase statewide investments funding or implementation/oversight funding), or may be used for future BP4 or BP5 payments. The allowable categories that the redistributed funds could be reallocated to are:

- ACO funding stream
 - Startup/ongoing
 - Flexible services
- Community Partners funding stream
 - Infrastructure and capacity building
 - Care coordination
 - Outcomes-based payments
- Statewide Investments funding stream
 - All statewide investments

If the State's expenditure authority has been reduced based on its accountability to CMS, the State will base its actions on the relative sizes of these reductions, as follows:

- If the amount of funds not distributed to ACOs, CPs and CSAs pursuant to their accountability scores is equal to the State's expenditure authority reduction based on the State's accountability to CMS, the State will satisfy its obligation to reduce DSRIP spending by reducing payments to these ACOs, CPs and CSAs based on their individual accountability arrangements with the State, and will make other DSRIP payments pursuant to this Protocol
- If the amount of funds not distributed to ACOs, CPs and CSAs pursuant to their accountability scores exceeds the State's expenditure authority reduction based on the State's accountability to CMS, the State will satisfy its obligation to reduce DSRIP spending by reducing payments to these ACOs, CPs and CSAs based on their individual accountability arrangements with the State, but the State may have left over expenditure authority after doing so. The State has discretion to redistribute these excess DSRIP funds not distributed to ACOs, CPs, and CSAs pursuant to their accountability scores (e.g., to determine how much each of the funding streams and sub-streams is increased) to best meet the State's programmatic needs, subject to any limits described elsewhere in this Protocol. Such redistribution of funds would follow the same processes described above for when the State's expenditure authority has not been reduced.
- If the amount of funds not distributed to ACOs, CPs and CSAs is less than the State's expenditure authority reduction based on the State's accountability to CMS (including if ACOs, CPs and CSAs receive all DSRIP funds under their accountability arrangements with the State), the State has discretion to determine whether and to what extent each of the four funding streams and sub-streams is reduced for an upcoming Budget Period to best meet the State's programmatic needs, subject to any limits described elsewhere in this Protocol. The State also has discretion to determine whether and to what extent to satisfy the reduced expenditure authority through retroactive recoupments from recipients of DSRIP payments or through separately paying CMS back for the Federal Financial Participation for any such reduced expenditure authority.
 - State DSRIP expenditures can be categorized as (1) non-at-risk payments and (2) at-risk payments which are dependent on the calculation of Accountability Scores. The State will make non-at-risk payments and then retroactively claim FFP for those payments. Given

that the FFP claiming for the non-at-risk payments for a particular Budget Period may occur before the State's Accountability Score is calculated for that Budget Period, it is possible for the State to claim more FFP than its reduced expenditure authority would allow. In this scenario, the State would reconcile its claimed FFP amount with CMS. If the State retroactively recoups funds from ACOs, CPs, or CSAs, it will follow the process laid out in Section 5.1.1.

5.2 State Accountability to CMS

As set forth in STC 71, a portion of the State's DSRIP expenditure authority will be at-risk. In accordance with STC 71, if the State's DSRIP expenditure authority is reduced based on an Accountability Score that is less than 100%, then the State will reduce future DSRIP payments in proportion to the reduced expenditure authority to ensure sufficient state funding to support the program. The portion of at-risk DSRIP expenditure authority is set forth in Exhibit 24. The amount of DSRIP Expenditure Authority expressed in row 1 of Exhibit 24 (and the corresponding table in STC 71(b)) is divided into Budget Periods solely for the purpose of calculating the amount of Actual Expenditure Authority At-Risk as indicated in row 3 of Exhibit 24.

EXHIBIT 24 – Percent of DSRIP Expenditure Authority At-Risk

DSRIP Budget Period	Prep BP and BP1	BP 2	BP 3	BP 4	BP 5
DSRIP Expenditure Authority	\$637.5M	\$412.5M	\$362.5M	\$275M	\$112.5M
% of Expenditure Authority At-Risk	0%	5%	0%	15%	20%
Actual Expenditure Authority At-Risk	\$0M	\$20.625M	\$0M	\$41.25M	\$22.5M

The amount of at-risk DSRIP expenditure authority lost will be determined by multiplying the State's DSRIP Accountability Score for a given BP by the amount of Actual Expenditure Authority At-Risk as indicated in row 3 of Exhibit 24. The Actual Expenditure Authority At-Risk as indicated in row 3 of Exhibit 24 will not vary based on carry forward or forfeited funds. The methodology for calculating the State's DSRIP Accountability Score is discussed in Section 5.2.1.

5.2.1 Calculating the State DSRIP Accountability Score

The State DSRIP Accountability Score will be based on three domains: (1) MassHealth ACO/APM Adoption Rate; (2) Reduction in State Spending Growth; and (3) ACO Quality and Utilization Performance. Each domain will be assigned a weight that varies by Budget Period. The weights for the State DSRIP Accountability domains are detailed in Exhibit 25:

EXHIBIT 25 – State DSRIP Accountability Domains

State DSRIP Accountability Domain	% Contribution to State DSRIP Accountability Score				
	Prep Budget	BP 1	BP 2	BP 3	BP 4-5
MassHealth ACO/APM Adoption Rate	NA	NA	30%	NA	20%
Reduction in State Spending Growth	NA	NA	NA	NA	25%
ACO Quality Performance	NA	NA	70%	NA	55%

The State will calculate the State DSRIP Accountability Score by multiplying the Score for each State DSRIP Accountability domain by the associated weight and then summing the totals together.

For example, the BP 5 State DSRIP Accountability Score is calculated using the following equation:
State DSRIP Accountability Score = (MassHealth ACO/APM Adoption Rate Score) * 20% + (Reduction in State Spending Growth Score) * 25% + (ACO Quality Performance Score) * 55%

If the State is able to earn 100% for the MassHealth/APM Adoption Rate Score, 30% for the Reduction in State Spending Growth Score, and 70% for the ACO Quality Performance Score, then the State's DSRIP Accountability Score would be:

$$\text{State DSRIP Accountability Score} = (100\%) * 20\% + (30\%) * 25\% + (70\%) * 55\% = 66\%$$

The State estimates that it will take approximately 18 months after the close of a Budget Period to calculate the State DSRIP Accountability Score, due to claims rollout and other administrative considerations. Thus, the State anticipates that it will provide its DSRIP Accountability Score and supporting documentation for a given Budget Period 7-8 quarters after the Budget Period ends. If the State DSRIP Accountability Score is not 100%, pursuant to STC 71(d), the State will submit to CMS a proposed Corrective Action Plan at the same time as it submits its State DSRIP Accountability Score and supporting documentation.

Corrective Action Plan

The Corrective Action Plan will include steps the State will take to regain any reduction to its DSRIP expenditure authority; and potential modification of accountability targets. The State's Corrective Action Plan will be subject to CMS approval. CMS will render a decision on approval or disapproval of requested Corrective Action Plan within 60 business days of receipt of Plan and prior to determining the amount of reduction to the State's DSRIP expenditure authority. If CMS does not approve the Corrective Action Plan, then the State's DSRIP expenditure authority will be reduced in accordance with the State DSRIP Accountability Score. If CMS approves the Corrective Action Plan, the State's DSRIP expenditure authority for the relevant Budget Period will be held intact and not reduced, contingent on the State successfully implementing the approved Corrective Action Plan. If the State fails to implement the Corrective Action Plan, then CMS will retrospectively reduce the State's DSRIP expenditure authority in accordance with the State's DSRIP Accountability Score. If the State partially implements the Corrective Action Plan, then CMS has the discretion to require a smaller retrospective reduction in the State's DSRIP expenditure authority.

5.2.1.1 State Accountability Domain 1: Calculating the MassHealth ACO/APM Adoption Rate

Under the MassHealth ACO/APM Adoption Rate accountability domain, the State will have target percentages for the number of MassHealth ACO-eligible members who are enrolled in or attributed to ACOs or who receive service from providers paid under APMs. The State will calculate the percentage of ACO-eligible members enrolled in or attributed to ACOs or who receive services from providers paid under APMs, as follows:

- ACO-eligible members shall be all members who are eligible to enroll in or be attributed to MassHealth ACOs
- The State shall count towards the State's achievement of ACO/APM adoption, all members who:
 - Are enrolled in or attributed to an ACO during the Budget Period
 - Are enrolled with a MassHealth MCO and receive primary care from a PCP that is paid by that MCO under a shared savings and/or shared risk arrangement, or is similarly held financially accountable by that MCO for the cost and quality of care under a State-approved APM contract
 - Receive more than 20% of their non-primary care services (either gross patient service revenue or net patient service revenue) from providers who are paid under episode-based payments, shared savings and/or shared risk arrangements, or who are similarly held

financially accountable for the cost and quality of care under a State-approved APM contract

The target adoption percentages will follow the schedule detailed in Exhibit 26.

EXHIBIT 26 – Target ACO/APM Adoption Rates

DSRIP Budget Period	Prep Budget	BP 1	BP 2	BP 3	BP 4	BP 5
ACO/APM adoption (as defined above)	NA	25%	30%	35%	40%	45%

If the State meets or surpasses the target for a given Budget Period, the State will earn a 100% score on this domain for that Budget Period. If the State does not meet the target, then it will earn a 0% score for that Budget Period.

5.2.1.2 State Accountability Domain 2: Reduction in State Spending Growth

In accordance with STC 71(f), the State will calculate its performance on reduction in state spending growth compared to the trended PMPM, as detailed in Exhibit 27 and the domain score will be determined according to a gap-to-goal methodology for each Budget Period, as detailed in STC 71(g). The PMPM used will be as follows:

4.4% - 2017 President’s Budget Medicaid Baseline smoothed per capita cost trend, all populations combined, 2017-2022

The State will be accountable to a 2.1% reduction in PMPMs for the ACO-enrolled population, off of “trended PMPMs” (described below) by BP 5. In Budget Periods 3 and 4, the State will have target reductions smaller than 2.1% off of the trended PMPM, as preliminarily detailed in Exhibit 27.

EXHIBIT 27 – Proposed Reduction Targets for ACO-Enrolled PMPMs

DSRIP Budget Period	Prep Budget	BP 1	BP 2	BP 3	BP 4	BP 5
% Reduction Target in ACO-enrolled PMPM vs. trended PMPM	NA	NA	NA	0.25% off of trended PMPM	1.1% off of trended PMPM	2.1% off of trended PMPM

The State and CMS will revisit the reduction targets for BP4 and BP5 by July 2021 in order to fully account for the impact of the state of emergency declared by the federal or state government.

Gap to Goal Methodology

In accordance with STC 71(f), the State will calculate its performance on reduction in State spending growth compared to the trended PMPM, and the domain score will be determined according to a gap-to-goal methodology for each Budget Period, as detailed in STC 71(g).

The State anticipates measuring spending performance against the PMPM spending reduction target up to 22 months after the close of each Calendar Year (CY) as follows. Baseline spending trends will be determined as early as Q4 of CY2020, according to the following methodology:

- Baseline PMPM spending in CY2017 will be calculated by dividing actual expenditures for dates of service in CY2017 in Included Spending Categories (as defined below), by the number of member months for all MCO and PCC -enrolled members (i.e., ACO-eligible population) for each Rating Category (RC).
 - RC 1 – Child: Enrollees who are non-disabled, under the age of 21, and in the MassHealth Standard or the Family Assistance coverage types as described in 130 CMR 505

- RC 1 – Adult: Enrollees who are non-disabled, age 21 to 64, and in the MassHealth Standard or the Family Assistance coverage types as described in 130 CMR 505
 - RC 2 – Child: Enrollees who are disabled, under the age of 21, and in MassHealth Standard or CommonHealth as described in 130 CMR 505
 - RC 2 – Adult: Enrollees who are disabled, age 21 to 64, and in MassHealth Standard or CommonHealth as described in 130 CMR 505
 - RC 9: Individuals ages 21 through 64 with incomes up to 133% of the federal poverty level (FPL), who are not pregnant, disabled, a parent or caretaker relative of a child under age 19, or eligible for other EOHHS coverage
 - RC 10: Individuals ages 21 through 64 with incomes up to 133% of the FPL, who are not pregnant, disabled, a parent or caretaker relative of a child under age 19, or eligible for other EOHHS coverage, who are receiving Emergency Aid to the Elderly, Disabled, and Children (EAEDC) through the Massachusetts Department of Transitional Assistance
 - Note: The medically frail population will be in RC 9 for the purposes of this Baseline PMPM calculation.
- A weighted-average Baseline PMPM will then be calculated by multiplying the PMPM rate for each RC by the proportion of ACO-eligible population member months represented within each RC to derive the Baseline PMPM.

$$Baseline\ PMPM^{CY2017} = \sum_n Actual\ PMPM_{RC\ n}^{CY2017} \times ACO\ elig\ pop\ RC\ proportion_{RC\ n}^{CY2017}$$

- Trended PMPMs for each RC will be calculated by applying a 4.4% annual growth rate to the CY2017 Actual Baseline PMPMs for each RC and year from CY2018 through CY2022, summarized as follows:

$$Trended\ PMPM_{RC\ n}^{YEAR\ t} = 1.044^t \times Actual\ Baseline\ PMPM_{RC\ n}$$

- For each measurement period, a weighted average Trended PMPM (the “Avg Trended PMPM”) will then be calculated by multiplying the Trended PMPM for each RC by the proportion of total CY2017 ACO-eligible member months represented within each RC, summarized as follows:

$$Avg\ Trended\ PMPM^{YEAR\ t} = \sum_n Trended\ PMPM_{RC\ n}^{YEAR\ t} \times ACO\ Elig\ RC\ proportion_{RC\ n}^{CY2017}$$

- If during the measurement period there are changes to Included Spending Categories or other material program changes not captured in the annual growth rate, the CY2017 Baseline and Trended PMPMs may be recalculated to reflect these changes, subject to CMS approval.
 - In particular, if the State identifies a material difference between the CY2017 ACO eligible population and the population of members and provider networks that participate in the ACO program during the performance years (e.g., if ACOs that have historically high costs for their member populations join the program), the State may request that CMS adjust the CY2017 baseline to account for such difference; the State shall provide supporting analysis in the event of such a request, and CMS will have 90 calendar days to review and approve the request.

For each Calendar Year, performance of the ACO population will be measured as follows:

- The medically frail population will be in RC 9 for all calendar years for the purposes of the following calculations.
- The State will divide actual expenditures in Included Spending Categories by eligible member months during the CY to generate raw PMPM spending for the ACO population within each RC. Actual expenditures will be based on date of service, and will be derived from Medicaid claims data, MCO encounter data, and/or accounting reports, summarized as follows:

$$ACO\ Pop\ Raw\ PMPM_{RC\ n}^{YEAR\ t} = ACO\ Pop\ Actual\ Expenditures_{RC\ n}^{YEAR\ t} \div ACO\ pop\ MM_{RC\ n}^{YEAR\ t}$$

- To adjust for differences in acuity, an average risk score for the ACO enrolled population in each measurement period as well as an average risk score for the CY17 ACO eligible population will be calculated using the DxCG risk model employed for ACO pricing.
- Raw PMPMs for the ACO population will be divided by risk scores to calculate risk-adjusted PMPMs, summarized as follows:

$$Adj\ PMPM_{RC\ n}^{YEAR\ t} = \frac{Raw\ PMPM_{RC\ n}^{YEAR\ t}}{ACO\ Pop\ Risk\ Score_{RC\ n}^{YEAR\ t} / ACO\ Elig\ Risk\ Score_{RC\ n}^{CY2017}}$$

- A weighted average risk-adjusted PMPM for the ACO population will be calculated by aggregating the products of the risk-adjusted PMPMs for each RC multiplied by the proportion of total CY2017 ACO-eligible population member months represented within each RC, summarized as follows:

$$Avg\ Adj\ PMPM^{year\ t} = \sum_n Adj\ PMPM_{RC\ n}^{YEAR\ t} \times ACO\ Elig\ pop\ RC\ proportion_{RC\ n}^{CY2017}$$

- Savings attributed to the “DSTI Glide Path” sub-stream payments will be subtracted from the weighted average risk-adjusted PMPM on an aggregate basis each CY.
 - DSTI Glide Path payments made during the CY will be subtracted from the DSTI payments made during CY2017 and divided by the total member months included in measurement year’s weighted average risk-adjusted PMPM. The resulting savings PMPM will be subtracted from the weighted average risk-adjusted PMPM to derive total PMPM spending for the ACO population (“Actual PMPM”), summarized as follows:

$$Actual\ PMPM^{YEAR\ t} = \frac{Avg\ Adj\ PMPM^{YEAR\ t} \times (DSTI\ payments^{CY2017} - DSTI\ Glide\ Path\ payments^{YEAR\ t})}{ACO\ pop\ member\ months}$$

- The percent reduction in Actual PMPM will be determined according to the following calculation: percent reduction = (Avg Trended PMPM minus Actual PMPM) / (Avg Trended PMPM), summarized as follows:

$$Percent\ reduction^{YEAR\ t} = \frac{Avg\ Trended\ PMPM^{YEAR\ t} - Actual\ PMPM^{YEAR\ t}}{Avg\ Trended\ PMPM^{YEAR\ t}}$$

Included Spending Categories

Determination of spending baseline and actual performance of the ACO population will take into consideration all expenses included in ACOs’ capitation rates and TCOC Benchmark calculations for year 1 of the ACO program. For the population of members attributed to MCO-Administered ACOs, the

determination of spending will be based on actual MCO expenditures for services to the population attributed to the ACO, and not on the State’s capitated payments to the MCO. These costs include costs for covered services such as physical health, behavioral health, most pharmacy, and supplemental maternity payments, but do not include costs for Long Term Services and Supports (LTSS) and certain other costs that are similarly excluded from ACO capitation rates and TCOC Benchmarks. In addition, the following expenditure categories shall be excluded from both baseline and actual performance measurement for the purposes of the state’s TCOC accountability to CMS, regardless of their inclusion in or exclusion from ACO TCOC:

- Hepatitis C drugs
- Other high-cost emerging drug therapies (e.g., treatment for cystic fibrosis) that result in a significant increase in spending that is not reasonably in the control of an ACO to manage
- Children’s Behavioral Health Initiative
- Applied Behavioral Analysis
- Substance Use Disorder Services listed in STC 41, Table D
- Non-covered services
- All DSRIP expenditures except those for the DSTI Glide Path sub-stream as described above
- Payments made in accordance with Attachment Q of the 1115 Waiver Demonstration and other quality incentive payments
- All administrative payments made to ACOs, or to MCOs for MCO-Administered ACO members

The State may submit requests for additional exclusions or Baseline PMPM adjustments for CMS approval by submitting an amendment to the Protocol. CMS will have 60 business days to review and respond to these methodology modification requests.

PMPM Spending Reporting Tool

The State and CMS will jointly develop a reporting tool (using a mutually agreeable spreadsheet program) for the State to use for annual PMPM spending demonstration and in other situations when an analysis of ACO-enrolled population PMPM spending is required. A working version of the reporting tool will be available for the State’s report for the fourth quarter of the third Budget Period.

5.2.1.3 State Accountability Domain 3: Overall Statewide Quality Performance

In accordance with STC 71, the State will annually calculate the State performance score for each quality domain by aggregating the performance scores across all ACOs in an unweighted fashion. The anticipated weighting of each domain to the Overall Statewide Quality Performance is detailed in Exhibit 28. The overall DSRIP quality domain score will be determined by calculating a weighted sum of the DSRIP domain scores, according to the domain weights detailed in Exhibit 28. Please see Appendix D for example calculations.

EXHIBIT 28 – Anticipated Weighting of State Quality Domains

Domain	BP1	BP2	BP3	BP4-5
<i>Clinical Quality Measures</i>				
Prevention & Wellness	N/A	85%	N/A	45%
Care Integration		N/A	N/A	40%

<i>Patient Experience Surveys</i>				
Overall Rating and Care Delivery	N/A	15%	N/A	7.5%
Person-centered Integrated Care	N/A	N/A	N/A	7.5%

N/A – indicates no quality measures are in Pay-for-Performance (P4P) and do not factor into the State Accountability scoring.

The measures within the domains are the same measures for the State as for the ACOs (i.e., Appendix D). For an ACO, measures within a given domain all contribute to that ACO's domain score equally (unless otherwise indicated in Appendix D). For the State Accountability Domain Scores, ACO domain scores are aggregated across all ACOs, where each ACO domain score contributes to its associated State Accountability Domain Score equally.

Scoring for All Domains

The State will calculate two scores:

- **Aggregate domain score** – the domain score calculated by aggregating scores from all ACOs
- **DSRIP domain score** – the domain score used in the calculation of the State DSRIP Accountability Score; dependent on how aggregate domain scores in a given year compare to pooled scores in all previous DSRIP Budget Periods

For the purposes of calculating the aggregate domain scores for State Accountability, the State will include only Achievement points from the ACOs (as outlined in Section 5.3.1). Pay-for-Reporting (P4R) points obtained in BP1 or Improvement Points obtained in BP 2-5 (as outlined in Section 5.3.1) are not included in the State Accountability calculations.

The aggregate domain score is determined by calculating the median value across all ACOs for the particular domain in question. To allow for consistent comparisons, only ACO achievement points are used in the calculation. For example, if the State has three ACOs (ACO₁, ACO₂, ACO₃), and those ACOs achieve domain scores of 30%, 50% and 70% for the Prevention & Wellness (P&W) domain, respectively, then the aggregate domain score for the P&W domain would be 50%, as this value is the median (i.e., middle) value from this distribution.

After calculating the aggregate domain scores for the current BP and a particular domain, the State will calculate the DSRIP domain score for that particular domain. The State will use a two-tailed, un-matched, Wilcoxon rank-sum test (hereinafter “Wilcoxon test”) to calculate whether the aggregate domain score in the current BP is statistically better, not statistically different, or statistically worse, as compared to the pooled aggregate domain score from previous BPs. The State will use a p-value of 0.05 to establish statistical significance.

- If the aggregate domain score in the current BP is better and statistically significant ($p < 0.05$ using a Wilcoxon test) or not statistically different ($p \geq 0.05$ using a Wilcoxon test) than the pooled aggregate domain score from prior BPs; the State receives a 100% DSRIP domain score for the domain.
- If the aggregate domain score in the current Budget Period is worse, and statistically significant ($p < 0.05$, using a Wilcoxon test) than the pooled aggregate domain score from prior BPs; the State receives a 0% DSRIP domain score for the domain.

Using the Prevention & Wellness (P&W) domain in BP2 as an example:

- The P&W pooled aggregate domain score from BP1 is calculated using only the Achievement Points (as outlined in Section 5.3.1.2). Pay-for-Reporting (P4R) Points earned by ACOs in BP1 for the purposes of calculating ACO Accountability are not included.

- If the P&W aggregate domain score in BP2 is not statistically worse (i.e., comparable or statistically better) than the P&W aggregate domain score in BP1, then the BP2 P&W DSRIP domain score is 100%.
- If the P&W aggregate domain score in BP2 is statistically worse than the P&W aggregate domain score in BP1, then the BP2 P&W DSRIP domain score is 0%

Using the Prevention & Wellness (P&W) domain in BP4 as an example:

- The P&W aggregate domain score for BP1 is calculated using only the Achievement Points (as outlined in Section 5.3.1.2). Pay-for-Reporting (P4R) Points earned by ACOs in BP1 for the purposes of calculating ACO Accountability are not included. The P&W aggregate domain score for BP2 is calculated using the Achievement Points (as outlined in Section 5.3.1.2). Improvement points potentially earned by ACOs in BP2 for the purposes of calculating ACO Accountability are not included. Therefore, the pooled aggregate domain score from BP1 through BP2 is based only on the Achievement Points earned during those BPs.
- If the P&W aggregate domain score in BP3 is not statistically worse (i.e., comparable or statistically better) than the pooled P&W aggregate domain scores from BP1 through BP2, then the BP3 P&W DSRIP domain score is 100%
- If the P&W aggregate domain score in BP3 is statistically worse than the pooled P&W aggregate domain scores from BP1 through BP2, then the BP3 P&W DSRIP domain score is 0%

See Appendix C for a more detailed example of how to calculate the State's Quality Domain score.

5.2.2 DSRIP Expenditure Authority and Claiming FFP

The State must use a permissible source of non-federal share to support the DSRIP program. The non-federal share of DSRIP payments consists of revenues deposited in the State's MassHealth Delivery System Reform Trust Fund administered by the Executive Office of Health and Human Services. Sources of funds in the Delivery System Reform Trust Fund are deposited at the direction of the Legislature and include hospital assessments transferred from the Health Safety Net Trust Fund, General Fund dollars, and interest earned. The non-federal share will be used to support claiming of Federal Financial Participation (FFP), up to the State's DSRIP expenditure authority. The amount of DSRIP expenditure authority is dependent on the State DSRIP Accountability Score, which is described above in Section 5.2.1, which describes:

- How the State DSRIP Accountability Score is calculated
- The review and approval process for the State DSRIP Accountability Score, including how the State may submit a Corrective Action Plan to CMS if the State's DSRIP Accountability Score is not 100% for a given Budget Period

Federal Financial Participation is only available for DSRIP payments to ACOs and CPs in accordance with the DSRIP Protocol and Participation Plans; or to other entities that receive funding through the DSRIP statewide investments or DSRIP-supported state operations and implementation funding streams. The State may claim FFP for up to two years after the calendar quarter in which the State made DSRIP payments to eligible entities.

The State may claim FFP for up to \$1.8 billion in DSRIP expenditures, subject to all requirements set forth in the demonstration Expenditure Authority, Special Terms and Conditions, and this DSRIP protocol. A portion of DSRIP payments to ACOs, CPs and CSAs are at-risk (Exhibits 16 and 17), and the State will withhold these at-risk payments from the entities until their DSRIP Accountability Scores are calculated by the State. The draw of the FFP match for all at-risk funds, or reporting of payments on the CMS-64 form, will not occur until DSRIP Accountability Scores (see Sections 5.3 and 5.4.1) or DSRIP Performance Remediation Plan Scores (see Sections 5.3.4.2 and 5.4.6.1) have been calculated by the State. As described

in Sections 5.3.4.2 and 5.4.6.1, the State will calculate the DSRIP Accountability Scores and disburse the portion of the withheld at-risk funds that were earned. The State will report such expenditures on the CMS 64 form and draw down FFP accordingly.

5.2.3 Modification to State Accountability Targets

The State may modify State Accountability Targets during the demonstration period (e.g., in situations where an expensive, but highly needed prescription drug enters the market). The State will submit modification requests to CMS for review and approval. CMS will review and approve the proposed modifications within 90 calendar days of submission.

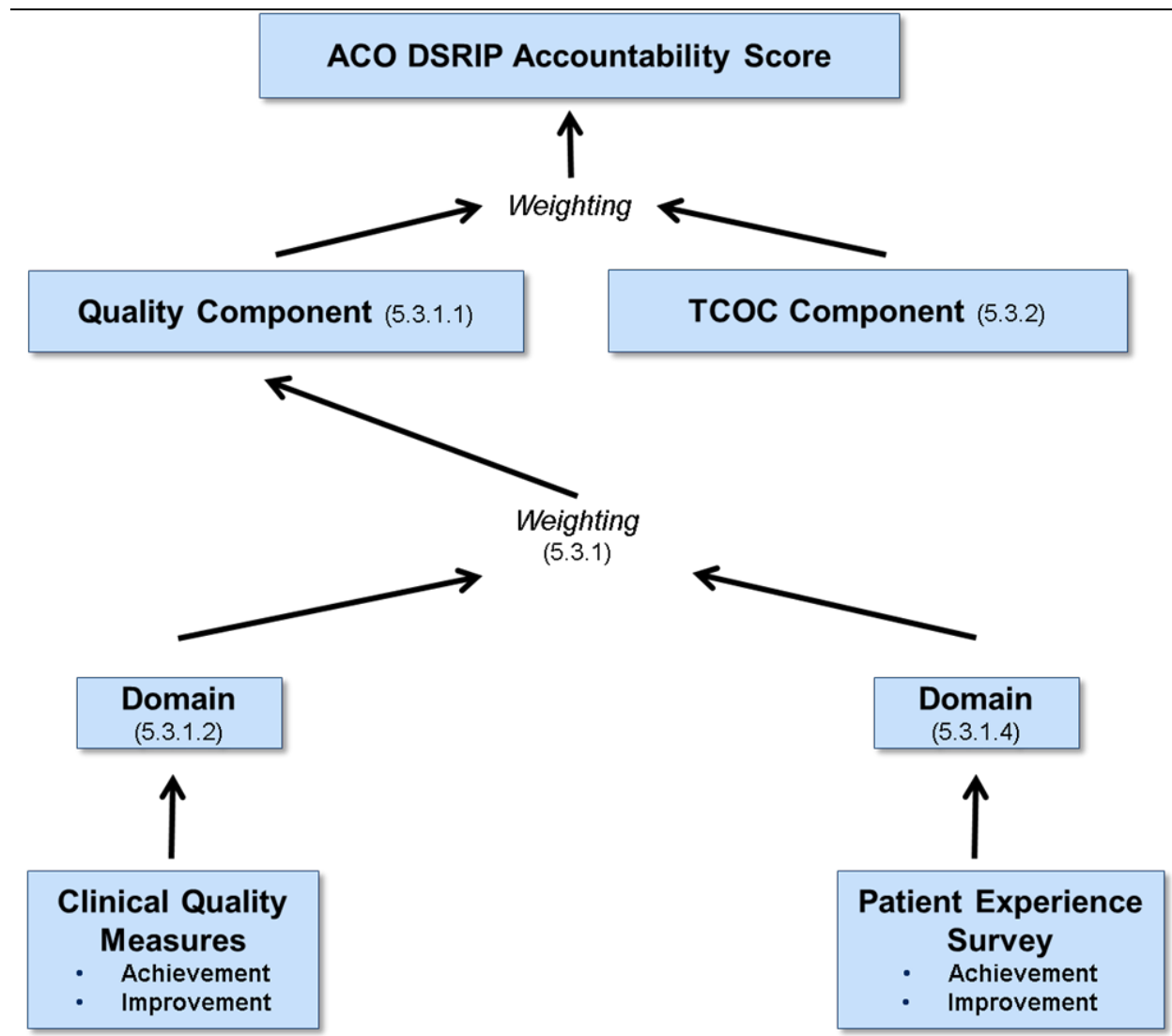
5.3 Accountability Framework & Performance Based Payments for ACOs

As described in Section 4.4 above, each of the four sub-streams of DSRIP funding that the State will pay to ACOs is subject to an accountability framework that aligns ACO incentives with the State's delivery system reform goals. For two of these sub-streams (Startup/Ongoing: discretionary; and DSTI Glide Path), the State will hold each ACO accountable for the ACO's individual performance by withholding a percentage of the funds each Budget Period, and retrospectively paying out a portion of the withheld amounts to the ACO based on the ACO's performance on clinical quality and member experience measures as well as on Total Cost of Care.

The State will measure ACO performance using a state-calculated score called the "ACO DSRIP Accountability Score." The ACO DSRIP Accountability Score is a value between zero (0) and one (1), expressed as a percentage (i.e., between 0% and 100%). The State will multiply each ACO's withheld funds for a given Budget Period by the ACO's ACO DSRIP Accountability Score for that Budget Period, and will retrospectively pay the ACO the resulting amount. Sections 4.4.1-4.4.3 focus on the technical methodology for calculating these scores. Section 4.4 describes process, timelines, key players and roles and responsibilities for calculating the scores.

- **Section 5.3.1: Quality and TCOC Components of the ACO DSRIP Accountability Score**
- **Section 5.3.2: TCOC Component of the ACO DSRIP Accountability Score**
- **Section 5.3.3: Impact of DSRIP Accountability Scores on Payments to ACOs**
- **Section 5.3.4: Process, Roles, and Responsibilities for calculating the ACO DSRIP Accountability Score**
- **Section 5.3.5: Timeline of ACO DSRIP Accountability Score data collection, calculation, and disbursement of DSRIP payments**

EXHIBIT 29 – Process Flow for Calculating the ACO DSRIP Accountability Score



5.3.1 Quality and TCOC Components of the ACO DSRIP Accountability Score

Each ACO's ACO DSRIP Accountability Score is produced by blending two separate measures of the ACO's performance during the Budget Period: (1) the Quality component of the ACO DSRIP Accountability Score; and (2) TCOC component of the ACO DSRIP Accountability Score. The Quality component of the ACO DSRIP Accountability Score is a score that the State will calculate that represents the ACO's performance on quality measures during the Budget Period. The TCOC component of the ACO DSRIP Accountability Score is a score that the State will calculate that represents the ACO's performance on TCOC management during the Budget Period. Each of these two scores is a value between zero (0) and one (1) expressed as a percentage (i.e., 0% to 100%).

For each ACO, the State will blend these two scores each Budget Period using a weighted average (i.e., the Quality component of the ACO DSRIP Accountability Score will be multiplied by a weight; the TCOC component of the ACO DSRIP Accountability Score will be multiplied by a weight; and the two resulting products will be summed to produce the ACO's ACO DSRIP Accountability Score). Exhibit 30 below shows the anticipated weights for each Budget Period.

EXHIBIT 30 – ACO DSRIP Accountability Domains

ACO DSRIP Accountability Domain Weights			
	Prep BP	BP 1-2	BP 3-5
Quality component of the ACO DSRIP Accountability Score	N/A	100%	75%
TCOC component of the ACO DSRIP Accountability Score	N/A	N/A	25%

ACOs do not have ACO DSRIP Accountability Scores during the Preparation Budget Period because no funds are withheld. ACOs will not have enrolled or attributed members during this period, and the State will therefore not be able to calculate performance on quality measures and TCOC metrics. During Budget Periods 1 and 2, the State will not hold ACOs accountable for TCOC performance in the ACO DSRIP Accountability Score, to allow ACOs time to analyze baseline TCOC performance, which will not be finalized for Budget Period 1 until close to the end of Budget Period 2.

5.3.1.1 Calculating the Quality Component of the ACO DSRIP Accountability Score by Combining Domain Scores

The State will calculate each ACO’s Quality Component of the ACO DSRIP Accountability Score based on the ACO’s performance on a range of State-defined quality measures. The quality measure slate was chosen to support the goals of the DSRIP program including promoting member-driven, integrated, coordinated care and improving integration among physical health, behavioral health, long-term services and supports, and health-related social services. In addition, the ACO measure slate has significant overlap with the CP measure slate, helping to align ACO quality evaluation with CPs and furthering integration. These measures are organized across four (4) Quality Domains. The State will calculate a Domain Score for each of these four (4) Quality Domains; each Domain Score will be a value between zero (0) and one (1) expressed as a percentage (i.e., 0% to 100%). The State will combine these four (4) Domain Scores using a weighted average (i.e., the State will multiply each Domain Score by a Domain Weight and will sum the weighted products to produce the ACO’s Quality Score for the Budget Period). The four (4) Quality Domains and their anticipated weights are listed below in Exhibit 31.

If an ACO does not meet eligibility requirements for a specific measure, then the weight assigned to the measure within the measure’s domain will be redistributed equally among all other measures within that domain. Thus, the overall domain weights will not increase or decrease as a result of measure ineligibility. If an ACO is ineligible to provide data on all measures within a given domain, the redistribution of that domain weight to other eligible domains will be reviewed by the DSRIP Quality Committee and the State, and will be submitted to CMS for review and approval within 90 calendar days prior to final DSRIP Accountability scoring.

If an ACO receives approval from the State to down-weight one or more measures in a domain, then the excess weight assigned to the measure or those measures within the measure’s domain will be redistributed equally among all other measures within that domain. Such a redistribution of measure weights will not impact the overall domain weights. For example, if a domain has 10 measures, each measure begins as being weighted at 10% of the domain score. If four of the measures are down-weighted such that they only contribute 2.5% each to the domain score, then the excess 30% is redistributed to the other six measures, such that they would be weighted at 15% of the domain score.

EXHIBIT 31 – ACO Quality Domains and Domain Weights

ACO Quality Domain Weights				
Quality Domain	Domain Weight: BP 1	Domain Weight: BP 2	Domain Weight: BP3	Domain Weight: BP 4-5
<i>Clinical Quality Measures</i>				

1	Prevention & Wellness	100% (P4R only)	85%	65%	45%
2	Care Integration		--	20%	40%
<i>Patient Experience Surveys</i>					
3	Overall Rating and Care Delivery	--	15%	15%	7.5%
4	Person-centered Integrated Care	--	--	--	7.5%

Appendix D displays the Clinical Quality Measures, including an indication as to whether the measure data will be collected via claims and encounter data only (“Admin”) or whether chart or record review data (“Hybrid”) will be utilized. Additionally, there is an indication of the expected “Pay-for-Reporting (P4R)”, “Reporting” and/or “Pay-for-Performance (P4P)” role in the program by Budget Period. Appendix D includes further details regarding the measures including measure descriptions. The State will send the initial measure specifications to CMS for review and approval by July 2017.

For Quality Measures that are primarily based on national measure specifications (e.g., NCQA HEDIS), where minimal changes have been made to the specification (e.g., a change from health plan population to ACO population), the State will use nationally available Medicaid benchmarks to establish its Attainment Thresholds and Goal Benchmarks where feasible (see Section 5.3.1.2). The State will propose these Attainment Thresholds and Goal Benchmarks to CMS by August 2017.

For Quality Measures for which there are related (i.e., same measure description) national measure specifications (e.g., ADA, AMA, CMS) but where changes may be significant (e.g., a change in risk adjustment methodology or a change from all-payer population to Medicaid-only population), the State will research existing data to determine if the related national and/or state/local data is applicable. If the existing data are relevant, the State will propose Attainment Thresholds and Goal Benchmarks for these measures to CMS by August 2017. If the existing data are not relevant, the State will propose Attainment Thresholds and Goal Benchmarks for these measures to CMS by November 2018 using CY2017 data (for claims-based measures) or November 2019 using CY2018 (for measures requiring chart review).

For novel measures, including member experience, the State will attempt to identify similar measures with similar specifications from other data sources (e.g., other DSRIP programs, statewide data, etc.) as a source for Attainment Thresholds and Goal Benchmarks. Should other sources not be available, the State will use state-specific data reported from its ACOs. In particular, the State anticipates using CY2017 historical MassHealth benchmarks for claims-based measures without appropriate national measure specifications, with the benchmark dataset potentially based on performance of MassHealth ACO-eligible members. For these measures, the State will propose Attainment Thresholds and Goal Benchmarks to CMS by November 2018.

The State anticipates using CY2018 MassHealth ACO-attributed benchmarks for patient experience measures, most measures that require chart review, or for most claims-based measures that were not previously collected prior to DSRIP (e.g. the measures in the Care Integration Domain). For these measures, the State will propose Attainment Thresholds and Goal Benchmarks to CMS by November 2019.

For claims-based measures that require more time to develop risk adjustment methodologies the State anticipates using CY2018 and/or CY2019 MassHealth ACO data for the purposes of benchmarking and will propose Attainment Thresholds and Goal Benchmarks to CMS in Q4 CY2021.

For ACO measures which require processing of CP qualifying activities, the State will propose Attainment Thresholds and Goal Benchmarks to CMS in Q4 CY2021.

All proposed benchmarks that the State submits to CMS will have been reviewed by the DSRIP Advisory Committee on Quality, and will be accompanied by individual rationales for each benchmark. CMS will provide written feedback on the proposed benchmarks and rationale within 90 calendar days. If CMS has not provided written feedback within 90 calendar days, then the benchmarks will be deemed approved,

given the necessity of providing these benchmarks to ACOs prior to the start of their next Budget Period. The State will annually evaluate the impact(s) of any measure specification changes on the measure benchmarks, and will review the changes and any need for adjusting established benchmarks with the DSRIP Advisory Committee on Quality. The State will submit to CMS a list of proposed changes to measure benchmarks each November prior to the start of the measurement year. The State will also share a rationale for such changes to CMS, and any changes will be subject to CMS approval.

5.3.1.2 Calculating ACO Quality Score in Budget Period 1 (BP1)

Clinical Quality measures in BP1 will be categorized as either “Reporting” or “Pay-for-Reporting” (P4R). Member Experience measures do not factor into the ACO Quality Score in BP1.

“Pay-for-Reporting” (P4R) applies to Hybrid measures which require ACOs to collect and report chart-review data (designated as “Hybrid” in Appendix D). P4R measures factor into the ACO Quality Score for BP1.

“Reporting” applies to administrative or claims-based measures (designated as “Admin” in Appendix D) which do not require ACOs to collect and report chart or record-review data. Reporting measures do not factor into the Total ACO Quality Score for BP1.

Domain-based scoring will not be used in Budget Period (BP) 1

The score for each Quality Measure in BP1 is calculated using a common methodology, described in this section. Each ACO may receive either zero (0) or one (1) Pay-for-Reporting (P4R) point for each Quality Measure.

- ACOs will earn one (1) Pay-for-Reporting (P4R) point if they provide timely and complete data for each Hybrid measure.
- ACOs will earn zero (0) Pay-for-Reporting (P4R) points if they do not provide timely and complete data for each Hybrid measure. There is no partial credit.

The Total ACO Quality Score in BP1 will be calculated by counting the number of Pay-for-Reporting (P4R) points earned in BP1 (as outlined above) and dividing this number by the number of assigned P4R measures (designated as “Hybrid” in Appendix D).

*For example, if an ACO submits timely and complete hybrid or clinical data on four (4) out of the five (5) P4R measures in BP1, the ACO will receive a Total ACO Quality Score in BP1 of **80%**.*

5.3.1.3 Calculating the Domain Score for Clinical Quality Measures (BP2, BP4, and BP5)

Clinical Quality Measures in BP2 through BP5 will be categorized as either “Reporting” or “Pay-for-Performance” (P4P). “Pay-for-Performance” (P4P) applies to the quality measures for which actual performance (measure score) will be used to calculate the Total ACO Quality Score for BP2 through BP5. Measures enter P4P status in BP2, BP3, or BP4 (as outlined in Appendix D). “Reporting” applies to administrative or claims-based measures which do not require ACOs to collect and report chart-review data. Reporting measures do not factor into the Total ACO Quality Score for BP2 through BP5. There are no Pay-For-Reporting (P4R) points included in BP2 through BP5.

ACOs are eligible to receive two (2) types of points for each Quality Measure: *achievement points* and *improvement points*. The achievement and improvement points are calculated using the methodology described in this section.

Achievement Points

Each ACO may receive up to a maximum of ten (10) achievement points for each Quality Measure, as follows:

1. The State will establish an “Attainment Threshold” and a “Goal Benchmark” for each Quality Measure as follows:

- a. “Attainment Threshold” sets the minimum level of performance at which the ACO can earn achievement points
 - b. “Goal Benchmark” is a high performance standard above which the ACO earns the maximum number of achievement points (i.e., 10 points)
2. The State will calculate each ACO’s performance score on each Quality Measure based on the measure specifications which will be reviewed and approved by CMS (see Section 5.3.4.2). Each Quality Measure’s specifications will describe the detailed methodology by which this performance score is calculated.
 3. The State will award each ACO between zero (0) and ten (10) achievement points for each Quality Measure as follows:
 - a. If the ACO’s performance score is less than the Attainment Threshold: 0 achievement points
 - b. If the ACO’s performance score is greater than or equal to the Goal Benchmark: 10 achievement points
 - c. If the performance score is between the Attainment Threshold and Goal Benchmark: the ACO receives a portion of the maximum 10 achievement points in proportion to the ACO’s performance. The State will calculate the number of achievement points using the following formula:
 - i. $10 * ((\text{Performance Score} - \text{Attainment Threshold}) / (\text{Goal Benchmark} - \text{Attainment Threshold}))$
 4. If the State finds that 75% of ACOs have not met the Attainment Thresholds for a particular measure, then the State may reset this benchmark to a lower standard for future Budget Periods with input from the DSRIP Advisory Committee for Quality, and CMS approval. If the State finds that 75% or more of ACOs have met the Goal Benchmarks for a particular measure, then the State may reset this benchmark to a higher standard for future Budget Periods with input from the DSRIP Advisory Committee for Quality, and CMS approval. If 75% of ACOs meet the adjusted Goal Benchmark, then the State may retire the measure and replace it with a new measure from the same domain. The new measure will enter into the slate as reporting only (if claims measure) or pay for reporting (if hybrid measure) for its first reporting year, switching over to pay for performance in the second or third year, depending on benchmark availability. Benchmarking for the new measure will follow the same methodology as outlined in Section 5.3.1.1
 5. The State will calculate Achievement Point totals for every measure, for every BP, for the purposes of the baseline period of the State Accountability Score Calculation (as outlined in Section 5.2.1.3).

Exhibit 32 below shows an example calculation of an ACO’s achievement points for a Quality Measure.

EXHIBIT 32 – Example Calculation of Achievement Points for Measure A

Measure A Attainment Threshold = 45% (e.g., corresponding to 25th percentile of HEDIS benchmarks)

Measure A Goal Benchmark = 80% (e.g., corresponding to 90th percentile of HEDIS benchmarks)

Example Calculation of Achievement Points for Measure A		
	Measure A Performance Score	Achievement Points Earned
Scenario 1	25%	0

Scenario 2	90%	10
Scenario 3	60%	4.29 *

**Achievement points earned = $10 * ((60\% - 45\%) / (80\% - 45\%)) = 4.29$ points*

Improvement Points (BP2, BP4, and BP5)

In addition to receiving achievement points based on performance (on a 0 to 10 scale), ACOs may earn improvement points for reaching established improvement targets for each Quality Measure. Improvement points will be calculated as follows:

1. The State will calculate each ACO's performance score on each Quality Measure based on the measure specifications. Each Quality Measure's specifications will describe the detailed methodology by which this performance score is calculated.
2. The State will compare each ACO's performance score on each Quality Measure to the ACO's performance score on that same Quality Measure from a previous Performance Year (excluding BP3 due to a state of emergency declared by the federal or state government)
3. The State will calculate an Improvement Target for each Quality Measure using the following formula. The Improvement Target is based on at least a 20% improvement each year in the gap between Goal Benchmark and the Attainment Level of each ACO measure.

- a. Improvement Target formula = $[(\text{Goal Benchmark} - \text{Attainment Level}) / 5]$

For example, for Measure A, if the Attainment Level is 50% and the Goal Benchmark is 60%, the Improvement Target is 2% $[(60 - 50)/5]$

- b. For the purposes of calculating the Improvement Target, the result is rounded to the nearest tenth (i.e., one decimal point).

For example, for Measure B, if the Attainment Level is 80% and the Goal Benchmark is 90.2%, the Improvement Target is calculated to 2.04% $[(90.2 - 80)/5]$ which rounds to 2.0%.

- c. Starting in BP2, the ACO may earn up to five (5) improvement points per measure per year for increases in measure score which meet or exceed the improvement target. The same improvement target is used for every ACO for each measure.

For example, for Measure B, the Improvement Target is 2.0%. If ACO performance in BP4 is 54.0% and if ACO performance in BP5 is 60.0%, the ACO improvement from BP4 to BP5 is 6.0% $[(60.0 - 54.0)]$ and the ACO is awarded 5 improvement points. No points above 5 are awarded for increases in excess of the improvement target.

- d. For the purposes of calculating the difference in ACO quality performance over a previous year, the results are rounded to the nearest tenth (i.e., one decimal point). Rounding takes place after the calculation.

For example, for Measure B, if ACO performance in BP4 is 54.54% and if ACO performance in BP5 is 60.17%, the ACO improvement from BP4 to BP5 is 5.63% $[(60.17 - 54.54)]$, and the ACO improvement will be rounded to the nearest tenth (i.e., one decimal point) to 5.6%.

- e. The Improvement Target is based on the *higher* of the original baseline (BP1) or any year’s performance prior to the current BP. This is intended to avoid rewarding regression in performance.

For example, for Measure B, assume ACO A performance in BP1 is 90.0% and the Improvement Target is 2.0%. If in BP4 the performance for ACO A decreases to 89.0%, in BP5 the ACO would need to reach 92.0% to reach the Improvement Target.

- f. ACOs will not earn improvement points if performance is lower in the current BP as compared to the prior BP (excluding BP3 due to a state of emergency declared by the federal or state government)

For example, for Measure B, the Improvement Target is 2.0%. If ACO performance in BP4 is 54.0% and if ACO performance in BP5 is 53.0%, the ACO improvement from BP4 to BP5 is -1.0% and the ACO is not eligible to receive any improvement points.

- g. There are several special circumstances:
 - i. *At or Above Goal:* ACOs with prior BP performance scores equal to or greater than the Goal Benchmark may still earn up to five (5) improvement points in each BP if improvement from the prior BP (excluding BP3 due to a state of emergency declared by the federal or state government) is greater than or equal to the Improvement Target.
 - ii. *At or Below Attainment:* ACOs with prior BP performance scores less than the Attainment Threshold may still earn up to five (5) improvement points each BP if improvement from the prior BP (excluding BP3 due to a state of emergency declared by the federal or state government) is greater than or equal to the Improvement Target, and performance in the current BP does not equal or exceed the Attainment Threshold. Additionally, ACOs with prior BP performance scores less than the Attainment Threshold and current BP performance scores equal to or above the Attainment Threshold may still earn up to five (5) improvement points if the improvement is greater than or equal to the Improvement Target.

EXHIBIT 33 – Example Calculation of Improvement Points for Measure B

Measure B Attainment = 48.9% | Goal = 59.4% | Improvement Target = 2.1%

	BP4 Score	BP5 Score	Improvement	Improvement Target Met	Improvement Points Earned
Scenario 1:	50.0%	52.1%	2.1%	Yes	5
Scenario 2:	50.0%	56.7%	6.7%	Yes	5
Scenario 3:	59.5%	63.0%	3.5%	Yes; above Goal Benchmark	5
Scenario 4	45.0%	48.0%	3.0%	Yes; below Attainment Threshold	5
Scenario 5:	46.0%	49.0%	3.0 %	Yes; crossing Attainment	5
Scenario 6:	45.0%	46.0%	1.0%	No	0

Domain Score

Domain-based scoring will not be used in Budget Period (BP) 1, as described in Section 5.3.1.2. In BP2,

BP4, and BP5, for each ACO, the State will sum the ACO’s achievement and improvement points for all Quality Measures within each Quality Domain. Improvement points earned in one Quality Domain may only be summed with achievement points from the same Quality Domain. The total number of points earned by the ACO in each domain cannot exceed the maximum number of achievement points available in the domain. The maximum number of achievement points in the domain is calculated by multiplying the number of Pay-for-Performance (P4P) measures in the domain, in the given BP, by the number of available achievement points per measure.

For example, if in BP4, there are ten (10) clinical quality measures in Domain X in Pay-for-Performance, and each measure is worth ten (10) achievement points, the maximum number of achievement points in Domain X would be 100. Assume that in BP5 there are now twelve (12) clinical quality measures in Domain X in Pay-for-Performance, and that each measure is worth ten (10) achievement points, the maximum number of achievement points in Domain X would be 120.

Cumulative Example:
Total number of measures in domain: 2
Maximum number of achievement points in the domain = 20
Measure Attainment = 48.9% | Goal = 59.4%
Improvement Target = [(Goal Benchmark – Attainment Level) /5] = [59.4-48.9]/5 = 2.1

For example, for Measure A, if ACO performance in BP4 is 54.54% and if ACO performance in BP5 is 58.17% the ACO will earn 8.8 Achievement Points $[10 * (58.17 - 48.9)/(59.4 - 48.9)]$. The ACO has improved from BP4 to BP5 by 3.63% $[(58.17 - 54.54)]$ which will be rounded to the nearest tenth (e.g., one decimal point) to 3.6% which exceeds the Improvement Target of 2.1%. Thus the ACO will earn five (5) improvement points. No points above 5 are awarded for increases in excess of the improvement target.

In this scenario the ACO would earn 13.8 points.

If there is only one (1) additional measure in the Domain and the ACO earned 9 total points for this measure; the total score for the ACO would be 20.0 (out of 20) given that domain scores are capped at the maximum number of achievement points (20) in the domain.

Once the total number of points has been calculated, the State will divide the resulting sum by the maximum number of achievement points that the ACO is eligible for in the domain to produce the ACO’s Domain Score. Domain Scores are a value between zero (0) and one (1) expressed as a percentage (i.e., 0% to 100%). In BP2, BP4, and BP5, the State will score each ACO on each P4P Quality Measure unless the ACO does not meet eligibility requirements for a specific measure based on the measure specifications (e.g., it does not meet the minimum denominator requirement) or as otherwise specified in Appendix D. In cases like this, the measure is not factored into the denominator. Reporting measures do not factor into the Domain Score. Additionally, improvement points do not count towards the denominator; they are therefore “bonus” points. Domain Scores are each capped at a maximum value of 100%.

Exhibit 34 below shows an example calculation of an ACO’s unweighted Domain Score for a Quality Domain.

EXHIBIT 34 – Example Calculations of Unweighted Domain Score

Example Calculations of Unweighted Domain Score	
Example 1	Domain only has two Quality Measures (Measure A and Measure B)
	Therefore, maximum number of achievement points is $2 \times 10 = 20$ points
	Measure A: Achievement points: 1.5
	Improvement Points: 0
	Measure B: Achievement points: 0
	Improvement Points: 5
	Total achievement points: $1.5 + 0 = 1.5$ points
Total improvement points: $0 + 5 = 5$ points	

Example 2	Sum of achievement and improvement points: $1.5 + 5 = 6.5$ points
	Unweighted domain score = $6.5/20 * 100 = 32.5\%$
	Domain only has two Quality Measures (Measure A and Measure B)
	Therefore, maximum number of achievement points is $2 \times 10 = 20$ points
	Measure A: Achievement points: 8
	Improvement Points: 5
	Measure B: Achievement points: 9.3
	Improvement Points: 0
	Total achievement points: $8 + 9.3 = 17.3$
	Total improvement points: 5 points
	Sum of achievement and improvement points: $17.3 + 5 = 22.3$ points
	However, total number of points cannot exceed maximum number of achievement points (20)
Therefore, total domain points = 20	
Unweighted domain score = $20/20 * 100 = 100\%$	

5.3.1.4 Calculating the Domain Score for Clinical Quality Measures in BP3

In order to address the impact of the state of emergency declared by the federal or state government on ACO quality performance, domain scores for BP3 are calculated using the following methodology.

Achievement Points

For each measure in pay-for-performance status in BP3 (as set forth in Appendix D), the State will decide whether to set the individual ACOs' BP3 measure performance rates to 1) the higher of the ACOs' BP3 or BP2 actual measure rates, or 2) the higher of the ACO's BP2 actual rates or the statewide median rates (i.e., measure level median performance among all ACOs) in BP2.

If the State determines BP3 measure performance rates by comparing the individual ACOs' BP2 actual rates to BP3 actual rates, then ACOs earn achievement points following the scoring approach set forth in Section 5.3.1.3. If the State determines BP3 measure performance rates by comparing individual ACOs' BP2 actual rates to the BP2 statewide median rates, then:

- For measures where an ACO demonstrates a higher BP2 rate than the BP2 statewide median, the ACO earns achievement points based on its own rate, following the scoring approach set forth in Section 5.3.1.3
- For measures where the statewide median demonstrates a higher rate than the ACO's own rate, the ACO earns achievement points based on the statewide median, following the scoring approach set forth in Section 5.3.1.3
- In order to prevent such cases where an ACO's measure performance rate would improve excessively through the use of the statewide median, the number of raw (i.e., percentage) points an ACO may earn when replacing an ACO actual measure rate with that of the statewide median rate is capped at 10 raw points

EXHIBIT 35 - BP3 Measure Rate Calculation with Raw Point Cap = 10.0

Measure	ACO BP2 Rate	BP2 Statewide Median	Performance Rate Used For BP3	Raw Point Cap
A	73.0%	74.0%	74.0%	No
B	73.0%	70.0%	73.0%	No
C	73.0%	80.0%	80.0%	No
D	73.0%	84.0%	83.0%*	Yes

*BP3 Performance Rate ‘capped’ at 83.0% (i.e., 73.0% + maximum allowance of 10.0 raw points, using BP2 state median)

Results from the ‘Performance Rate Used for BP3’ column are then compared to measure benchmarks for the calculation of Achievements Points, following the scoring approach described in Section 5.3.1.3

Improvement Points

If the State sets individual ACOs’ BP3 measure performance rates to be the ACOs’ actual BP3 measure rates, then the improvement point calculation process will follow the process used for BP2, BP4, and BP5, as described above in Section 5.3.1.2. If the State sets individual ACOs’ BP3 measure performance rates as either individual ACOs’ BP2 rates or the BP2 statewide median rates (capped or uncapped), then improvement point calculation for BP3 is determined by the following methodology:

Step 1: ACO Improvement

- a. For each applicable measure, ACO BP2 actual rates are compared to ACO BP1 actual rates
 - i. For measures where an ACO demonstrates improvement (i.e., reaches the predetermined improvement targets), the ACO earns improvement points
 - ii. For measures where an ACO fails to demonstrate improvement, then Step 2 is implemented

Step 2: Statewide Median Improvement

- a. For each applicable measure (i.e., from Step 1.a.ii), the statewide median for BP1 is compared to the statewide median for BP2
 - i. For measures where the State demonstrates improvement (i.e., reaches the predetermined improvement targets), the ACO earns improvement points

Note: The number of measures by which an ACO may use Step 2.a.i to earn improvement points is capped at a number to be determined by the State, thereby preventing an unintended inflation of ACO scores (see example in Exhibit 36)
 - ii. For measures where the State fails to demonstrate improvement, the ACO does not earn improvement points

EXHIBIT 36 - Example of Improvement Point Calculation with Cap = 3 Measures

Note: For purposes of simplicity, this example assumes each measure has the same Improvement Target across measures A-G

Measure Improvement Target = 2.1

State Improvement Median = 2.1

Measure	ACO BP1 Actual Rate	ACO BP2 Actual Rate	ACO Improvement	Improvement Used	Improvement Points Received (Source)
A	50.0%	53.1%	3.1	ACO = 3.1	YES (Step 1)
B	40.0%	49.1%%	9.1	ACO = 9.1	YES (Step 1)
C	59.0%	58.0%	-1.0	State Med = 2.1	YES (Step 2) cap count 1/3
D	65.0%	65.0%	0.0	State Med = 2.1	YES (Step 2) cap count 2/3
E	20.0%	22.0%	2.0	State Med = 2.1	YES (Step 2) cap count 3/3
F	25.0%	26.0%	1.0	State Med = 2.1	NO cap reached*
G	20.0%	30.0%	10.0	ACO = 10.0	YES (Step 1)

*In this example, this ACO used the state median improvement (2.1) for measures C, D, E, thereby reaching the cap of using the state median 3 times. As such, this ACO may not utilize the state median for measure F.

Note: Use of the state median only ‘counts’ toward the cap in such measures where its usage results in the allocation of improvement points. In other words, in such cases where the state median is higher than ACO improvement, but does not reach the Improvement Target, then use of the state median does not count toward the cap.

5.3.1.5 Calculating the Domain Score for Member Experience Quality Domains for BP 4-5

The Member Experience Quality Domains will be calculated based on surveying a representative sample of an ACO’s attributed members to assess their experience of care. The State anticipates assessing member experience for (1) primary care (commencing in CY2018), (2) BH (commencing in CY2019), and (3) LTSS (commencing in CY2020) services.

The State plans to procure a vendor to administer these member experience surveys for ACOs. The State will work in collaboration with its procured vendor to finalize the survey instruments, and identify questions and methodology for calculating survey results. The State is planning to use or adapt (as appropriate) validated instruments wherever possible to capture member experience for each population. For example, the State may use:

- For the population receiving primary care services:
 - CAHPS Clinician and Group Survey + CAHPS PCMH supplemental questions
- For the population receiving behavioral health services:
 - Massachusetts Department of Mental Health, Massachusetts Consumer Surveys (MCS): Based off of the Substance Abuse and Mental Health Services Administrations (SAMHSA’s) Mental Health Statistics Improvement Program (MHSIP) survey
- For the population receiving LTSS Services:

- HCBS CAHPS Survey: recently released by CMS, is the first cross-disability survey of home and community-based service (HCBS) beneficiary’s experience receiving long-term services and supports

ACOs will be evaluated based on surveys of a representative sample of their attributed members. Scores will be based on performance on a combination of composite and specific questions contained in each survey. Examples of question categories include but are not limited to:

EXHIBIT 37 – Examples of Survey Question Categories

Primary Care	Behavioral Health	LTSS
<ul style="list-style-type: none"> • Access to care • Communications • Comprehensiveness • Self-management support • Coordination of care • Helpful, Courteous, and Respectful Office Staff • Patient Ratings of the Provider • Self-management support (composite measure) • Comprehensiveness • Integration or coordination of physical health, BH, LTSS, and health-related social services 	<ul style="list-style-type: none"> • Access to services • Quality and appropriateness • Treatment outcomes • Person-centered planning • Social connectedness • Functioning • Self-determination • Integration or coordination of BH services by Community Partners 	<ul style="list-style-type: none"> • Getting needed services • HCBS staff reliability • Communication with HCBS staff • Getting help from case managers • Choice of services • Personal safety • Adequacy of medical transportation • Community inclusion and empowerment • Employment (supplement) • Integration or coordination of LTSS services by Community Partners

The scoring approach will be similar to the approach used for clinical quality measures where scoring is based on attainment of benchmarks for excellent performance and/or improved performance relative to previous performance (as described in Section 5.3.1.3).

Calculating the Domain Score for Member Experience Quality Domains for BP2 and BP3

In order to address the impact of the state of emergency declared by the federal or state government on ACO quality performance, member experience domain scores for BP2 and BP3 are calculated using the following methodology:

Achievement Points

For each composite in the Overall Care Delivery domain, the State will decide whether to set the individual ACOs’ BP3 performance rates to 1) the higher of their BP1 or BP2 actual rates, or 2) the higher of their BP2 or BP3 actual rates. Regardless of which comparison the State decides to use, the rate selected will be used not just for the BP3 performance rates, but also the BP2 performance rates, given that the timing of BP2 data collection (i.e., January through May of 2020) could lead to BP2 actual rates being variably impacted across ACOs as a result of the state of emergency declared by the federal or state government. Upon determination of the ACOs’ BP2 and BP3 performance rates, achievements points will be determined following the process set forth in Section 5.3.1.3.

EXHIBIT 38 Example of Member Experience Calculation When Deciding Between BP1 and BP2 Actual Rates

Composite	ACO	ACO	Performance
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	(Willingness to recommend - Adult)	BP1 Actual Rate	BP2 Actual Rate	Rate Used for Scoring BP 2 and BP3
	ACO A	85%	87.0 %	87.0%
	ACO B	89%	87.0%	89.0%

Improvement Points

Improvement point calculation for BP2 and BP3 is determined by the following methodology:

Step 1: ACO Improvement

- a. For each composite within a domain, compare ACO BP1 actual rates to BP2 performance rates
 - i. For composites where an ACO demonstrates improvement (i.e., reaches the improvement target), the ACO earns improvement points
 - ii. For composites where an ACO fails to demonstrate improvement, then Step 2 is implemented

Step 2: Statewide Improvement

- a. If the State sets individual ACOs' BP2 and BP3 performance rates to be the higher of their actual BP1 or BP2 rates, then for each composite within a domain, compare BP1 statewide median rates to BP2 statewide median rates. If the State sets ACOs' BP2 and BP3 performance rates to be the higher of their BP2 or BP3 actual rates, then for each composite within a domain, compare BP1 statewide median rates to the higher of BP2 statewide median rates or BP3 statewide median rates.
 - i. For composites where the State demonstrates improvement (i.e., reaches the improvement target), the ACO earns improvement points
 - ii. For composites where the State fails to demonstrate targeted improvement, the ACO does not earn improvement points

Note: In order to prevent such cases where an ACO's performance would improve excessively through the use of the statewide median, the number of composites by which an ACO may use Step 2.a.i to earn improvement points is capped at one

EXHIBIT 39 - Example of Improvement Point Calculation with Cap = 1 Composite

Note: This example assumes each composite has the same Improvement Target across composites A-D, and that the State is comparing BP1 rates to BP2 rates.

Measure Improvement Target = 1.0

State Improvement Median = 1.0

Composite - Example	ACO BP1 Actual Rate	ACO BP2 Performance Rate	ACO Improvement	Improvement Used	Improvement Points Received (Source)
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A – Willingness to Recommend (Adult Survey)	75.1%	75.9%	0.8 (target not met by ACO)	State Med = 1.0	YES (Step 2 applied)
B - Willingness to Recommend (Child Survey)	85.1%	87.0%	1.9 (target met by ACO)	ACO = 1.9	YES (Step 2 not needed)
C - Communications (Adult Survey)	89.5	88.7%	-0.8 (target not met by ACO)	State Med = 1.0	NO (Capped at 1: Composite A already received points)
D - Communications (Child Survey)	78.1%	78.5%	0.4 (target not met by ACO)	State Med = 0.8 (target not met by State)	NO

Calculation of Composite Scores

This section clarifies calculation of measures consisting of composite scores, applicable to ACO and CP member experience measures (and a subset of clinical measures). Calculation consists of the following methodology:

- Achievement points are averaged across composites within a measure (rounded to nearest tenth)
- Improvement points are averaged across composites within a measure (rounded to nearest tenth)
- The average composite achievement points value is applied to the sum of total achievement points in the domain
- The average composite improvement points value is applied to the sum of total improvement points in the domain

EXHIBIT 40: Example of Composite Scoring (4 Composites within a 1 Domain)

Domain: Overall Rating and Care Delivery (consisting of 4 composite scores)	Point Calculation
Composite 1: Willingness to Recommend-Adult Survey	Achievement points: 5.6 Improvement points: 5
Composite 2: Willingness to Recommend-Child Survey	Achievement points: 7.5 Improvement points: 0
Composite 3: Communications-Adult Survey	Achievement points: 8.0 Improvement points: 0
Composite 4: Communications-Child Survey	Achievement points: 9.1 Improvement points: 5
Average Achievement points:	$(5.6 + 7.5 + 8.0 + 9.1)/4 = 7.6$

<p>Average Improvement points: $(5 + 0 + 0 + 5)/4 = 2.5$</p> <p>Average Achievement points (7.6) and Average Improvement points (2.5) are summed (10.1) as total points. Total number of points cannot exceed the maximum available achievement points within a given domain (in this case 10); therefore, total domain points for the Overall Rating and Care Delivery domain = 10.0</p>

5.3.1.6 Quality Data Collection Approach

Quality measure data will be collected in one of three ways. Claims and encounter data will flow through the normal channels currently used to process and pay claims. Clinical data (i.e., data that will be extracted from EHRs) will initially be submitted to the State by ACOs, using spreadsheets and secure transmission methods (e.g., Secure File Transfer Protocol). The ultimate goal will be to have secure two-way data exchange between the State and ACOs to support continuous sharing of clinical quality data. Member experience will be measured via a patient experience survey performed by a vendor. The State anticipates that the survey will be conducted by typical methodologies such as by mail and/or phone.

5.3.2 TCOC component of the ACO DSRIP Accountability Score

Each ACO's TCOC component of the ACO DSRIP Accountability Score will be a value between zero (0) and one (1) expressed as a percentage (i.e., 0% to 100%) that reflects an ACO's performance at managing TCOC for its enrolled or attributed members. Each ACO's TCOC component of the ACO DSRIP Accountability Score will be calculated in the following manner:

If the ACO is a Primary Care ACO or MCO-Administered ACO, the State will perform the following comparison:

1. In advance of each Budget Period, the State will establish a Preliminary TCOC Benchmark for each ACO, working with the State's actuaries and following the detailed methodology for setting TCOC Benchmarks outlined in the State's ACO contracts
2. Approximately 7-8 quarters after the Budget Period has ended, the State will retrospectively calculate each ACO's TCOC Performance for the Budget Period
3. The State will retrospectively compare each ACO's TCOC Performance to its Final TCOC Benchmark, as set forth in the Primary Care ACO or MCO-Administered ACO contract. TCOC Performance, which will include only the Included Spending Category services set forth in Section 5.2.1.2, will reflect savings or losses after taking into account risk sharing arrangements with the State for the Budget Period. In the process, the State will make several updates to each ACO's Preliminary TCOC Benchmark to produce the ACO's Final TCOC Benchmark for the Included Spending Category services, including, for example, actuarial adjustments to account for the ACO's risk profile and population mix during the Budget Period

If the ACO is an Accountable Care Partnership Plan, the State will perform the following comparison:

4. Approximately 7-8 quarters after the Budget Period has ended, the State will retrospectively calculate each ACO's TCOC Performance for the Budget Period
5. The State will retrospectively compare capitation payments to the Partnership Plan's Non-High Cost Drug/Non-HCV actual medical expenditures (hereinafter "Total Medical Expense (TME)") as set forth in the Accountable Care Partnership Plan contract. TME performance, which will include only the Included Spending Category Services set forth in Section 5.2.1.2, will reflect gains or losses after taking into account risk sharing arrangements with EOHHS for the Budget Period, such as market level risk corridors. Administrative or underwriting gains or losses will not count towards gains or losses used to calculate the TCOC component of the ACO DSRIP Accountability Score

For all ACOs, after performing the above comparisons, the State will calculate the ACO's TCOC component as follows:

6. Based on the comparison, the State will calculate each ACO's TCOC component of the ACO DSRIP Accountability Score as follows:
 - If the ACO has savings or medical gains after risk sharing, then the ACO's TCOC component of the ACO DSRIP Accountability Score equals 100%
 - If the ACO has losses after risk sharing that exceed 5% of the Final TCOC Benchmark or exceed 5% of the ACO's risk adjusted medical capitation payments, then the ACO's TCOC component of the ACO DSRIP Accountability Score equals 0%
 - If the ACO has losses after risk sharing but they do not exceed 5% of the Final TCOC Benchmark or 5% of the ACO's risk adjusted medical capitation payments, then the ACO's TCOC component of the ACO DSRIP Accountability Score is proportionate to the magnitude of the ACO's losses, and is equal to:
 - For Primary Care ACOs and MCO-Administered ACOs: $(105\% * \text{Final TCOC Benchmark} - \text{TCOC Performance after risk sharing}) / (5\% * \text{Final TCOC Benchmark})$
 - For Partnership Plans: $(105\% * \text{risk-adjusted medical capitation payments} - \text{TME Performance after risk sharing}) / (5\% * \text{risk adjusted medical capitation payments})$
 - If the ACO has neither savings or medical gains nor losses after risk sharing, then the ACO's TCOC component of the ACO DSRIP Accountability score equals 100%.

EXHIBIT 41 – Example Calculations of TCOC component of the ACO DSRIP Accountability Score

Example Calculations of TCOC Component of the ACO DSRIP Accountability Score	
Final TCOC Benchmark = \$500 PMPM	
Scenario 1	ACO's TCOC Plan Share Performance is \$490 PMPM
	ACO has savings after risk sharing of \$10 PMPM, or 2%
	ACO has achieved savings, therefore the ACO's TCOC component of the ACO DSRIP Accountability Score is 100%
Scenario 2	ACO's TCOC Performance is \$550 PMPM
	ACO has losses after risk sharing of \$50, or 10%
	ACO has losses that exceed 5% of the TCOC Benchmark, therefore the ACO's TCOC component of the ACO DSRIP Accountability Score is 0%
Scenario 3	ACO's TCOC Performance is \$520 PMPM
	ACO has losses after risk sharing of \$20, or 4%
	ACO has losses that are less than 5% of the TCOC Benchmark, therefore the ACO's TCOC component of the ACO DSRIP Accountability Score = ((5% of the TCOC Benchmark - \$20) / 5% of the TCOC Benchmark) = ((\$25 - \$20) / \$25) = (\$5/\$25) = 20%

5.3.3 Impact of DSRIP Accountability Scores on Payments to ACOs

Once the State has determined the ACO's Quality and TCOC components of the ACO's DSRIP Accountability Score, it will calculate the DSRIP Accountability Score using the methodology described in Section 5.3.1. As an example:

Example Calculation of ACO DSRIP Accountability Score in BP4

- Quality Component of DSRIP Accountability Score in BP4: 75% (calculated as described in Section 5.3.1)
- TCOC Component of DSRIP Accountability Score in BP4: 80% (calculated as described in Section 5.3.2)
- Weight for Quality Component of DSRIP Accountability Score in BP4: 75% (as described in Exhibit 30)
- Weight for TCOC Component of DSRIP Accountability Score in BP4: 25% (as described in Exhibit 30)

$$\text{ACO DSRIP Accountability Score} = (\text{Quality Component} * \text{Weight of Quality Component}) + (\text{TCOC Component} * \text{Weight of TCOC Component}) = (75\% * 75\%) + (80\% * 25\%) * 100\% = 76.2\%$$

The DSRIP Accountability Score will then be applied to the ACO funding sub-streams that have a portion of funds at-risk. Specifically:

- ACO Sub-Stream #1 - Startup/Ongoing Funding (Primary Care): No at-risk funds
- ACO Sub-Stream #2 - Startup/Ongoing Funding (Discretionary): Portion of funds are at-risk, according to schedule detailed in Exhibit 20; DSRIP Accountability Score is multiplied by the at-risk funding amount to determine how much is earned

- ACO Sub-Stream #3 - Flexible Services Funding: No at-risk funds
- ACO Sub-Stream #4 - DSTI Glide Path Funding: Portion of funds are at-risk, according to schedule detailed in Exhibit 20; DSRIP Accountability Score is multiplied by the at-risk funding amount to determine how much is earned

5.3.4 Process, Roles, and Responsibilities for calculating the ACO DSRIP Accountability Score

5.3.4.1 Roles and responsibilities

The State will be responsible for establishing the elements that comprise the ACO DSRIP Accountability Score, including its Quality Measures, the specifications for each Quality Measure, the data sources for calculating the Quality Measures, the methodology for setting the Attainment Threshold and Goal Benchmark for each Quality Measure (where applicable) and the values of the thresholds and benchmarks themselves. This sub-section 5.3.4.1 details the roles and responsibilities of the State, the State’s DSRIP Quality Advisory Committee, and CMS with respect to these elements.

5.3.4.2 The State

The State will establish the elements that comprise the ACO DSRIP Accountability Score, based on the advice of the DSRIP Advisory Committee on Quality as described in this Protocol (see Section 6.2.1). By August 2017, the State will submit the Quality Measure slate and specifications, the benchmark sources, and performance thresholds (i.e., Attainment Thresholds and Goal Benchmarks) to CMS for review and approval.

The State may request modification to any element that comprises the ACO DSRIP Accountability Score, based on its own assessment or on the recommendation of the State’s DSRIP Advisory Committee on Quality. In the event that the State wishes to change a previously approved element that is a component of the ACO DSRIP Accountability Score, the State will submit a formal, written modification request to CMS for review and approval. CMS will have 90 calendar days to review and approve.

As part of its program management and contract oversight processes, the State will establish a structured process for ACOs to seek clarification on or request revisions to certain aspects of their ACO DSRIP Accountability Scores (e.g., if an ACO seeks clarification on the inclusion of certain members in the denominator for a Quality Measure’s performance score). Each ACO will identify a key contact, responsible for raising such issues to the State and working with the appropriate State personnel to discuss and resolve issues as appropriate. The State will also identify a reciprocal contact to liaise with each ACO and support these types of requests.

The State may provide an opportunity for ACOs to submit DSRIP Performance Remediation Plans to earn back a portion of the unearned, withheld funds, at the State’s discretion. The State may combine remediation opportunities for multiple years to streamline processes (e.g., combining BP2 and BP3 remediation processes into a single remediation process). If the State allows this opportunity, then an ACO may choose to provide the State a DSRIP Performance Remediation Plan within 30 calendar days of receipt of the State’s notification of the opportunity to submit a Performance Remediation Plan, in which case the ACO may have the opportunity to earn back up to 60% of the unearned, withheld funds, as further described below.

The DSRIP Performance Remediation Plan will include:

- As specified by the State, a detailed assessment of the reason(s) why:
 - The ACO did not or is not anticipated to achieve a 100% Quality Score, separately addressing State-specified measures on which the ACO scored less than full points; or
 - The ACO did not or is not anticipated to achieve a 100% TCOC Score; or
 - The ACO did not or is not anticipated to perform well on other quality, utilization, cost, or member experience metrics or analyses

- As specified by the State, discrete project(s) the ACO will undertake to address some or all of the reasons identified in the detailed assessment described above, along with rationale for why these activities are appropriate; or other discrete projects that align with the goals of the ACO's DSRIP Participation Plan
- A workplan, which includes a timeline for the implementation of these activities during a time period determined by the State, as well as identification of the resources that will be responsible for their completion
- An accountability plan for these activities, including any milestones or metrics the ACO anticipates and when the ACO anticipates realizing them, and also including a proposed model for the State to monitor the ACO's implementation of the proposed activities and their success or failure throughout the implementation time period (e.g., a schedule of site visits, staff interviews, desk reviews, etc.)

Within 45 calendar days of receiving the Performance Remediation Plan, the State and the Independent Assessor will review the Plan in parallel, and the State, considering the Independent Assessor's recommendation, will either request additional information regarding the Performance Remediation Plan, or approve it. During the State's review process, it will determine how much of the 60% of unearned, withheld funds the ACO will be able to earn back, based on the caliber and relevance of the Performance Remediation Plan to the goals of the ACO's DSRIP Participation Plan. The State will monitor the Plan during the implementation period on an ongoing basis. Additionally, the State will assign a Performance Remediation Plan Score to the ACO, based on the State's ongoing monitoring of the Plan, and supporting documentation submitted by the ACO in its semiannual progress report for the first half of the Budget Period in question. The Performance Remediation Plan Score will be a single point value between 0 and 10 inclusive, and will determine how much of the ACO's unearned, withheld funds can be earned back.

For example, if (1) an ACO has \$100,000 of unearned, withheld funds; (2) the State determines that an ACO will be able to earn back 50% of the ACO's unearned, withheld funds (out of a 60% maximum percentage); and (3) the ACO achieves a Performance Remediation Plan Score of 7 out of 10, then the ACO's final earned funds will be equal to $\$100,000 * 50\% * (7 / 10) = \$35,000$.

5.3.4.3 The DSRIP Advisory Committee on Quality

See Section 6.2.1 for discussion of the Advisory Committee on Quality's role.

5.3.5 Timeline of ACO DSRIP Accountability Score data collection, calculation, and disbursement of DSRIP payments

The timeline for ACO DSRIP Accountability Score calculation and disbursement of DSRIP payments to ACOs is anticipated to be as follows:

- ACO Budget Period Closes
- Member experience survey results 270 calendar days of BP closing
- State determines denominators and sample populations (i.e., the specific members whose data each ACO must submit) for the clinical quality measures within 210 calendar days of BP closing
- ACOs submit clinical quality data within 90 calendar days of receiving the denominators and sample populations for the clinical quality measures
- State calculates ACO DSRIP Accountability Score within 90 calendar days of receiving all underlying required data
- Once ACO DSRIP Accountability Scores have been calculated by the State, the State notifies ACOs of ACO DSRIP Accountability Score within 30 calendar days of determining Score

- State disburses DSRIP at-risk payments to ACOs within 30 calendar days of notification of their ACO DSRIP Accountability Scores

5.3.6 ACO Exit from the DSRIP Program

Per STC 69(b)(ii), if an ACO decides to exit the DSRIP program prior to the end of the five year 1115 waiver demonstration period, it will be required to return at least 50 percent of DSRIP startup/ongoing and DSTI Glide Path funding received up to that point.

ACO exit from the DSRIP program is defined as termination of the contract between an ACO and MassHealth for reasons other than the following reasons:

- Material financial losses resulting from poor total cost of care performance, as determined by the State
- Reasons outside of the ACO’s control, including but not limited to material changes to the Medicaid program, or material changes to the nature of the ACO’s participation in MassHealth resulting from legislation or other developments, as determined by the State
- Transition to a different ACO model (e.g., the ACO Partner in an Accountable Care Partnership Plan is approved to become a Primary Care ACO)

5.3.6.1 Other ACO Contract Terminations

Under its MassHealth contract, an ACO may experience material financial loss, defined as a loss greater than 3% medical losses relative to risk-adjusted medical capitation for Partnership Plans, or relative to the TCOC benchmark for Primary Care ACOs and MCO-Administered ACOs. If an ACO experiences material financial loss in one or more preceding Budget Periods and has a projected material financial loss in the current Budget Period, the contract between the ACO and MassHealth may be terminated and the ACO will be required to return DSRIP startup/ongoing and DSTI Glide Path funding in accordance with percentages established by the State.

If the ACO’s contract is terminated because the ACO, or in the case of an ACPP, the ACO Partner, is transitioning to a different ACO model, the State may waive the requirement that the ACO return DSRIP startup/ongoing and DSTI Glide Path funding to the State.

If the ACO’s contract is terminated and a portion of its practice sites join another ACO, then the State may reduce the amount of DSRIP startup/ongoing and DSTI Glide Path funding that the ACO is required to return to the State. In such cases, the State may reduce the required amount to be returned by the percentage of the ACO’s enrolled members attributed to the primary care practice sites joining another ACO.

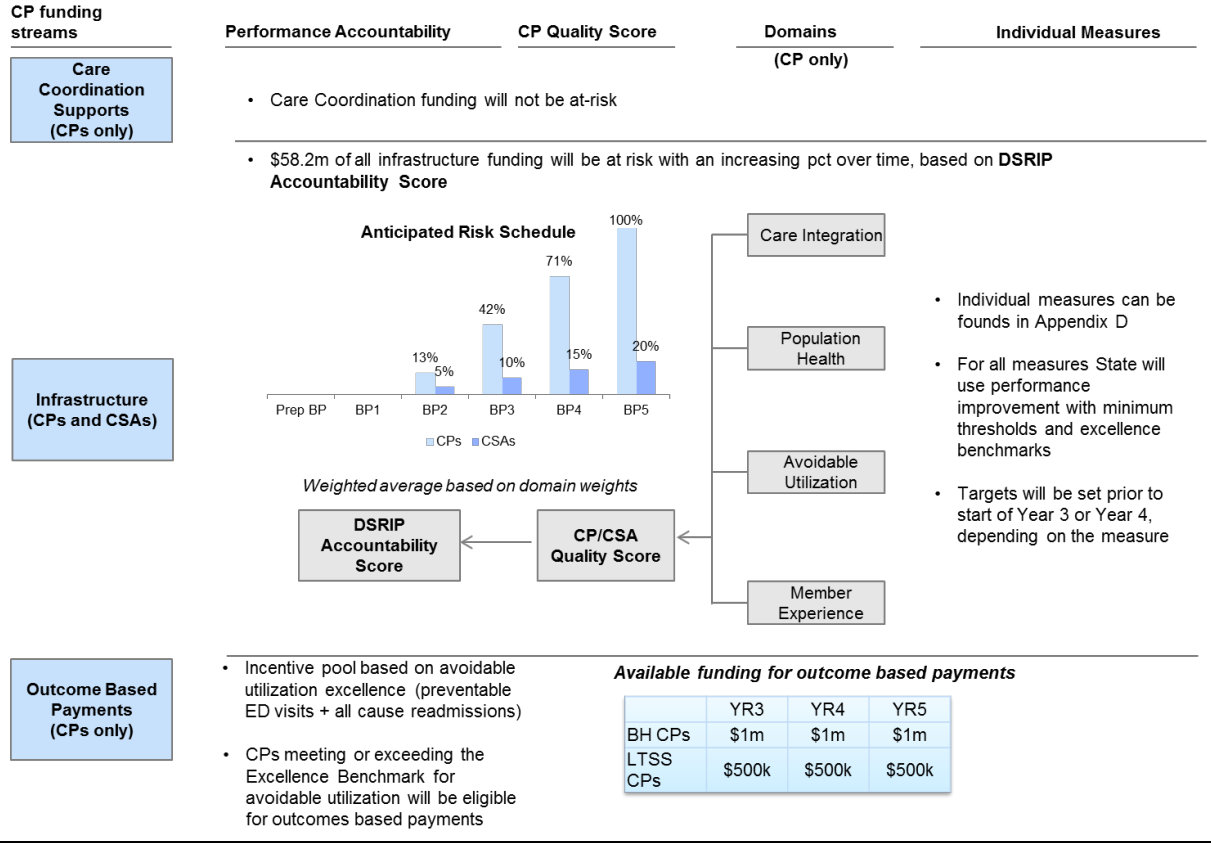
5.4 Accountability Framework & Performance Based Payments for CPs and CSAs

5.4.1 Overview

As described in Section 4.5 above, payment streams for CPs and CSAs are subject to an accountability framework that aligns the CPs’ and CSAs’ incentives with the State’s delivery system reform goals. For CPs and CSAs, a portion of the Infrastructure funds will be at-risk based on performance.

EXHIBIT 42 – CP and CSA Accountability Framework

CP Accountability Framework



5.4.2 Alignment of Quality Measure Slate with Overall Goals of the DSRIP program

The quality measure slate was chosen to support the goals of the DSRIP program including promoting member-driven, integrated, coordinated care and improving integration among physical health, behavioral health, long-term services and supports, and health-related social services. In addition, the CP and CSA measure slate has many cross-cutting measures with the ACO measure slate thus aligning the ACOs with their CPs and with CSAs.

Appendix D contains the measures for the LTSS and BH CPs and CSAs, along with an indication as to whether the measure data will be collected via claims and encounters only or whether chart review will be utilized. Additionally, there is an indication of the expected “reporting” and/or “performance” role in the program by program year. Appendix D includes further details regarding the measures including measure descriptions, measure stewards, benchmark sources and reporting frequency.

In the event of a state of emergency declared by the federal or state government, due dates for quality-related benchmarks and rates that the State must submit to CMS shall be extended by at least two months, as determined by the State and CMS.

5.4.3 Pay for Reporting vs. Pay for Performance

As demonstrated in Appendix D, the State anticipates that most Quality Measures will transition from Pay for Reporting (P4R) to Pay for Performance (P4P) over the duration of the program. All CP measures in the first two performance years are Reporting or Pay for Reporting (P4R), with a subset transitioning to Pay for Performance (P4P) starting in Performance Year 3. All measures will transition to P4P by Performance Year 4. Given the unique needs and demographics of the member populations supported by the CPs and CSAs, there are challenges to utilizing nationally established benchmarks for performance that

reflect the overall population. Therefore, the State will utilize the first two Performance Years of the demonstration to establish an appropriate baseline and achievement targets as described below for the quality measures. This will allow time for familiarization with the measures, data collection, reporting, as well as to provide baseline performance. This will also allow for two years of data to confirm, as needed:

- Numerator details
- Denominator details and exclusions
- Sampling methodology
- Sample size
- Data sources
- Measure reliability from year-to-year

5.4.4 Calculating the CP/CSA DSRIP Accountability Score

The State will measure performance using a state-calculated score called the CP/CSA DSRIP Accountability Score. The CP/CSA DSRIP Accountability Score is a value between zero (0) and one hundred (100), expressed as a percentage (i.e. between 0%-100%). This section details the State's calculation of each CP's and CSA's CP/CSA DSRIP Accountability Score as follows:

- 5.4.4.1 Measure Scoring Methodology for All Measures
- 5.4.4.2 Calculating the Domain Score
- 5.4.4.3 Combining Domain Scores to Produce Quality Score
- 5.4.4.4 Comparing Quality Scores to Calculate the CP/CSA DSRIP Accountability Score

5.4.4.1 Measure Scoring Methodology for All Measures

CPs and CSAs will be accountable for all measures as indicated in Appendix D unless the CP or CSA does not meet eligibility requirements for a specific measure based on the measure's specifications (e.g., a minimum denominator required).

Benchmark Determination

Given that the CP population is defined by utilization criteria and therefore does not have national benchmarks, the State anticipates using historical CY2018 and/or CY2019 data to inform benchmarking determinations for all claims-based measures, and CY2018 through CY2020 data to inform benchmarking determinations for all member experience measures. For example, the BH CP population by definition will include high-risk members with significant behavioral health diagnoses in addition to high utilization. National benchmarks for a general Medicaid population will be difficult to use for this selected high risk population; accordingly, the State will need to develop state-specific benchmarks.

In addition to requiring standard MassHealth administrative data for calculation, many CP and CSA measures also require additional data types or inputs including Medicare administrative data, data from the submission of Qualifying Activities, hybrid data, and risk-adjusted data. Given the limitations associated with availability of those data and in recognition of time needed for processing and analysis, the State will propose Attainment Thresholds and Goal Benchmarks to CMS as follows (see Appendix D for reference):

- For all LTSS CP and BH CP measures that can be calculated from MassHealth administrative data alone, inclusive of measures requiring Qualifying Activities, thresholds and benchmarks will be submitted in Q4 CY2021.
- For BH CP claims-based measures that require Medicare data in addition to Medicaid data, thresholds and benchmarks will be submitted in Q4 CY2021.
- For the CSA hybrid measure, thresholds and benchmarks will be submitted by September 2020 based on data sampled from CY2019 performance.

- For the CSA member experience measures, thresholds and benchmarks will be submitted by September 2020.
- For the BH CP and LTSS CP member experience measures (member engagement and care planning submeasures), thresholds and benchmarks will be submitted by November 2021.
- For the BH CP and LTSS CP member experience measures (community tenure submeasure), thresholds and benchmarks will be submitted in Q4 CY2021.

All proposed benchmarks that the State submits will have been reviewed by the DSRIP Advisory Committee on Quality, and will be accompanied by individual rationales for each benchmark. CMS will provide written feedback on the proposed benchmarks and rationale within 90 calendar days. If CMS has not provided written feedback within 90 calendar days, then the benchmarks will be deemed approved, given the necessity of providing these benchmarks to CPs so that they have sufficient time to plan accordingly.

Benchmarks will be adjusted based on expert clinical judgment from the DSRIP Advisory Committee on Quality and the State, with approval by CMS. Attainment Thresholds will be reviewed yearly and may be adjusted by the State based on prior CP or CSA performance, in consultation with the DSRIP Advisory Committee for Quality, and CMS approval. If all CPs have high levels of achievement on a particular measure, that measure will be retired and a new one may be added. Goal Benchmarks will be reviewed yearly and set with respect to the CP performance from the prior year. This will properly reward maintenance of quality, while not overly penalizing CPs.

CPs and CSAs will be assigned achievement points based on their performance on each Quality Measure. The Domain Score will be calculated as the average of the achievement points for all the Quality measures in a given Domain.

Each CP or CSA may receive up to a maximum of one (1) achievement point for each Quality Measure in a given Domain, as follows:

1. The State will establish an “Attainment Threshold” and an “Goal Benchmark” for each Quality Measure
 - a. “Attainment Threshold” sets the minimum level of performance at which the CP or CSA can earn achievement points
 - b. “Goal Benchmark” is a high performance standard above which the CP or CSA earns the maximum number of achievement points (i.e., 1 point)
2. The State will calculate each CP’s and CSA’s performance score on each Quality Measure based on the measure specifications which will be reviewed and approved by CMS (see Section 5.4.6.1). Each Quality Measure’s specifications will describe the detailed methodology by which this performance score is calculated
3. The State will award each CP or CSA between zero (0) and one (1) achievement point for each Quality Measure as follows:
 - a. If the CP’s or CSA’s performance score is less than the Attainment Threshold: 0 achievement points
 - b. If the CP’s or CSA’s performance score is greater than or equal to the Goal Benchmark: 1 achievement point
 - c. If the CP’s or CSA’s performance score is between the Attainment Threshold and Goal Benchmark: the CP or CSA receives a portion of the maximum 1 achievement point; this portion is proportional to the CP’s or CSA’s performance. The State will calculate the achievement point using the following formula:

- i. $1 * ((\text{Performance Score} - \text{Attainment Threshold}) / (\text{Goal Benchmark} - \text{Attainment Threshold}))$

Exhibit 43 below shows an example calculation of a CP’s achievement points for a Quality Measure.

EXHIBIT 43 – Example Calculation of Achievement Points for Measure A

Measure A Attainment Threshold = 45%

Measure A Goal Benchmark = 80%

Example Calculation of Achievement Points for Measure A		
	Measure A Performance Score	Achievement Points Earned
Scenario 1	25%	0
Scenario 2	90%	1
Scenario 3	58%	0.37 *

**Achievement points earned = $1 * ((58\% - 45\%) / (80\% - 45\%)) = 0.37$ points*

5.4.4.2 Calculating the Domain Score

Each Quality Domain comprises several Quality Measures. For each CP or CSA, the State will calculate the average achievement points for all Quality Measures in each Quality Domain.

Exhibit 44 below shows an example calculation of a CP’s or CSA’s Domain Score for a Quality Domain.

EXHIBIT 44 – Example Calculation of CP or CSA Quality Domain Score

Example Calculation of a CP's or CSA's Domain Score for a Quality Domain				
Measures in Quality Domain	Attainment Threshold	Goal Benchmark	Performance Score	Achievement Points Earned
Measure A	45%	80%	58%	0.37
Measure B	40%	75%	60%	0.57
Measure C	41%	85%	79%	0.86
Average Achievement Points Earned				0.60

5.4.4.3 Combining Domain Scores to Produce the Quality Score

A CP’s or CSA’s Quality Score will be a weighted average of scores the CP or CSA achieves on the different Domains for which it is accountable. The anticipated Domains and Domain weighting is different across BH CPs, LTSS CPs and CSAs, as set forth in the following Exhibits.

EXHIBIT 45 – Domain Weighting for BH CPs

BH CP Quality Domain Weights			
Quality Domain		Domain Weight BP 3	Domain Weight BP 4 - 5
1	Care Integration	45%	40%
2	Population Health	40%	35%
3	Avoidable Utilization	15%	10%
4	Member Experience	--	15%
TOTAL		100%	100%

See Appendix D for the full list of BH CP Quality Measures
 EXHIBIT 46 – Domain Weighting for CSAs

CSA Quality Domain Weights			
Quality Domain		Domain Weight BP 3	Domain Weight BP 4 - 5
1	Care Integration	100%	50%
2	Member Experience	0%	50%
TOTAL		100%	100%

See Appendix D for the full list of CSA Quality Measures.

EXHIBIT 47 – Domain Weighting for LTSS CPs

LTSS CP Quality Domain Weights			
Quality Domain		Domain Weight BP 3	Domain Weight BP 4 - 5
1	Care Integration	52%	40%
2	Population Health	32%	25%
3	Avoidable Utilization	16%	15%
4	Member Experience	0%	20%
TOTAL		100%	100%

See Appendix D for the full list of LTSS CP Quality Measures

EXHIBIT 48 – Example Calculation of the Quality Score for a BH CP

Example Calculation of Total Quality Score			
Domain	Weighting	Average Attainment Score	Weighted Attainment Score
Care Integration	40%	0.51	40%*0.51= 20.4%
Population Health	35%	0.60	35%*0.60= 21.0%
Avoidable Utilization	10%	0.73	10%*.73= 7.3%
Member Experience	15%	0.88	15%*0.88= 13.2%
Total Quality Score			61.90%

5.4.4.4 Comparing Quality Scores to Calculate the CP/CSA DSRIP Accountability Score in BP3

This section clarifies the application of sections 5.4.4.2 and 5.4.4.3 to BP3 to address the impact of the state of emergency declared by the federal or state government.

Achievement Points

For each measure in pay-for-performance status in BP3 (as set forth in Appendix D), the State will decide whether to set the individual CPs/CSAs' BP3 measure performance rates to 1) the higher of the CPs/CSAs' BP3 or BP2 actual measure rates, or 2) the higher of the CPs/CSAs' BP2 actual rates or the statewide median rates (i.e., measure level median performance among all CPs/CSAs) in BP2. If the State determines BP3 measure performance rates by comparing the individual CPs/CSAs' BP2 actual rates to BP3 actual rates, then CPs/CSAs earn achievement points following the scoring approach

set forth in Section 5.3.1.3. If the State determines BP3 measure performance rates by comparing individual CPs/CSAs' BP2 actual rates to the BP2 statewide median rates, then:

- For measures where a CP/CSA demonstrates a higher BP2 rate than the BP2 statewide median, the CP/CSA earns achievement points based on its own rate, following the scoring approach described in Section 5.4.4.1
- For measures where the statewide median demonstrates a higher rate than the CP/CSA's own rate, the CP/CSA earns achievement points based on the statewide median, following the scoring approach described in Section 5.4.4.1
- In order to prevent such cases where a CP/CSA's performance measure rate would improve excessively through the use of the statewide median, the number of raw (i.e., percentage) points a CP/CSA may earn when replacing a measure rate with that of the Statewide Median rate is capped at 15 raw points

EXHIBIT 49 - BP3 Measure Rate Calculation with Raw Point Cap = 15.0

Measure	BP2 CP/CSA Actual Rate	BP2 Statewide Median	Performance Rate Used For BP3	Raw Point Cap
A	73.0%	74.0%	74.0%	No
B	73.0%	70.0%	73.0%	No
C	73.0%	80.0%	80.0%	No
D	73.0%	89.0%	88.0%*	Yes

*BP3 Rate 'capped' at 88.0% (i.e., 73.0% + maximum allowance of 15.0 raw points, using BP2 State Median)

Results from the 'Performance Rate Used For BP3' column are then compared to measure benchmarks for the calculation of Achievements Points (as outlined in Section 5.4.4.1)

5.4.4.5 Comparing Quality Scores to Calculate the CP/CSA DSRIP Accountability Score

For each Performance Period CPs and CSAs will be measured on their (1) Total Quality Score and on (2) Improvement Over Self from the previous Performance Period. For each Performance Period, the State will set a Minimum Quality Score Threshold and a Goal Quality Score Benchmark for LTSS CPs, for BH CPs and for CSAs. Improvement Over Self will be calculated as 50% of the CP's or CSA's improvement year over year in percentage points.

The CP/CSA DSRIP Accountability Score, therefore, will be the sum of the (1) Total Quality Score and the (2) Improvement Over Self contribution. CP/CSA DSRIP Accountability Scores will be calculated as follows:

- An entity with a Total Quality Score at or above the Goal Quality Score Benchmark will receive a DSRIP Accountability Score of 100% and be eligible for 100% of at-risk funds.
- An entity with a Total Quality Score below the Minimum Quality Score Threshold will receive a DSRIP Accountability Score for Total Quality of Zero and will be eligible for only that portion of at-risk funds equal to the Improvement Over Self contribution. The entity would receive a Quality Score equal to 50% of the Improvement Over Self percentage points.
- An entity with a Total Quality Score between the Minimum Quality Score Threshold and the Goal Quality Score Benchmark will receive a DSRIP Accountability Score = (Total Quality Score) + (50% of the Improvement Over Self percentage points) and will be eligible for that proportion of the at-risk funds.

For example:

In a Performance Period in which, for BH CPs, the Minimum Quality Score Threshold is set at 45%

and the Goal Quality Score Benchmark is set at is 85%

- A BH CP with a Total Quality Score $\geq 85\%$ has a DSRIP Accountability Score of 100% and is eligible for 100% of the at-risk funds
- A BH CP with a Total Quality Score $< 45\%$ and with no improvement from the previous period has a DSRIP Accountability Score of 0% and is eligible only for improvement points. If a CP's Total Quality Score = 40% and a previous period Total Quality Score of 30%, then they would receive half of their Improvement Over Self percentage points, or $50\% * 10\% = 5\%$ of at-risk DSRIP funds.
- A BH CP with a Quality Score of 75% and a previous period Quality Score of 65% has a DSRIP Accountability Score of 80% ($75\% + 50\%$ of $(75\% - 65\%)$)

Budget Period 1 is reporting only and Budget Period 2 is reporting or pay-for-reporting as outlined in Appendix D. CPs and CSAs will be eligible for funds at risk in Budget Period 2 provided they comply with pay-for-reporting requirements. For example, if all required reporting elements are met (i.e., within minimum reporting standards set by the State), the entity will be eligible for 100% of the at-risk funds. Should a new CP or CSA join the program, the new CP's or CSA's first Budget Period will be used to establish baseline data for relevant Quality Measures. Should significant numbers (e.g., 10% increase in members) of new CPs or CSAs join the program, achievement targets may need to be re-calculated. The State will submit any such modification requests as described below in Section 5.4.6.1.

5.4.5 Outcomes Based Payments

Beginning in Performance Year 3, the State will establish an annual outcomes-based payment pool for both the BH and LTSS CPs. Any CP equaling or exceeding the Goal Benchmark for either of the two measures in the Avoidable Utilization domain in a given Budget Period will be eligible for outcomes-based payments for that Budget Period. Further, each of the two measures within the Avoidable Utilization domain will correspond to 50% of available funds within the outcomes-based payment pools for the BH CP and LTSS CP programs. For example, a BH CP that equals or exceeds the Goal Benchmark for an Avoidable Utilization measure will be eligible to share in the 50% of available funds within the BH CP outcomes-based payment pool for a specific Budget Period.

Each eligible CP will receive a portion of the outcomes-based payment pool based on the total number of eligible CPs. For example, if the total number of CPs that equal or exceed the Goal Benchmark for a measure within the Avoidable Utilization domain is 3, then each CP would receive 33.3% of the 50% of available funds within the outcomes-based payment pool corresponding to that measure.

5.4.6 Process for calculating CP/CSA DSRIP Accountability Scores

5.4.6.1 Roles and responsibilities

The State will be responsible for establishing the elements that comprise the calculating CP/CSA DSRIP Accountability Scores, including its Quality Measures, the specifications for each Quality Measure, the data sources for calculating the Quality Measures, the methodology for setting the Attainment Threshold and Goal Benchmark for each Quality Measure (where applicable), and the values of the thresholds and benchmarks themselves. The State will also establish the Minimum Quality Score Threshold and the Goal Quality Score Benchmark used to calculate the CP/CSA DSRIP Accountability Score. This sub-section 5.4.6.1 details the roles and responsibilities of the State, the State's DSRIP Advisory Committee, and CMS with respect to establishing these elements.

The State

The State will establish the elements that comprise the CP and CSA DSRIP Accountability Score, based on the advice of the DSRIP Advisory Committee on Quality (see Section 6.2.1). The State will submit the

Quality Measure slate and specifications to CMS for review and approval by November 2017.

Given that the State will be using the first two Budget Periods to gather baseline data to inform performance target setting beginning in BP3 (i.e. CY 2020), it will not have finalized data to calculate the BP3-BP5 targets until after the start of BP3. As such, the State will submit benchmark sources and preliminary performance thresholds (i.e., Attainment Thresholds and Goal Benchmarks) to CMS for review and approval in Q4 CY2021 (see Appendix D for reference). CMS will have 90 calendar days to review and approve. Once the State has processed the BP2 data, in November 2020, it will submit finalized performance targets based on both BP1 and BP2 data to CMS for review and approval. CMS will have 90 calendar days to review and approve.

The State may request modification to any element that comprises the CP/CSA DSRIP Accountability Score, based on its own assessment or on the recommendation of the State's DSRIP Advisory Committee on Quality. In the event that the State wishes to change a previously approved element that is a component of the CP/CSA DSRIP Accountability Score, the State will submit a formal, written modification request to CMS for review and approval. CMS will have 90 calendar days to review and approve.

As part of its program management and contract oversight processes, the State will establish a structured process for CPs and CSAs to seek clarification on or request revisions to certain aspects of their CP/CSA DSRIP Accountability Scores (e.g., if a CP seeks clarification on the inclusion of certain members in the denominator for a Quality Measure's performance score). Each CP and CSA will identify a key contact, responsible for raising such issues to the State and working with the appropriate State personnel to discuss and resolve issues as appropriate. The State will also identify a reciprocal contact to liaise with each CP and CSA and support these types of requests.

The State may provide an opportunity for CPs or CSAs to submit DSRIP Performance Remediation Plans to earn back a portion of the unearned, withheld funds, at the State's discretion. The State may combine remediation opportunities for multiple years to streamline processes (e.g., combining BP2 and BP3 remediation processes into a single remediation process). If the State allows this opportunity, then a CP or CSA may choose to provide the State a DSRIP Performance Remediation Plan within 30 calendar days of receipt of the State's notification of the opportunity to submit a Performance Remediation Plan, in which case the CP or CSA may have the opportunity to earn back up to 60% of the unearned, withheld funds, as further described below.

The DSRIP Performance Remediation Plan will include:

- As specified by the State, a detailed assessment of the reason(s) why:
 - The CP or CSA did not or is not anticipated to achieve a 100% Accountability Score, separately addressing State-specified measures on which the CP or CSA scored less than full points; or
 - The CP or CSA did not or is not anticipated to perform well on other quality, utilization, cost, or member experience metrics or analyses
- As specified by the State, discrete project(s) the CP or CSA will undertake to address some or all of the reasons identified in the detailed assessment described above, along with rationale for why these activities are appropriate; or other discrete projects that align with the goals of the CP or CSA's DSRIP Participation Plan
- A workplan, which includes a timeline for the implementation of these activities during a time period determined by the State, as well as identification of the resources that will be responsible for their completion
- An accountability plan for these activities, including any milestones or metrics the CP or CSA anticipates and when the CP or CSA anticipates realizing them, and also including a proposed model for the State to monitor the CP or CSA implementation of the proposed activities and their success or failure throughout implementation time period (e.g., a schedule of site visits, staff interviews, desk reviews, etc.)

Within 45 calendar days of receiving the Performance Remediation Plan, the State and the Independent

Assessor will review the Plan in parallel, and the State, considering the Independent Assessor recommendation, will either request additional information regarding the Performance Remediation Plan, or approve it. During the State's review process, it will determine how much of the 60% of unearned, withheld funds the CP or CSA will be able to earn back, based on the caliber and relevance of the Performance Remediation Plan to the goals of the CP or CSA's DSRIP Participation Plan. The State will monitor the Plan during the implementation period on an ongoing basis. Additionally, the State will assign a Performance Remediation Plan Score to the CP or CSA, based on the State's ongoing monitoring of the Plan, and supporting documentation submitted by the CP or CSA in its semiannual progress report for the first half of the Budget Period in question. The Performance Remediation Plan Score will be a single point value between 0 and 10 inclusive, and will determine how much of the CP or CSA's unearned, withheld funds can be earned back.

For example, if (1) a CP or CSA has \$100,000 of unearned, withheld funds; (2) the State determines that a CP or CSA will be able to earn back 50% of the CP or CSA's unearned, withheld funds (out of a 60% maximum percentage); and (3) the CP or CSA achieves a Performance Remediation Plan Score of 7 out of 10, then the CP or CSA's final earned funds will be equal to $\$100,000 * 50% * (7 / 10) = \$35,000$.

The DSRIP Advisory Committee on Quality

See Section 6.2.1 for discussion of the Advisory Committee on Quality's role.

5.4.7 Timeline of CP DSRIP Accountability Score data collection, calculation, and disbursement of DSRIP payments

The timeline for CP DSRIP Accountability Score calculation and disbursement of DSRIP payments to CPs is anticipated to be as follows:

- CP and CSA Budget Period Closes
- Member experience survey results within 270 calendar days of BP closing
- State determines denominators and sample populations (i.e., the specific members whose data each CP must submit) for the clinical quality measures within 210 calendar days of BP closing
- CPs and CSAs submit clinical quality data within 30 calendar days of receiving the denominators and sample populations for the clinical quality measures
- State calculates CP and CSA DSRIP Accountability Score within 120 calendar days of receiving all underlying required data
- Once CP and CSA DSRIP Accountability Scores have been calculated by the State, the State notifies CPs and CSAs of CP and CSA DSRIP Accountability Score within 30 calendar days of determining Score
- State disburses DSRIP at-risk payments to CPs and CSAs within 30 calendar days of notification of their CP and CSA DSRIP Accountability Scores

5.5 Reporting Requirements for ACOs, CPs and CSAs

5.5.1 Semiannual Participation Plan Progress Reports

ACOs, CPs, and CSAs participating in the DSRIP program will submit semiannual reports to the State demonstrating progress with their Participation Plans, plans for continued implementation of the approved Participation Plan, areas for improvement and an account of budget expenditures. The State will provide templates for the semiannual progress report which will specify the data that ACOs, CPs and CSAs will need to submit. ACOs, CPs and CSAs must submit their semiannual progress reports in order to receive further DSRIP funding. For example, if an ACO, CP or CSA submits a semiannual progress report three months after the end of BP2, then it will be able to receive DSRIP payments from three months after the end of BP2 until the next required semiannual progress report submission date (i.e. two months after the midway point of BP3).

ACO semiannual progress reports will be submitted in a form and format prescribed by the State, and may include information such as:

- The ACO's progress toward implementation of the Participation Plan
- The progress and status of specific investments and programs supported by DSRIP funds, including any findings from or modifications to these investments and programs
- Descriptions of recent activities and accomplishments
- Descriptions of upcoming activities and challenges
- Budget expenditures for all DSRIP funding
- If relevant, supporting documentation for a DSRIP Performance Remediation Plan
- Additional information as requested by EOHHS.

As noted above, ACOs will submit progress reports twice annually. The Progress Report 1 will be due two months after the midway point of a given BP and Progress Report 2 will be due three months following the close of the Budget Period. The below provides the timeline for submission of such reports for the Preparation Budget Period as well as Budget Period 1. Budget Periods 2-5 will follow the same pattern as Budget Period 1, adjusted for the respective years.

- **Preparation Budget Period Progress Report:** This report is due no later than **March 31, 2018** and shall include the information detailed above for the **Preparation Budget Period (July 1 – December 31, 2017)**
- **BP1 Progress Report 1:** This report is due no later than **August 31, 2018** and shall include the information detailed above for the period of **January 1 - June 30, 2018**
- **BP1 Progress Report 2:** This report is due no later than **March 31, 2019** and shall include the information detailed above for the period of **January 1 - December 31, 2018**

The content for ACO Progress Reports 1 and 2 for a given Budget Period may differ, as Progress Report 2 provides detailed information about the entire Budget Period, whereas Progress Report 1 only covers the first half of the Budget Period. In the event of a state of emergency declared by the federal or state government, due dates for reports shall be extended by at least a month, as determined by the State.

For CPs and CSAs, semiannual progress reports will be submitted in a form and format prescribed by the State, and may include:

- Descriptions of successes, barriers, challenges, and lessons learned regarding, at a minimum, outreach, care coordination, and integration of care
- Summary of CP care coordination supports activities
- Budget expenditures for all DSRIP funding
- Supporting documentation for DSRIP Performance Enhancement Plans (if relevant)
- Additional information as requested by EOHHS

The below provides the timelines for submission of such reports for the CPs/CSAs Preparation Budget Period as well as Budget Periods 1 and 2. Budget periods 3-5 will follow the same pattern as Budget Period 2 adjusted for the respective year

- **Preparation Budget Period Progress Report:** This report is due no later than **August 31, 2018** and shall include the information detailed above for the **Preparation Budget Period (October November 2017 – May 31, 2018)**
- **BP1 Progress Report 2:** This report is due no later than **March 31, 2019** and shall include the information detailed above for the period of **June 1, 2018 – December 31, 2018**
- **BP2 Progress Report 1:** This report is due no later than **August 31, 2019** and shall include the information detailed above for the period of **January 1 - June 30, 2019**
- **BP2 Progress Report 2:** This report is due no later than **March 31, 2020** and shall include the information detailed above for the period of **January 1 - December 31, 2019**

The content for CP or CSA Progress Reports 1 and 2 for a given Budget Period may differ, as Progress Report 2 provides detailed information about the entire Budget Period, whereas Progress Report 1 only covers the first half of the Budget Period. In the event of a state of emergency declared by the federal or state government, due dates for reports shall be extended by at least a month, as determined by the State.

5.5.2 Review and Approval of Semiannual Progress Reports

The State and the Independent Assessor will review the semiannual progress reports (see Section 6.2.2 for details). The State and the Independent Assessor will have a total of 45 calendar days to review and approve the report, or request additional information regarding the information reported. All approved semiannual progress reports will be sent to CMS.

5.5.3 Additional Reporting Requirements

ACOs, CPs, and CSAs must annually submit clinical quality data to the State for quality evaluation purposes. For example, as noted in Appendix D, the State has proposed three types of quality measures. The first type is solely based on claims or administrative data and will be calculated by the State with no further input (other than claims previously submitted) from the ACO/CP/CSA. The second type of quality measure is based on patient experience survey data, and will be collected by a state-procured survey vendor. The third type of quality measure will require both claims information and clinical (e.g. blood pressure) or administrative (e.g. completion of an assessment) information not available through claims. The State will produce the denominators for quality measures based on claims or other information and then submit the denominator to the ACO, CP, or CSA for completion of the numerator information. The State will then receive the numerator information from the ACOs, CPs, or CSAs and calculate performance. The State will conduct audits of the clinical quality data submitted by ACOs, CPs, and CSAs to ensure that the data are accurate.

Additionally, ACOs will need to submit their ACO revenue payer mix for safety net categorization purposes. CPs will need to submit to the State their roster of engaged members. All entities will also be responsible for ad hoc reporting as requested by the State.

Section 6. State Operations, Implementation, Governance, Oversight and Reporting

The State will utilize the small portion of DSRIP funding allocated to the State Operations and

Implementation to support robust operations, implementation, governance and oversight of the DSRIP program. These state expenditures associated with implementation of the DSRIP program will be claimed as administrative costs on the CMS 64. Appendix C provides additional detail on anticipated personnel, fringe and contractual costs.

6.1 Internal Operations and Implementation

The State will use a robust internal implementation team to ensure the DSRIP program towards its goals as outlined in STC 60. The team will include, but not be limited to:

- ACO program and contract management team
- CP program and contract management team
- Statewide Investments program and contract management team
- MassHealth operations team

The State will develop an internal steering committee that will make recommendations to the Assistant Secretary for MassHealth on policy and programmatic decisions related to the DSRIP program. This steering committee will include representation from several MassHealth teams involved in the design and implementation of the DSRIP program.

Committee members will meet regularly and will solicit feedback from the DSRIP Advisory Committee on Quality and other stakeholders as needed. While the steering committee will provide timely information and consultation, ultimate decision-making power rests with the Assistant Secretary for MassHealth.

6.2 Advisory Functions

6.2.1 DSRIP Advisory Committee on Quality

The State will establish a committee of stakeholders who will be responsible for supporting the clinical performance improvement cycle of DSRIP activities as set forth in STC 75.¹²³ The Committee will serve as an advisory group offering expertise in health care quality measures, clinical measurement, and clinical data used in performance improvement initiatives, quality and best practices. Final decision-making authority will be retained by the State and CMS, although all recommendations of the Committee will be considered by the State and CMS. The Committee will be made up of:

- Representatives from community health centers serving the Medicaid population
- Clinical experts in behavioral health, substance use disorder and long term services and supports. Clinical experts are physicians, physician assistants, nurse practitioners, licensed clinical social workers, licensed mental health counselors, psychologists, or registered nurses who satisfy two or more of the following criteria:
 - Five years of patient care in the relevant area of expertise
 - Experience managing clinical programs focused on the relevant patient populations
 - Service on national or statewide advisory committees or panels for relevant topic areas
- Advocacy members: consumers or consumer representatives, including at least one representative for people with disabilities and, separately, at least one representative for people with complex medical conditions

At least 30% of members must have significant expertise in clinical quality measurement of hospitals, primary care providers, community health centers, clinics and managed care plans. Significant expertise is defined as not less than five years of recent full time employment in quality measurement in government

¹²³ Note STC 75 called the Committee the “DSRIP Advisory Committee.” State has decided to re-name it as the “DSRIP Advisory Committee on Quality” for clarification purposes.

service, at managed care plans, at health systems, or from companies providing quality measurement services to above listed provider types and managed care plans.

To minimize risk of conflicts of interest, no more than three members may be directly employed by Massachusetts hospitals, MassHealth ACOs, or Community Partners. To further minimize conflicts of interest, no CEO, CFO, COO, or CMO of a Massachusetts hospital, MassHealth ACO, or Community Partners will be appointed to the Committee. Additionally, any members whose affiliated organizations have financial interests in performance target setting for quality measures must recuse themselves when the Committee is discussing performance target setting. Finally, potential conflicts of interest will be considered when selecting Committee members to try to minimize such conflicts.

6.2.2 Independent Assessor

The State will identify an Independent Assessor with expertise in delivery system improvement to assist with DSRIP administration, oversight, and monitoring as set forth in STC 74. The Independent Assessor will provide an added, ongoing layer of review and monitoring. The State and the Independent Assessor will concurrently review ACOs', CPs', and CSAs' Full Participation Plans, Budgets, Budget Narratives, and Semi-Annual Progress Reports to ensure compliance with the STCs and DSRIP Protocol. Preliminary ACO and CP Participation Plans and the Budgets and Budget Narratives for the Preparation Budget Period will not be subject to review by the Independent Assessor. The Independent Assessor shall make recommendations to the State regarding approvals, denials or recommended changes to Participation Plans, Budgets, Budget Narratives, and Semi-Annual Progress Reports, but final decision-making authority regarding all approvals, denials or requests for modifications rests with the State. However, the State will carefully consider the Independent Assessor's recommendations. The State has the authority to change Independent Assessors at the State's discretion.

Additionally, the Independent Assessor shall perform a midpoint assessment, which will systematically assess the performance of key demonstration entities, including identification of specific challenges and actionable mitigation strategies for mid-course correction for the State's consideration. Specifically, the midpoint assessment will focus on ACO and CP implementation of their DSRIP Participation Plans, Budgets, and Budget Narratives, as well as key vendors procured by the State for the purposes of developing and implementing the Statewide Investments. The midpoint assessment report shall cover implementation activities from July 1, 2017 through December 31, 2019, and the midpoint assessment report will be submitted to CMS by the end of September 2020. Notwithstanding STC 74, in the event of a state of emergency declared by the federal or state government, the midpoint assessment due date shall be extended by at least two months, as mutually agreed upon by CMS and the State. The State may focus on issues identified in the midpoint assessment and may implement changes where necessary.

In contrast, the Independent Evaluator is charged with reviewing the DSRIP program as a whole (see Section 6.4). At the midpoint and conclusion of DSRIP, the Evaluator will undertake an interim and summative evaluation, respectively, which will seek to determine the effectiveness of the DSRIP program in relationship to its goals. To accomplish such reviews, the Evaluator will use a quantitative and qualitative approach. These reviews may include evaluating the work of the Independent Assessor.

6.3 Stakeholder Engagement

6.3.1 Independent Consumer Support Program

The State will create Independent Consumer Support Program to assist beneficiaries in understanding their coverage models and in the resolution of problems regarding services, coverage, access, and rights. The Independent Consumer Support Program will assist beneficiaries to navigate and access covered services in accordance with STC 65.

6.3.2 State Public Outreach for ACO Program

The State aims to facilitate a seamless transition to the new care model for MCO and ACO enrollees and will do so through the State Public Outreach for ACO Program in accordance with STC 72.

6.3.3 State Reporting to External Stakeholders and Stakeholder Engagement

The State will compile public-facing annual reports of ACO, CP, and statewide investments performance. The report will provide relevant information on the State's progress under the DSRIP program, as determined by the State. Annual public meetings will be held to engage stakeholders on the DSRIP program at large, and allow for discussion, comments, and questions. MassHealth will also post information related to the DSRIP program online. The public will be encouraged to contact MassHealth to provide comments and feedback throughout the Demonstration through a dedicated e-mail address.

6.4 Evaluation of the Demonstration

The State will procure an Independent Evaluator to conduct interim and final evaluations of the DSRIP program per STC 73. The State may utilize the same Independent Evaluator for the Demonstration under STC 87 as it does for the DSRIP program under STC 73.

6.4.1 Requirements for Interim Evaluation

The Independent Evaluator will conduct an interim evaluation of the DSRIP program, in accordance with STC 73(a). The interim evaluation will evaluate the program using quantitative and qualitative methods to determine whether the investments made through the DSRIP program are contributing to achieving the demonstration goals as described in STC 60. The Independent Evaluator may use the data and results from the midpoint assessment to inform the interim and final evaluations.

The DSRIP interim evaluation will cover the time period July 2017 to December 2020, and will be submitted to CMS by the end of June 2021. Notwithstanding STC 73, in the event of a state of emergency declared by the federal or state government, due dates for the interim evaluation report shall be extended by at least a month, as mutually agreed upon by CMS and the State. The DSRIP interim evaluation will be a separate section in the overall waiver interim evaluation. The State will provide the draft evaluation design of the overall waiver (including proposals for evaluation of the DSRIP program) to CMS by June 30, 2018.

6.4.2 Final Evaluation

In contrast to the interim evaluation, the final evaluation will provide a summative overview of the DSRIP program over the five year demonstration period, and evaluate whether the investments made through the DSRIP program contributed to achieving the demonstration goals as described in STC 60. The Independent Evaluator will also be responsible for completing the final evaluation of the DSRIP program in accordance with STCs 73(b) and 88(f). The final evaluation of DSRIP will be a component of the Summative Evaluation submitted to CMS as per the timeline in STC 88(f).

6.5 CMS Oversight

6.5.1 State Reporting to CMS

The State will compile quarterly and annual reports to submit to CMS consistent with sections IX and X of the approved STCs as part of the broader 1115 demonstration reports. These reports will include an account of all DSRIP payments made in the quarter or year, respectively and include insights and updates from the progress reports collected from ACOs, CPs, and CSAs. The State and CMS will agree upon a reporting template for quarterly and annual reports by the start of the demonstration for the quarterly report and by December 2017 for the annual report. The State and CMS will also use a portion of the Monthly Monitoring Calls for March, June, September, and December of each year for an update and discussion of progress in meeting DSRIP goals, performance, challenges, mid-course corrections, successes, and evaluation.

6.5.2 Process for Review, Approval, and Modification of Protocol

The State will work collaboratively with CMS for the review and approval of the DSRIP Protocol. As set forth in STC 61(c), the State may modify the DSRIP Protocol over time, with CMS approval. Reasons for modification may include but are not limited to:

- State decision to change programmatic features that are codified in the Protocol (e.g. change the structure of the outcomes-based payment funding stream for CPs)
- State decision to modify State Accountability Targets during the demonstration period, if the targets are no longer appropriate, or that targets were greatly exceeded or underachieved

State will submit the modification request to CMS, which will have 90 calendar days to review and approve. If CMS does not approve the Protocol, the State and CMS will work collaboratively together to align on appropriate modifications and a timeline for prompt approval.

Appendix A: Description of ACOs and CPs

Accountable Care Organizations

To achieve Massachusetts' DSRIP goals as described above, the State is transitioning a significant portion of the delivery system from a fragmented, fee-for-service model to one where providers come together in new partnerships to take financial accountability for the cost and quality of care for populations of members. Massachusetts is launching a new Accountable Care Organization program, has designed three ACO payment models that respond to the diversity of the state's delivery system, and intends to select ACOs across all three models through a competitive procurement.

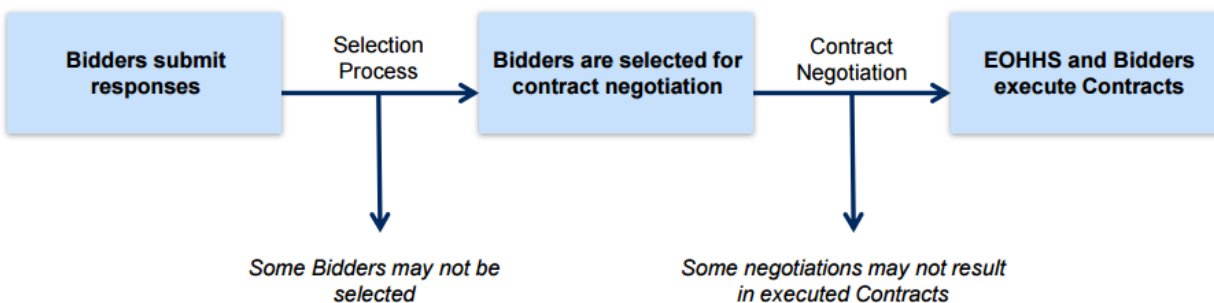
ACO contracts will have an initial term of five-years and will include significant requirements for ACOs to ensure care delivery in line with the state's delivery system goals, including but not limited to requirements to screen members and connect them to appropriate settings of care; requirements to proactively identify at-risk members, complete comprehensive assessments, and provide them with appropriate care management activities; and requirements to work with Community Partners to integrate behavioral health, LTSS, and medical care. Massachusetts' three ACO models are described in Section 1.

Procurement Process

Massachusetts intends to select ACOs across all three ACO models as part of a single, competitive procurement. Bidders may bid on more than one model, but a bidder may be selected for, at maximum, one ACO model. The State may re-open the procurement at any time if, in the State's determination, the State has not received sufficient responses, or to otherwise meet the State's delivery system goals.

Bidders will submit responses to the State's procurement by the deadline, after which the responses will be evaluated by the State. The State will select successful ACO bidders to enter into contract negotiation. Through contract negotiation, the State intends to reach successful contract execution with a set of ACOs; although not all ACOs selected for negotiation may ultimately execute contracts with the State (e.g., if an ACO ultimately chooses not to accept final contract terms or rates). The graphic below shows an example process flow:

Example process flow for procurement: for illustration purposes only:



The State's current anticipated procurement timeline is as follows:

- Request for responses was posted in September 2016
- Bidders' responses are due mid-February 2017
- Target contract execution in August 2017
- Contracts will be effective the date they are executed, and will have an operational start date (i.e., the date on which members can enroll in ACOs) in December 2017

Further information on the ACO procurement can be found online at the State's public procurement website, www.commbuys.com.

Community Partners

Community Partners will support members with complex BH and LTSS needs, in coordination with ACOs and other managed care entities, as determined by the State. The focus populations of MassHealth members for the CP program may include, for example, (1) members with diagnoses of serious mental illness and/or substance use disorder who have significant utilization of acute services such as ER visits, inpatient stays, detoxification stays, medication assisted treatment for SUD or co-occurring chronic medical conditions; and/or (2) members with claims for MassHealth State Plan LTSS of more than \$300 per month over at least 3 consecutive months.

MassHealth will selectively procure the following two types of CPs, BH CPs and LTSS CPs (see Sections 1 and 4.3 for additional descriptions of the CP Models).

- **BH CP Model overview:** MCOs and ACOs will delegate comprehensive care management responsibility to the BH CP for enrollees of the BH CP with Serious Mental Illness (SMI) and/or Substance Use Disorder (SUD). BH CPs will be required to coordinate care across the full healthcare continuum, including physical and behavioral health, LTSS and social service needs. Because BH CPs will be expected to have experience supporting members with LTSS needs, members with both complex BH and LTSS needs as assigned to a BH CP. BH CPs will be required to meet certain training obligations (e.g., training in person-centered planning, cultural competency, accessibility and accommodations, independent living and recovery principles, motivational interviewing, conflicts of interest and health and wellness principles) and coordination requirements (e.g., providing enrollees with at least two choices of LTSS service providers, assisting the member in navigating and accessing needed LTSS and LTSS-related services, identifying LTSS providers that serve or might serve the member, and coordinating and facilitate communication with LTSS providers) to ensure their capability to support members with both complex BH and LTSS needs.
- **LTSS CP Model overview:** ACOs and MCOs will conduct comprehensive assessments, convene the care teams, and provide care planning and coordination for physical and behavioral health services to enrollees assigned to a LTSS CP. The LTSS CP will review the comprehensive assessment results with the LTSS CP assigned members as part of the person-centered LTSS care planning process and will inform the member about his or her options for specific LTSS services, programs and providers that may meet the member's identified LTSS needs. The LTSS CP is expected to be an integral part of the member's care team, as requested by the member. LTSS CPs may also have the opportunity to participate in an enhanced supports model (anticipated to begin in year 2), where responsibility for the comprehensive assessment and care management will be delegated by the ACO/MCO to the LTSS CP.

CPs will not be able to authorize services for members under either model.

Procurement Process

MassHealth intends to select BH and LTSS CPs across the State through a competitive procurement. ACOs (and other managed care entities as determined by the state) will be required to partner with CPs in all the regions or services areas in which the ACO operates.

Bidders will submit responses to the State's procurement by the deadline, after which the responses will be evaluated by the State. The State will consider any bid submitted by any entity that meets the minimum bidder qualifications of the procurement. The State will select successful CP bidders to enter into contract negotiation. Through contract negotiation, the State intends to reach successful contract execution with a set of CPs; although not all CPs selected for negotiation may ultimately execute contracts with the State (e.g., if an CP ultimately chooses not to accept final contract terms or rates). The graphic below shows an example process flow:

Example process flow for procurement: for illustration purposes only:



The State's current anticipated procurement timeline is as follows:

- Request for responses will be posted in February/March 2017
- CP responses are due end of May 2017
- Target contract execution in November 2017
- Contracting between CPs and ACOs & MCOs is targeted to be completed by January-February 2018
- CPs begin enrolling members in June 2018

Further information on the CP procurement can be found online at the State's public procurement website, www.commbuys.com.

Relationships between ACOs and CPs

Massachusetts has established a framework for ACOs and CPs to form and formalize their relationships. This framework is set forth in the model contracts for ACOs, and Massachusetts intends to similarly incorporate this framework in its model contracts for CPs. The framework delineates areas of delegated and shared responsibility between ACOs and CPs, as follows:

Delegated responsibility to BH CPs

ACOs must maintain agreements with BH CPs. These agreements will require the BH CP to support the ACO's care coordination and care management responsibilities, including:

- Working together to improve coordination and integration of BH services and expertise into care, including activities such as but not limited to:
 - Identifying BH providers that serve or might serve enrollees, and coordinating between the ACO and those providers
 - Assisting the ACO's members to navigate to and access BH and related services
 - Facilitating communication between members and providers
 - Coordinating with staff in state agencies that are involved in member care
 - Facilitating members' access to peer support services
- Working together to perform outreach and enrollment for members who are eligible for BH CPs

- Providing care management to BH CP-enrolled members, including designated care coordinators/clinical care managers, documented treatment plans, comprehensive transition management, health promotion, and other activities
- Collaborating and establishing mutual policies and procedures to ensure alignment, information sharing, appropriate sign-off, issue resolution, and communication
- Performance measurement and management, including the ACO and CP working together to evaluate performance on key process measures (e.g., outreach and enrollment) and outcome measures (e.g., the state’s accountability score measures)

Delegated responsibility to LTSS CPs

ACOs must maintain agreements with LTSS CPs. These agreements will require the LTSS CP to support the ACO’s care coordination and care management responsibilities, including:

- Working together to improve coordination and integration of LTSS and expertise into physical and behavioral health care, including activities such as but not limited to:
 - Identifying LTSS providers that serve or might serve enrollees, and coordinating between the ACO and those providers
 - Assisting the ACO’s members to navigate to and access LTSS and related services
 - Facilitating communication between members and providers
 - Coordinating with staff in state agencies that are involved in member care
 - Providing support during transitions of care for the ACO’s members
- Providing information and navigation to LTSS for the ACO’s members
- Collaborating and establishing mutual policies and procedures to ensure alignment, information sharing, appropriate sign-off, issue resolution, and communication
- Performance measurement and management, including the ACO and CP working together to evaluate performance on key process measures (e.g., outreach and enrollment) and outcome measures (e.g., the state’s accountability score measures)

Exhibit A1 below details the entities performing the comprehensive assessment, care planning and service authorization functions related to LTSS and the target populations for such functions.

Exhibit A1: LTSS Comprehensive Assessment, Care Planning and Service Authorization

Activity	Entity Performing Activity	Population
Care Needs Screening	ACO or MCO	ACO and MCO enrollees
Comprehensive Assessment	ACO or MCO	ACO and MCO enrollees assigned to a LTSS CP or with LTSS needs as specified by EOHHS
LTSS segment of Care Planning	ACO or MCO	ACO and MCO enrollees with LTSS needs as specified by EOHHS who are not assigned to LTSS CPs
	LTSS CP	ACO and MCO enrollees assigned to a LTSS CP
Service Authorization	<i>Before LTSS becomes covered services and included in TCOC:</i>	

	MassHealth	ACOs and MCOs enrollees, including LTSS CP engaged enrollees
	<i>After LTSS become covered services and are included in TCOC (~year 3):</i>	
	Accountable Care Partnership Plan	Accountable Care Partnership Plan enrollees, including LTSS CP engaged enrollees
	MCO	MCO-Administered ACO and MCO enrollees, including LTSS CP engaged enrollees
	MassHealth	Primary Care ACO enrollees, including LTSS CP engaged enrollees

Shared responsibility between ACOs and CPs

Agreements will codify responsibilities of ACOs and CPs and describe additional requirements, including:

- Member assignment to a CP (as applicable)
- Care team roles and participation
- Performance expectations and any associated financial arrangements (beyond DSRIP)
- Shared decision-making and governance
- IT systems and data exchange, including quality and cost reporting

Beyond delineation of roles and responsibilities, contracts between ACOs, CPs, and MCOs must include conflict resolution protocols to handle disputes between the relevant parties. As ACOs and MCOs will not be paying CPs for services provided, a substantial portion of disputes will likely center around member referrals and care plans. If the member believes that the care he or she is receiving is unacceptable, the member will have access to formal grievance processes through the ACO, MCO, and CP entities. Additionally, the member can contact MassHealth’s Ombudsman Patient Protection Program, which is established to explicitly help members work through such issues. Throughout Year 1, the State will monitor disputes as they arise, and at year conclusion, will determine if further conflict resolution protocols are needed.

Appendix B: Description of Statewide Investments Initiatives

Student Loan Repayment

The student loan repayment program will repay a portion of a student's loan in exchange for at least an 18 month commitment (or equivalent in part time service) to work as a (1) primary care provider at a community health center or (2) behavioral health professional (e.g., Community Health Worker (CHW), Peer Specialist, Recovery Support Specialist, or Licensed Clinical social worker) in a community setting (e.g., community health center, community mental health center) and/or at an Emergency Service Program (ESP), and/or at any entity participating in a CP or CSA. This program hopes to reduce the shortage of providers and incentivize them to remain in the field long-term. Additionally, increased numbers of providers available to ESPs will help support diversionary strategies to reduce Emergency Department utilization and increase appropriate member placement in other settings.

Awardee's Obligations

Awardees will be required to submit semiannual progress reports to the State that detail the impact of the student loan repayment program on their practice and institutions. Awardees' accountability will be ensured through primary care providers' and behavioral health professionals' attestations that they have remained in the required placement for a minimum of two years or the equivalent in part time service. If a provider fails to fulfill the minimum requirement, the State will determine the appropriate recourse, which may include recoupment of funds paid by the State for student loans.

State Management

The State will select the recipients of the awards, and will conduct robust monitoring and assessment of the semi-annual progress reports including reviewing the awardees' progress, successes, and challenges.

Primary Care Integration Models and Retention

The State will implement a grant program that provides support for community health centers and community mental health centers, and/or any entity participating in a CP or CSA to allow their primary care and behavioral health providers to engage in one-year projects related to accountable care implementation, including improving care coordination and integrating primary care and behavioral health. These projects must support improvements in cost, quality and patient experience through accountable care frameworks and will also serve as an opportunity to increase retention of providers. Community health centers, community mental health centers, and/or entities participating in a CP or CSA will be the primary applicant and will partner with primary care and behavioral health providers to apply for this funding.

Awardee's Obligations

Awardees will be required to submit semiannual progress reports to the State that detail the project's progress towards goals and pre-approved accountability measures, challenges and plans to address those challenges, and expenditures to date.

State's Management

The State will select the recipients of this funding, and will conduct robust monitoring and assessment of the semiannual progress reports by reviewing progress, successes, challenges, and accountability measures. Awardees' accountability will be evaluated by whether the projects were completed and whether performance on the accountability metrics, set out prior to the project's implementation, was adequate. If the project was not completed, or performance on the metrics was inadequate, the State, in consultation

with the awardee, will determine appropriate recourse, which may include corrective action plans, termination from the investment program, barring providers from applying for future Statewide Investment funding, recoupment of funds, or other contract management activities (e.g., working collaboratively with the awardee to identify and implement new strategies to meet the project goals, or renegotiating the awardee's responsibilities or the project's goals to achieve partial success, as appropriate).

Investment in Primary Care Residency Training

In order to increase the number of physicians receiving residency training in community health centers, the State will use DSRIP funding to help offset the costs of community health center and community mental health center residency slots for both community health centers, community mental health centers, and hospitals. Community health centers, community mental health centers, and hospitals will be eligible to apply for this funding.

Awardee's Obligations

Awardees will be required to submit semiannual progress reports to the State that detail the project's progress towards goals and pre-approved accountability measures (e.g., the number of providers remaining in the CHC for the length of the residency program), challenges and plans to address those challenges, and expenditures to date.

State's Management

The State will select the recipients of this award, and will conduct robust monitoring and assessment of the semiannual progress reports through reviewing progress, successes, challenges, and accountability measures.

Workforce Development Grant Program

The State's payment reform initiatives will introduce new demands and shifting responsibilities for the healthcare workforce. The State will use DSRIP funding to support a wide spectrum of health care workforce development and training to allow for providers to more effectively operate in a new health care system. Entities participating in payment reform (ACOs, Community Partners, and CSAs), or entities in support of ACOs, CPs, and CSAs (e.g. training programs) are eligible to apply for funding.

Awardee's Obligations

Awardees will be required to submit semiannual progress reports to the State discussing the project's progress towards goals and pre-approved accountability measures, challenges and plans to address those challenges, and expenditures to date.

State's Management

State will select the awardees, and will conduct robust monitoring and assessment of the semiannual progress reports through reviewing progress, successes, challenges, and accountability measures. Awardees' accountability will be evaluated by whether the projects were completed, and whether performance on the accountability metrics, set out prior to the project's implementation, was adequate. If the project was not completed, or performance on the metrics was inadequate, the State, in consultation with the awardee, will determine appropriate recourse, which may include corrective action plans, termination from the investment program, barring providers from applying for future Statewide Investment funding, recoupment of funds, or other contract management activities (e.g., collaboratively with the awardee to identify and implement new strategies to meet the project goals, or renegotiating the awardee's

responsibilities or the project's goals to achieve partial success, as appropriate).

Technical Assistance

The State will procure vendors to provide technical assistance (TA) to ACOs, CPs and CSAs in a range of knowledge domains in order to help with the implementation of evidence-based interventions. TA may be provided in multiple forms, including but not limited to: individual consultation, learning collaboratives, tools and resources, and webinars. Providers participating in payment reform (ACOs, Community Partners, and CSAs) may be eligible to apply for funding.

Technical assistance may be available in areas such as, but not limited to:

- (1) **Education:** Education on delivery system reform topics, such as governance requirements, shared savings and shared losses; network development; quality and financial management analytics; assistance with health care literacy; and other topics.
- (2) **Actuarial and Financial:** Actuarial consulting to support participation in payment models. Baseline education and readiness assessments that address financial business process changes, patient attribution, budgeting, practice management systems, and other needs.
- (3) **Care Coordination/Integration:** Technical assistance to support, establish, and improve care coordination/integration best practices, including best practices around incorporating community health workers and social workers into practice, among other areas
- (4) **Performance Management:** Technical assistance to support program improvements, project management and provider performance management
- (5) **Health Information Technology:** Consultations to provide insight into what HIT investments and workflow adjustments will be needed to achieve goals regarding data sharing and integration across the delivery system (e.g., establishing clinical or community linkages through an e-Referral system)
- (6) **Accessible and Culturally Competent Care:** Training and support materials to promote best practices for accessibility and for culturally competent care for individuals with limited English proficiency; diverse cultural and ethnic backgrounds; physical, developmental, or mental disabilities; and regardless of gender, sexual orientation, or gender identity.
- (7) **Chronic Conditions Management:** Training, support, and technical assistance on utilizing and implementing evidence-based interventions to manage chronic conditions, among other areas.
- (8) **Behavioral Health Care Treatment and Management:** Training, support, data analytics, and technical assistance in caring for patients with behavioral health needs in the community, among other areas
- (9) **Population Health and Data Analytics:** Training, support, and technical assistance in analyzing data (e.g. raw claims extracts from The State, clinical quality data from EHRs) to help providers make evidence-based decisions, among other items

Awardee's Obligations

ACOs, CPs, and CSAs will be eligible to apply for technical assistance. Interested ACOs, CPs, and CSAs will submit a comprehensive TA plan as part of their application, which will be subject to modification and approval by the State. Any TA resources to support the plan must not overlap with TA supported through other funding sources (e.g., federal, state, private sector). Awardees will be required to submit a semiannual progress report discussing the progress towards goals and pre-approved accountability measures, challenges

and plans to address those challenges, and expenditures to date.

Vendor's Obligations

Vendors will work in collaboration with the State, ACOs, CPs, and CSAs to provide TA in a way that optimizes allocated TA resources and supports sustainable TA infrastructure. Vendors will also be required to submit documentation covering the same topics discussed in the awardees' semiannual progress report.

State's Management

The State will procure qualified vendor(s) for each TA category. A vendor may be approved for multiple categories. To be considered a qualified vendor, the vendor must demonstrate expertise and capacity for the categories for which it is applying, as well as meet other eligibility criteria set by the State.

The State will conduct robust monitoring and assessment of progress reports submitted by the awardees and TA vendors, which will include reviewing progress, successes, challenges, and accountability measures. Awardee and TA vendor accountability will be based on meeting pre-determined accountability measures, which will focus on whether the awardee was able to meet its technical assistance goals, or whether the vendor provided appropriate TA. If the goals are not met, or performance is inadequate, the State, in consultation with the awardee and/or vendor, will determine appropriate recourse, which may include corrective action plans, termination from the investment program, barring providers from applying for future Statewide Investment funding, recoupment of funds, or other contract management activities (e.g., working collaboratively with the awardee to identify and implement new strategies to meet the project goals, or renegotiating the awardee's responsibilities or the project's goals to achieve partial success, as appropriate).

Alternative Payment Methods (APM) Preparation Fund

The State will use DSRIP funding for an Alternative Payment Methods (APM) Preparation Fund, which will offer up to two years of support to providers that are not yet ready to participate in an APM, but want to take steps towards APM adoption. Funds can be used to develop, expand, or enhance shared governance structures and organizational integration strategies linking providers across the continuum of care. Massachusetts' providers seeking to move towards ACOs or APMs but that are not participating as a MassHealth ACO; and behavioral health providers, BH CPs, LTSS providers and LTSS CPs seeking to enter into APM arrangements with MassHealth managed care entities will be eligible to apply for funding. Funds may also be used to raise awareness about APM among providers not yet engaged in a MassHealth ACO, CP, or CSA.

Awardee's Obligations

Awardees will be required to submit semiannual progress reports to the State discussing the project's progress towards goals and pre-approved accountability measures, challenges and plans to address those challenges, and expenditures to date.

State's Management

The State will select recipients of this funding, and conduct robust monitoring and assessment of the semiannual progress reports through reviewing progress, successes, challenges, and accountability measures. Awardees' accountability will be evaluated by whether the projects were completed, and whether performance on the accountability metrics, set out prior to the project's implementation, was adequate. If the project was not completed, or performance on the metrics was inadequate, the State, in consultation with the awardee, will determine appropriate recourse, which may include corrective action plans,

termination from the investment program, barring providers from applying for future Statewide Investment funding, recoupment of funds, or other contract management activities (e.g., working collaboratively with the awardee to identify and implement new strategies to meet the project goals, or renegotiating the awardee's responsibilities or the project's goals to achieve partial success, as appropriate).

Enhanced Diversionary Behavioral Health Activities

The State will use DSRIP funding to support investment in new or enhanced diversionary strategies or infrastructure to help place members with behavioral health needs in the least restrictive, clinically most appropriate settings and to reduce the incidence of members who are boarded in a hospital emergency department waiting for admission into acute inpatient treatment or diversion to a community setting. Strategies for investment may include:

- Workforce Development
- Urgent care and intensive outpatient program (IOP)
- Community-Based Acute Treatment (CBAT) for adults
- ESP/Mobile Crisis Intervention (MCI) Teams with specific focus on placement in the EDs
- Crisis Stabilization Services (CSS)
- Telemedicine and Tele-psychiatry
- Peer Support models
- Discharge navigation services
- Web-based portal for navigation and data collection of ED boarding and available bed placement
- Care coordination software to better manage members who are boarded in the ED and to prevent such events

ACOs, CPs, CSAs, primary care providers, ESPs, community mental health centers, acute care hospitals, community health centers, psychiatric hospitals, advocacy organizations, provider organizations, vendors, and MCOs may be eligible to apply for funding. ACOs, CPs, or CSAs receiving funding must demonstrate that activities supported through this statewide investment are not duplicative with activities supported through other available funding.

Awardee's Obligations

Awardees will submit a semiannual progress report discussing the project's progress to date including activities and progress towards the reduction of ED boarding, goals and accountability measures, challenges and plans to address those challenges, and expenditures to date.

State's Management

The State will select recipients for this funding, and conduct robust monitoring and assessment of the semiannual progress and annual reports. Awardees' accountability will be evaluated by whether the projects were completed, and whether performance on the accountability metrics, set out prior to the project's implementation, was adequate. If the project was not completed, or performance on the metrics was inadequate, the State, in consultation with the awardee, will determine appropriate recourse, which may

include corrective action plans, termination from the investment program, barring providers from applying for future Statewide Investment funding, recoupment of funds, or other contract management activities (e.g., working collaboratively with the awardee to identify and implement new strategies to meet the project goals, or renegotiating the awardee's responsibilities or the project's goals to achieve partial success, as appropriate).

Improved accessibility for people with disabilities or for whom English is not a primary language

The State will use DSRIP funding to help providers offer necessary equipment and expertise at their facilities to meet the needs of persons with disabilities, or of those for whom English is not a primary language.

Funding would be available to help providers purchase items necessary to increase accessibility for members with disabilities, for accessible communication assistance, and for development of educational materials for providers regarding accessibility for members with disabilities. The State will tailor some of these materials specifically for providers treating members who are vision-impaired, deaf and hard of hearing, or for whom English is not a primary language. Applicants will be required to demonstrate that training is not duplicative of that received under the Technical Assistance statewide investments funding stream.

The State may also utilize this funding to support development of directories or other resources to assist MassHealth members find MassHealth providers by preferred accessibility preferences and to assist providers in identifying the accessibility preferences of their patients.

Awardee's Obligations

Awardees will be required to submit semiannual progress reports to the State discussing the project's progress towards goals and pre-approved accountability measures, challenges and plans to address those challenges, and expenditures to date.

State's Management

The State will select funding recipients, and conduct robust monitoring and assessment of the semiannual progress reports through reviewing progress, successes, challenges, and accountability measures. Awardees' accountability will be evaluated by whether the projects were completed, and whether performance on the accountability metrics, set out prior to the project's implementation, was adequate. If the project was not completed, or performance on the metrics was inadequate, the State, in consultation with the awardee, will determine appropriate recourse, which may include corrective action plans, termination from the investment program, barring providers from applying for future Statewide Investment funding, recoupment of funds, or other contract management activities (e.g., working collaboratively with the awardee to identify and implement new strategies to meet the project goals, or renegotiating the awardee's responsibilities or the project's goals to achieve partial success, as appropriate).

Appendix C: Example Calculation of State DSRIP Accountability Score by Accountability Domain for BP 4

The following example demonstrates how the State DSRIP Accountability Score will be calculated for Budget Period 4. There are five steps to calculate how much at-risk funding the State earns in a given BP:

- **Step 1:** Calculate the MassHealth ACO/APM Adoption Rate Score
- **Step 2:** Calculate the Reduction in Spending Growth Score
- **Step 3:** Calculate the Overall Statewide Quality Performance Score
- **Step 4:** Using the three scores calculated in Steps 1 through 3 to calculate the State DSRIP Accountability Score
- **Step 5:** Use the State DSRIP Accountability Score to determine earned at-risk funds

Step 1: Calculate the MassHealth ACO/APM Adoption Rate Score for BP 4

For the ACO/APM Adoption Rate score, the State will earn a 100% score for a given Budget Period if the State meets or surpasses the target for that Budget Period. If the State does not meet the target, then it will earn a 0% score for that Budget Period.

For BP 4, the State must have at least 40% of MassHealth ACO-eligible members who are enrolled in or attributed to ACOs or who receive services from providers paid under APMs, as shown below:

EXHIBIT A2 – Target ACO/APM Adoption Rates, BP 4

Target ACO/APM Adoption Rates						
DSRIP Budget Period	Prep Budget	BP 1	BP 2	BP 3	BP 4	BP 5
% of MassHealth ACO-Eligible Lives Served by ACOs/ Covered by APMS	NA	25%	30%	35%	40%	45%

For the purpose of this example, assume that the State has a 42% ACO/APM adoption rate in BP 4. Therefore, the State receives an accountability domain score of **100%** in this category.

Step 2: Calculate the Reduction in Spending Growth Score for BP 4

In accordance with STC 71(f), the State will calculate its performance on reduction in state spending growth compared to the trended PMPM, and the domain score will be determined according to a gap-to-goal methodology for each budget period in accordance with STC 71(g), as follows:

- If Actual Reduction < (50% * Reduction Target), then Measure Score = 0%
- If Actual Reduction ≥ (Reduction Target), then Measure Score = 100%
- If Actual Reduction ≥ (50% * Reduction Target) AND < (Reduction Target), then Measure Score is equal to: (Actual Reduction - (50% * Reduction Target)) / (Reduction Target - (50% * Reduction Target)) OR the simplified version,

$$\frac{\text{Percent of reduction target achieved} - 50\%}{100\% - 50\%}$$

For BP 4, the Reduction Target is 1.1% off of trended PMPM, as shown in below.

EXHIBIT A3 – Reduction Targets for ACO-Enrolled PMPMs, BP 4

Reduction Targets for ACO-Enrolled PMPMs						
DSRIP Budget Period	Prep Budget	BP 1	BP 2	BP 3	BP 4	BP 5
% Reduction Target in ACO-enrolled PMPM vs. trended PMPM	NA	NA	NA	0.25% off of trended PMPM	1.1% off of trended PMPM	2.1% off of trended PMPM

For the purpose of this example, assume that the State’s Actual Reduction is 0.9% in BP 4, which is roughly 82% of the Reduction Target, as show below:

$$\text{Percent of reduction target achieved} = \frac{0.9\%}{1.1\%} \approx 82\%$$

Thus, to calculate this State accountability domain score:

$$\frac{82\% - 50\%}{100\% - 50\%} = 64\%$$

Therefore, the State receives an accountability domain score of **64%** in this category.

Step 3: Calculate the Overall Statewide Quality Performance for BP 4

In accordance with STC 71, the State will annually calculate the State performance score for each quality domain by aggregating the performance scores of all ACOs. Weighting varies by Budget Period, as shown below:

EXHIBIT A4 – State Quality Domain Weights

State Quality Domain Weights				
Quality Domain		Domain Weight: BP 1	Domain Weight: BP 2	Domain Weight: BP 3-5
<i>Clinical Quality Measures</i>				
1	Prevention & Wellness	N/A	85%	45%
2	Care Integration		N/A	40%
<i>Patient Experience Surveys</i>				
3	Overall Rating and Care Delivery	N/A	15%	7.5%
4	Person-centered Integrated Care	N/A	N/A	7.5%

STEP 3(a): Scoring for all Domains

For all domains, domain scores for BP4 are calculated using the following steps:

- Calculate the aggregate domain scores for BP 1-3
- Calculate the pooled aggregate domain scores across the three Budget Periods
- Calculate the aggregate domain scores for BP 4 (our example year) and utilize Wilcoxon-rank sum tests to compare pooled aggregate domain scores from BP 1-3 against the BP4 aggregate domain scores

Domain scores are calculated using Achievement Points and do not include Improvement Points. Calculations for other Budget Periods would follow a similar methodology.

1. Calculate the aggregate domain scores for BP 1-3

Assume there are two ACOs (ACO 1 and ACO 2). Assuming ACO 1 receives a score of 30% and ACO 2 receives a score of 40% in the Prevention and Wellness domain for BP 1, the aggregate domain score for BP1 is the median of these two scores, or 35%. This step is repeated for all quality domains in BP 1-3 (see Exhibit A5 for detail).

2. Calculate the pooled aggregate domain scores for BP 1-3

The pooled aggregate domain score is then calculated by determining the median value of all scores within the Budget Periods. Assume ACO 1, ACO 2, and ACO 3 demonstrates the following scores in the Prevention and Wellness domain across BP1-3:

ACO 1			ACO 2			ACO 3		
BP1	BP2	BP3	BP1	BP2	BP3	BP1	BP2	BP3
30%	40%	50%	33%	41%	52%	31%	39%	49%

Redistributed from lowest to highest the domain scores appear as:

30%	31%	33%	39%	40%	41%	49%	50%	52%
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As the median score from a distribution is the middle score, then the pooled aggregate domain score across BP1-3 = 40.0%.

EXHIBIT A5 – ACO Aggregate and Pooled Aggregate Domain Scores, BP 1-3

Budget Period	BP 1			BP 2			BP 3			BP 1-3
	ACO 1	ACO 2	ACO 3	ACO 1	ACO 2	ACO 3	ACO 1	ACO 2	ACO 3	Total
DSRIP Quality Domains	Domain Scores			Domain Scores			Domain Scores			Aggregate Domain Score
Prevention & Wellness	30%	33%	31%	40%	41%	39%	50%	52%	49%	40.0%
Care Integration	60%	50%	53.3%	70%	50%	63.3%	80%	70%	73.3%	63.3%
PES: Overall Rating and Care Delivery	60%	60%	60%	50%	60%	56.7%	60%	70%	66.7%	60.0%
PES: Person-centered Integrated Care	60%	60%	60%	50%	50%	50%	70%	70%	70%	60.0%

3. Calculate the aggregate domain scores for BP 4 and run Wilcoxon rank-sum test

After calculating the BP4 aggregate domain scores using the same method utilized to calculate BP 1-3 domain scores (see above), the State will run a two-tailed, unmatched, Wilcoxon rank-sum test (hereinafter “Wilcoxon test”) to compare each aggregate domain score from BP 4 against its associated pooled aggregate domain score from BP 1-3. The p-value from this test will indicate whether in BP4 the quality domain score is better and statistically significant ($p < 0.05$, receives 100% score), worse and statistically significant ($p < 0.05$, receives 0% score) or not statistically different ($p \geq 0.05$, receives 100% score) from BP 1-3.

EXHIBIT A6 – Wilcoxon testing of BP 4 Aggregate Domain Scores vs BP 1-2 Pooled Aggregate Domain Scores

Budget Period	BP 1-2	BP 4				Wilcoxon test comparing BP4 aggregate domain scores vs. pooled aggregate BP 1-2 domain scores		
	Total (BP 1-2)	ACO 1	ACO 2	ACO 3	Total (BP 4)			
Domains	Pooled Domain Score (BP 1-2)	Domain Scores			Aggregate Domain Score	Result	DSRIP Domain Score	Weight
Prevention & Wellness	40%	60%	70%	75%	70%	Better and Statistically Significant	100%	45%
Care Integration	63.3%	60%	66.7%	70%	66.7%	Not Statistically Different	100%	40%
PES: Overall Rating and Care Delivery	60%	50%	53.3%	60%	53.3%	Worse and Statistically Significant	0%	7.5%
PES: Person-centered Integrated Care	60%	50%	50%	50%	50.0%	Worse and Statistically Significant	0%	7.5%

BP3 domain scores are excluded from the pooled domain score based on concerns about the validity of domain scores in BP3 due to a state of emergency declared by the federal or state government.

STEP 3(b): Calculating the Overall Statewide Quality Performance

To calculate the overall Statewide Quality performance, we multiply the domain scores from BP 4 and the weights from BP 4 and obtain the sum:

EXHIBIT A7 – Calculating the Statewide Quality Score for BP 4

Domain	BP 4 DSRIP Domain Score	BP 4 DSRIP Domain Weight	Product
Prevention & Wellness	100%	45%	45%
Care Integration	100%	40%	40%
PES: Overall Rating and Care Delivery	0%	7.5%	0%
PES: Person-centered Integrated Care	0%	7.5%	0%
Overall Statewide Quality Performance (sum of the products) =			85%

Step 4: Calculate the Overall State DSRIP Accountability Score for BP 4

The State will calculate the State DSRIP Accountability Score by multiplying the Score for each State DSRIP Accountability domain by the associated weight and then summing the totals together.

For this example, the State achieved the following domain scores in BP 4:

- MassHealth ACO/APM Adoption Rate: **100%**
- Reduction in State Spending Growth: **64%**
- ACO Quality Performance: **85%**

Thus, the State DSRIP Accountability Score for BP 4 is **82.75%**, as demonstrated in the table below:

EXHIBIT A8 – Calculating the Overall State DSRIP Accountability Score

Example Calculation of State DSRIP Accountability Score for BP 4				
DSRIP Accountability Domain	Domain Weight	State Domain Score	State Accountability Calculations	DSRIP Score
MassHealth ACO/APM Adoption Rate	20%	100%	20% x 100% =	20%
Reduction in State Spending Growth	25%	64%	25% x 64% =	16%
ACO Quality Performance	55%	85%	55% x 85% =	46.75%
State DSRIP Accountability Score =				82.75%

Step 5: Determine At-Risk Funds Lost and Earned for BP 4

As noted above, the amount of at-risk State expenditure authority varies by Budget Period. For Budget Period 4, the amount at-risk is \$41.25M.

EXHIBIT A9 – Percent of State DSRIP Expenditure Authority At-Risk, BP 4

Percent of State DSRIP Expenditure Authority At-Risk					
DSRIP Budget Period	Prep BP and BP 1	BP 2	BP 3	BP 4	BP 5
DSRIP Expenditure Authority	\$637.5M	\$412.5M	\$362.5M	\$275M	\$112.5M
% of Expenditure Authority At-Risk	0%	5%	10%	15%	20%
Actual Expenditure Authority At-Risk*	\$0M	\$20.625M	\$36.25M	\$41.25M	\$22.5M

To calculate how much at-risk funding the State has earned for BP 4:

$$BP\ 4\ amount\ at-risk \times BP\ 4\ State\ DSRIP\ Accountability\ Score$$

$$\$41.25M \times 82.75\% = \$34.13M$$

To calculate how much at-risk funding the State has lost for BP 4:

$$BP\ 4\ amount\ at-risk - BP\ 4\ at-risk\ funding\ earned$$

$$\$41.25M - \$34.13M = \$7.12M$$

Therefore, the State earned \$34.13M and lost \$7.12M of the \$41.25M at-risk in Budget Period 4.

Appendix D: Measure Tables

ACO Measure Slate

Note: Where applicable, columns 2019 (Domain 3) and 2020 (Domains 1 and 2) indicate the performance period (e.g., “P (18/19/20)”, “P (19/20)”) from which data, as decided by the State, may be substituted for PY2020 performance rates due to the state of emergency declared by the federal or state government.

#	Measure Name	Measure Description	Data Source	Measure Payment Status (P = Performance, R=Reporting Only; P4R = Pay for Reporting)				
				2018	2019	2020	2021	2022
Domain 1 – Prevention & Wellness								
1	Childhood Immunization Status	Percentage of members who received all recommended immunizations by their 2nd birthday	Hybrid	P4R	P	P (19/20)	P	P
2	Immunizations for Adolescents	Percentage of members 13 years of age who received all recommended vaccines, including the HPV series	Hybrid	P4R	P	P (19/20)	P	P
3	Timeliness of Prenatal Care	Percentage of deliveries in which the member received a prenatal care visit in the first trimester or within 42 days of enrollment	Hybrid	P4R	P	P (19/20)	P	P
4	Controlling High Blood Pressure	Percentage of members 18 to 64 years of age with hypertension and whose blood pressure was adequately controlled	Hybrid	P4R	R	P (19/20)	P	P
5	Comprehensive Diabetes Care: A1c Poor Control	Percentage of members 18 to 64 years of age with diabetes whose most recent HbA1c level demonstrated poor control (> 9.0%)	Hybrid	P4R	P	P (19/20)	P	P
6	Asthma Medication Ratio	Percentage of members 5 to 64 years of age who were identified as having persistent asthma and had a ratio of controller medications to total asthma medications of 0.50 or greater	Admin	R	P	P (19/20)	P	P
7	Metabolic Monitoring for Children and Adolescents on Antipsychotics	Percentage of members 1 to 17 years of age who had two or more antipsychotic prescriptions and received metabolic testing	Admin	R	P	P (19/20)	P	P
8	Follow-Up After Hospitalization for Mental Illness (7 days)	Percentage of discharges for members 6 to 64 years of age, hospitalized for mental illness, where the member received follow-up with a mental health practitioner within 7 days of discharge	Admin	R	P	P (19/20)	P	P
9	Initiation and Engagement of Alcohol, or Other Drug Abuse or Dependence Treatment	Percentage of members 13 to 64 years of age who are diagnosed with a new episode of alcohol, opioid, or other drug abuse or dependency who initiate treatment within 14 days of diagnosis and who receive at ≥2 additional services within 30 days of the initiation visit	Admin	R	P	P (19/20)	P	P
Domain 2 – Care Integration								

10	Oral Health Evaluation	Percentage of members under age 21 years who received a comprehensive or periodic oral evaluation during the year	Admin	R	R	R	P	P
11	Screening for Depression and Follow Up Plan	Percentage of members 12 to 64 years screened for depression on the date of the encounter using an age appropriate standardized depression screening tool AND if positive, a follow-up plan is documented on the date of the positive screen	Hybrid	P4R	R	R	R	P
12	Depression Remission or Response	Percentage of members 12 to 64 years of age with a diagnosis of depression and elevated PHQ-9 score, who received follow-up evaluation with PHQ-9 and experienced response or remission in 4 to 8 months following the elevated score	Hybrid	P4R	R	R	P	P
13	ED Visits for Individuals with Mental Illness, Addiction, or Co-occurring Conditions	Number of ED visits for members 18 to 64 years of age identified with a diagnosis of serious mental illness, substance addiction, or co-occurring conditions	Admin	R	R	R	P	P
14	Follow-Up After Emergency Department Visit for Mental Illness (7 days)	Percentage of ED visits for members 6 to 64 years of age with a principal diagnosis of mental illness, where the member received follow-up care within 7 days of ED discharge	Admin	R	R	P (19/20)	P	P
15	Hospital Readmissions (Adult)	Case-mix adjusted rate of acute unplanned hospital readmissions within 30 days of discharge for members 18 to 64 years of age	Admin	R	R	R	P	P
16	Health-Related Social Needs Screening	Percentage of members who were screened for health-related social needs in the measurement year	Hybrid	P4R	R	R	P	P
17	Behavioral Health Community Partner Engagement	Percentage of members 18 to 64 years of age who engaged with a BH Community Partner and received a treatment plan within 3 months (122 days) of Community Partner assignment	Admin	R	R	R	P	P
18	Long-Term Services and Supports Community Partner Engagement	Percentage of members 3 to 64 years of age who engaged with an LTSS Community Partner and received a care plan within 3 months (122 days) of Community Partner assignment	Admin	R	R	R	P	P
19	Community Tenure	The percentage of eligible days that ACO members 18-64 with bipolar disorder, schizophrenia, or psychosis (BSP) diagnoses, and separately, for other members 18-64 who have at least 3 consecutive months of LTSS utilization reside in their home or in a community setting without utilizing acute, chronic, or post-acute institutional health care services during the measurement year.	Admin	R	R	R	P	P
20	Acute Unplanned Admissions for Individuals with Diabetes	This measure will assess the case-mix adjusted rate of acute unplanned hospital admissions for individuals 18 to 64 years of age with diabetes.	Admin	-	R	R	P	P

Domain 3 – Patient Experience: Overall Rating and Care Delivery

21	Overall Rating and Care Delivery	Composite Related to Communications and Willingness to Recommend (To be finalized)	Survey	R	18/19/20	P (18/19/20)	P	P
Domain 4 – Patient Experience: Person-Centered Integrated Care								
22	Person-centered Integrated Care	Composites Related to Care Planning, Self-Management and Integration of Care (To be finalized)	Survey	R	R	R	P	P

MassHealth DSRIP BH Community Partners Quality Measure Program (Prospective Measures, 2018-2022) – Include Benchmark Timeline

Note: Where applicable, Column 2020 indicates the performance period (i.e., “P (19/20)”) from which data, as decided by the State, may be substituted for PY2020 performance rates due to the state of emergency declared by the federal or state government.

#	Measure Name	Measure Description	Data Source	Benchmark due to CMS	Measure Steward	NQF	Pay for Performance Phase In (P= Performance, R= Reporting)				
							2018	2019	2020	2021	2022
Domain 1: Care Integration											
1	Community Partner Engagement	Percentage of assigned enrollees 18 to 64 years of age with documentation of engagement within 122 days of the date of assignment to a Community Partner assignment	Admin	Q4 2021	MA EOHHS	N/A	R	R	P (19/20)	P	P
2	Annual Treatment Plan Completion	Percentage of enrollees 18 to 64 years of age with documentation of a completed Treatment Plan during the measurement year	Admin	Q4 2021	MA EOHHS	N/A	R	P4R	P (19/20)	--	--
2*	Enhanced Person-Centered Care Planning	Percentage of enrollees 18 to 64 years of age with timely completion of a new or updated Treatment Plan during the measurement year	Admin	Q4 2021	MA EOHHS	N/A	--	--	R	P	P
3	Follow-up with BH CP after acute or post-acute stay (3 days)	Percentage of discharges from acute or post-acute stays for enrollees 18 to 64 years of age that were succeeded by a follow-up with a BH CP within 3 business days of discharge	Admin	Q2 2021	MA EOHHS	N/A	R	R	P (19/20)	P	P
4	Follow-up with BH CP or provider after ED visit	Percentage of ED visits for enrollees 18 to 64 years of age that had a follow-up visit within 7 days of the ED visit	Admin	Q2 2021	MA EOHHS	N/A	R	R	P (19/20)	P	P
Domain 2: Population Health											
5	Annual primary care visit	Percentage of enrollees 18 to 64 years of age who had at least one comprehensive well-care visit during the measurement year	Admin	Q4 2021	MA EOHHS	N/A	R	R	P (19/20)	P	P

7	Initiation of Alcohol, Opioid, or Other Drug Abuse or Dependence Treatment	Percentage of enrollees 18 to 64 years of age who were diagnosed with a new episode of alcohol, opioid, or other drug abuse or dependency who initiated treatment within 14 days of diagnosis	Admin	Q2 2021	NCQA	4	R	R	P (19/20)	P	P
8	Engagement of Alcohol, Opioid, or Other Drug Abuse or Dependence Treatment	Percentage of enrollees 18 to 64 years of age who were diagnosed with a new episode of alcohol, opioid, or other drug abuse or dependency who received ≥2 additional services within 30 days of the initiation visit	Admin	Q2 2021	NCQA	4	R	R	P (19/20)	P	P
9	Follow-Up After Hospitalization for Mental Illness (7 days)	Percentage of discharges for enrollees 18 to 64 years of age, hospitalized for treatment of mental illness, where the member received follow-up with a mental health practitioner within 7 days of discharge	Admin	Q4 2021	NCQA	576	R	R	P (19/20)	P	P
10	Diabetes Screening for Individuals With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medication	Percentage of enrollees with schizophrenia or bipolar disorder, who were dispensed an antipsychotic medication, and had diabetes screening test during the measurement year	Admin	Q4 2021	NCQA	1932	R	R	P (19/20)	P	P
11	Antidepressant Medication Management	Percentage of members (18-64) treated with antidepressant and had diagnosis of major depression who remained on antidepressant medication treatment	Admin	Q4 2021	NCQA	N/A	N/A	N/A	R	P	P

Domain 3: Avoidable Utilization

12	ED Visits for Adults with SMI, Addiction, or Co-occurring Conditions	The rate of ED visits for enrollees 18 to 64 years of age identified with a diagnosis of serious mental illness, substance addiction, or co-occurring conditions	Admin	Q4 2021	MA EOHHS	N/A	R	R	P (19/20)	P	P
13	Hospital Readmissions (Adult)	The rate of acute unplanned hospital readmissions within 30 days of discharge for enrollees 18 to 64 years of age	Admin	Q4 2021	NCQA	1768	R	R	P (19/20)	P	P

Domain 4: Member Experience

	Member Experience	Composites Related to Member Engagement, Care Planning, and Community Tenure	Survey	Q4 2021	n/a	n/a	R	R	R	P	P
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*Note: The Community Tenure measure and corresponding number (#6) were removed from the measure slate.

Measure Steward Definitions

- MA EOHHS: Massachusetts Executive Office of Health and Human Services
- NCQA: National Committee for Quality Assurance

MassHealth DSRIP LTSS Community Partners Quality Measure Program (Prospective Measures, 2018-2022) – Include Benchmark Timeline

Note: Where applicable, Column 2020 indicates the performance period (i.e., “P (19/20)”) from which data, as decided by the State, may be substituted for PY2020 performance rates due to the state of emergency declared by the federal or state government.

#	Measure Name	Measure Description	Data Source	Benchmark due to CMS	Measure Steward	NQF	Pay for Performance Phase In (P= Performance, R= Reporting)				
							2018	2019	2020	2021	2022
Domain 1: Care Integration											
1	Community Partner Engagement	Percentage of assigned enrollees 3 to 64 years of age with documentation of engagement within 122 days of assignment to a Community Partner	Admin	Q4 2021	MA EOHHS	N/A	R	R	P (19/20)	P	P
2	Annual Care Plan Completion	Percentage of enrollees 3 to 64 years of age with documentation of a completed Care Plan during the measurement year	Admin	Q4 2021	MA EOHHS	N/A	R	P4R	P (19/20)	--	--
2*	Enhanced Person-Centered Care Planning	Percentage of enrollees 18 to 64 years of age with timely completion of a new or updated Care Plan during the measurement year	Admin	Q4 2021	MA EOHHS	N/A	--	--	R	P	P
3	Follow-up with LTSS CP after acute or post-acute stay (3 days)	Percentage of discharges from acute or post-acute stays for enrollees 3 to 64 years of age that were succeeded by a follow-up with a LTSS CP within 3 business days of discharge	Admin	Q2 2021	MA EOHHS	N/A	R	R	P (19/20)	P	P
Domain 2: Population Health											
5	Annual primary care visit	Percentage of enrollees 3 to 64 years of age who had at least one comprehensive well-care visit during the measurement year	Admin	Q4 2021	MA EOHHS	N/A	R	R	P (19/20)	P	P

6	Oral Health Evaluation	Percentage of enrollees 3 to 20 years of age who received a comprehensive or periodic oral evaluation within the measurement year	Admin	Q4 2021	DQA	2517	R	R	P (19/20)	P	P
Domain 3: Avoidable Utilization											
7	All-Cause ED Visits	The rate of ED visits for enrollees 3 to 64 years of age	Admin	Q2 2021	MA EOHHS	N/A	R	R	P (19/20)	P	P
8	Hospital Readmissions (Adult)	The rate of acute unplanned hospital readmissions within 30 days of discharge for enrollees 18 to 64 years of age	Admin	Q4 2021	NCQA	1768	R	R	P (19/20)	P	P
Domain 4: Member Experience											
	Member Experience	Composites Related to Member Engagement Care Planning, and Community Tenure	Survey	Q4 2021	n/a	n/a	R	R	R	P	P

*Note: The Community Tenure measure and corresponding number (#4) were removed from the measure slate.

Measure Steward Definitions

- DQA: Dental Quality Alliance
- MA EOHHS: Massachusetts Executive Office of Health and Human Services
- NCQA: National Committee for Quality Assurance

MassHealth DSRIP Community Service Agency Quality Measure Program (Prospective Measures, 2018-2022) – Include Benchmark Timeline

Note: Where applicable, Column 2020 indicates the performance period (i.e., “P (19/20)”) from which data, as decided by the State, may be substituted for PY2020 performance rates due to the state of emergency declared by the federal or state government.

#	Measure Name	Measure Description	Data Source	Benchmark due to CMS	Measure Steward	NQF	Pay for Performance Phase In (P= Performance, R= Reporting)				
							2018	2019	2020	2021	2022
Domain 1: Care Integration											
1	Annual Physical	Percentage of members 0 to 20 years of age who received an annual physical examination and had documentation of an annual physical in the health record of the CSA provider	Hybrid	Sep 2020	MA EOHHS	N/A	R	P4R	P (19/20)	P	P
Domain 2: Member Experience											
2	Effective Teamwork	WFI-EZ Composite	Survey	Sep 2020	UW	N/A	R	R	R	P	P
3	Outcomes-Based	WFI-EZ Composite	Survey	Sep 2020	UW	N/A	R	R	R	P	P
4	Satisfaction	WFI-EZ Composite	Survey	Sep 2020	UW	N/A	R	R	R	P	P

Measure Steward Definitions

- MA EOHHS: Massachusetts Executive Office of Health and Human Services
- UW: University of Washington Wraparound Fidelity Index, Short Form (WFI-EZ)

**MassHealth 1115 Demonstration
Attachment N
Safety Net Provider Payment Eligibility and Allocation**

Hospitals that meet the eligibility criteria to receive a Safety Net Provider Payment pursuant to STC 53 and their corresponding payments are listed in Table 1 below.

Safety Net Provider Payment allocation methodology:

Hospitals that are eligible to receive Safety Net Provider Payments must demonstrate an uncompensated care shortfall on their 2014 UCCR or 403 cost reports (if UCCR is unavailable) based on their Medicaid and Uninsured payments and costs. Further detail related to hospital eligibility for Safety Net Provider Payments can be found in STC 53.

Eligible hospitals are split into two groups based on these criteria:

Group 1: Group 1 includes any hospital that received Delivery System Transformation Initiative (DSTI) payments in the SFY 2015-2017 demonstration period.

Group 2: Group 2 includes any eligible hospital that did not receive DSTI payments in the SFY 2015- 2017 demonstration period.

SFY 2022 payments are determined as follows:

- Group 1 hospitals will receive payments equal to 72% of the payments received in SFY 2017.
- Group 2 hospitals will receive a share of remaining available funding for Safety Net Provider Payments based on each hospital's relative Medicaid Gross Patient Service Revenue (GPSR) reported in the latest available hospital cost report as of August 2016.

Note that the initial allocation of DSTI payments among the eligible hospitals for the SFY 2012-2014 and SFY 2015-2017 demonstration periods was similarly determined based on relative Medicaid and Low Income Public Payer GPSR.

An increasing portion of these payments are at risk for each individual hospital in each year of the demonstration extension period, subject to accountability and performance requirements as specified in STC 53. As such, provider payment amounts are classified as "potential payments" as reflected in Table 1 below

Table 1. Safety Net Provider Potential Payments by Eligible Hospital Provider

Hospital Provider	SFY18 (\$M)	SFY19 (\$M)	SFY20 (\$M)	SFY21 (\$M)	SFY22 (\$M)
Group 1					
Boston Medical Center*	\$107.70	\$106.30	\$106.30	\$106.30	\$105.21
Holyoke Medical Center	\$6.49	\$6.49	\$6.49	\$6.49	\$6.49
Lawrence General Hospital	\$13.20	\$12.90	\$12.50	\$12.20	\$11.47
Mercy Medical Center	\$13.00	\$12.60	\$12.20	\$12.12	\$12.04
Signature Healthcare Brockton Hospital	\$14.70	\$14.00	\$13.50	\$13.30	\$13.27
Steward Carney Hospital	\$5.12	\$5.12	\$5.12	\$5.12	\$5.12
Group 2					
Baystate Medical Center	\$5.61	\$5.61	\$5.61	\$5.61	\$5.61
North Shore Medical Center	\$3.37	\$3.37	\$3.37	\$3.37	\$3.37
Southcoast Hospital Group	\$4.07	\$4.07	\$4.07	\$4.07	\$4.07
Tufts Medical Center	\$3.40	\$3.40	\$3.40	\$3.40	\$3.40
Morton Hospital	\$0.50	\$0.50	\$0.50	\$0.50	\$0.50
Franklin Medical Center	\$0.47	\$0.47	\$0.47	\$0.47	\$0.47
Berkshire Medical Center	\$1.63	\$1.63	\$1.63	\$1.63	\$1.63
Good Samaritan Hospital	\$0.95	\$0.95	\$0.95	\$0.95	\$0.95

In addition, note that for Boston Medical Center, the 72 percent Group 1 target payment amount for SFY 2022 takes into account SFY 2017 DSTI payment authority, plus \$32 million in Public Service Hospital Safety Net Care payment authority that does not continue in the new demonstration extension period.

**MassHealth 1115 Demonstration
Attachment O
-Pricing methodology for ACOs and
MCOs**

The Commonwealth may modify this Attachment with the approval of CMS without amending the STCs.

1. Unified approach to setting TCOC Benchmarks for Primary Care ACOs and MCO- Administered ACOs, and setting prospective Capitation Rates for MCOs and Partnership Plans

Massachusetts will set total cost of care (TCOC) Benchmarks using a uniform methodology that aligns with the methodology for setting prospective Capitation Rates for MCOs and Accountable Care Partnership Plans.

As described in STC 41, Accountable Care Partnership Plans will be paid prospectively rated capitation payments, which are subject to annual rate certification.

Primary Care ACOs will share savings and losses with the Commonwealth based on comparison between their TCOC Performance and TCOC Benchmark (i.e., their performance on managing the costs of their attributed or enrolled population). Primary Care ACOs may also be paid under a prospective pre-payment methodology as described in STC 41. Primary Care ACOs may also be paid an administrative rate that will be set forth in the Primary Care ACO contracts that are submitted to CMS. The Commonwealth may also pay Primary Care ACOs' Participating PCPs an enhanced fee-for-service rate or capitated rate for coordination of the care delivered to their attributed Primary Care ACO enrolled members, which will be set forth in the Participating PCP contracts.

Similarly, MCO-administered ACOs will share savings and losses with their contracting MCOs based on the same comparison. EOHHS intends to establish an aligned methodology for setting TCOC benchmarks for Primary Care ACOs and MCO-Administered ACOs, as further described below; EOHHS will require MCOs to share savings and losses with their contracted MCO-Administered ACOs using this methodology and based on the risk-tracks and schedule set by the state. Such requirement is broadly consistent with 42 CFR 438.6.

The TCOC benchmark (for Primary Care ACOs or MCO-Administered ACOs) or prospective Capitation Rate (for MCOs or Accountable Care Partnership Plans) will be developed as follows:

1. A benchmark or rate will be developed for each individual rate cell, where a rate cell is defined as a specific region and rating category (e.g., Rating Category I – Adults

- in Greater Boston Region).
2. All such benchmarks and rates will be based on a unified base dataset, which will be constructed as follows:
 - a) Claims and encounter experience for all Managed Care-eligible lives, including members enrolled in the MCO, PCC, and ACO programs, will be aggregated for a baseline period established annually by the Commonwealth (e.g., one to three years of the most recent available history).
 - b) Only services covered under the list of MCO Covered Services, the list of ACO Covered Services, or the list of TCOC Included Services will be included in the base data. These three lists of services will align, as ACOs will be financially accountable for the same services as MCOs. EOHHS will finalize and publish these lists in advance of finalizing the benchmarks/rates.
 - c) Actual prices paid for covered services during the baseline period will be re-priced to reflect average market prices paid for those services. The methodology used to re-price services delivered during the base period will be developed by the Commonwealth and shared with CMS for approval before the Operational Start Date of the ACO and MCO programs.
 3. For each rate cell, actuarial methods will be applied to the base dataset to estimate the average per-member per-month total cost of care (“market-rate TCOC”). Actuarial adjustments could account for factors such as, but not limited to, the following:
 - a) Changes in member risk and enrollment
 - b) Completion for incurred but not reported encounters in the base data
 - c) Anticipated program changes between the base period and the performance period
 - d) Cost and utilization trends from the base period to the performance period
 - e) Other adjustments as appropriate
 4. This market-rate TCOC will be consistent across all ACOs and MCOs within each rate cell, and will be incorporated into the final benchmarks and rates, along with the Network Efficiency factor as described in the following section.

2. Development and incorporation of the Network Efficiency Factor in TCOC Benchmarks and prospective Capitation Rates

The Commonwealth will incorporate an ACO-specific Network Efficiency Factor into the TCOC Benchmarks for Primary Care ACOs and MCO-Administered ACOs, and into the prospective Capitation Rates for Partnership Plans.

The Commonwealth will calculate and apply the Network Efficiency Factor for each ACO, for each Performance Year, as follows:

1. The Network Efficiency Factor will equal the ACO’s Historic TCOC divided by the ACO’s market-rate TCOC, after applying adjustments for each ACO’s member mix across rate cells and member acuity.
 - a) For each ACO, using a similar methodology and adjustments to those used to calculate the market-rate TCOC, the Commonwealth will develop for each rate cell an ACO’s Historic TCOC based on the cost experience in the base period

for the Managed Care eligible members attributed to primary care providers participating in the ACO.

- b) The Network Efficiency Factor represents the variance between an ACO's Historic TCOC and the ACO's market-rate TCOC that cannot be explained by variation in price or member risk
2. The Commonwealth will multiply each ACO's market-rate TCOC (after applying adjustments for each ACO's member mix across rate cells and member acuity) by the ACO's Network Efficiency Factor. The Commonwealth will calculate and apply the Network Efficiency Factor each year, but intends to place a decreasing weight on the Network Efficiency Factor over time. For example, in the first rating period under the demonstration, a 90 percent weight may be placed on the Network Efficiency Factor; that is, an ACO with a Network Efficiency Factor of 1.10 would have a TCOC benchmark that is 9.0% higher than its market-rate TCOC, while an ACO with a Network Efficiency Factor of 0.95 would have a TCOC benchmark that is 4.5% below its market-rate TCOC.

3. Additional detail on TCOC reconciliation

The Commonwealth may incorporate a number of further policies into the TCOC benchmark-setting methodology described above, subject to CMS approval. Such decisions may include, but are not limited to:

1. Excluding certain high-cost services (e.g., therapies for treating Hepatitis C) from the list of covered services, and therefore the base dataset
2. Applying stop-loss thresholds in the base period and performance period TCOC benchmark
3. Setting TCOC Benchmarks on a preliminary basis, and refining them during reconciliation to produce final TCOC Benchmarks that incorporate certain retrospective adjustments for unforeseen effects, to ensure ACOs are appropriately held accountable for their performance rather than exogenous factors

The Commonwealth may decide to apply such policies for some types of ACOs but not others, subject to CMS approval. For instance, the Commonwealth may decide to exclude certain high-cost drugs from the benchmark for Primary Care ACOs and MCO-administered ACOs, but not Accountable Care Partnership Plans. Should such a policy be applied differently between ACO model types, the benchmark-setting methodology for each model type would fully reflect the difference.

For each Primary Care ACO and MCO-Administered ACO, total savings or losses will be calculated as the difference between actual TCOC performance during the performance period and the ACO's TCOC benchmark, in aggregate across all rate cells in which the ACO participates. The portion of savings and losses shared, as well as the mechanism by which savings and losses are shared, will differ by ACO model type. The share of savings and losses may be symmetric or asymmetric, and may include shares of savings and losses up to 100%. ACO risk sharing arrangements will include requirements for financial stability (e.g., including reinsurance requirements) and in some cases will include maximum caps on gains and losses. The Commonwealth intends to generally increase the share of savings and losses over time in ACO risk tracks, and to move towards symmetric rather than asymmetric

arrangements; however, the Commonwealth will continue to evaluate ACOs' performance and ability to bear risk in setting risk track policy. The Commonwealth will submit details of these risk arrangements to CMS for approval prior to the Operational Start Date of the ACO and MCO programs.

For each ACO model type, the final calculation of shared savings and losses is subject to the ACO's quality performance. In the event that an ACO is determined to have earned savings, poor quality performance can reduce the share of savings retained by Accountable Care Partnership Plans or paid to Primary Care ACOs and MCO-administered ACOs. In the event that an ACO is determined to have incurred losses, strong quality performance can reduce the share of losses retained by Accountable Care Partnership Plans or the share of losses owed by Primary Care ACOs and MCO-administered ACOs.

ATTACHMENT P

ADDITIONAL HISTORICAL INFORMATION

The MassHealth demonstration is a statewide health reform effort encompassing multiple delivery systems, eligibility pathways, program types and benefit levels. The demonstration was initially implemented in July 1997, and expanded Medicaid income eligibility categorically eligible populations including pregnant women, parents or adult caretakers, infants, children and individuals with disabilities. Eligibility was also expanded to certain non- categorically eligible populations, including unemployed adults and non-disabled persons living with Human Immunodeficiency Virus (HIV). Finally, the demonstration also authorized the Insurance Partnership program, which provides premium subsidies to both qualifying small employers and their low-income employees for the purchase of private health insurance. The Commonwealth was able to support these expansions by requiring certain beneficiaries to enroll in managed care delivery systems to generate savings. However, the Commonwealth's preferred mechanism for achieving coverage has consistently been employer-sponsored insurance, whenever available and cost-effective.

The implementation of mandatory managed care enrollment under MassHealth changed the way health care was delivered resulting in a new focus on primary care, rather than institutional care. In order to aid this transition to managed care, the demonstration authorized financial support in the form of supplemental payments for two managed care organizations (MCOs) operated by safety net hospital providers in the Commonwealth to ensure continued access to care for Medicaid enrollees. These payments ended in 2006.

In the 2005 extension of the demonstration, CMS and the Commonwealth agreed to use federal and state Medicaid dollars to further expand coverage directly to the uninsured, funded in part by redirecting certain public funds that were dedicated to institutional reimbursement for uncompensated care to coverage programs under an insurance-based model. This agreement led to the creation of the Safety Net Care Pool (SNCP). This restructuring laid the groundwork for health care reform in Massachusetts, because the SNCP allowed the Commonwealth to develop innovative Medicaid reform efforts by supporting a new insurance program.

Massachusetts' health care reform legislation passed in April 2006. On July 26, 2006, CMS approved an amendment to the MassHealth demonstration to incorporate those health reform changes, which expanded coverage to childless adults, and used an insurance connector (Marketplace) and virtual gateway system to facilitate enrollment into the appropriate program. This amendment included:

- a) The authority to establish the Commonwealth Care program under the SNCP to provide sliding scale premium subsidies for the purchase of commercial health plan coverage for uninsured persons at or below 300 percent of the FPL;
- b) The development of payment methodologies for approved expenditures from the SNCP;
- c) An expansion of employee income eligibility to 300 percent of the FPL under

the Insurance Partnership; and
d) Increased enrollment caps for MassHealth Essential and the
HIV/Family Assistance Program.

At this time, there was also an eligibility expansion in the Commonwealth's separate title XXI

ATTACHMENT P
ADDITIONAL HISTORICAL INFORMATION

program for optional targeted low-income children between 200 percent and 300 percent of the FPL, which enabled parallel coverage for children in households where adults are covered by Commonwealth Care. This expansion ensured that coverage is equally available to all members of low-income families.

In the 2008 extension of the demonstration, CMS and the Commonwealth agreed to reclassify three eligibility groups (those aged 19 and 20 under the Essential and Commonwealth Care programs and custodial parents and caretakers in the Commonwealth Care program) with a categorical link to the title XIX program as “hypotheticals” for budget neutrality purposes as the populations could be covered under the state plan. As part of the renewal, the SNCP was also restructured to allow expenditure flexibility through a 3-year aggregate spending limit rather than annual limits; a gradual phase out of federal support for the Designated State Health Programs; and a prioritization in the SNCP to support the Commonwealth Care Program.

Three amendments were approved in 2010 and 2011 to allow for additional flexibility in the Demonstration. On September 30, 2010, CMS approved an amendment to allow Massachusetts to (1) increase the MassHealth pharmacy co-payment from \$2 to \$3 for generic prescription drugs; (2) provide relief payments to Cambridge Health Alliance totaling approximately \$216 million; and (3) provide relief payments to private acute hospitals in the Commonwealth totaling approximately \$270 million.

On January 19, 2011, CMS approved an amendment to: (1) increase authorization for Designated State Health Programs for state fiscal year 2011 to \$385 million; (2) reclassify Commonwealth Care adults without dependent children with income up to and including 133 percent of the federal poverty level (FPL) as a “hypothetical” population for purposes of budget neutrality as the population could be covered under the state plan; and (3) allow the following populations to be enrolled into managed care: (a) participants in a Home and Community-Based Services Waiver; (b) Katie Beckett/ Kaileigh Mulligan children; and (c) children receiving title IV-E adoption assistance.

Additionally, on August 17, 2011, CMS approved an amendment to authorize expenditure authority for a maximum of \$125.5 million for state fiscal year (SFY) 2012 for Cambridge Health Alliance through the SNCP for uncompensated care costs. This funding was approved with the condition that it be counted toward a budget neutrality limit eventually approved for SFY 2012 as part of the 2011 extension.

In the 2011 extension of the demonstration, CMS and the Commonwealth agreed to use federal and state Medicaid dollars for the following purposes:

- e) Support a Pediatric Asthma Pilot Program focused on improving health outcomes and reducing associated Medicaid costs for children with high-risk asthma;
- f) Offer early intervention services for children with autism who are not otherwise eligible through the Commonwealth’s currently approved section 1915(c) home and community-based services waiver because the child has not been determined to meet institutional level of care requirements;
- g) Utilize Express Lane eligibility methodologies to conduct renewals for parents and caretakers to coincide with the Commonwealth’s intent to utilize Express Lane

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eligibility for children; and

- h) Further, expand the SNCP to provide incentive payments to participating hospitals for Delivery System Transformation Initiatives focused on efforts to enhance access to health care, improve the quality of care and the health of the patients and families they serve and the development of payment reform strategies and models.

In the extension granted on December 20, 2011 the Commonwealth's goals under the demonstration were:

- i) Maintain near-universal health care coverage for all eligible residents of the Commonwealth and reduce barriers to coverage;
- j) Continue the redirection of spending from uncompensated care to insurance coverage;
- k) Implement delivery system reforms that promote care coordination, person-centered care planning, wellness, chronic disease management, successful care transitions, integration of services, and measurable health outcome improvements; and
- m) Advance payment reforms that will give incentives to providers to focus on quality, rather than volume, by introducing and supporting alternative payment structures that create and share savings throughout the system while holding providers accountable for quality care.

Under the September 2013 amendment, the Commonwealth revised the demonstration and waiver authorities to comply with the provisions of the Affordable Care Act. Additionally, the amendment supported the Commonwealth's ability to sustain and improve its ability to provide coverage, affordability and access to health care under the demonstration. The amendment allowed Massachusetts to continue certain programs and realign other programs to comply with the Affordable Care Act provisions that became effective January 1, 2014. For example, the amendment allowed Massachusetts to sunset certain demonstration programs such as MassHealth Basic, MassHealth Essential and the Medical Security Program December 31, 2013. These changes were made to reflect the fact that effective January 1, 2014, the individuals eligible under certain demonstration programs with income up to 133 percent of the federal poverty level (FPL) became eligible under the Medicaid state plan and those with income above 133 percent of the FPL became eligible to purchase insurance through Massachusetts' health insurance Marketplace, the Health Connector. With the combination of previous expansions and the recent health reform efforts, the MassHealth Medicaid section 1115 demonstration now covers approximately 1.8 million individuals.

In the 2014 extension of the demonstration, the Commonwealth continued its commitment to the same goals articulated for the 2011-2014 extension period. In accordance with these goals, CMS and the Commonwealth agreed to:

- i. Extend the demonstration for a five-year period based upon the authority under Section 1915(h)(2) of the Social Security Act which authorizes five-year renewal terms for states that provide medical services for dual eligible individuals through their demonstration. The five-year renewal period supported the Commonwealth's dual eligibles demonstration as some of the authorities for the duals demonstration are contained in the in the section 1115(a) demonstration.
- ii. Continue authority for the Pediatric Asthma Pilot Program focused on

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- improving health outcomes and reducing associated Medicaid costs for children ages 2-18 with high-risk asthma;
- iii. Continue authority to offer intensive early intervention services for children with autism who are not otherwise eligible through the Commonwealth's currently approved section 1915(c) home and community-based services waiver because the child has not been determined to meet institutional level of care requirements;
 - iv. Continue Health Connector Subsidies to provide premium assistance to individuals receiving Qualified Health Plan (QHP) coverage through the Marketplace with incomes at or below 300 percent of the FPL;
 - v. Continue and expand the authority for the Commonwealth to conduct streamlined eligibility redeterminations using Supplemental Nutrition Assistance Program (SNAP) verified income data;
 - vi. Provide for payment of the cost of the monthly Medicare Part A and Part B premiums and the cost of deductibles and coinsurance under Part A and Part B for Medicare-eligible individuals who have incomes up to 133 percent of the FPL, and pay the costs of the Medicare Part B premium only for CommonHealth members with incomes between 133 and 135 percent FPL; and
 - vii. Through June 30, 2017, provide incentive payments to participating hospitals for Delivery System Transformation Initiatives and the Public Hospital Transformation and Incentive Initiatives, and provide support for Infrastructure and Capacity Building investments focused on efforts to enhance access to health care, improve the quality of care and the health of the patients and families they serve and the development of payment reform strategies and models.

During the extension period granted in 2014, the goals of the demonstration were:

- viii. Maintain near universal coverage for all residents of the Commonwealth and reduce barriers to coverage;
- ix. Continue the redirection of spending from uncompensated care to insurance coverage;
- x. Implement delivery system reforms that promote care coordination, person-centered care planning, wellness, chronic disease management, successful care transitions, integration of services, and measurable health outcome improvements; and
- xi. Advance payment reforms that will give incentives to providers to focus on quality, rather than volume, by introducing and supporting alternative payment structures that create and share savings throughout the system while holding providers accountable for quality care.

In the 2016 amendment to the demonstration, the Commonwealth and CMS agreed to implement new demonstration components to support a value-based restructuring of MassHealth's health care delivery and payment system, including a new Pilot Accountable Care Organization program, building toward a transition to fuller accountable care models in the future. In addition, behavioral health services authorized under the demonstration have been expanded to strengthen

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ADDITIONAL HISTORICAL INFORMATION

Massachusetts' system of recovery-oriented Substance Use Disorder treatments and supports, in large part with the goal of addressing the opioid addiction epidemic.

The amendment also made other changes, including expanding CommonHealth eligibility for working adults over age 65; authorizing MassHealth to require enrollment in Student Health Insurance Plans (SHIP) when deemed cost effective and to provide for continuous eligibility for the duration of the SHIP year; and expanding the availability of Health Connector subsidies to include cost sharing subsidies for Health Connector enrollees with incomes at or below 300 percent of the FPL, in addition to premium subsidies for this population that were previously authorized.

MassHealth 1115 Demonstration
Attachment Q:
Medicaid Managed Care Entity/ACO Performance-
Based Incentive Payment Mechanisms

1. Overview

As delivery system reforms are implemented, the Commonwealth and CMS seek to shift payments to risk-based alternative payment models focused on accountability for quality, integration and total cost of care. Consistent with this goal, within the five-year demonstration term, the Commonwealth will direct Medicaid Managed Care Entities/Accountable Care organizations (MMCE/ACO), to administer performance-based quality incentive programs for hospitals as described below (“MMCE/ACO payment mechanism”). In addition to being critical to the delivery system reform goals shared by the Commonwealth and CMS, these performance-based quality incentive programs are integral to the Commonwealth’s overall financing of activities authorized under the demonstration, and are considered payments that are broadly compliant with requirements for payments made under 42 CFR 438.6(c)(1)(ii).

2. General Requirements

The four MMCE/ACO payment mechanisms described below, which the Commonwealth agrees to establish, shall be implemented through MMCE/ACO contracts consistent with this Attachment in order to meet the requirements of 42 CFR 438.6.

3. Description of the Payment Mechanisms

The Commonwealth intends to direct MMCE/ACOs to administer the following four MMCE/ACO performance-based quality incentive programs:

- a. **Disability Access Incentive (DY21/SFY2018 – DY25/SFY2022):** The Commonwealth will direct MMCE/ACOs to make payments to all contracted acute hospitals based on reporting and performance related to disabled members’ access to medical and diagnostic equipment.
- b. **Hospital Quality Incentive (DY21/SFY2018 – DY25/SFY2022):** The Commonwealth will direct MMCE/ACOs to make payments to Essential MassHealth hospitals (Cambridge Health Alliance and UMass Memorial Health Care, Inc. Hospitals) based on hospital quality performance.
- c. **Integrated Care Incentive (DY22/SFY 2019 – DY25/SFY 2022):** In the event that primary care providers employed by or affiliated with Cambridge Health Alliance participate in the Commonwealth’s Accountable Care Partnership Plan model, the Commonwealth will direct that MMCE/ACO to make payments to non-federal, non-state, public hospitals based on the accountable care performance of such hospitals’ owned or affiliated primary care providers.
- d. **Behavioral Health Quality Incentive (DY23/SFY 2020 – DY25/SFY 2022):** The Commonwealth will direct the Commonwealth’s single Prepaid Inpatient Health Plan (PIHP) to make payments to non-federal, non-state, public hospitals in its network based on behavioral health quality performance.

4. General Methodology Linking Payment Mechanisms to Utilization/Delivery of Services

The Commonwealth shall include in its MMCE/ACO contracts payment mechanisms consistent with the following approach:

- a. The Commonwealth will specify the maximum allowable payment amount that it will direct each MMCE/ACO to pay to one or more designated classes of hospitals during the MMCE/ACO contract year.
- b. The maximum payment amount earned by a specific hospital (i.e., the amount earned if a hospital attains a quality score of 100 percent) will be equal to the total amount directed to the designated class multiplied by the proportion of the class's total managed and non-managed Medicaid Gross Patient Service Revenue ("Medicaid GPSR") or other measure of utilization and delivered of services, for which the specific hospital's Medicaid GPSR, or other measure of delivered services, accounts during the MMCE/ACO contract year.
- c. The Commonwealth will calculate periodic lump sum payments that MMCE/ACOs will be directed to pay to specific hospitals. The periodic lump sum payments will be calculated based on:
 - i. The Commonwealth's projection of each hospital's Medicaid GPSR, or other measure of utilization and delivered services, during the MMCE/ACO contract year;
 - ii. Each hospital's expected performance (based on prior year or other data);
 - iii. A target for the MMCE/ACO to pay 90% of each hospital's expected earned payments in advance of a final reconciliation after the MMCE/ACO contract year.
- d. Within seven days prior to each scheduled lump sum payment described above, the Commonwealth shall make a payment to each MMCE/ACO that is directed to make an incentive payment to hospitals. The Commonwealth's payment to each MMCE/ACO shall be equal to the sum of all payments that the MMCE/ACO is directed to make. The Commonwealth may use any permissible source, including intergovernmental transfers, as the source of the non-federal share for MMCE/ACO payments.
- e. Following the MMCE/ACO contract year, actual Medicaid GPSR, or other measure of utilization and delivered services, for each hospital and performance under each contract will be determined and the actual payment amount earned by hospitals will be calculated.
- f. Final reconciliation: Based on the difference between the periodic lump sum amounts paid to hospitals during the MMCE/ACO contract year and the actual amount earned, MMCE/ACOs will be directed to make a final reconciliation payment to hospitals. In the event that the lump sum payments made by the MMCE/ACO to a hospital during the MMCE/ACO contract year exceeded the total actual amount earned, the hospital will remit the excess payment to the MMCE/ACO as part of the final reconciliation. Any amount remitted by a hospital to a MMCE/ACO as part of the reconciliation shall in turn be remitted by the MMCE/ACO to the Commonwealth.

5. Performance Measures and Evaluation Plan

As required under 42 CFR 438.6(c)(2)(i)(D), the Commonwealth shall have a plan to evaluate the extent to which the payment mechanisms and performance measure incentives achieve the goals and objectives identified in the managed care quality strategy. The Commonwealth may use performance measures based upon the following domains, or other domains not listed below, for the incentive programs. The Commonwealth may include process, improvement, outcomes, system transformation, and innovative measures and indicators that are consistent with the Commonwealth's delivery system reforms and quality strategy. For the Hospital Quality, Integrated Care, and Behavioral Health Quality Incentives, the Commonwealth will designate two types of performance measure domains. Type I domains will have 80% or more of the measures drawn from nationally vetted and endorsed measure sets (e.g. National Quality Forum, National Committee for Quality Assurance, the Joint Commission, etc.) or measures in wide use across Medicare and Medicaid quality initiatives (e.g. the Medicaid Child and Adult Core Set Measures, CMS Core Quality Measures Collaborative measure sets, Health Home measure sets, Behavioral Health Clinic measure sets, and Merit-based Incentive Payment System and Alternative Payment Model measures, etc.). Type II domains will not have a lower limit on the percentage of measures drawn from nationally validated measure sets. As a matter of general principle, where practicable, specific performance measures for each incentive payment mechanism will be drawn from the nationally recognized measure sets.

The Commonwealth will submit the evaluation plan and performance measures to CMS for approval, consistent with the process set forth at 438.6.

Any changes made to the specific domains listed below would not require an amendment to the Demonstration:

- a. **Disability Access Incentive Payment** - Hospital performance expectations shall increase every year from the beginning of the incentive program, beginning with two years of reporting and three years of performance as measured by disability access to MDE:
 - i. Year 1 of incentive program (October 1, 2016 to September 30, 2017): Hospitals required to report:
 - A. The Provider's capacity to provide accessible MDE to individuals with disabilities
 - B. A detailed list of the Provider's accessible MDE
 - C. The Provider's plan to improve its provision of accessible medical and diagnostic equipment
 - D. The name and contact information for the Provider's single point of contact for those seeking or having questions about access for individuals with disabilities (i.e. a Disability Access Key Contact)
 - ii. Year 2: Hospitals shall be required to report:
 - A. Year 1 metrics
 - B. Measures related to patient experience. The measures may include, and are not limited to:
 - Average wait times for disabled patients for specified MDE
 - Ratio of accessible MDE to the number of local disabled individuals
 - Results of disabled patient experience surveys regarding access to MDE
 - iii. Years 3-5

- A. Continued reporting requirements as in Years 1 and 2
 - B. Hospital performance will be measured on the basis of how a disabled member's experience of accessing MDE compares to the experience of a non-disabled member. The metrics upon which the two populations' experience would be compared may include, and are not limited to:
 - Average wait times for disabled patients for specified MDE
 - Ratio of accessible MDE to the number of local disabled individuals
 - Results of disabled patient experience surveys regarding access to MDE
- b. Hospital Quality Incentive Payment** - Performance for this payment mechanism will be based on the following:
- i. Type I domains include measures related to:
 - A. Inpatient care and other hospital system quality (e.g., appropriate care for key conditions)
 - B. Transitions of care (e.g., follow-up after discharge, reconciled medication list at discharge)
 - C. Avoidable utilization and patient safety (e.g., rates of hospital-acquired infections)
 - ii. Type II domains include measures related to:
 - A. System transformation
 - iii. EOHHS may include other domains beyond those listed here
- c. Integrated Care Incentive Payment** - Performance for this payment mechanism will be based on the following:
- i. Type I domains include measures related to:
 - A. Care coordination – transitions of care
 - B. Avoidable / appropriate utilization (e.g., admission from emergency department to inpatient setting and readmissions rates)
 - C. Patient quality scores
 - ii. Type II domains include measures related to:
 - D. Care coordination measures aside from transitions of care
 - E. Member engagement
 - F. Care integration, system transformation, multi-disciplinary team-based care
 - iii. EOHHS may include other domains beyond those listed here
- d. Behavioral Health Quality Incentive Payment** - Performance for this payment will be based on the following:
- i. Type I domains include measures related to:
 - A. Behavioral health-specific quality of care
 - ii. Type II domains include measures related to:
 - A. Behavioral health-specific care coordination
 - B. System transformation
 - iii. EOHHS may include other domains beyond those listed here

- iv. Many of the proposed measures will be the same measures for which non-federal, non-state, public hospitals are accountable in the PHTII program under this demonstration.

Each participating hospital’s performance, under each performance-based incentive payment mechanism, shall be measured against approved benchmarks and a score for each measure or group of measures will be calculated according to a methodology to be defined by EOHHS and approved by CMS. Benchmarks for any individual performance measure may be set either on the basis of absolute performance standards or improvement targets for individual hospitals. Scores will be summed, with or without weighting, across all measures or groups of measures in order to calculate an overall performance score between 0 and 100 percent. Under the MMCE/ACO payment mechanism, each hospital’s performance score shall be multiplied by that hospital’s maximum incentive payment amount in order to calculate the actual payment earned by the hospital.

To the extent practicable and feasible, the specific performance measures for each incentive payment mechanisms should be aligned with comparable national standards and other process, improvement, outcomes, system transformation, and innovative metrics that are consistent with the Commonwealth’s delivery system reforms and quality strategy.

6. Funding Sources and Anticipated Incentive Program Amounts

The scheduled maximum dollar amounts directed to designated classes of providers under each of the four MMCE/ACO incentive payments mechanisms are:

#	Incentive Title	MMCE/ACO vehicle	Hospital class	Maximum MCO incentive payment to designated hospital class, by SFY (\$ millions)				
				SFY 2018	SFY 2019	SFY 2020	SFY 2021	SFY 2022
1	Disability access incentive	MMCOs	All in-network acute hospitals	265	265	265	265	265
2	Hospital Quality incentive	MMCOs	Essential MassHealth hospitals in network	157	315	316	315	315
3	Integrated care incentive	Accountable care partnership plans affiliated with Cambridge Health Alliance	Non-federal, non-state, public hospitals in network	0	28	39	39	39
4	Behavioral health quality incentive	Commonwealth’s single Prepaid Inpatient Health Plan (PIHP)	Non-federal, non-state, public hospitals in network	0	0	141	138	135

The Commonwealth may propose an increase or decrease of 20 percent of the maximum payment amounts listed in the Table. The incentive payments will be incorporated as a component of the MMCE/ACO capitation amounts, and are therefore subject to CMS approval under the review and approval process described in the next section.

Because of the expectation that these payments will transition out of the demonstration, these amounts are not reflected in Attachment E for the respective years noted above.

7. CMS Review and Approval

No later than November 15, 2016, as part of the template described below, the Commonwealth shall submit to CMS a detailed framework for measuring and scoring performance under the Hospital Quality, Integrated Care, and Behavioral Health Quality incentive payments described in this attachment. The Commonwealth and CMS shall work toward applicable approvals by January 15, 2017.

The Commonwealth shall submit to CMS for approval any payment mechanisms that direct payments as described in 42 CFR 438.6(c) at least 120 days prior to implementation, in a format and template to be specified by CMS. Such submission shall include the incentive payment amounts and the performance measures and scoring benchmarks. In addition, the Commonwealth shall clearly identify the specific goals and objectives described in the Commonwealth's managed care quality strategy that the incentive payment mechanism is designed to achieve. Materials submitted for approval shall be consistent with this Attachment in order to meet the requirements of 42 CFR 438.6 and may be submitted for approval prior to the contract and rate certification submission under 42 CFR 438.3 and 42 CFR 438.7. CMS will provide initial written feedback within 45 calendar days of the Commonwealth's submission, and shall render a final decision on the proposal no more than 90 days after the Commonwealth's initial submission. Pursuant to 42 CFR 438.6(c)(2)(1), the Commonwealth must obtain annual prior written approval from CMS for each performance-based quality incentive program.

This Attachment is intended to describe a common understanding between the Commonwealth and CMS on a framework for implementing incentive payments. The attachment does not prohibit the Commonwealth from modifying the payment amounts or the performance measures to best meet its needs and submitting such revisions through the CMS review and approval process; such changes shall not require an amendment to the demonstration.

CMS and the State recognize that this performance framework is a new, significant shift toward a performance-based structure for hospital supplemental payments. Therefore, at the end of the second year of this demonstration, CMS and the State shall jointly evaluate and review the performance measures described in Section 5 of this Attachment.

ATTACHMENT R: Flexible Services Program Protocol

In accordance with the State's Section 1115 Demonstration Waiver and Special Terms and Conditions 60(b)(ii), this protocol outlines the State's Delivery System Reform Incentive Payment (DSRIP) Program's Flexible Services Program (FSP). Under the FSP, the State will provide eligible MassHealth members with access to Flexible Services, which consist of Tenancy Preservation Services (TPS) and Nutritional Support Services (NSS). This protocol outlines the target criteria, needs based criteria, the covered flexible services, the flexible service planning process, and the payment methodology for covered flexible services under the FSP.

I. Target Criteria

ACO-enrolled MassHealth members ages 0-64.

II. Needs Based Criteria

Members who meet the target criteria outlined in Section I must also meet **at least one of** the health needs-based criteria outlined in Section II.A; **and at least** one of the risk factors outlined in Section II.B associated with the need for flexible services covered under the FSP as determined by the Flexible Service Assessment outlined in Section IV.

A. Health Needs-Based Criteria

1. The individual is assessed to have a behavioral health need (mental health or substance use disorder) requiring improvement, stabilization, or prevention of deterioration of functioning (including the ability to live independently without support)
2. The individual is assessed to have a complex physical health need, which is defined as persistent, disabling, or progressively life-threatening physical health condition(s), requiring improvement, stabilization, or prevention of deterioration of functioning (including the ability to live independently without support);
3. The individual is assessed to have a need for assistance with one or more Activities of Daily Living (ADLs) or Instrumental Activities of Daily Living (IADLs);
4. Repeated incidents of emergency department use (defined as 2 or more visits within six months, or 4 or more visits within a year); OR
5. Pregnant individuals who are experiencing high risk pregnancy or complications associated with pregnancy, including:
 - a. Individuals 60 days postpartum;
 - b. their children up to one year of age; and
 - c. their children born of the pregnancy up to one year of age.

B. Risk Factors

1. Risk Factor 1: The member is homeless as defined by the following:
 - a. An individual or family who lacks a fixed, regular, and adequate nighttime residence, meaning:
 - i. An individual or family with a primary nighttime residence that is a public or private place not designed for or ordinarily used as a regular sleeping accommodation for human beings, including a car, park, abandoned building, bus or train station, airport, or camping ground;
 - ii. An individual or family living in a supervised publicly or privately operated shelter designated to provide temporary living arrangements (including congregate shelters, transitional housing, and hotels and motels paid for by

- charitable organizations or by federal, State, or local government programs for low-income individuals); or
- iii. An individual who is exiting an institution where they resided for 90 days or less and who experienced Risk Factor (1)(a)(i) or Risk Factor (1)(a)(ii);
- b. An individual or family who will imminently lose their primary nighttime residence, provided that:
 - i. The primary nighttime residence will be lost within 21 days of the date of Flexible Services Assessment as outlined in Section IV;
 - ii. No subsequent residence has been identified; and
 - iii. The individual or family lacks the resources or support networks, *e.g.*, family, friends, faith-based or other social networks, needed to obtain other permanent housing;
- c. Any individual or family who:
 - i. Is fleeing, or is attempting to flee, domestic violence, dating violence, sexual assault, stalking, or other dangerous, unsafe, or life-threatening conditions that relate to violence, including physical or emotional, against the individual or a family member, including a child, that has either taken place within the individual's or family's primary nighttime residence or has made the individual or family afraid to return to or stay in their primary nighttime residence;
 - ii. Has no other residence; and
 - iii. Lacks the resources or support networks, *e.g.*, family, friends, and faith-based or other social networks, to obtain other permanent housing.

2. Risk Factor 2: The member is at risk of homelessness as defined by the following:

- a. Does not have sufficient resources or support networks, *e.g.*, family, friends, faith-based or other social networks, immediately available to prevent them from moving to an emergency shelter or another place not meant for human habitation or a safe haven; and
- b. Meets one of the following conditions:
 - i. Has moved because of economic reasons two or more times during the 60 days immediately preceding the Flexible Service Assessment as outlined in Section IV;
 - ii. Is living in the home of another because of economic hardship;
 - iii. Lives in a hotel or motel and the cost of the hotel or motel stay is not paid by charitable organizations or by federal, State, or local government programs for low-income individuals;
 - iv. Lives in a single-room occupancy or efficiency apartment unit in which there reside more than two persons, or lives in a larger housing unit in which there reside more than 1.5 people per room;
 - v. Has a past history of receiving services in a publicly funded institution, or system of care (such as a health-care facility, a mental health facility, foster care or other youth facility, or correction program or institution); or
 - vi. Otherwise lives in housing that has characteristics associated with instability and an increased risk of homelessness.
 - a. Characteristics are defined as:

- i. **Living in housing that is unhealthy** (e.g., the presence of any characteristics that might negatively affect the health of its occupants, including, but not limited to, evidence of rodents, water leaks, peeling paint in homes built before 1978, and absence of a working smoke detector, poor air quality from mold or radon).
 - ii. **Living in housing that is inadequate** as defined as an occupied housing unit that has moderate or severe physical problems (e.g., deficiencies in plumbing, heating, electricity, hallways, and upkeep). Examples of moderate physical problems in a unit include, but are not limited to, two or more breakdowns of the toilets that lasted more than 6 months, unvented primary heating equipment, or lack of a complete kitchen facility in the unit. Severe physical problems include, but are not limited to, lack of running hot or cold water, lack of a working toilet, and exposed wiring.
 - iii. **Rent Arrears (1 or more):** Missing one or more monthly rent payment as well as situations such as receiving a Notice to Quit, being referred to Housing Court, receiving complaints from a property manager/landlord, or failure to have one’s lease recertified or renewed

- 3. **Risk Factor 3:** The member is at risk for nutritional deficiency or nutritional imbalance due to food insecurity, defined as having limited or uncertain availability of nutritionally adequate, medically appropriate, and/or safe foods, or limited or uncertain ability to acquire or prepare acceptable foods in socially acceptable ways.
 - a. Limited or uncertain is defined as reports of:
 - i. Reduced quality, variety, or desirability of diet with little or no indication of reduced food intake; or
 - ii. Multiple indications of disrupted eating patterns and reduced food intake.

III. **Flexible Services**

The FSP program consists of two services, Tenancy Preservation Supports (TPS) and Nutrition Sustaining Supports (NSS). These services are covered for FSP eligible members when determined necessary through the flexible service planning process described in **Section IV**. ACOs may decide which specific services within TPS and NSS they will make available to members based on needs criteria or funding availability.

In the context of Tenancy Preservation Supports and Nutrition Sustaining Supports “assisting” is defined as: (1) helping a member to locate services; and/or (2) providing support, education, and/or coaching directly to the member in regards to a particular service(s).

A. **Tenancy Preservation Supports**

Tenancy Preservation Supports consists of Pre-tenancy Supports, Tenancy Sustaining Supports, and Home Modifications, and as described below.

1. **Pre-tenancy Supports**

Pre-tenancy Supports include one or more of the following:

a. Individual Supports

- i. Assessing and documenting the member's preferences related to the tenancy the member seeks, including the type of rental sought, the member's preferred location, the member's roommate preference (and, if applicable, the identification of one or more roommates), and the accommodations needed by the member.
- ii. Assisting the member with budgeting for tenancy/living expenses, and assisting the member with obtaining discretionary or entitlement benefits and credit (e.g., completing, filing, and monitoring applications to obtain discretionary or entitlement benefits and credit as well as obtaining or correcting the documentation needed to complete such applications).
- iii. Assisting the member with obtaining completing, and filing, applications for community-based tenancy.
- iv. Assisting the member with understanding their rights and obligations as a tenant.
- v. Assisting the member with locating and obtaining services needed to establish a safe and healthy living environment.
- vi. Assisting or providing the member with transportation to any of the approved pre-tenancy supports when needed.

b. Transitional Assistance

Assisting the member with locating, obtaining, and/or providing the member with one-time household set-up costs and move-in expenses, including but not limited to, first month's rent, security deposit, costs for filing applications and obtaining and correcting needed documentation, and/or purchase of household furnishings needed to establish community-based tenancy.

2. Tenancy Sustaining Supports

Tenancy sustaining supports include one or more of the following supports:

- a. Assisting the member with communicating with the landlord and/or property manager regarding the member's disability, and detailing the accommodations needed by the member.
- b. Assisting with the review, update, and modification of the member's tenancy support needs, as documented in the member's Flexible Service Plan, on a regular basis to reflect current needs and address existing or recurring barriers to retaining community tenancy.
- c. Assisting the member with obtaining and maintaining discretionary or entitlement benefits and establishing credit, including, but not limited to obtaining, completing, filing, and monitoring applications.
- d. Assisting the member with obtaining appropriate sources of, tenancy training, including trainings regarding lease compliance and household management.
- e. Assisting the member in all aspects of the tenancy, including, when needed, legal advocacy (in the form of coaching, supporting, and educating the member)

during negotiations with a landlord, and directing a member to appropriate sources of legal services.

- f. Assisting or providing the member with transportation to any of the tenancy sustaining supports when needed.
- g. Assisting the member with obtaining or improving the adaptive skills needed to function and live independently and safely in the community and/or family home, including advising the member of the availability of community resources.

3. **Home Modifications**

Home Modifications consist of limited physical adaptations to the member's community-based dwelling, when necessary to ensure the member's health, welfare, and safety, or to enable the member to function independently in a community-based setting (e.g., installation of grab bars and hand showers, doorway modifications, in-home environmental risk assessments, refrigerators for medicine such as insulin, HEPA filters, vacuum cleaners, pest management supplies and services, air conditioner units, hypoallergenic mattress and pillow covers, traction or non-skid strips, night lights, and training to use such supplies and modifications correctly). The State will establish limits within this category, such as:

- a. Excluding those adaptations to the dwelling that are of general utility, and are not of direct medical or remedial benefit to the member.
- b. Excluding adaptations that add to the total square footage of the dwelling except when necessary to complete an adaptation (e.g., in order to improve entrance/egress to a residence or to configure a bathroom to accommodate a wheelchair).
- c. Excluding adaptations which would normally be considered the responsibility of the landlord.

B. Nutrition Sustaining Supports

Nutrition Sustaining Supports (NSS) include one or more of the following services:

1. The provision of healthy, well-balanced, home-delivered meals for the member.
2. Assisting the member with obtaining discretionary or entitlement benefits and credit, including but not limited to, completing, filing, and monitoring applications as well as obtaining and correcting the documentation needed to complete such applications.
3. Providing, or assisting with locating nutrition education and skills development.
4. Assisting or providing the member with transportation to any of the nutrition sustaining support services or supporting the member's ability to meet nutritional and dietary needs.
5. Assisting the member with locating, obtaining, and/or providing the member with purchase of household supplies needed to meet nutritional and dietary need.

6. Assisting or providing the member with access to foods that meet nutritional and dietary need that cannot otherwise be obtained through existing discretionary or entitlement programs.
7. Assisting the member in maintaining access to nutrition benefits including, when needed, legal advocacy (in the form of coaching, supporting, and educating the member) during appeals of benefit actions (e.g., denial, reduction, or termination) and directing a member to appropriate sources of legal services.

C. Non-Covered TPS and NSS

TPS and NSS do not include:

1. Ongoing payment of rent or other room and board costs;
2. Expenses for recurring utilities or other recurring bills not specifically delineated in Section III.A or III.B;
3. Goods and services intended for leisure or recreation; and
4. Services or supports that are duplicative of those offered under other state or federal programs.

IV. Flexible Services Assessment and Planning Process

A. Assessment

An ACO or its designee will perform an assessment that (1) determines a member's eligibility for Flexible Services; and (2) identifies which Flexible Service(s) the member may receive.

1. The assessment may be completed by the ACO or designee of the ACO. Such designees may include, but are not limited to, licensed or unlicensed social workers, case managers, licensed or unlicensed providers, Community Partners staff, Community Health Workers, or an individual appropriately trained by the ACO.
2. Members determined eligible may receive planning for flexible services as described in Section IV.B.

B. Flexible Service Planning

A member and ACO or its designee will create a plan for a member to obtain Flexible Services specific to the member's needs regarding tenancy preservation supports and/or nutrition sustaining supports as determined through the Flexible Service planning process. The Flexible Service Plan will be in writing and agreed to by the member and approved by the ACO or its designee.

1. ACOs may have a designee complete the plan with the member. Such designees may include, but are not limited to, licensed or unlicensed social workers, case managers, licensed or unlicensed providers, Community Partners staff, Community Health Workers or an individual appropriately trained by the ACO.
2. The Flexible Service Plan will include:

- a. The recommended flexible service(s);
- b. The units of service(s);
- c. The goals of the service(s);
- d. Steps to obtaining the services;
- e. The follow-up plan; and
- f. The ACO representative or designee that will be responsible for managing the member's Flexible Service Plan

An ACO or its designee is required to have at least one in-person meeting with the member during the assessment and planning process. The in-person assessment and planning may include assessments and planning performed by telehealth (e.g., telephone/videoconference), in situations when the member has provided informed consent to receive assessments and planning performed by telehealth, that the informed consent is documented by the ACO, and that the member receives the support needed to have the assessment conducted via telehealth (including any on-site support needed by the member). During a state of emergency declared by the federal or state government, the State may temporarily suspend this in-person meeting requirement for the duration of the state of emergency.

C. Additional Requirements for Receiving Flexible Services

To receive Flexible Services, the ACO must confirm that the member is enrolled in MassHealth (1) on the date the Flexible Services Assessment is conducted; (2) on the first date of a Flexible Services episode of care, which is a set of related Flexible Services (e.g. tenancy sustaining supports, home modifications, nutrition sustaining supports); and (3) every subsequent 90 calendar days from the initial date of service of an episode of care until the conclusion of that episode.

D. Flexible Services Service Availability

1. The State reserves the right to roll out the services and member eligibility groups in stages, in accordance with a plan set forth by the State, as well as to set up specific requirements that the Accountable Care Organization must meet before programs and funds will be approved.
2. ACOs may elect to provide flexible services only to members with certain health needs-based criteria or with certain Risk Factors from among those listed in Section II above. ACOs may also restrict the number of members within those categories who will receive services. ACOs may also elect which flexible services they intend to offer. ACOs will be required to submit such plans to the State for approval. The State may require ACOs to maintain a waitlist.
3. ACOs will be required to estimate the number of members they expect to serve each year with the FSP as well as report to the State on the actual number of members they do serve. Due to limited funding and resources, neither the State nor ACOs will be expected to serve all eligible members.

4. A parent, guardian, or caregiver of a child assessed to need TPS and NSS services that resides with the child may receive such services on the child’s behalf when in the best interests of the child as determined through the flexible service plan.

E. Conflict of Interest

An entity that performs the Assessment and/or Flexible Service Planning may also provide Flexible Services provided they take appropriate steps to avoid conflict of interest as determined by the State.

V. Provider Qualifications

- A. Contractors of Flexible Services must possess the following qualifications, as applicable.

Provider Type	Education and Experience	Skills	Services
Tenancy Preservation Services Contractors	Education (e.g., Bachelor’s degree, Associate’s degree, certificate) in a human/social services field or a relevant field, and/or at least 1 year of relevant professional experience; and/or training in the field of service.	Knowledge of principles, methods, and procedures of services included under Tenancy Preservation Services (as outlined above and applicable to the position), or comparable services meant to support a member’s ability to obtain and sustain residency in an independent community setting.	Tenancy Preservation Services, including pre-tenancy supports and tenancy sustaining supports (as outlined above)
Nutritional Support Services Contractors	Education (e.g., Bachelor’s degree, Associate’s degree, certificate) in a human/social services field or a relevant field, and/or at least 1 year of relevant professional experience; and/or training in the field of service.	Knowledge of principles, methods, and procedures of services included under Nutritional Support Services (as outlined above and applicable to the position), or comparable services meant to support a member’s ability to obtain or maintain food security.	Nutritional Support Services (as outlined above)

- B. ACOs will be required to ensure that contractors of Flexible Services have and maintain the necessary qualifications as laid out in Section V.A to provide Flexible Services, as applicable.

VI. Payment Methodology

A. Payment

Each ACO with an approved Participation Plan, Budget, and Budget Narrative will be allocated a per-member/per-month (PMPM) amount for the FSP that will be determined by the State. ACOs will be allowed to utilize flexible service funding for two main purposes:

(1) **ACO administrative costs related to Flexible Services and Social Service Integration (SSI):** prospective funding, up to a certain percentage set by the State, which ACOs may utilize to build the necessary capacity and infrastructure to implement the FSP and to support ongoing administration/overhead of the FSP. This includes but is not limited to personnel for FSP and SSI, Health Information Technology, software, assessments and reporting costs surrounding FSP and SSI. ACOs or the State may also provide portions of this funding to Social Service Organizations (SSOs) to support their administrative and infrastructure costs. In addition, the State may provide up to \$4.5M of the Flexible Services funding over the demonstration period to SSOs to build infrastructure and capacity to better support ACOs in delivering services; and

(2) **Flexible Services:** prospective funding provided to ACOs, or SSOs through ACOs, for TPS and NSS as laid out in Section III. The State anticipates disbursing funds on a quarterly basis but may choose to do so more frequently.

ACOs may also use Startup/Ongoing funding to pay for administrative costs related to the FSP, but will be required to attest to non-duplication of funding.

VII. **Reporting and Documentation**

The ACOs will be required to submit a Flexible Service Program Plan as an additional portion of their Full Participation Plan as set forth in Section 3.2.2 of the DSRIP Protocol. The ACOs will also be required to add FSP spending to their DSRIP Budgets and Budget Narratives submitted in accordance with Section 3.4.4.1 of the DSRIP Protocol.

Budgets and Budget Narratives will detail specific FSP supports that the ACO intends to make available to eligible members through its FSP as well as the estimated numbers of members the ACOs expects to serve. The Budgets and Budget Narratives will also specify the ACO's administrative/infrastructure expenses related to the FSP. The State will review and approve the Budgets and Budget Narratives in accordance with the DSRIP Protocol.

The ACOs will be required to provide updated information regarding such Flexible Services expenditures their DSRIP Semiannual and Annual Progress Reports as laid out in Section 5.5.1 of the DSRIP Protocol. These reports will be used to determine whether FSP spending and activities are in line with the ACO's approved DSRIP Budget, Budget Narrative, and Participation Plan.

The ACOs will also be required to submit to the State detailed information about the flexible services provided to members to inform robust monitoring and evaluation of the Flexible Services program, in a form and format specified by the State.

The ACOs will be required to ensure that FSP contractors meet documentation standards and cooperate in any evaluation activities by the State or CMS. ACOs will be required to have processes in place to ensure that there is no duplication of federal funding or services provided to members.

Independent Evaluation Design Document
Massachusetts 1115 Demonstration Extension 2017-2022

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I. Introduction: Demonstration Overview and Introduction to Evaluation Design

A. Demonstration overview

MassHealth, the Massachusetts Medicaid and CHIP program, serves over 1.8 million Massachusetts residents. Massachusetts uses a Section 1115 Demonstration Project [“Demonstration”] to pilot innovative strategies for delivering and financing health care for many of its MassHealth enrollees. Since its launch in 1997, the Demonstration has served as a vehicle for expanding coverage, encouraging better coordination and cost containment through managed care, and supporting safety net providers. The Demonstration played a key role during Massachusetts’ 2006 health care reform (also known as Chapter 58) that made coverage available across the income spectrum through changes to the individual market and Medicaid and was a precursor to the coverage expansions under the Affordable Care Act.

In 2012, Massachusetts passed further legislation (Chapter 224) seeking to address the high cost of health care and the need for better care integration. The legislation set health care cost benchmarks for the state and created a new state agency, the Health Policy Commission (HPC), to monitor health care costs. The legislation also directed MassHealth to implement new ways of paying for and delivering more integrated care.

In the summer of 2016, Massachusetts sought an extension of the Section 1115 Demonstration for July 1, 2017 through June 30, 2022 to improve care delivery, control costs, and address the opioid epidemic. On November 4, 2016, the Centers for Medicare and Medicaid Services (CMS) approved the sixth extension of the Demonstration for the period July 1, 2017 through June 30, 2022. Amendments to the Demonstration were approved on December 14, 2017 and June 27, 2018.

The Demonstration extension seeks to transform the delivery of care for most MassHealth members through payment reform and support for developing Medicaid Accountable Care Organizations (ACOs) and two kinds of Community Partners (CPs) to address behavioral health (BH) and long-term services and supports (LTSS). These new entities will be jointly responsible for integrating care and moderating rising health care costs while maintaining or improving quality, thereby helping MassHealth fulfill its Chapter 224 legislative obligations. To date, MassHealth has contracted with 17 ACOs, 18 BH CPs, and 9 LTSS CPs (Appendix A1-A3). In addition to newly created ACOs, and CPs, the Demonstration will provide infrastructure and capacity-building funds for 19 Community Service Agencies (CSA), entities that currently provide support for children with serious emotional disturbance, including those enrolled in ACOs (Appendix A4). As of May 31, 2018, approximately 850,000 Massachusetts Medicaid members were enrolled in an ACO, representing approximately 75% of the overall managed care population of ~1.18 million members. CP supports will be available to members enrolled in ACOs and to the approximately 198,000 members enrolled in other managed care organizations (MCOs). About (~124,000) members were enrolled in MassHealth’s directly managed primary care clinician (PCC) plan.

To fund delivery reform, Massachusetts was awarded expenditure authority up to a maximum of \$1.8 billion through the Delivery System Reform Incentive Payment (DSRIP) Program over the 5-year Demonstration period. The goal of the Massachusetts’ DSRIP Program is to support the transition to value-based payments by ACOs and CPs.

This transition is expected to lead to more integrated care, reduce costs while maintaining care quality, and better meet member needs. DSRIP program goals and implementation plans are described in detail in Section II of this document.

In response to the opioid epidemic, the Demonstration extension also allows coverage for more residential treatment services for substance use disorders (SUD) and supports both recovery support navigators (to coordinate clinical and non-clinical services for persons in recovery) and recovery coach services (support from a person with lived experience).

The Demonstration also provides expenditure authority for cost-sharing subsidies for Massachusetts residents on the Exchange, provides expenditure authority for the CommonHealth program for individuals over age 65, ensures continued healthcare access for certain individuals formerly in foster care, allows MassHealth to require certain students to enroll in their student health insurance plans, and refines provisional eligibility processes to promote MassHealth financial sustainability.

Through these changes, MassHealth seeks to advance seven goals:

- Goal 1: Enact payment and delivery system reforms that promote integrated, coordinated care and hold providers accountable for the quality and total cost of care
- Goal 2: Improve integration of physical, behavioral, and long-term services
- Goal 3: Maintain near-universal coverage
- Goal 4: Sustainably support safety net providers to ensure continued access to care for Medicaid and low-income, uninsured individuals
- Goal 5: Address the opioid addiction crisis by expanding access to a broad spectrum of recovery-oriented substance use disorder services
- Goal 6: Ensure access to Medicaid services for former foster care individuals between the ages of 18 and 26, who previously resided in another state
- Goal 7: Ensure the long-term financial sustainability of the MassHealth program through refinement of provisional eligibility and authorization for SHIP Premium Assistance

B. Introduction to Evaluation Design

Massachusetts submitted a draft evaluation design document (EDD) for the overall Demonstration in March 2017 and received CMS comments in January 2018. In February 2018, CMS approved Massachusetts' request to combine the overall Demonstration and DSRIP evaluation designs into a revised, unified EDD and extended the deadline for submitting the revised EDD to June 30, 2018. Massachusetts received comments on this combined evaluation design on July 27, 2018.

The development of this revised EDD has been guided by the Demonstration Special Terms and Conditions (STC), CMS comments on the previous drafts of the EDD, and subsequent communications with CMS. The revised EDD also incorporates feedback from MassHealth stakeholders and advisory groups and guidance from an independent Scientific Advisory Committee (SAC) comprised of national experts in health services research and Medicaid transformation. The revised EDD addresses research questions and hypotheses suggested by CMS in the STCs and incorporates the evaluation design for DSRIP (see Section II).

Logic Model Frameworks for the Demonstration

Figures 1 and 2 below provide summary logic model frameworks for Goals 1 and 2 (inclusive of DSRIP – Figure 1) and Goals 3-7 (Figure 2). These logic models link the Demonstration Goals to the Demonstration initiatives to the specific desired Activities (“secondary drivers”), Outputs (“primary drivers”), and Outcomes (“purpose”) of the Demonstration.

The introduction to the evaluation design below summarizes the quantitative and qualitative data that will be needed for the evaluation as well as potential data limitations. An overview of the methods that will be used to evaluate Demonstration initiatives and programs follows. More detail related to the evaluation approach for specific Demonstration goals, research questions and hypotheses are provided in subsequent sections of the EDD. Section II describes the evaluation design for Demonstration Goals 1 and 2 and the DSRIP Program. Sections III-VII of the EDD address Demonstration Goals 3 through 7.

For each Demonstration goal, an introductory section provides background and context for the goal prior to discussion of the evaluation data sources, analytic plans and outcome measures for the research questions related to that goal.

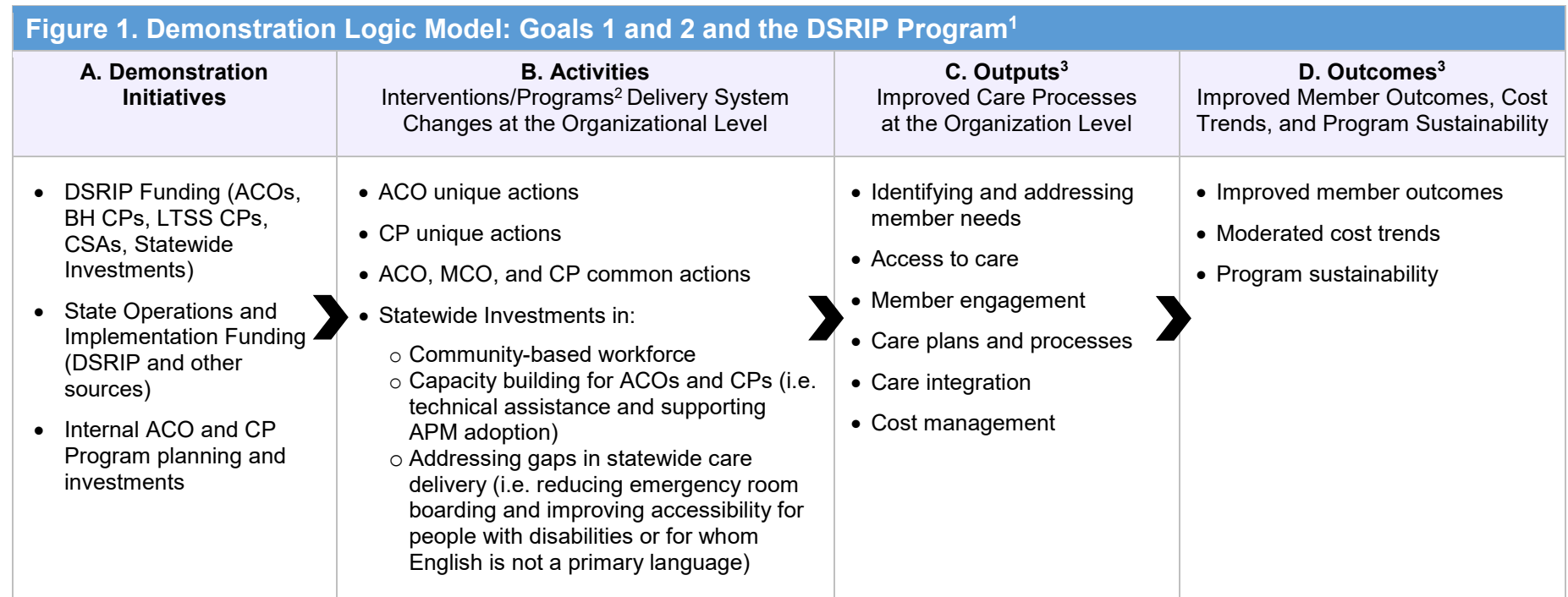
a. Summary of data needed for the evaluation:

Quantitative Data

Data from January 2015 through December 2022 will be examined, broadly using calendar years 2015 through 2017 as a pre-implementation baseline. Observations clearly affected by interventions occurring in 2017 (e.g., enrollees in pilot Medicaid ACOs) will be removed from the baseline. As requested by CMS, text descriptions and summary tables describing the target population(s), data sources, outcome measures, and planned analytic approaches for each research question are included; comparison groups for each analysis are specified, and a rationale for the proposed approach is provided. Technical specifications for all quantitative measures to be derived from existing data sources are in Appendix B.

Traditional administrative data: Data from the Medicaid Management Information System (MMIS) and MassHealth Data Warehouse will be used by the Independent Evaluation team to conduct a portion of its evaluation. MassHealth, working with actuaries, routinely conducts extensive quality checks and provides CMS with annual data quality reports on its MMIS data. Data in MMIS and the Data Warehouse are used in program administration, including: establishing program eligibility (for members and providers), setting rates, paying providers, and monitoring trends in utilization and costs.

MMIS and Data Warehouse data are well known to the Independent Evaluation team through longstanding collaboration with MassHealth on projects, including (1)



¹The DSRIP Interim Evaluation will use a mixed-methods design to evaluate delivery system actions, preliminary changes in care delivery, and preliminary outcomes during Performance Years PY0 to PY3 (07/01/2017 to 12/31/2020). The Summative Evaluation will use a mixed-methods design to evaluate delivery system actions, changes in care delivery, and outcomes for the entire Demonstration period PY0-PY5 (07/01/2017 to 12/31/2022)

²See Appendix D for full list of DSRIP Research Questions and Hypotheses for more detail

³See Appendix B for full list of access and quality measures

Figure 2. Demonstration Logic Model: Goals 3-7			
A. Demonstration Initiatives	B. Activities Interventions/Programs	C. Outputs	D. Outcomes
Goal 3: Maintain near universal coverage			
<ul style="list-style-type: none"> • Student Health Insurance Program • CommonHealth 65+ • ConnectorCare • Employer Sponsored Insurance 	<ul style="list-style-type: none"> • Implementation of new and modified initiatives • Continued operation of existing programs 	<ul style="list-style-type: none"> • Progressive increases in SHIP and Commonwealth 65+ enrollment • Maintenance of enrollment in ESI • Increased LTSS utilization among CommonHealth 65+ members 	<ul style="list-style-type: none"> • Overall insurance rate remains high • Decrease in percentage of MassHealth members with a gap in coverage 45 days or longer
Goal 4: Sustainably support safety net providers to ensure continued access to care			
<ul style="list-style-type: none"> • Public Hospital Transformation and Incentive Initiative • DSH Pool • UCC Pool 	<ul style="list-style-type: none"> • Implementation of modified SNCP, including increased performance-based payments <ul style="list-style-type: none"> ◦ Increased portion of at-risk funding under PHTII and SNPP to help improve care quality 	<ul style="list-style-type: none"> • Improved care quality at SNCP hospitals • Uncompensated care costs do not increase 	<ul style="list-style-type: none"> • SNCP hospitals exhibit quality improvement, including access measures • Delivery reform efficiencies lead to savings for hospitals that counter-balance reduced supplemental payments, without compromising patient care
Goal 5: Address the opioid addiction crisis by expanding access to a broad spectrum of recovery-oriented substance use disorder services			
Implementation of new SUD residential and recovery support services	<ul style="list-style-type: none"> • Improved SUD service capacity • Diversion from inpatient to outpatient services • New residential and recovery support services 	<ul style="list-style-type: none"> • Improved SUD identification, treatment initiation, and engagement • Improved access to care for comorbid physical and mental health conditions for anyone with SUD diagnosis • Improved adherence to treatment among individuals with SUD diagnosis 	<ul style="list-style-type: none"> • Decreased ED utilization and inpatient hospital settings • Fewer opioid related deaths
Goal 6: Ensure access to Medicaid services for former foster care members 18-26 years of age			
Strengthening coverage for former foster care youth	<ul style="list-style-type: none"> • Provide continuous coverage for foster care youth who previously resided in another state 	<ul style="list-style-type: none"> • Continuous eligibility for health coverage for foster care youth • Foster care youth access care at rates comparable to other MassHealth members 	<ul style="list-style-type: none"> • Former foster care individuals have positive health outcomes comparable to members with similar characteristics using established measures
Goal 7: Ensure long-term MassHealth sustainability			
<ul style="list-style-type: none"> • Updated Provisional Eligibility requirements • SHIP Premium Assistance 	<ul style="list-style-type: none"> • MassHealth implements changes to provisional eligibility • MassHealth implements new SHIP Premium Assistance 	<ul style="list-style-type: none"> • Fewer provisionally eligible individuals ultimately deemed ineligible • Progressive increase in SHIP enrollment 	<ul style="list-style-type: none"> • Lower expenditures due to less provisional coverage unnecessarily provided to ineligible individuals • Cost savings due to SHIP • Improved member experiences and network access due to SHIP PA program

Developing risk adjustment models that inform MCO and ACO payments; (2) Developing risk adjustment models for quality measures; and (3) Developing models to predict LTSS costs. As part of these projects, UMMS researchers meet weekly or bi-weekly with MassHealth Program Directors and their teams (e.g., Director of Purchasing Strategy and Analytics and Associate Director for Payment and Care Delivery Innovation), and, when needed, with MassHealth’s actuaries.

Thus, the Independent Evaluation team has great confidence in the administrative data that have been obtained and used for years relating to traditional services and benefits (“traditional data”), including:

- Member eligibility and enrollment: these files contain dates when a member is entitled to benefits from various programs, such as, when they are a client of the department of mental health (DMH), enrolled in a Senior Care Organization, or enrolled with a specific ACO or other health plan. The MMIS reads and interprets data from the state’s Health Insurance Eligibility Verification Database and from other state agencies.
- Encounter records (claims or “dummy claims”), stored in the Data Warehouse: Both kinds of records use the same format and are regularly checked for completeness and accuracy. These records contain information about services rendered by whom and in what place, members’ diagnoses and costs. They support determination of costs of care in total and within service categories, such as, hospital admissions, ambulatory care, ED visits, and LTSS. It is understood that the use and costs of some “traditional” services (such as translation for people with limited English proficiency) has not historically been captured in these records.
- Providers: These data indicate provider specialty and, for primary care doctors, the unique ACO with which they are affiliated. They are supplied by providers and verified by MassHealth, as part of the process for being accepted as a Medicaid provider.

It is important to note that there are significant limitations for some MMIS data fields; for example, “race” is missing for about 40 percent of members, “ethnicity” is missing for about 50% of members, and both “limited English proficiency” and “homelessness” are rarely coded.

New administrative data. The evaluation will also rely on Data relating to new relationships and services established and/or authorized through the Demonstration. In particular, there will be new data streams relating to Flexible Services (FS) and the activities of the BH CPs and LTSS CPs. Indeed, some relevant data specifications and work flows are still being finalized. The current, best assessment of what data will be available is described below.

Ideally, for each category of new service delivery, data would be available to identify 1) those who need these services, 2) referrals to CPs, 3) encounter records (or equivalent) describing the delivery of such supports, and 4) member outcomes (e.g., health, utilization and cost) during an appropriate follow up period with a clearly defined end. Each of these issues is addressed in turn, below.

- 1) Identifying need for services.
 - a. Traditional data can be used to fairly comprehensively identify need for BH services through diagnoses and utilizations patterns. The algorithm used by MassHealth to identify members with LTSS or BH needs to receive LTSS or BH CP supports is included as Appendix A5. It may also be possible to identify a population rich in members with unmet LTSS need from a model built to predict LTSS utilization from existing MMIS data.

- b. The ACOs are being held accountable for screening for four health related social need domains (food, housing, transportation, utility), and are required to report to MassHealth whether the screening was performed and what the results of the screen were for a sample of the ACOs members. Additionally, ACOs will need to conduct Flexible Services Assessments (FSAs) in order to determine programmatic eligibility for the FS Program, and MassHealth is considering whether to collect such assessment data.
- 2) Identifying members during the period when CPs or ACOs are responsible for getting members these services.
 - a. CPs will inform MassHealth when members enroll and disenroll from their programs, along with reason for disenrollment (for CPs).
 - b. Enrollment with an ACO or other health plan is already tracked as described above for traditional administrative data.
- 3) Encounter records
 - a. CPs will be required to provide dates of qualifying activities (e.g., care coordination supports) and the type of activity for the kinds of supports delivered to MassHealth members that fall within their respective scopes.
 - b. Flexible services data, both housing and nutritional supports lie outside the scope of traditional administrative data. A new encounter tracking record (ETR) system is being considered to identify members and the housing and nutritional flexible services provided. The data that could be collected is expected to include cost data, and would allow the State to track the kinds of services that members receive, when and from which social service delivery entities. Additionally, the State may be collecting Flexible Services Assessment information from ACOs. Such assessment data would capture in broad categories the health needs and social risk factors that led to the referral.
- 4) Member outcomes (e.g., health, utilization and cost) for users of new programs will be evaluated during during an appropriate follow up period using data already in MMIS and the Data Warehouse

Publicly available and other data: The following publicly available data will be used: Massachusetts death records, the American Community Survey, Current Population Survey, and uncompensated care reports (containing cost data from Medicare cost reports, in addition to data provided by MassHealth on supplemental payments to safety-net hospitals). Enrollment data for out-of-state former foster care youth will be used, as well as Public Hospital Transformation and Incentive Initiative (PHTII) reports (tri-annual reports that hospitals under these programs will be required to submit, detailing key accomplishments in the reporting period towards specified metrics), and program enrollment reports (e.g., Student Health Insurance Program (SHIP), Employer Sponsored Insurance (ESI), CommonHealth 65+, Health Connector subsidies). Also, Bureau of Substance Abuse Services (BSAS) data and state data on opiate overdoses collected under Chapter 55 of the Acts of 2015 and overseen by the Massachusetts Department of Public Health will be used, if available.

Qualitative data:

1. Document Review: A range of existing documents (e.g., participation plans, progress reports, state generated reports on DSRIP funding allocations) are expected to provide data on participating entities' progress implementing DSRIP initiatives and the state's progress implementing Statewide Investments (SWIs) and other delivery system transformation support. The Independent Evaluation team will work closely with the DSRIP Independent Assessor (IA) to leverage their DSRIP Mid-Point Assessment report and the underlying data as additional data sources.
2. Key Informant Interviews: Interviews will be conducted with three groups of stakeholders. These include:

- Representatives of participating entities, to assess barriers to implementing DSRIP investments, progress adopting structures and processes to promote integrated and accountable care, and perceived effectiveness of state actions to support transformation
 - A range of state staff responsible for various aspects of DSRIP implementation, to understand DSRIP implementation from the state's perspective
 - MassHealth members, to understand how they experience delivery system transformation.
3. Case Studies: To obtain a more nuanced understanding of how DSRIP is operating, case studies of select ACOs and CPs will be conducted. Two waves of case study site visits are planned: The first, to examine in-depth a sub-sample of entities as they implement organizational change (i.e., implement DSRIP-funded investments, adopt core ACO and CP competencies) and the second, to study participating entities that represent high and low-levels of performance as defined by ACO and CP accountability scores.

Survey data:

1. Provider Staff Survey: In collaboration with the IA, the IE will develop and conduct a survey of ACO and CP front-line staff in two waves (mid-point and end-point of the overall evaluation) to assess how front-line staff experience delivery system transformation, including the degree to which implemented projects and ACO/CP formation translated into changes in care delivery from the perspective of front-line staff. Survey respondents are expected to be ACO/CP providers and staff (sampled at the ACO medical practice-level) representing medical doctors (MDs), nurse practitioners (NPs), registered nurses (RNs), physician assistants (PAs), medical assistants (MAs), and community health workers (CHWs).

The Provider and Staff Perceptions of Integrated Care (PPICs), a validated survey instrument comprising 21 questions across 7 care integration constructs including within care team care coordination, across care team care coordination, and coordination between care teams and community resources is being explored. It is anticipated that validated survey questions will be supplemented with new questions specifically tailored to the DSRIP evaluation (e.g., perceived effectiveness of CP and flexible services programs). For any new survey questions, the questions will be piloted with a convenience sample of provider staff (N of 10 to 15 anticipated) using cognitive testing and assessments for clarity, completeness and respondent burden. The survey sampling design will be stratified to collect information from provider staff at CPs and at the ACO provider practice site-level. Other details of the sampling plan remain under development and are discussed further in Section II, Domain 1.

2. Member surveys – MassHealth has contracted with Massachusetts Health Quality Partners (MHQP) to conduct three member surveys targeting the primary care, behavioral health (both CP and non-CP), and LTSS (both CP and non-CP) member populations. These surveys are critical to understanding, in a systematic manner, how the member's experience of care changes over the Demonstration period. While administrative data sources permit evaluation of quality and cost, only these member surveys will quantitatively address member experience, the third prong of the "Triple Aim" (Berwick, 2008).

The survey sampling design will be stratified to collect information from adult members and from parents or guardians of pediatric members. Other details of the sampling strategy remain in development. At present, random sampling within the sampling frame is planned for Year 1. Items included on the primary care survey were drawn from the Clinician and Group Consumer Assessment of Healthcare Providers and Systems (CG-CAHPS) and CAHPS Patient-Centered Medical Home surveys. Items currently planned for the BH and

LTSS surveys in development have been drawn from a number of existing surveys including the MassHealth One Care survey (of dual eligible members), the Massachusetts Department of Mental Health member experience survey, CAHPS, the Family Experiences with Care Coordination survey, and the Behavioral Risk Factor Surveillance Survey. Select additional customized questions that are developed will undergo cognitive testing and piloting.

The primary care member survey will be fielded by web and mail annually in calendar years 2019 through 2022 to assess member experience for calendar years 2018 through 2021. The behavioral health and LTSS member surveys currently in development will also be fielded in calendar years 2019 through 2022 to assess member experience for calendar years 2018 through 2021.

A fourth member experience survey will be conducted among SHIP PA enrollees. The survey will include customized questions to directly address other goals of the SHIP PA program, which could include topics such as members' perceptions of their access to care prior to and after enrollment into the SHIP PA program, members' learned independence in coordination of benefits and services, and members' preparedness for a post-graduation transition to either MassHealth or coverage in a commercial network.

b. Summary of the evaluation plan:

Data Analysis: Evaluation methods and data analysis will vary by goal, research question, and related hypotheses and are detailed in subsequent sections of this EDD. Overall, the most appropriate qualitative, quantitative, and mixed-methods approaches for each research question, including cost-effectiveness analysis where applicable, will be deployed.

Section II describes the evaluation plan for Demonstration Goals 1 and 2 and the DSRIP Program. In summary, mixed-methods will be used to evaluate the extent to which state, organizational, and provider-level actions promoted delivery system transformation in six domains. *Qualitative* approaches, including in-depth interviews, site visits, and surveys, will be used to understand how key stakeholders and provider staff experienced delivery system changes. *Quantitative* descriptive statistics will be used to characterize the demographic, clinical, and social characteristics of MassHealth populations (e.g., all managed care eligible members; all ACO enrollees) including specified groups of members with special health care needs (e.g., those with diabetes). Changes in member characteristics will be tracked from 2015 through 2022. Relevant available process and outcome measures will be calculated for each population group in each year. These will include quality metrics specified by the state for ACO and CP accountability and additional measures that can be derived from administrative data or collected from primary sources (e.g., member and provider/staff surveys). First, (raw/observed) changes in study populations and measures over time will be described. Multivariable modeling will be used to understand the extent to which observed changes can be accounted for by shifts in the demographics, medical complexity and other needs of the enrolled population.

Finally, outcomes of the Demonstration will be examined using one or more plausible "comparator" populations to address the question of how "what happened" compares to what "might have happened" in the absence of the Demonstration, both for the population overall and for those subject to specific intervention components. Quasi-experimental design methods, such as interrupted time series, will be used to look for changes that occur as interventions are rolled out, propensity-score methods to identify highly comparable comparison groups, and sensitivity analyses to examine the robustness of findings of alternative analytic approaches.

As requested by CMS, the revised EDD provides details of the analytic approaches for evaluating cost-effectiveness, when appropriate and feasible. In examining return on investment

(ROI) and cost effectiveness, we will separately consider initial (non-repeating) DSRIP payments, MassHealth payments to ACOs and CPs for administrative costs, and ongoing MassHealth payments to ACOs and CPs (e.g., for delivery of health care to members).

Sections III-VII of the EDD address Demonstration Goals 3 through 7 and will apply similar quantitative methods as described for Goals 1 and 2. These quantitative analyses will be undertaken to understand the effects of Demonstration programs other than DSRIP on specific measures and subpopulations. Section III (Goal 3) will include an examination of whether near-universal levels of insurance coverage in Massachusetts were maintained during the Demonstration. Section IV (Goal 4) will focus on the effect of incentive-based payments for safety net hospitals on hospital performance and hospital sustainability. In Section V (Goal 5), the relationship between new substance use disorder (SUD) services and member access, utilization, healthcare costs, quality, and outcomes will be studied. Selected utilization and quality measures will also be studied for the subpopulation of former foster care individuals in Section VI (Goal 6). Finally, Section VII (Goal 7) will consider changes over time in MassHealth expenditures for people ultimately deemed ineligible for MassHealth who received services during the provisional eligibility period as the new provisional eligibility rules kick in, and compare that to synthetic estimates of what those rates would have been had the rules not changed. Goal 7 will also evaluate the authorization for SHIP Premium Assistance.

Additional areas: MassHealth has identified subpopulations for whom the effects of the Demonstration are of particular interest because they are the target of new programs, such as, recipients of BH and LTSS CP supports, and FS, with a special interest in differences in services received and outcomes based on referral/non-referral to specific new programs – e.g., the BH and LTSS CPs. MassHealth is also seeking a deeper understanding of the effectiveness of specific approaches to promoting health system transformation (e.g. the effectiveness of requiring new collaborations between ACOs and CPs, the added value of CP care coordination supports for members with complex BH and LTSS needs, etc.). The effects of the Demonstration are expected to be most important and most visible among people with complex medical needs – another priority interest group that can be identified from administrative data. MassHealth is also interested in understanding the value added by, and sustainability of, the CP and FS models beyond the Demonstration period.

Evaluation Timeline: **Table 1** provides a timeline for major evaluation-related milestones including reports, tasks and activities. A draft Interim Evaluation Report covering the first 3.5 years (only the first 2.5 years for analyses relying on Medicaid administrative data) of the Demonstration will be completed and submitted for CMS review on June 30, 2021. The Final Interim Evaluation report will be submitted within 60 business days of receipt of CMS comments. The draft Summative Evaluation Report covering the full Demonstration Period will be submitted to CMS by December 31, 2023, and a Final Summative Report will be submitted within 60 days of receipt of CMS comments on the draft Summative Report.

C. Selection of the Independent Evaluator

In January 2017 MassHealth selected UMMS as the Independent Evaluator for the overall 1115 Demonstration and DSRIP Program. UMMS has expertise in the evaluation of Medicaid programs, having conducted extensive work on past 1115 demonstration projects, such as the Patient-Centered Medical Home Initiative. UMMS also has significant experience partnering with other health and human services agencies, not-for-profits and other organizations to evaluate

programming and support evidence-based policy making. This experience and competency coupled with the cost benefit of working with a state partner uniquely positioned UMMS to perform this work for MassHealth. Faculty members and staff participating in the Demonstration Evaluation have been drawn from the Departments of Quantitative Health Sciences and the Center for Health Policy and Research. Biographical sketches describing the extensive experience of UMMS faculty scientists leading the evaluation can be found in Appendix C.

The Independent Evaluation will also be informed by review and guidance from a Scientific Advisory Committee, comprised of nationally recognized experts in Medicaid program evaluation and health services research (see Appendix C). In addition, an overview of the evaluation approach has been shared with the Delivery System Reform Implementation Advisory Council (DSRIC) comprised of DSRIP stakeholders and member advocates selected and convened by the Executive Office of Health and Human Services. Initial meetings with the DSRIC have informed the evaluation design and DSRIC members will be consulted as the evaluation design is implemented.

MassHealth has executed an Interdepartmental Service Agreement (ISA) with UMMS to perform specific tasks related to the evaluation of the 1115 Demonstration and DSRIP Program. MassHealth is explicitly authorized¹²⁴ to enter into ISAs with UMMS for the purpose of obtaining, among other things, consulting services related to quality assurance and program evaluation and development for the MassHealth program. All ISAs are subject to state and federal laws and regulations.

The UMMS ISA for the Independent Evaluation of the 1115 Demonstration clarifies the roles and responsibilities of UMMS and MassHealth to assure the efficient completion of the evaluation and to assure no conflicts of interests (COI). With respect to COI, the ISA specifies that UMMS will be responsible for preparation of draft and final evaluation plans for CMS approval as well as the completion of interim and final evaluation reports for the Overall and DSRIP evaluations consistent with Demonstration STCs. UMMS will share preliminary versions of the interim and final evaluation reports to MassHealth for comments and correction of any factual errors. UMMS will correct factual errors, address issues of clarity and give due consideration to EOHHS comments and suggestions. UMMS will have final editorial control over the content of the Interim and Final Evaluation reports to CMS.

Evaluation Budget: The estimated budget for the Independent Evaluator for the period (FY19 - FY 24) is \$5,939,321. The breakdown of anticipated staffing, administrative and other costs by evaluation year is included as Attachment 1. It is anticipated that approximately 15% of the total evaluation budget will be spent on survey and measure development, 30% on qualitative data collection, cleaning, and coding, 20% on quantitative data collection, cleaning and coding, and 35% on analyses and reports generation.

¹²⁴ See e.g. Chapter 133 of the Acts of 2016, line item 4000-0321.

Table 1. Timeline of Key Evaluation Milestones and Activities

	MassHealth Waiver Extension (7/1/17-6/30/22)																												
	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022												
	Demo Year 1				Demo Year 2				Demo Year 3				Demo Year 4				Demo Year 5												
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
CY 2017				CY 2018				CY 2019				CY 2020				CY 2021				CY 2022				CY 2023				CY 2024	
Key Milestones																													
Submit draft Evaluation Design Document to CMS	X																												
CMS Feedback to original Evaluation Design Document					X																								
Revised Evaluation Design Document due to CMS June 30, 2018						X																							
Draft Interim Evaluation Report due to CMS June 30, 2021																	X												
Final Interim Evaluation Report due to CMS (date not confirmed)																						?							
Summative Evaluation Report due to CMS December 31, 2023																												X	
Final Summative Evaluation Report due to CMS (date not confirmed)																													?
Midpoint Assessment due to CMS September 30, 2020													X																
Task and Evaluation Activity																													
IRB																													
Develop/design protocols for IRB submission						X																							
IRB submission and annual reviews						X			X				X				X					X				X			
Qualitative and Survey Methods*																													
Key informant interviews																													
Develop interview protocols					X	X	X			X	X			X	X			X											
Schedule and perform Key Informant Interviews																													
State representatives											X											X							
ACOs/MCOs/CPs								X	X			X	X			X	X												
Member interviews								X	X			X	X			X	X												
Transcribe, code, and analyze interview text							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Site visits										X	X	X			X			X	X										
Develop site visit protocols																													
Schedule and perform ACO site visits													X	X		X	X				X	X	X						
Schedule and perform CP site visits													X	X		X	X				X	X	X						
Transcribe, code, and analyze interview text from site visits													X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Member surveys																													
Provide input into development of state's member experience surveys						X																							
MHQP fields member experience surveys								X	X			X	X			X	X				X	X							
Receive data collected from member experience surveys											X					X					X					X			
Analyze member survey data												X				X					X				X			X	
Provider Survey																													
Design/revise provider survey						X	X	X	X							X	X												
Administer provider survey										X												X							
Analyze provider survey data											X											X							
Receive, code, and analyze existing documents (e.g. participation plans)						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Quantitative Methods																													
Administrative data																													
DUA for Medicaid and other data sources						X	X																						
Receive Medicaid administrative data							X							X							X				X			X	
Submit request for DPH, BSAS, and other data						X																							
Receive DPH, BSAS, and other data										X						X					X				X			X	
Data cleaning and preparation						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Data analysis							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

*May change dependent on content of the Midpoint Assessment

II. Demonstration Goals 1 and 2 and DSRIP Program

Goal 1: Enact payment and delivery system reforms that promote integrated, coordinated care and hold providers accountable for the quality and total cost of care

Goal 2: Improve integration of physical, behavioral, and long-term services

A. Overview of Section II

This section begins with a synopsis of Demonstration Goals 1 and 2 and the Massachusetts Delivery System Reform Incentive Payment (DSRIP) Program. We provide a high-level overview of the mixed methods evaluation approaches and proposed analytic methods. We then provide detail with regard to data sources, measures, and analytic plans related to each of the evaluation domains, research questions and related hypotheses.

B. Demonstration Goals 1 and 2 and the Massachusetts DSRIP Program

Demonstration Goals 1 and 2 seek to transform the delivery of care for most MassHealth members through payment reform and support for developing Medicaid Accountable Care Organizations (ACOs) and two kinds of Community Partners (CPs) to address behavioral health (BH) and long-term services and supports (LTSS).

The primary goal of the Massachusetts' DSRIP Program is to support the transition to value-based payments within the health care delivery system that serves MassHealth members. DSRIP promotes practice and delivery system transformation through the support of ACOs, CPs, CSAs, and a variety of SWIs. DSRIP funding streams to support these changes over the five-year Demonstration are summarized in **Table 2** below.

As of June 2017, Massachusetts has contracted with 17 ACOs under this Demonstration, corresponding to one of three ACO models:

- Accountable Care Partnership Plans (Model A): Either a Managed Care Organization (MCO) with a designated ACO partner or a single, integrated entity that meets both the requirements of an MCO and ACO. Accountable Care Partnership Plans are vertically integrated between the health plan and ACO delivery system and take accountability for the cost and quality of care under prospective capitation.
- Primary Care ACOs (Model B): Provider-led health care system or other provider-based organization that contracts directly with MassHealth, with savings and risk shared retrospectively.
- MCO-Administered ACO (Model C): Provider-led healthcare system or other provider-based organization that contracts with MCOs and takes financial accountability for shared savings and risk as part of MCO networks.

ACOs will be held financially accountable for the cost and quality of care for attributed MassHealth members. DSRIP will also provide funding to ACOs for "Flexible Services" (FS) to help ACOs address health-related social needs by connecting their members to services that might not otherwise be covered by Medicaid, and may include nutrition services and housing supports. Over time we expect ACOs to become better accustomed to how to identify need and refer members to FS, leading to increasing numbers of assessments completed and increasing numbers of members receiving Flexible Services.

MassHealth has also contracted with 27 CPs to provide highly-specialized coordination support to eligible members with complex BH and LTSS needs, including linkage to community resources. CPs will work with ACOs and MCOs to coordinate these supports and will be financially accountable for the quality of care and supports they provide. Initially

MassHealth will apply a claims-based algorithm to identify members with BH and LTSS needs and enroll them with a CP. For BH CPs, the algorithm will identify members with a behavioral health diagnosis in combination with utilization and comorbidities indicative of a need for CP supports (Appendix A5). For LTSS CPs, MassHealth will apply a claims-based algorithm to identify members with a history of consistent utilization (>\$300/month for 3 consecutive months) of LTSS State Plan services (Appendix A5). Members may also be referred to BH or LTSS CPs by the ACO/MCO. Recommendations for referral for CP supports to the ACO/MCO may be by a provider within the ACO/MCO network, by a family member, or by other entities (e.g., other state agencies, other providers) independent of the claims-based algorithm.

The DSRIP also includes Statewide Investments (SWI) to expand workforce capacity and infrastructure to support the ACO and CP programs, and overall DSRIP goals, through workforce development and training.

Table 2. DSRIP Anticipated Funding Streams by Demonstration Year¹²⁵

Funding Stream	DY1	DY2	DY3	DY4	DY5	Total	% of Total
ACOs (including Flexible Services)	\$329M	\$290M	\$229M	\$152M	\$65M	\$1,066M	59%
CPs (including CSAs)	\$57M	\$96M	\$132M	\$134M	\$128M	\$547M	30%
SWIs	\$24M	\$25M	\$24M	\$25M	\$17M	\$115M	6%
State Operations and Implementation	\$15M	\$15M	\$15M	\$15M	\$15M	\$73M	4%
Total:	\$425M	\$425M	\$400M	\$325M	\$225M	\$1,800M	

¹²⁵ Table and descriptions taken and modified from the DSRIP protocol, [accessed at http://www.mass.gov/eohhs/docs/eohhs/healthcare-reform/masshealth-innovations/dsrip-protocol.pdf](http://www.mass.gov/eohhs/docs/eohhs/healthcare-reform/masshealth-innovations/dsrip-protocol.pdf)

C. Overview of DSRIP Evaluation

The evaluation design described in this Section includes evaluation of the DSRIP program and Demonstration Goals 1 and 2. The broad goals of the Massachusetts DSRIP evaluation are to:

- 1) Measure progress towards meeting the following DSRIP goals: improve care integration; meet members' needs; and moderate cost trends while maintaining or improving care quality, and
- 2) Ascertain stakeholders' (i.e., members, clinicians, representatives from participating organizations, MassHealth employees) perspectives regarding DSRIP implementation, successes, and challenges.

In collaboration with MassHealth, UMMS identified six evaluation domains to align with major components of the logic model and to meet the broad goals of the DSRIP evaluation.

DOMAIN 1: State, organizational, and provider-level actions promoting delivery system transformation

DOMAIN 2: Changes in care processes

DOMAIN 3: Changes in member outcomes

DOMAIN 4: Changes in healthcare cost trends

DOMAIN 5: Sustainability of innovative delivery system changes, including ACOs, CPs, and Flexible Services

DOMAIN 6: Effects of Specific DSRIP Investments and Actions

Key programmatic elements of the DSRIP program will be evaluated at the member, provider, system, and state levels using qualitative and quantitative data relevant to each of the six evaluation domains. For example, ACO and CP investments and programs will be evaluated measuring inputs and activities (at the state and ACO/CP level), outputs such as improved care processes and integration (at the member/provider level), and outcomes such as improved health outcomes and moderated cost trends for participating entities and populations.

Research questions and hypotheses corresponding to each of the six Domains listed above are presented in Appendix D. Hypotheses include those suggested in the STCs, supplemented by a number of additional hypotheses developed to evaluate other important aspects of the Demonstration. Of the 11 concepts for which hypotheses were "to be considered in development of the evaluation design" per the STCs for the June 27, 2018 amendment, all have been addressed in this evaluation design. One suggested concept, "The strength of aggregate provider networks in the ACO and MCO programs (excluding Primary Care ACOs) relative to the PCC Plan, in first three years of demonstration, including: a) types of providers, b) breadth of providers, c) quality of services, and d) outcomes" is partially addressed in this design document. The quality of services and outcomes will be thoroughly evaluated; however, the types of providers and breadth of providers is not a focus of the evaluation because changing the provider types and breadth of providers is not a goal of the Demonstration. One of the management levers that is fundamental to the ACO model design is the ability to develop high-quality, cost-effective provider networks. MassHealth ensures that all managed care networks comply with federally mandated network adequacy requirements.

Summary of Analytic Methods: Mixed qualitative and quantitative methods will be used to evaluate the extent to which state, organizational, and provider-level actions promoted delivery system transformation and improved outcomes across the six domains. Qualitative approaches described in Domain 1 (State, organizational, and provider-level actions promoting delivery system transformation) include review of existing documents, two rounds of semi-structured interviews with key stakeholders (i.e., MassHealth members and representatives from ACOs, CPs, and MassHealth), ACO and CP site visits in Demonstration Year 3 to provide a more

nuanced understanding of DSRIP implementation and organizational operations, and surveys of providers/staff will enable us to understand how front-line staff in ACOs and CPs experience delivery system transformation. Building on information collected through the semi-structured interviews with ACOs and CPs, a second round of site visits to high and low performing ACOs and CPs in the final year of the Demonstration will evaluate sustainability and important factors influencing sustainability of DSRIP funded programs.

Quantitative analyses for Domains 2-6 will evaluate care processes, health outcomes, and costs. The primary populations of interest will be members exposed to key DSRIP innovations (i.e. those enrolled in ACOs and CPs). However, the implications of large-scale delivery system transformation for the entire managed care eligible population (comprised of members enrolled in traditional MCOs, the PCC plan, and those in ACOs) are also of interest. Furthermore, several important subpopulations have been identified for evaluation throughout Domains 2-6, including MassHealth members that receive FS to address certain health related social needs. For all populations and subpopulations, descriptive statistics will be used to characterize demographic, clinical, and social characteristics and to track changes in these characteristics across the years 2015 through 2022. The available social characteristics include family income, unstable housing (an ICD-9 code for homelessness or ≥ 3 addresses in a year), and a composite neighborhood stress score developed (using Census block group information from the American Community Survey) by members of the evaluation team (Ash, 2017) that is currently used by MassHealth for risk-adjusting payments. The baseline period for quantitative analyses will generally be calendar years 2015 to 2017; to ensure a comparison to a fully “pre-ACO system”, baseline comparison groups will exclude members enrolled in MassHealth pilot ACOs implemented in December 2016.

Process and outcome measures will be described by year for each population group and will include the quality metrics specified by the state for ACO and CP accountability, as well as additional measures that can be derived from administrative data or collected from primary sources (e.g., member and provider/staff surveys). After describing study populations and measures over time, we will then examine the relationships between Demonstration-related interventions and major outcomes of interest. For all measures where baseline data are available, risk-adjusted estimates of expected outcomes during the Demonstration will be compared with observed outcomes.

Quasi-experimental design methods will be used to rigorously examine associations between DSRIP programs and changes in key metrics. Broadly, we will seek to make valid comparisons between similar groups of exposed and unexposed members by taking advantage of the absence of DSRIP initiatives in the baseline period and the implementation of programs for specific groups of members and not others during the Demonstration period. For example, we will compare changes in outcomes among members cared for by providers/staff who consistently remained in traditional MCOs with outcomes of comparable members cared for by providers/staff that affiliated with ACOs during the Demonstration, taking into account any changes that occur in the traditional MCOs, as well. Propensity score methods will be used to assemble highly similar comparison populations from MassHealth members in the baseline and Demonstration periods to attempt to isolate differences that may be attributable to the Demonstration. Difference in difference analyses will be used to remove the influence of background trends on estimates of program effects. For measures with sufficient data points before and after the intervention (e.g., utilization rates estimated monthly or quarterly rather than quality measures calculated annually), interrupted time series analyses will evaluate changes in measures at implementation and longitudinally. We will conduct return on investment and cost-effectiveness analyses for the ACO, CP, and Flexible Services programs. Finally, we will evaluate relationships between specific DSRIP investments, actions, and delivery system performance. A summary of the analytic approach is included below in **Table 3**.

Table 3. Summary of Analytic Approach by DSRIP Domain

Domain	Analyses
1: State, organizational, and provider-level actions promoting delivery system transformation	<ul style="list-style-type: none"> • Qualitative analysis of existing documents • Qualitative analysis of data collected through key informant interviews • Qualitative analysis of case study data • Survey of ACO and CP providers and staff
2: Changes in Care Processes 3: Changes in member outcomes 4: Changes in healthcare cost trends	<ul style="list-style-type: none"> • Descriptive analyses (to understand what happened and for whom) • Predictive modeling (to understand how what happened during the Demonstration compared to what would have been expected based on conditions in the baseline period) • Propensity score balanced difference in difference comparisons (to estimate the difference between what happened during the Demonstration and what would have been expected in the absence of the Demonstration, while accounting for background trends) • Member surveys
5. Sustainability of innovative delivery system changes	<ul style="list-style-type: none"> • Key informant interviews • Case studies with site visits • Cost-effectiveness and return on investment analyses
6. Effects of specific DSRIP effects and actions	<ul style="list-style-type: none"> • Contemporaneous propensity score balanced comparisons between Demonstration populations exposed and unexposed to key DSRIP programs and health system characteristics (to understand associations between specific elements of delivery system reform [e.g., care integration, FS] and member outcomes)

The DSRIP interim evaluation (covering the time period 07/01/2017 – 12/31/2020; with a focus on 07/01/2017 – 12/31/2019 for analyses of Medicaid administrative data) will rely on a mixed-methods approach to determine whether and how the investments made through the DSRIP program are contributing to achieving the demonstration goals as described in STC 57. The final evaluation (covering the full Demonstration period 07/01/2017 – 12/31/2022) will provide a summative overview of the DSRIP program and evaluate the extent to which the investments made through the DSRIP program contributed to achieving the Demonstration goals as described in STC 57.

The following sections provide details on the research questions (RQ), hypotheses (H), data sources and evaluation approach for each of the 6 evaluation domains. A summary table of DSRIP Domains, Research Questions, and Hypotheses is included as Appendix D.

D. DOMAIN 1: State, organizational, and provider-level actions promoting delivery system transformation

The four research questions (RQs) under Domain 1 are concerned with DSRIP program implementation, including actions taken by the state to facilitate delivery system transformation (RQ1), and actions taken by ACOs and CPs (hereafter referred to as “participating entities”) to organizationally transform how care is delivered (RQ2 through RQ4). Collectively, findings from Domain 1 will: provide insight into factors facilitating and impeding delivery system transformation and performance; inform the interpretation of quantitative findings related to ACO cost and quality performance, and member experience; and provide the basis for examining the association between specific DSRIP-funded innovations and participating entity performance.

a. Data sources

We will rely on four sources of data to evaluate Domain 1, each addressing a different evaluation question. See description below and Table 4 for a summary of the added value of each of these four data sources.

1. Document Review: We expect a range of existing documents (e.g., participating entity participation plans and progress reports, state reports on DSRIP funding allocations) to provide data on participating entities’ progress implementing DSRIP projects and the state’s progress implementing SWIs and other delivery system transformation support. This data will include narrative descriptions provided by participating entities in their participation plans and progress reports; quantitative data on DSRIP funding amounts by initiative, also detailed as part of participating entities’ participation plans and budgets; and the state’s documentation of SWIs including participation rates and outcomes. We will work closely with the IA to leverage their DSRIP Mid-Point Assessment report and the underlying data as additional data sources.
2. Key Informant Interviews: We will conduct interviews with three groups of stakeholders. These include:
 - Representatives of participating entities to assess barriers to implementing DSRIP projects, progress adopting structures, and processes to promote integrated and accountable care, and perceived effectiveness of state actions to support transformation
 - A range of state staff responsible for various aspects of DSRIP implementation to understand DSRIP implementation from their perspective
 - MassHealth members to understand how they experience delivery system transformation.
3. Provider Staff Survey: We will conduct a survey of ACO and CP front-line staff in two waves (mid-point and end-point of the overall evaluation) to assess how front-line staff experience delivery system transformation, including the degree to which implemented projects and ACO/CP formation translated into changes in care delivery from the perspective of front-line staff.
4. Case Studies: To obtain a more nuanced understanding of how DSRIP is operating, we will conduct case studies of select ACOs and CPs. We plan for two waves of case study sites visits: The first, to examine in-depth a sub-sample of entities as they implement organizational change (i.e., implement DSRIP-funded projects, adopt core ACO and CP competencies) and the second, to study participating entities that represent high and low-levels of performance as defined by ACO and CP accountability scores.

Table 4: Summary of Qualitative Data Sources

Data Source	Added Value
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Document Review	Understand how participating entities are using their DSRIP investments (i.e., what DSRIP-funded programs and initiatives they are implementing)
Key Informant Interviews	Understand degree to which participating entities are adopting core ACO competencies; barriers to transformation; experience with state support for transformation
Provider/Staff Survey	Understand whether reported organizational transformation translates to more integrated care from the perspective of participating entity providers and staff; perceived effectiveness of other dimensions of DSRIP (i.e., CP program, flexible services, workforce development)
Case Studies	Understand the operational conditions associated with high and low performing participating entities

Table 5 below indicates the frequency and timing of each data source over the course of the evaluation. The sections that follow detail how each data source maps to each RQ and related hypotheses within Domain 1. The section is organized by RQ, but it is important to note that for several of the data sources - specifically, document review, interviews with ACO, CP, and state representatives, and provider/staff survey – the general analytic approach is similar across several RQs and thus repeated with each relevant RQ, though with some modifications (e.g., specific measures are tailored to each RQ). In contrast, the remaining data sources (i.e., member interviews and case studies) are presented as stand-alone sections. The case studies will follow a closely related methodological approach across RQs, but in each instance will include a broader scope of stakeholders and pursue more detailed understanding of factors influencing implementation of DSRIP activities. Similarly, the member interviews will gather a more in-depth understanding of how members experience delivery system transformation.

Table 5: Domain 1 Data Sources and Timeline

	FY19	FY 20	FY21	FY22
Document review	✓	✓	✓	✓
State interviews		✓		✓
ACO, CP and MCO interviews	✓		✓	
Consumer interviews	✓		✓	
Provider and staff survey		✓		✓
ACO and CP site visits		✓		✓

b. Roles and Responsibilities of the Independent Evaluator and Independent Assessor

The following assumptions are built into the evaluation design with respect to the responsibilities of the independent evaluator (IE) and independent assessor (IA):

- The IA will be responsible for abstracting information from existing documents to generate a report on DSRIP funding by participating entity and project; assess each participating entity on implementation progress, and report key SWI implementation activities and outcomes. The evaluation team will incorporate this data into the evaluation design;

- The IA will be responsible for generating the mid-point assessment, which will report on ACO/CP progress toward meeting DSRIP goals and provide rapid cycle feedback to entities and to MassHealth;
- The IE will be responsible for semi-structured interviews with state representatives, ACO and CP representatives, and members with the following support from the IA: The IA will be responsible for scheduling the ACO and CP key informant interviews and will also assist with conducting some of the ACO and CP interviews;
- The IE and IA will collaborate in developing a sampling plan that will support an administrator survey and a provider/staff survey. The IA will be responsible for developing, fielding and analyzing the administrator survey; the IE will be responsible for designing, fielding and analyzing the provider/staff survey;
- The IE will be responsible for conducting the case studies with the following assistance from the IA: For the wave one case studies, the IE will base site selection on the IA's findings related to ACO implementation progress, seeking a sample that represents high and low-levels of implementation progress.

c. Domain 1 Data Sources, Measures and Analytic Approach by Research Question

RQ1: To what extent did the state take actions to support delivery system transformation? State actions in this context refers to the ways in which the state supports delivery system transformation under DSRIP, including administering DSRIP funds to participating entities, managing the FS program, and managing SWIs aimed at readying the community-based workforce and participating entities to operate under the DSRIP care model

H1.1. DSRIP ACO and CP funding will support delivery system transformation

H1.2. SWI initiatives aimed at increasing the supply, preparedness, and retention of the community-based workforce (SWI 1 through 4) will support delivery system transformation

H1.3 SWI initiatives aimed at providing technical assistance to ACOs and CPs, supporting provider preparedness to enter alternative payment models, reducing emergency department boarding, and improving access for people with disabilities and for whom English is not a primary language (SWI 5 through 8) will support delivery system transformations

To address RQ1, we will rely on two data sources: document review and key informant interviews (see Table RQ1). Findings from RQ1 will describe the actions the state is taking to support delivery system transformation and the utility of these actions from the perspective of key stakeholders.

Document Review

Two sets of documents will be reviewed to address RQ1: 1) state summary tables of DSRIP funding, which will provide data on DSRIP funding amounts across participating entities and by project category (i.e. funding amount and for what operational categories DSRIP dollars are invested across participating entities); 2) state documentation of SWI activities, which will provide information on SWI implementation (e.g., how many providers participated in the student loan repayment program, how many primary care/behavioral health special projects program grants awarded, how many CHW training program grants awarded, etc.). The UMMS team will rely on the IA to secure, review, and tabulate data from both these documents and to make them available to the evaluation team on an annual basis in FY19 and FY20; the evaluation team will be responsible for reviewing these documents in FY21 and FY22. The evaluation team will use these data to characterize patterns across and within ACOs and CPs, with respect to the scope and scale of DSRIP funding; and to characterize the SWI initiatives

achievements and assess the degree to which SWIs were implemented as planned.

Key Informant Interviews

We will conduct structured interviews with representatives of three stakeholder groups: 1) ACOs (up to three representatives at each of 17 ACOs); 2) CPs (up to two representatives at each of 27 CPs); and 3) MassHealth staff responsible for administering DSRIP (N=10 estimated). See Table 6. Proposed sample sizes are informed by the following:

- The ACO and CP sample sizes are intended to strike a balance between breadth and depth, while also minimizing respondent burden. With these interviews, we seek to understand high-level organizational activities across the entire program (17 ACOs and 27 CPs). We will rely as much as possible on existing documents and use KII to fill in data gaps. For more in-depth analyses, we will use case studies of select sites where we plan to gather data from a larger cross-section of staff at each case study site.
- For the MassHealth sample, we will identify and recruit MassHealth staff knowledgeable about DSRIP. MassHealth's division of Payment and Care Delivery Innovation (PCDI) is responsible for administering DSRIP. PCDI oversees various teams each focused on a specific aspect of DSRIP including: ACOs; CPs; Data Governance, Reporting, and Systems; Medical Directors (included clinical and quality improvement); Investments and Social Service Integration; and Analytics. In total, there are an estimated 55-65 MassHealth staff working across these units and teams. We will target unit and teams leads for the KII.

Interview guides will be designed to elicit stakeholder perspectives on state actions to support delivery system transformation and the effectiveness of these actions. We will conduct two waves of interviews with each stakeholder group (at approximate mid-and end-points); we will aim to interview the same respondents in each wave to reduce the chance that reported changes actually reflect changes in evaluation participants.

We will use Atlas.ti to manage, code and analyze interview data. We will follow standard qualitative coding protocols: We will establish interrater reliability among coders (through a process of concurrent coding of an initial set of interviews, comparison of coding approach, and refinement of code definitions as needed) and then assign remaining interviews to be summarized independently; Once all data are coded, we will do secondary coding (combining codes and creating sub-codes) and then create analytic matrices with the final coded data to facilitate across- and within-stakeholder group analysis with respect to perceptions of state actions supporting delivery system transformation.

Table 6. Domain One | Study Sample

	FY19	FY20	FY21	FY22
KII (State reps)		N=10		N=10
KII (2 to 3 reps per ACO at 17 ACOs)	N=34 to 51		N=34 to 51	
KII (1 to 2 reps per CP at 27 CPs)	N=27 to 54		N=27 to 54	
KII (1 rep per MCO and 2 MCOs)	N=2		N=2	
Member Interviews	N=30		N=30	
Provider staff survey		TBD		TBD
ACO site visits		3 sites		5 sites
CP site visits		6 sites		6 sites

KII - Key Informant Interview

Table RQ1: State Actions to Support Delivery System and Transformation

Data Collected	Tools	Measures	Frequency
State financial support for delivery system transformation	Document Review	<ul style="list-style-type: none"> • DSRIP funding across ACOs and CPs, by project categories • SWI participation rates and outcomes 	Annual
State representatives' experience administering DSRIP	Key Informant Interviews	<ul style="list-style-type: none"> • Experience/perceived effectiveness of CP and ACO DSRIP-funded investments to support transformation; • Experience/perceived effectiveness of SWIs aimed at readying the community-based workforce • Experience/perceived effectiveness of SWIs aimed at readying participating entities to operate as ACOs and CPs • Experience/perceived effectiveness of SWIs aimed at addressing ED boarding and improving accessibility for people with disabilities and for whom English is not a primary language • Experience/perceived effectiveness of Flexible Services; • Effect of other state-level factors on state actions to support delivery system transformation • Effect of other state-level factors on state actions to support delivery system transformation 	2 waves (FY20 and FY22)
ACO and CP representatives' experience with state support for delivery system transformation	Key Informant Interviews	<ul style="list-style-type: none"> • Perceived effectiveness of DSRIP funding to support for system transformation; • Perceived effectiveness of state support for ACO/CP partnerships • Perceived effectiveness of SWIs • Perceived effectiveness of other state actions aimed at supporting delivery system transformation 	2 waves (FY19, FY21)

RQ2: To what extent did ACOs take organizational-level actions to transform care delivery under an accountable and integrated care model?

H2.1. ACOs will vary with respect to governance structure (e.g., lead provider, role of provider and patients), service scope, and local conditions (e.g., experience participating in payment reforms, local context/market served)

H2.2. ACOs will engage providers (primary care and specialty) in delivery system change through financial (e.g., shared savings) and non-financial levers (e.g., data reports)

H2.3. ACOs will implement Health Information Technology (HIT)/Health Information Exchange (HIE) infrastructure to support population health management (e.g., reporting, data analytics) and data exchange within and outside the ACO

H2.4 ACOs will implement non-CP-related population health management (PHM) activities including risk stratification, needs screenings and assessments, and programs to address identified needs

H2.5 ACOs will implement structures and processes to coordinate care across the care continuum

H2.6 ACOs will implement processes to identify and address health-related social needs (HRSN), including management of Flexible Services

H2.7 ACOs will implement strategies to reduce the total cost of care (e.g., utilization management, referral management, administrative cost reduction), excluding the population health management / care programs mentioned above

H2.8. Accountable Care Partnership Plans (Model A) will transition more of the care management responsibilities to their ACO partners over the course of the demonstration

H2.9 ACOs will establish processes to facilitate member engagement

H2.10 ACOs will monitor quality performance and establish mechanisms to support quality improvement efforts

To address RQ2, we will rely on three data sources: document review, key informant interviews, and surveys (see Table RQ2, next page). Findings from RQ2 will describe ACO experience operating under DSRIP; the organizational structures and processes ACOs adopt to operate as integrated and accountable delivery systems; and how implemented organizational-level actions affect the actual practice of care from the perspective of ACO providers and staff.

Document Review

ACO progress reports (bi-annual and annual) and state performance dashboards will provide data on each ACO's progress implementing DSRIP-funded projects in up to 12 project category areas. The IA will be responsible for securing, reviewing, and tabulating data from these reports, and for making them available to the evaluation team for FY19 and FY20; the evaluation team will be responsible for reviewing these documents in FY21 and FY22. For each ACO, a goal of the IA's review will be to assess implementation progress and ultimately assign a score to each ACO in each of five categories representing implementation progress. The five categories are: integration of systems and processes; organizational structure and engagement; workforce development; health information technology and exchange; and PHM and total cost of care management. For each category, the IA will calculate (based on existing document reviews and key informant interviews) the entities' progress overall and progress towards self-identified milestones. The evaluation team will use these scores to inform site selection for the ACO case studies (sampling sites that represent high and low-levels of implementation). In addition, implementation progress will be one of several ACO organizational-level characteristics that we will use to develop typologies and then to qualitatively assess whether ACO cost and quality performance varies across typology categories. For example, the implementation scores may support a three-part typology (i.e., low, mid and advanced implementation). Using the DSRIP quality and cost accountability scores, we will assess how performance varies across the

typology. The goal of this analysis is to explore possible relationships between organizational-level measures and claims-based performance measures (i.e., whether greater progress implementing DSRIP-funded projects is associated with better care quality, outcomes, and/or cost performance). This mixed methods approach is described further in Domain 6 (DSRIP Effects) below.

Key Informant Interviews (KII)

The evaluation team will use semi-structured interviews with ACO leads noted under RQ1 to gather data related to RQ2. For RQ2, the interview guide will include domains of inquiry related to each ACO's experience implementing DSRIP-funded projects and adopting core ACO competencies. These interviews will also be an opportunity to understand the factors that facilitate and impede organizational transformation, including an ACO's prior experience with payment reform and integrated delivery systems. Questions related to core ACO competencies will be informed by the ACO literature, the National Survey of Accountable Care Organizations (NSACO), and the Massachusetts Health Policy Commission standards for ACOs (Anderson, 2018; Colla, 2014; Fisher, 2012); questions related to integration will additionally be informed by the integration literature and existing integration survey measures. Collectively these sources point to a set of core competencies that define accountable and integrated care delivery systems. (See Table RQ2 for details.)

We define *integrated patient care* as “patient care that is coordinated across professional, facilities, and support systems; continuous over time and between visits; tailored to the patients’ needs and preferences; and based on shared responsibility between patient and caregivers for optimizing health” (Singer et al. 2011). We envision each KII including a statement of how the evaluation team defines integrated patient care and asking respondents if they agree or disagree with this definition (and if disagree, how they disagree) and state that our subsequent questions are framed by this definition. Subsequent KII interview questions will then focus on the degree to which participating entities are structurally integrated organizations and characterize the nature of participating entity integration along several dimensions: functional integration (e.g., are key support functions such as financial management and quality improvement strategies integrated across participating entities); organizational (e.g., the mechanisms by which participating organizations are linked including governance, contracts, alliances); and clinical integration (e.g., organizational activities intended to coordinate patient care across the care continuum) (Singer et al. 2011).

To analyze interview data related to RQ2, we will follow the same approach detailed under RQ1: use Atlas.ti; establish inter-rater reliability; conduct primary and secondary coding, and; create analytic matrices to facilitate comparisons across ACOs with respect to experience implementing DSRIP-funded projects and adopting core ACO competencies. In addition to identifying themes and to the greatest extent possible, we will use the interview data to develop typologies for select organizational characteristics, such as standardization of care process across medical practices (e.g., complete, partial, none). For the summative evaluation, these variables in turn will be among several ACO organizational characteristics used to stratify the ACO sample and assess associations between ACO performance (i.e., care quality and cost performance) and ACO organizational form.

Provider Staff Survey

To understand how providers and staff experience delivery of care within the ACO model, we plan to conduct two waves of provider staff surveys (mid-point and end-point). In this way, we will assess the degree to which implemented projects and ACO/CP formation are translating into changes in how care is actually delivered from the perspective of front-line staff. Survey respondents will be ACO provider staff (sampled at the ACO medical practice-level), including

MDs and NPs.

In collaboration with MassHealth, the IE and IA are currently developing the sampling plan. From the universe of medical practices participating in DSRIP, draw a random proportionate sample of practices within each ACO, and among selected practice sites pursue one of two options to identify provider respondents within each practice. The first, work with participating site practice managers to generate a list of all relevant providers on-staff at each medical practice (including provider staff name, provider type, and contact information); from that list, select a random sample; the IA then emails the survey to the selected sample. The second option is to rely on participating site practice site managers to both identify relevant provider staff to participate in the survey and directly email the survey to them. The first option is clearly preferable but will depend on the willingness of practice sites to make provider names and contact information available to the IA/IE. Either way, the required sample size will be determined (based on anticipated response rates and power calculations) prior to random selection and recruitment of medical practices, providers, and staff.

Table RQ2 lists the anticipated domains of inquiry for the survey. To measure perceptions of care integration, we are currently exploring the Provider and Staff Perceptions of Integrated Care (PPICs), a validated survey instrument comprising 21 questions across 7 care integration constructs including within care team care coordination, across care team care coordination, coordination between care teams and community resources. For the remaining measures, we continue to explore the availability of existing validated survey questions. In cases where we need to develop new questions (e.g., dimensions that are unique to DSRIP such as perceived effectiveness of CP and flexible services programs), we will initially pilot the questions with a convenience sample of provider staff (N of 10 to 15 anticipated) using cognitive testing and assessments for clarity, completeness and respondent burden. For this purpose, we will outreach and recruit a convenience sample from UMass Medical School (UMMS) where the majority of the evaluation team has a faculty appointment and thus relationships with clinical staff at UMass Medical Center. Importantly, UMass Medical Center is not currently participating in DSRIP and thus our pilot sample will not contaminate the final survey sample.

Survey results will be analyzed overall, by participating entity (ACO, CP), provider/staff type, and ACO/CP partnerships. Findings from the survey will be used to characterize the degree and direction by which stakeholders experience delivery transformation. Findings will also be used to assess the relationship between provider staffs' perceived experience of transformation and ACO/CP care quality and cost performance.

Although the sampling strategy is under development by the IA, potential limitations to the analysis can be anticipated. Bias can be introduced if we are unable to randomize at the medical practice level. It is also possible that providers and staff in certain roles will be more likely to respond than others based on their role, weighting responses to a particular perspective. There tends to be more turnover at lower paying positions, such as MAs or CHWs, which also may result in under-representation of the perspectives of people in these roles. Finally, it is possible that there will be multiple responses from some practices while others have no or few responses. We will attempt to address these potential limitations by further assessing the potential for response skew during piloting and planning analytically for management of differences in response rates across practices and ACOs.

Table RQ2: ACO organizational-level actions to transform care

Data Collected	Tools	Measures	Frequency
ACO progress implementing DSRIP-funded	Existing Document Review	<ul style="list-style-type: none"> Progress implementing DSRIP-funded projects 	Annual

Data Collected	Tools	Measures	Frequency
projects			
ACO progress adopting core ACO competencies	Key Informant Interviews	<ul style="list-style-type: none"> • Leadership structure and provider network characteristics¹²⁶ • Provider engagement strategies across participating organizations • HIT/HIE use and functionality • Standardization across participating organizations • Extent and standardization of strategies for PHM, care management, and coordination • Extent and standardization of HRSN assessments and interventions • Extent and standardization of strategies to reduce total cost of care • Progress transitioning care management to ACO partner (Model A only) measured by estimated percent of members whose care is managed by ACO partner, as reported by key informants • Member engagement strategies and spread • Quality Improvement strategies and spread • Barriers to implementing ACO model and achieving performance metrics • Prior experience participating in payment reforms 	2 waves (FY19, FY21)
ACO provider staff experience delivering care within newly formed and evolving ACOs	Provider/staff Survey	<ul style="list-style-type: none"> • Perceived effectiveness of care integration • Perceived effectiveness of workforce development • Perceived effectiveness of CP program • Perceived effectiveness of HIT/HIE • Perceived effectiveness of Flexible Services program • Perceived effectiveness of provider engagement strategies 	2 waves (FY20 and FY22)
Barriers/facilitators to operating as an ACO	Case Studies	<ul style="list-style-type: none"> • In-depth understanding of the contextual factors that facilitate and impede implementation and performance 	2 waves (FY20, FY22)

RQ3: How and to what extent did CPs target resources and take actions to operate under an accountable and integrated care model?

H3.1 CPs will engage constituent entities in delivery system change

H3.2 CPs will recruit, train and/or retrain staff by leveraging SWIs and other supports

H3.3 CPs will develop HIT/HIE infrastructure and interoperability to support care coordination (e.g. reporting, data analytics) and data exchange (e.g., internally with ACOs & MCOs, and externally with BH, LTSS, specialty providers, and social service entities)

H3.4. CPs will develop systems to engage members and coordinate services across the

¹²⁶ Potential provider network characteristics include: scale (i.e., care services included in ACO network vs. care services secured outside the network via formal or informal referral); size (defined by provider FTEs and/or members serviced); percent Medicaid members; employed vs. affiliated providers; hospital-affiliated vs. independent practice association- or community health center- affiliated.

care continuum that complement services provided by other state agencies (e.g., DMH)

RQ3 reproduces the aims, data sources, and methods described for RQ2, with a focus on CPs rather than ACOs (see Table RQ3). Findings from RQ3 will describe CP experience operating under DSRIP; the organizational structures and processes CPs adopt to facilitate integrated and coordinated care; and how implemented organizational-level actions affect the actual practice of care from the perspective of CP providers and staff.

Table RQ3: CP resources and actions towards integrated care

Data Collected	Tools	Measures	Frequency
CP progress implementing DSRIP-funded projects	Document Review	<ul style="list-style-type: none"> • Progress implementing workforce development projects • Progress implementing HIT/HIE projects; • Progress implementing operational infrastructure projects 	Annual
CP experience adopting care coordination and care management capacities	Key Informant Interviews	<ul style="list-style-type: none"> • Constituent entity engagement strategies • Staff recruitment, training and engagement strategies • HIT/HIE use and functionality • Systems and structures for member engagement • Systems and structures for coordinating/ managing care • Experience with and barriers to implementing CP program and achieving performance metrics 	2 waves (FY19, FY21)
CP staff experience delivering care within newly formed and evolving CPs	Survey	<ul style="list-style-type: none"> • Perceived effectiveness of workforce development strategies • Perceived effectiveness of HIT/HIE • Perceived effectiveness of member engagement strategies • Perceived effectiveness of structures and processes for coordinating care 	2 waves (FY20 and FY22)
Barriers/facilitators to operating as a CP	Case Studies	<ul style="list-style-type: none"> • In-depth understanding of the contextual factors that facilitate and impede implementation and performance 	2 waves (FY20, FY22)

Document Review

CP progress reports (bi-annual and annual) will provide data on each CP’s progress implementing DSRIP-funded projects in the areas of workforce development, technology, and

operational infrastructure. The IA will be responsible for securing, reviewing, and tabulating data from these reports, and for making available to the evaluation team for FY19 and FY20; the evaluation team will be responsible for reviewing these documents in FY21 and FY22. For each CP, the IA will assess implementation progress. The evaluation team will use the data to characterize both CP-specific and program-wide implementation progress, and to inform site selection (in combination with data gathered through key informant interviews) for the CP case studies. Implementation progress “ranking” will also be one of several CP organizational-level characteristics that we will use to assess the relationship between CP performance and CP organizational transformation – in this instance, assessing whether greater progress implementing DSRIP-funded projects is associated with better care quality.

Key Informant Interviews

The interviews with CP leads noted under RQ1 will additionally be used to gather data related to RQ3. For RQ3, the interview guide will include domains of inquiry related to each CP’s experience implementing DSRIP-funded projects; adopting systems and structures to support the ACO/CP partnership; and coordinate and manage care for patients served by the CPs. We will follow the same approach detailed under RQ1: use Atlas.ti; establish inter-rater reliability; conduct primary and secondary coding, and; create analytic matrices to facilitate comparisons across CPs (and across CPs grouped by ACO affiliation); and, to the extent possible, use findings to develop typologies for select organizational characteristics, such as organizational form (e.g., consortium vs. single entity) and use these typologies to assess associations between CP performance (i.e., care quality) and CP organizational form.

Staff Survey

We will use the same survey mechanism described above for ACO provider staff under RQ2 to survey CP front-line staff, with the same goal of assessing the degree to which implementation at CPs is translating into changes in how services are delivered from the perspective of front-line CP staff. We anticipate a common set of survey questions across ACO and CP staff, as well as survey questions that are customized to each entity type (i.e., ACO vs. CP). We will follow the same approach for sample selection, survey development and administration, and data analysis as specified for RQ2.

RQ4: How and to what extent did ACOs, MCOs, and CPs align resources and take common actions to operate under an accountable and integrated care model?

H4.1 ACOs, MCOs, & CPs establish structures and processes to promote improved administrative coordination between organizations (e.g. enrollee assignment, engagement and outreach)

H4.2 ACOs, MCOs, & CPs establish structures and processes to promote improved clinical integration across their organizations (e.g., flow of patient and patient information across settings, integrated care plans)

H4.3: ACOs, MCOs, & CPs establish structures and processes for joint management of performance, quality, and conflict resolution

RQ4 reproduces the aims, data sources, and methods described for RQ2 and RQ3, with a focus specifically on the interface between ACOs and CPs. We will rely primarily on key informant interviews and surveys to address RQ4. Findings from RQ4 will describe how ACO/CP partnerships implement integration strategies and the extent to which integration was achieved.

Table RQ4: Alignment of ACOs, MCOS, and CPs Resources and Actions:

Data Collected	Tools	Measures	Frequency
Formal partnership terms	Document Review	<ul style="list-style-type: none"> ACO/CP contracts ACO/CP documented processes 	Annually (FY 19-FY22)
Administrative integration	Key Informant Interviews	<ul style="list-style-type: none"> Structures and processes for enrollee assignment Structures and processes for member outreach and engagement Structures and processes for exchanging information about shared members, including shared IT contracts and other mechanisms Barriers/facilitators for administrative integration 	2 waves (FY19, FY21)
Care coordination	Key Informant Interviews	<ul style="list-style-type: none"> Systems and structures for sharing member information across entities Barriers/facilitators to care coordination 	2 waves (FY19, FY21)
Joint management	Key Informant Interviews	<ul style="list-style-type: none"> Systems for joint management of care quality and cost Systems for managing conflict resolution Barriers and facilitators to joint management 	2 waves (FY19, FY21)
Provider staff experience of ACO/CP partnership	Survey	<ul style="list-style-type: none"> Perceived effectiveness of ACO/CP administrative integration Perceived effectiveness of care coordination between ACOs and CPs Perceived effectiveness of joint management of shared patients between ACOs and CPs 	2 waves (FY20 and FY22)
Barriers/facilitators to operating as ACO/CP partnership	Case Studies	<ul style="list-style-type: none"> In-depth understanding of the contextual factors that facilitate and impede implementation and performance 	2 waves (FY20, FY22)

Document Review

Key documents such as ACO/CP contracts and select ACO/CP Documented Processes (DPs) will provide data on the formal agreements made between partnering ACOs and CPs, and the formal structures and processes they agree upon. Findings from this review will be used to characterize the nature of these partnerships and variation in these partnerships across ACOs/CPs.

Key Informant Interviews

We will use the interviews with ACO and CP leads noted under prior RQs also to gather data related to RQ4. For RQ4, the interview guide will include the domains detailed in Table RQ4, which relate to joint actions taken by ACO and CPs to coordinate and manage care for shared patients. We will use the interviews to complement data available from the document review and

to understand barriers and facilitators to implementing formal structures and processes, modifications that are needed, etc. One additional stakeholder group will be included in the RQ4 interviews: representatives of MCOs (one interview each with the two MassHealth MCOs). MCOs are included in the sample for RQ4 because the two MassHealth MCOs are also required to partner with CPs. We will follow the same analysis plan detailed under RQ1 and to the extent possible use interview findings to develop typologies for select ACO/CP relationship characteristics (e.g. use of joint staff training or not) and use these typologies to assess associations between CP performance (i.e., care quality) and ACO/CP relationship characteristics. Please note, for this analysis we will group the MCOs with the ACO sample yielding a total sample of 19 (17 ACOs plus 2 MCOs).

Provider/Staff Survey

The survey described in prior sections administered to CP and ACO front-line staff will include questions specific to RQ4. Specifically, we will assess whether the structures and processes that participating entities adopt to facilitate administrative and clinical integration between ACOs and CPs translate in changes in how care is actually managed across entities from the perspective of ACO and CP providers and front-line and staff. To the extent possible, we will leverage existing validated measures for integration such as selecting questions from the Provider and Staff Perceptions of Integrated Care (PSPIC) survey (Derret, 2017).

d. Case Studies

Case studies are ideal for a more in-depth understanding of the contextual factors that facilitate and impede implementation and performance (Yin, 2014). For the first wave of case studies, we will examine up to 4 ACOs and 4 CPs (2 BH CPs and 2 LTSS CPs) each representing various stages of implementation to understand more in-depth the specific innovations that ACOs and CPs are implementing and the conditions that facilitate and impede transformation to an integrated and accountable delivery system. Participating entities will be selected based on a combination of progress implementing DSRIP-funded projects and adoption of core competencies to operate as an integrated and accountable delivery system. The timing of the site visits will be determined by what we learn from the other data sources with respect to these two dimensions. For instance, if by FY19 we are able to identify provider entities that excel on transformation, and/or provider entities that are struggling, each could be the subject of a case study. At the same time, it may take until FY20 for such patterns to emerge. In sum, we will conduct up to 8 case studies between FY19 and FY20. For the second wave of case studies, we will examine up to 5 ACOs and 6 CPs, representing various levels of performance as defined by level of change and/or achievement related to accountability scores.

For both waves, the case studies will focus on the transformation activities ACO and CPs initiate and the barriers and facilitators to effective implementation and performance. The primary data source for the case studies will be semi-structured interviews and focus groups with provider staff who are deeply involved with DSRIP implementation and represent a range of functional roles. At ACOs, this will include: 1) clinical leads; 2) operational leads; 3) heads of HIT/HIE; 4) heads of quality improvement; 5) heads of support services including Flexible Services and case management. In addition, we will interview representatives of ACO governing boards, Patient and Family Advisory Committees, and the dominant CP with which the ACO is partnered. At CPs, we anticipate interviews with the following functional roles: 1) clinical leads; 2) administrative director of CP programs; 3) heads of HIT/HIE.

Interview and focus group guides will be informed by the Consolidated Framework for Implementation Research (CFIR) (Varsi, 2015). CFIR integrates dissemination and integration theories into five implementation domains (Intervention Characteristics; Outer

Setting; Inner Setting; Characteristics of Individuals; and Process). Each of the domains has between four to eight associated constructs (e.g., Structural Characteristics, Networks & Communication, Culture, and Implementation Climate for the Inner Setting Domain), which in turn have sub-constructs. When appropriate, we will conduct focus groups with ACO and CP key stakeholders to efficiently include the perspectives of as many stakeholders as possible.

We will use Atlas.ti to manage, code, and analyze the interview data, as well as any additional documentation collected during the site visits. We will develop a code book initially based on the interview guide; establish interrater reliability; conduct first- and second-level coding; categorize codes and develop themes. To analyze coded data, we will generate code reports that include coded data for each domain and sub-codes related to barriers and facilitators. We also will populate analytic matrices with this information to facilitate comparisons across ACOs and CPs with respect to care delivery experience under DSRIP. These data will provide both standalone important insights into contextual factors that may impact ACO and CP implementation and performance success, and data that informs the quantitative analytic aspect of the DSRIP evaluation.

e. Member Interviews

In addition to member experience surveys being conducted by Massachusetts Health Quality Partners and secondary data analyses to evaluate how well needs have been addressed, we will conduct two waves of semi-structured interviews with a purposeful sample of members with complex health needs attributed to an ACO (N=30 in each wave for a total sample of 60 members). We propose to sample on health complexity for two reasons: One, we believe this population is more likely to utilize services and by extension have more experience with the ACO delivery system than less complex counterparts, and; 2) Two, this population is more likely to use services across the care continuum and thus more likely to experience the degree to which care is or is not coordinated under DSRIP. Among members with complex health needs, the interview sample will include adult members as well as parents of MassHealth-enrolled children ages 0 to 17. We will use member interviews to provide more in-depth understanding of member experience and satisfaction with ACO services, as well as explore potential barriers in meeting member needs identified from the overall results of the member experience surveys.

We are still scoping out how best to identify and recruit a sample of members to participate in the member interviews. Options include:

- Recruiting through participating entities
This approach would rely on participating entities to identify a sample of members who might be willing to participate in interviews. We could target members with complex needs and use the interviews to understand how especially vulnerable populations experience the ACO.
- Use administrative data to identify a sample of members with complex needs and outreach directly.

Interviews will focus on the member's familiarity with the goals of the ACO; their personal experience with changes in care since ACO inception and/or changes experienced by family or friends; perceptions of changes in care quality, access, and patient-centeredness; and recommendations for improving members' experiences. For the analysis, we will use Atlas.ti to code, manage, analyze and identify themes in the data.

E. Populations, Data Sources, and Analytic Plans for Domains 2, 3, and 4 (RQs 5-13)

a. Populations

We will study the managed care eligible population (~1.18 million members) and its major subpopulations that are the targets of Demonstration reforms: ~850,000 ACO members and ~198,000 MCO members for all claims/encounter-based measures. Just over one-third of the managed care eligible population (34%) are children (age <18). For member survey measures (surveys of members and the parents of child members) and hybrid quality measures, data will be available only for samples of those enrolled with each ACO or CP. We will study members with BH and LTSS needs (including those receiving CP supports) as a subgroup of interest because integration of BH and LTSS care with medical care is a primary goal of the Demonstration. Some MassHealth members not enrolled in ACOs and MCOs (e.g., those enrolled for the Department of Mental Health's Adult Community Clinical Supports) can receive CP services. Although most of these members are outside the managed care eligible target population (due to dual eligibility with Medicare), we will report CP accountability measures for all CP enrolled members (as calculated by MassHealth analytics vendor) in addition to those within the managed care eligible population.

Under the demonstration, ACOs and MCOs are encouraged to identify and address health related social needs. While we cannot comprehensively identify everyone who needs these services, we hope to be able to document increasing numbers of people referred to the FS program to address housing and nutritional needs that have been identified. Members referred for FS form another subpopulation of key interest for the evaluation with respect to the timing and nature of help that they get, and to what effect.

Members with SUD are the focus of Demonstration Goal 5, and members with SUD and/or SMI are also of interest in the DSRIP evaluation. Due to the Demonstration's emphasis on improving integration and care coordination, we also expect to study members with complex needs (e.g., multi-morbidity, polypharmacy) for whom care coordination is expected to be particularly beneficial. To understand associations between Demonstration programs and a range of outcomes for members with specific health conditions that plans are held accountable for through quality measures, we will also study members with conditions that place them in the denominator of accountability measures (e.g., members with diabetes, children using antipsychotics).

b. Summary of Measures and Data Sources

Various process and outcome measures will be used to address research questions in Domains 2, 3, and 4 to evaluate changes in identifying member needs (RQ5), healthcare access (RQ6), member engagement (RQ7), care processes (RQ8), integration of care (RQ9), utilization patterns (RQ10), member outcomes (RQ11), member experience (RQ12), and healthcare costs (RQ13) over the course of the study period (2015-2022). A subset of these measures has been specified by MassHealth for use in calculating accountability scores for ACOs and CPs, others are being monitored by MassHealth, and the remainder are endorsed by the NQF and/or were selected from sets of measures maintained by reputable stewards (e.g., AHRQ, NCQA). Measure selection was also informed by other states' 1115 Evaluations (e.g., Michigan, New Hampshire, Oregon) (Ayanian, 2014; Kushner, 2017; NH DHHS, 2017). Finally, a subset of measures will be operationalized by UMMS drawing from the peer-reviewed literature.

For all quantitative measures derived from existing data sources, measure status as either endorsed or not endorsed by NQF is listed in Appendix B. Examples of non-NQF endorsed measures used by other states in their 1115 Evaluations include ED and hospital utilization measures (Michigan) and adult well visits (New Hampshire). Similar to recent evaluations in

other states, the set of measures considered here will provide a robust understanding of Demonstration programs. For measures with national benchmarks such as those included in the Medicare Shared Savings Program (CMS, 2017), NCQA HEDIS measures (HEDIS 2018), and the Medicaid-Eligible Adult and Child Core Sets of Health Care Quality Measures (CMS, 2018), we will interpret our findings in the context of these national benchmarks. For measures with national benchmarks, recent values are presented in Appendix B.

To implement the analyses described below for each research question, we will collect primary data and access other data sources maintained by MassHealth, other state agencies, and other third parties. There is an approximately 6-month lag in the availability of complete data for the administrative data sources described below; complete data for each calendar year are expected to become available in July of the following year.

Medicaid administrative data – This member-level database is comprised of eligibility, enrollment, and billing records for healthcare services for the MassHealth member population. The traditional services (e.g., medical, pharmacy, laboratory) included in this administrative database of claims and encounters will be supplemented with new data on enrollment with and supports delivered by CPs (i.e., qualifying activities). Information on payments for FS provided to ACO members will be available and may be linkable to other administrative files. Unique provider identification numbers included on billing records enable linkage to the MassHealth provider characteristics file, which contains information on provider type, demographics, and ACO affiliation. The MassHealth administrative data is of research quality and has been used previously by the evaluation team (Ash, 2017). The quality of records and claims submitted by ACOs and CPs under the demonstration is expected to be of research quality due to contractual obligations requiring submission of all qualifying activities performed.

Analytics vendor data – MassHealth has contracted with an outside vendor to develop datasets, conduct analyses, and produce reports to support monitoring and accountability measurement. The vendor will aggregate and maintain data submitted by ACOs and CPs with data obtained from MassHealth and CMS. We will obtain selected fields for evaluation, still to be determined in consultation with MassHealth, from the datasets maintained by the analytics vendor. The fields obtained from the analytics vendor will include individual level indicators of compliance with quality measures for a subset of each organization's members (~n=400 per each ACO and each CP) to calculate hybrid quality measures for accountability. Hybrid measures require information extracted from medical charts and/or the Electronic Health Record (EHR) that cannot be calculated from administrative data sources alone. In cases where the analytics vendor has calculated claims-based measures for time periods and populations of interest for the evaluation, these will be used as well. As the CP program does not presently include hybrid quality measures, we will estimate improvements in applicable hybrid measures (Diabetes, Blood Pressure Control, Health-Related Social Needs Screening) across the entire CP program using the hybrid data collected from the ACOs, where feasible and appropriate. In the event that the CP program, in future years, includes hybrid data, the evaluation may add these metrics.

Flexible Services assessments – Using DSRIP, MassHealth will fund ACO spending on qualified FS up to an annual maximum allotment. To determine eligibility for the services, ACOs will perform FS assessments (FSAs). If these assessments are submitted to MassHealth, the evaluation team will plan to examine them. The assessment will be designed to identify the need for help with food or housing. By pairing FS administrative data with the potential FS Assessment information, the State could determine how many FS-receiving members actually received the FS they were “prescribed”.

CP referral lists and enrollment records – MassHealth members may be enrolled to BH and

LTSS CPs through multiple pathways. For BH CPs, MassHealth will apply a claims-based algorithm (Appendix A5) to identify members with a behavioral health diagnosis in combination with utilization and comorbidities indicative of a need for CP supports. For LTSS CPs, MassHealth will apply a claims-based algorithm to identify members with a history of consistent utilization (>\$300/month for 3 consecutive months) of LTSS State Plan services (Appendix A5). The ACO/MCO will be notified of members identified by the state as meeting criteria for CP assignment, and for the first two quarters of SFY19, MassHealth will assign members to specific CPs. For subsequent quarters, MassHealth anticipates that ACO and MCOs will assign the members identified by MassHealth to a specific CP and notify MassHealth of the assignment. At the point of assignment to a CP, MassHealth will record the member as enrolled (i.e., the enrollment date) with the CP. Members may also be referred to the ACO/MCO for referral to a BH or LTSS CP by a provider within the ACO/MCO network, by a family member, or by other entities (e.g., other state agencies, other providers) independent of the claims-based algorithm. The evaluation team anticipates receiving information on the referral source (i.e., MassHealth versus other), the date of enrollment with the CP, and the date (and reason) for disenrollment.

ACO and CP provider/staff survey – As described in Domain 1, the IE and IA will jointly develop and conduct a survey of ACO and CP front-line staff in two waves (mid-point and end-point of the overall evaluation) to assess how front-line staff experience delivery system transformation, including the degree to which implemented projects and ACO/CP formation translated into changes in care delivery from the perspective of front-line staff. We are exploring use of the Provider and Staff Perceptions of Integrated Care (PPICs), a validated survey instrument comprising 21 questions across 7 care integration constructs including within care team care coordination, across care team care coordination, coordination between care teams and community resources. We anticipate supplementing these validated survey questions with new questions (in a very few instances) specifically tailored to the DSRIP evaluation. Potential concepts to be addressed by new questions include perceived effectiveness of member engagement strategies and provider use of nontraditional encounters (e.g., telemedicine, email) to facilitate access to care.

Member surveys – MassHealth has contracted with Massachusetts Health Quality Partners (MHQP) to conduct three different member surveys targeting the primary care (adults and children), behavioral health, and LTSS (adults and children) member populations. These surveys are critical to understanding, in a systematic manner, how the member's experience of care changes over the Demonstration period. While administrative data sources permit evaluation of quality and cost, only these member surveys will quantitatively address the third prong of the "Triple Aim", member experience (Berwick, 2008). The survey sampling design will be stratified to collect information from adult members and from parents of pediatric members. Other details of the sampling strategy remain in development. At present, random sampling within the sampling frame reflecting populations of interest are planned for year 1 informed by response rates and responses from the pilot primary care survey. Items included on the primary care survey were drawn from the CG-CAHPS and CAHPS PCMH surveys. Items currently planned for the BH and LTSS surveys in development have been drawn from a number of existing surveys including the MassHealth One Care survey (of dual eligible members), the Massachusetts Department of Mental Health member experience survey, CAHPS, the Family Experiences with Care Coordination survey, and the Behavioral Risk Factor Surveillance Survey. Select additional customized questions that are developed will undergo cognitive testing and piloting. Administration modes include web and paper for the primary care survey, mail only for the BH survey, and phone only for the LTSS survey. MHQP will monitor response rates, assess the potential for bias from nonresponses, and check for measurement error (e.g., due to mode of administration, interviewer, inappropriate responses).

The primary care member survey will be fielded annually in calendar years 2019 through 2022 to assess member experience for calendar years 2018 through 2021. The behavioral health and LTSS member surveys currently in development will also be fielded in calendar years 2019 through 2022 to assess member experience for calendar years 2018 through 2021. Domains expected to be included in each survey are described as they relate to specific RQs below. The evaluation team will weight all analyses of survey responses to create an analytic sample that closely resembles the characteristics of the survey's entire sample (respondents and non-respondents), therein adjusting for potential bias from non-response (Seaman, 2013). However, there is the potential for residual bias if mechanisms of non-response are not identifiable or strongly correlated with observed data. Furthermore, self-reported data that are not missing are still subject to potential biases from measurement error (e.g., due to inaccurate recall of events, misinterpretation of questions, and intentional misrepresentation).

c. Analysis Plans

Descriptive – The demographic, clinical, and select social characteristics of the entire managed care eligible population and subpopulations of special interest (e.g., those enrolled in ACOs or in MCOs) will first be described in each calendar year. This will also be done within subpopulations to which certain measures apply (e.g., those with BH needs, including those with both serious mental illness and substance use disorders) and other subpopulations described above. Process and outcome measures will be calculated for each population in each calendar year. Cross-temporal comparisons (baseline versus Demonstration period) will not be made for survey and hybrid measures due to the lack of baseline data. However, contemporaneous comparisons (i.e., comparisons between similar groups within the ACO/MCO population during the same time period) will be implemented where feasible based on program implementation, as described in Domain 6 (DSRIP Effects).

Observed versus expected – The first type of comparison will be between observed and multivariable adjusted estimates of expected values of each measure for each calendar year of the Demonstration period. Expected values will be estimated from multivariable models developed to predict an individual's value for each measure based on a member's demographic and clinical characteristics (e.g., members with serious mental illness will have a higher probability of ED utilization). These expected values will serve as a type of historical benchmark against which performance during the Demonstration will be compared. For dichotomous (i.e., yes or no) measures the probability of success on a given measure will be predicted using logistic models. Rates (e.g., hospitalizations per 100 person-years) will be predicted using Poisson, negative binomial, or zero-inflated Poisson models, as appropriate. Continuous outcomes (e.g., expenditures) will be predicted using linear models. For each measure and year of the Demonstration period, the observed value for a measure will be divided by the expected value predicted by the model. When higher values of a measure are desired (e.g., a higher proportion of the population screened) a ratio of observed to predicted greater than one will suggest improved quality. When lower values of a measure are desired (e.g., readmission rates), a ratio of observed to predicted of less than one will suggest quality improvement.

This approach has several limitations. Predicted values for the Demonstration period assume a consistent relationship between a given characteristic and a particular measure over time. To the extent that such relationships change (for reasons other than the Demonstration) between baseline and the Demonstration period the predictive model will be less accurate (e.g., a highly effective new medication may attenuate the association between a clinical condition and the risk of hospitalization). Secondly, if a new category of members enters the study population who were not present at baseline, the model may be less accurate in making predictions for this new population. Stated more broadly, these two limitations can be summarized as an assumption that the conditions during the baseline period will remain consistent during the Demonstration period, except for those changes that occur due to the Demonstration. If violation of this assumption is observable, we can modify our design (e.g., restrict the population) or analysis (e.g., incorporate time-varying parameters) to mitigate potential bias. However, the potential for unobserved time-varying factors cannot be excluded. Therefore, we will also implement more rigorous comparative designs, described below.

Quasi-experimental methods – In order to estimate associations that can support stronger inferences, analyses must address potential biases arising from 1) population and system characteristics that differ between plans and 2) unrelated secular trends occurring between the baseline (2015-17) and the Demonstration (2018-22) periods. Quasi-experimental design methods will be applied for this purpose, including propensity score methods (i.e.,

matching, weighting, or stratification) to balance population characteristics and difference in difference comparisons to address secular trends (Vats, 2013). Difference in difference comparisons will be combined with interrupted time series methods (Penfold 2013, Shadish 2001) for measures that can be calculated at quarterly or monthly frequencies, with seasonal adjustments.

Potential selection biases (i.e., that members enrolled with ACOs, MCOs, or CPs have different healthcare needs and utilization than the overall managed care eligible population) will be addressed with propensity score balanced comparisons between groups of members enrolled during the Demonstration period and groups of members enrolled during the 2015-2017 baseline period (i.e., members with similar demographics and risk profiles will be compared to estimate effects of the Demonstration). These comparisons will estimate the counterfactual outcomes that would have been observed in the absence of the Demonstration (D'Agostino, 1998; Rosenbaum, 1983). Bootstrap methods that reflect clustering adjustments will be used to calculate confidence intervals.

The implementation of the Demonstration involved assignment of members to ACOs, MCOs, or the Primary Care Clinician (PCC) plan, and this assignment was largely based on the decisions of members' primary care providers (PCPs) (i.e., the decision to join an ACO). Members were notified of their plan assignment in the fourth quarter of 2017, except for those members who remained with the same plan (e.g., PCC Plan members whose PCP remained in the PCC Plan). Notably, this assignment algorithm has already been applied retrospectively to baseline data from 2015 to 2017 based upon member PCP of record in MassHealth and MCO systems in those years. As described below, this assignment will be used to match members enrolled during Demonstration years to members enrolled in the same plan (i.e., the same ACO or MCO) during the baseline period. Because the assignment of a member to a plan was determined by the member's PCP, matching by plan will help account for potential selection bias associated with a PCP's or an organization's decision to participate in the ACO program.

The ACO program launched on March 1, 2018, marking the beginning of a 120-day plan selection period for existing MassHealth members, during which members can change between plans for any reason. A fixed enrollment period with limited permissible reasons for switching will begin at the end of the 120-day open enrollment period on July 1, 2018, and will run until the subsequent year's plan selection period, based on member eligibility status and enrollment date. Based upon demographic and clinical characteristics (e.g., health needs), certain types of members are expected to select into or out of specific plans, and members that actively switch plans are likely to be systematically different from members that remain with their assigned plan.

To understand switching patterns and their relationship to member characteristics, we will first describe the demographic, clinical, and social characteristics of members in the overall managed care eligible population, by specific sector (ACO, MCO, PCC), and by plan. After describing switching patterns, we will use propensity scores to assemble a comparison group of members from the baseline period who were assigned retrospectively based upon PCP to the same plan and were highly similar to the group of members remaining in the plan at the end of the plan selection period. By balancing characteristics of baseline enrollees and Demonstration enrollees using the probability of being in a plan as of the end of the plan selection period, we will mitigate selection bias from observed factors associated with member switching and plan selection. This process will be repeated for each Demonstration year such that, to the extent the characteristics of the Demonstration populations change year to year, the comparison groups for each year will be selected to reflect these changes. We will examine balance between exposed and comparison groups by comparing distributions of demographic, clinical, and social characteristics and

calculating standardized differences. Any residual differences between exposed and baseline populations after applying propensity score methods will be adjusted for using statistical models.

The matched cohorts of ACO and highly similar baseline “would be” ACO members contain the comparison of interest between exposed members and a similar historical group who would have been exposed had the Demonstration been implemented during the baseline. However, comparisons between similar groups of baseline and Demonstration members remain subject to potential biases from secular changes (i.e., long-term trends affecting the entire state) in populations and systems that may have occurred between the baseline and over the course of the Demonstration period. Therefore, we will conduct difference in difference analyses to attempt to isolate the effects of Demonstration programs (i.e., the ACO and CP programs). The difference-in-difference design will account for secular trends by contrasting changes observed for the matched ACO cohort to changes for the matched MCO cohort (Stuart, 2014). The general approach is summarized in Table 7.

For example, a cohort of ACO enrollees during the Demonstration will be matched to baseline enrollees who based upon their PCP affiliation would have been in an ACO had the Demonstration been implemented at that time. Similarly, a cohort of MCO enrollees during the Demonstration will be matched to baseline enrollees who would have been in an MCO based upon their PCP affiliation had the Demonstration been implemented at that time. The simple comparison of the Demonstration ACO enrollees to baseline would-be ACO enrollees estimates an effect that includes the effect of ACOs, CPs, and secular changes. By removing the effects of CPs (because CPs are available to the MCO population during the Demonstration) and secular changes, the difference in the differences between these cohorts (i.e., the ACO and would-be ACO, and the MCO and the would-be MCO) isolates the ACO effect from the effects of CPs and secular trends. This difference in difference design assumes that the same secular trends affect the ACO and the MCO populations and that there are no other outside influences acting on only one population.

To isolate the effect of the CP program for the MCO population, there are a few potential populations that could be used for estimating the secular trend. The commercial population in Massachusetts is likely to be different from the MassHealth population in observed and unobserved ways. The Medicaid population in other states will be explored, but like the MassHealth population, other Medicaid populations are expected to be exposed to idiosyncratic state secular trends and policy reforms in those comparison states. For example, in Massachusetts programs such as Primary Care Payment Reform (which involved capitated payments and quality incentives for participating provider organizations caring for MassHealth members) and the Delivery System Transformation Initiative (a predecessor to DSRIP focused on safety net hospitals) were implemented during the baseline pre-Demonstration period. Use of a MassHealth comparison group is also important in light of other non-DSRIP changes being implemented during the Demonstration period across MassHealth such as the expansion of SUD services (see Goal 5 below) and the application of new payment models (Ash, 2017). Therefore, the MCO non-CP population is a preferred comparison group over these alternatives because these members will not be directly exposed to DSRIP initiatives but will be part of the same source population (i.e., managed care eligible) with similar historical and contemporaneous non-DSRIP experiences. However, this difference in difference approach assumes the effects of the CP program and any secular changes will be similar for the ACO and MCO populations.

Table 7. Overview of Difference in Difference Methods

Step 1	Assemble groups of Demonstration plan enrollees and would-be enrollees in that same type of plan during the baseline pre-Demonstration period based on their PCP affiliation, then use propensity score methods to balance patient characteristics.	
Step 2	Stratify propensity-score balanced groups based upon plan or sector for difference in difference analyses. Use regression to adjust for residual differences between groups.	
Step 3	Interpret stratifications to draw inferences on the effect of ACO and/or CP programs during the Demonstration.	
<i>Difference between Demonstration and Baseline (Exposed Group)</i>	<i>Difference between Demonstration and Baseline (Unexposed Group)</i>	<i>Effect Estimated by DID</i>
1. $ACO_d - ACO_p$	$MCO_d - MCO_p$	ACO^1
2. $ACO_d - ACO_p$	$MCO_{d0} - MCO_p$	$ACO+CP$
3. $MCO_d - MCO_p$	$MCO_{d0} - MCO_p$	CP^2

Abbreviations: accountable care organization pre-Demonstration (ACO_p); difference in difference (DID); managed care organization pre-Demonstration (MCO_p); managed care organization with access to community partners through the Demonstration (MCO_d); managed care organization during Demonstration excluding community partner enrollees (MCO_{d0}); community partner (CP)

¹Contrasting the ACO strata versus the MCO strata would estimate the effect of the Demonstration in the ACO population, abbreviated as the ACO effect

²Contrasting the MCO strata versus the MCO strata excluding CP enrollees during the Demonstration would estimate the CP effect

Continuous enrollee analysis –The stable population of continuous MassHealth enrollees has been identified as a subpopulation of interest, who may have disabilities or other criteria for eligibility for MassHealth that are likely to be permanent or semi-permanent. The stability of this population also affords the opportunity to perform a self-controlled comparison, which contrasts member outcomes during the Demonstration period with their own outcomes during the baseline period. A strength of this self-controlled design is that by comparing within individuals, it accounts for time-invariant member characteristics (i.e., those that do not change over time). As with the cross-temporal comparisons, we will use difference-in-difference analyses to remove secular effects, and statistical models will be fit to adjust for demographic (e.g., aging) and disease trends. For each year of the Demonstration, we will conduct a continuous enrollee subgroup analysis where members present in the population of interest during the Demonstration year will be evaluated if they were continuously enrolled in the MassHealth managed care eligible population beginning in 2015 or 2016.

F. Domain 2: Changes in care processes

RQ5 To what extent did the identification of member needs including physical, BH, LTSS, and social needs improve?

H5.1 The identification of individual members' unmet needs (including health-related social needs, BH, and LTSS needs) will improve

a. Measures and rationale

Both direct measures of member need and indicators of the needs identification process will be used to evaluate RQ5. Member reported measures from surveys will be used to track changes in unmet needs over the Demonstration period. Hybrid quality measures (Table RQ5) that address the needs identification process will also be tracked over the course of the Demonstration period. For example, needs identification, care planning, and member engagement activities must occur within 3 months of enrollment for compliance with the BH CP engagement and LTSS CP engagement measures. The member must first receive a person-centered comprehensive assessment of care needs, functional needs, accessibility needs, and goals of care, then a person-centered care plan must be developed that addresses these needs and goals, and finally the member and the member's PCP must each approve the care plan. The Health Related Social Needs Screening measure will capture changes in screening for unmet social needs that could benefit from services such as housing stabilization, utility assistance, transportation, and nutritional assistance. The ACOs are also required to provide the results of the Health Related Social Needs screening, which will enable tracking of changes in the prevalence of these needs over time.

To provide a fuller longitudinal view of the processes by which needs have been identified both before and during the Demonstration, we have also included select claims-based measures of processes expected to identify need in adult and pediatric populations that can be analyzed in the both pre- and post-demonstration periods (Table RQ5, next page). Additional measures of need and indicators of the needs identification process will be tracked where data are available. Recognizing that the identification of unmet need is inherently difficult using claims-based data sources because a need that is unmet will not be marked by a billing claim for a service, we expect the member survey data to better estimate the prevalence of unmet need in the broader ACO population. However, survey data are subject to potential biases due to response patterns and missing data, inaccurate recall, misinterpretation of questions, and misrepresentation in responses. Further, if the underlying level of need in the study population is changing due to unobserved factors (that cannot be accounted for analytically), we will not be able to separate Demonstration effects from such changes in the composition of the study population.

Table RQ5. Data Sources and Measures of Member Need

Population(s)	Data Source(s)	Measure ¹	Analysis
Physical Health Needs			
MC, ACO, MCO, SPs	Medicaid claims/ encounters, analytics vendor extract	Oral Health Evaluation ²	1. Observed vs. Expected (O vs. E) 2. Cross-temporal PS-balanced DID
Needs of the Pediatric Population			
MC, ACO, MCO, SPs	Medicaid claims/ encounters, analytics vendor extract	Developmental screening ³	1. O vs. E 2. Cross-temporal PS-balanced DID
MC, ACO, MO, Sss	Medicaid claims/ encounters, analytics vendor extract	Oral Health Evaluation ²	1. O vs. E 2. Cross-temporal PS-balanced DID
MC, ACO, MCO, SPs	Medicaid claims/ encounters, analytics vendor extract	Adolescent wellcare ³	1. O vs. E 2. Cross-temporal PS-balanced DID
MC, ACO, MCO, SPs	Medicaid claims/ encounters, analytics vendor extract	Lead screening ³	1. O vs. E 2. Cross-temporal PS-balanced DID
Needs of BH Populations			
BH CP, SPs	Medicaid claims/ encounters, analytics vendor extract	BH CP Engagement ^{2,4}	Descriptive
MC, ACO, MCO, SPs	Medicaid claims/ encounters, analytics vendor extract	Initiation and Engagement of Alcohol, or Other Drug Abuse or Dependence Treatment ²	1. O vs. E 2. Cross-temporal PS-balanced DID
ACO BH, BH CP	Member survey	Ability to get all needed services ⁵	Descriptive
Needs of LTSS Population			
LTSS CP	Medicaid claims/ encounters, analytics vendor extract	LTSS CP Engagement ^{2,4}	1. O vs. E 2. Cross-temporal PS-balanced DID
ACO LTSS, LTSS CP	Member survey	Needs met for LTSS ⁵	Descriptive
ACO LTSS, LTSS CP	Member survey	Needs met for other services ⁵	Descriptive
Health Related Social Needs			
ACO, SPs	Analytics vendor extract	Health related social needs screening ²	Descriptive
ACO, CPs, SPs	Analytics vendor extract	Health related nutritional need	Descriptive
ACO, CPs, SPs	Analytics vendor extract	Health related housing need	Descriptive
ACO, CPs, SPs	Analytics vendor extract	Health related transportation need	Descriptive
ACO, CPs, SPs	Analytics vendor extract	Health related utility need	Descriptive

¹Measure specifications included as Appendix B

²ACO Quality Measures

³ACO Monitoring Measures

⁴CP Quality Measures

⁵BH and LTSS surveys are in development

Abbreviations: Difference in difference (DID), Managed Care Eligible (MC), Behavioral Health (BH), Long Term Services and Supports (LTSS), propensity score (PS), subpopulations (SPs)

RQ6 To what extent did access to physical care, BH care, and LTSS improve?

H6.1 Access to physical care services will improve or remain consistent for members

H6.2 Access to BH services will improve or remain consistent for members

H6.3 Access to LTSS will improve or remain consistent for members

Measures and rationale

Access to health care is commonly defined as “the timely use of personal health services to achieve the best health outcomes” (Institute of Medicine, 1993). Access to health care is grouped into three components by the Centers for Disease Control and Prevention: 1) insurance coverage, 2) health services, and 3) timeliness of care (HealthyPeople.gov).

All MassHealth members will have insurance, therefore we will focus on several measures of timeliness and ability to access to physical care services, BH services, and LTSS (Table RQ6). Although member-reported access measures are considered to have the highest construct validity, we will use claims/encounter based measures to describe populations (i.e., non-ACO) and time frames (i.e., baseline) not covered by the survey sampling frames. However, it is difficult to measure access using administrative data sources as claims and encounter records are traditionally only observed when a member receives a billable service from a healthcare provider. Therefore, scenarios where members who are incapable of or discouraged from utilizing services will not be observed in administrative data. Certain types of services may also not be reimbursed, such as telephone and electronic encounters, and these data would not be captured in administrative data. Even in instances where an administrative record is observed, substantial information on access is typically absent (e.g., wait time for the appointment, cultural and linguistic appropriateness). To partially address gaps in administrative data, we also may collect information through the ACO provider/staff survey on nontraditional means of providing access to services (e.g., telemedicine, email). Encounter data submitted by CPs are expected to include modifier codes indicating whether the encounter was in-person, over the phone, or by other means. These access measures may be supplemented with information on wait times, if available from MassHealth.

Member-reported measures of access: Member reported measures of access will include responses to the CG-CAHPS (<http://www.ahrq.gov/cahps/surveys-guidance/cg/index.html>) questions regarding timely access for adult and pediatric populations on the primary care member survey, as well as any relevant questions included on the yet to be finalized LTSS and BH member surveys. Current questions which may be included on access to BH and LTSS services are drawn from the Massachusetts Department of Mental Health survey and the Home Health CAHPS survey. As noted in the discussion of the member surveys above, member reported measures are subject to potential biases due to response patterns and missing data, inaccurate recall, misinterpretation of questions, and misrepresentation in responses.

Provider/staff reported measures of access: In the ACO survey, providers/staff may be asked about the types and frequency of encounters that may be unobserved in administrative data sources that can facilitate member access to care (e.g., telemedicine, email).

Administrative measures of member access: A key component of improving the use of healthcare services is facilitating access and use of preventative services such as primary care, screening (see RQ5: Needs Identification) and protection of at-risk populations (see immunization and monitoring measures in RQ7: Care Processes). Administrative measures including the annual primary care visit and asthma medication ratio have been included in RQ6 as proxies of access, however, these measures are subject to typical limitations of claims data such as described above. Measurement error due to inconsistent or incomplete coding practices

obscuring the type and purpose of an encounter could introduce bias into the primary care visit measure, while discrepancies between actual medication taking behavior and what can be expected from refill patterns could bias the asthma medication ratio measure. The use of evidence-based services that can prevent illness, such as through primary and preventative care, is often considered an indicator of access to care (HealthyPeople.gov).

Performance on the asthma medication ratio measure, which calculates the relative use of rescue medications and controller medications, may reflect a member's ability to access medical care for evaluation and prescription of appropriate controller medications, and the ability to then physically and financially access pharmacy services. Lower performance on the asthma medication ratio measure is associated with increased rates of ED visits and inpatient hospitalizations (Andrews, 2013). Medicaid ambulatory care clinics that promote cultural competence and establish policies to promote access and continuity of care have less underuse of preventive medications for pediatric asthma (Lieu, 2004). Therefore, although the asthma medication ratio measure is not directly measuring access, providers that facilitate member access to medical and pharmacy services are expected to achieve better performance on the measure. For BH, ED boarding of patients presenting with BH conditions is an indicator of access because such boarding is typically due to limited availability of inpatient beds and/or outpatient providers (Pearlmutter, 2017; Zeller, 2017). Measuring access to LTSS using administrative data is particularly challenging, therefore we will rely principally on the robust set of member survey measures quantifying how well LTSS needs are being met (Table RQ5) and the timeliness of access to LTSS services (Table RQ6). Utilization patterns for LTSS services will be described and evaluated in RQ10 "How did the volume and mix of services utilized by members change during the course of the Demonstration?".

Table RQ6. Data Sources and Measures of Access to Care

Population(s)	Data Source(s)	Measure ¹	Analysis
Access to Physical Care Services			
MC, ACO, MCO, SPs	Medicaid claims/encounters	Adult outpatient/preventive visit	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO, SPs	Medicaid claims/encounters	Asthma Medication Ratio ²	1. O vs. E 2. Cross-temporal PS balanced DID
ACO, SPs	Member survey	Timely access (routine, urgent, after hours)	Descriptive
ACO, SPs	Member survey	Access to specialist care	Descriptive
ACO, SPs	Provider/staff survey	Experience with non-paid member encounters (e.g., telehealth)	Descriptive
Access for Pediatric Populations			
MC, ACO, MCO, SPs	Medicaid claims/encounters	Primary care provider visit (children)	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO, SPs	Medicaid claims/encounters	Asthma Medication Ratio ²	1. O vs. E 2. Cross-temporal PS balanced DID
ACO, SPs	Member survey	Timely access (routine, urgent, after hours)	Descriptive
ACO, SPs	Member survey	Access to specialist care	Descriptive
Access For BH Population			
MC, ACO, MCO, BH CP	Medicaid claims/encounters	Annual primary care visit ⁴	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO, BH CP	Medicaid claims/encounters	ED boarding for BH conditions	1. O vs. E 2. Cross-temporal PS balanced DID
ACO BH, BH CP	Member survey ³	Timely access to BH services ³	Descriptive
ACO BH, BH CP	Member survey ³	Ability to access BH care as often as necessary ³	Descriptive
Access for LTSS Populations			
MC, ACO, MCO, LTSS CP	Medicaid claims/encounters	Annual primary care visit ⁴	1. O vs. E 2. Cross-temporal PS balanced DID
ACO LTSS, LTSS CP	Member survey ³	Timely access to LTSS services	Descriptive
ACO LTSS, LTSS CP	Member survey ³	Ability to access LTSS as often as necessary ³	Descriptive
ACO LTSS, LTSS CP	Member survey	Needs met for transportation to medical appointments ³	Descriptive

¹Measure specifications included as Appendix B

²ACO Quality Performance Measures

³BH and LTSS surveys are in development (measures contingent on finalized measure questions).

⁴CP Quality Measure

Abbreviations: Difference in difference (DID); Subpopulations (SPs), Total Cost of Care (TCOC)

RQ7 To what extent did member engagement with physical care, BH care, and LTSS improve?

H7.1 Engagement with physical care services will improve or remain consistent for members

H7.2 Engagement with BH services for will improve or remain consistent for members

H7.3 Engagement with LTSS will improve or remain consistent for members

Measures and rationale

Engaging members in healthcare has become a common strategy for improving the member experience and health outcomes. Defined broadly, member engagement encompasses “actions individuals must take to obtain the greatest benefit from the healthcare services available to them” (Grunman, 2010), which can also be narrowed to competency in self-care for members with chronic diseases (Jordan, 2008). To evaluate RQ7, information will be collected from member and provider/staff surveys on engagement and perceived effectiveness of member engagement strategies. Survey-based measures will be supplemented with administrative measures of member engagement and care continuity.

Member reported measures of engagement: Member reported measures will include responses to questions regarding engagement, including member participation in the treatment plan. These questions are expected to be drawn from existing surveys (the One Care member survey, the Massachusetts Department of Mental Health member survey) that have been piloted and fielded in similar Massachusetts populations. If additional questions are developed they will be piloted and validated with the appropriate MassHealth member population. As with other concepts (e.g., access) to be captured using the member surveys, resource constraints and survey burden limit the number of items to be included and inclusion of an entire tool for measuring member engagement is not feasible. Therefore, the included questions will only yield insight into specific aspects of engagement, which is a complex and difficult to measure concept.

Provider/staff reported measures of engagement: In the CP staff survey, provider/staff may be asked about the perceived effectiveness of member engagement strategies for the BH and LTSS member populations.

Administrative measures of member engagement and care continuity: Claims-based measures of medical and medication use, including the gap in HIV medical visits and antidepressant management measures, serve as surrogates for members being better informed and engaged with the health care services recommended for managing their clinical conditions. These measures will be evaluated as proxies of engagement, with the following rationale for each measure. The effective management of HIV requires member engagement in the form of adherence to multidrug antiretroviral regimens and regular attendance of clinic visits for monitoring of treatment effectiveness and adverse effects. Guidelines for management of patients with HIV specify that intervals between visits with viral monitoring should not exceed six months (Panel on Antiretroviral Guidelines for Adults and Adolescents, 2018), with longer gaps in therapy associated with the development of viral resistance and loss of viral suppression (Gardner, 2018). The management of the acute phase of major depression is a critical period, where the goal of medical and pharmacologic management is to return the patient to baseline levels of functioning (APA, 2010). Because incomplete responses and adverse effects with initial pharmacotherapy are common, and due to the risk of harm associated with the clinical condition, careful and systematic monitoring is essential throughout the first few months of treatment (APA, 2010). Due to risk of relapse, patients treated with pharmacotherapy during this acute phase are recommended to remain on treatment. Patient adherence to therapy can be facilitated by incorporating patient preferences into treatment decisions and discussing patient concerns regarding adherence (APA, 2010).

Continuity of care for children with chronic conditions will be examined, as such measures are conceptualized as indicators of member confidence and ability to both access and engage with the healthcare system, in particular with the set of providers from whom the member obtains the greatest benefit from utilization of healthcare services. While engagement refers to actions taken by the member to get the most out of their healthcare, continuity of care more broadly encompasses the actions taken by the member and their providers to ensure care is coordinated for the member through provider continuity, information continuity, and management continuity (Reid, 2002). Although in theory the responsibility for continuity could rest firmly on the healthcare system, in practice the member is often responsible for taking actions (e.g., navigating insurance networks, scheduling appointments, updating personal health records) to maintain a relationship with the same provider and to facilitate information sharing between providers. A systematic review of the literature found continuity of care was associated with improved patient satisfaction, fewer hospitalizations and fewer ED visits (van Walraven, 2009).

Table RQ7. Data Sources and Measures of Engagement with and Continuity of Care

Population(s)	Data Source(s)	Measure ¹	Analysis
Engagement with Physical Care Services			
MC, ACO, MCO, SPs	Medicaid claims/ encounters	Gap in HIV medical visits	1. O vs. E 2. Cross-temporal PS balanced DID
ACO	Provider/ staff survey	Perceptions of member engagement with physical care	Descriptive
Engagement for Pediatric Populations			
MC, ACO, MCO, SPs	Medicaid claims/ encounters	Continuity of care for children with complex medical conditions	1. O vs. E 2. Cross-temporal PS balanced DID
Engagement for BH population			
MC, ACO, MCO, BH CP, SPs	Medicaid claims/ encounters	Antidepressant medication management	1. O vs. E 2. Cross-temporal PS balanced DID
ACO BH, ACO BH CP	Member survey ²	Participation in treatment plan	Descriptive
ACO LTSS, ACO BH CP	Member survey ²	Perceived effectiveness of BH care on member ability to manage needs, money, school/work, housing	Descriptive
ACO, CP	Provider/ staff survey	Perceived effectiveness of member engagement strategies	Descriptive
Engagement for LTSS population			
ACO LTSS, ACO LTSS CP	Member survey ²	Participation in treatment plan	Descriptive
ACO LTSS, ACO LTSS CP	Member survey ²	Perceived effectiveness of LTSS on member ability to manage needs, money, school/work, housing	Descriptive
ACO, CP	Provider/ staff survey	Perceived effectiveness of member engagement strategies	Descriptive

Population(s)	Data Source(s)	Measure ¹	Analysis
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¹Measure specifications included as Appendix B

² BH and LTSS surveys are in development

Abbreviations: Subpopulations (SPs)

RQ8 To what extent did care processes improve for physical, BH, and LTSS?

H8.1 Physical health care processes (e.g., wellness & prevention, chronic disease management) will improve for members

H8.2 BH care processes will improve for members

H8.3 LTSS processes will improve for members

H8.4 The management of health-related social needs will improve through use of Flexible Services and/or other social service interventions for members

H8.5 Provider staff will report an improved experience delivering healthcare services to members

Measures and rationale

For the purposes of the evaluation, we have conceptualized care processes as the delivery of evidence-based services in a member-centered manner. To evaluate care processes over the course of the study, we have selected a diverse set of measures (Table RQ8) covering physical, behavioral, LTSS, and social care processes. Measures derived from Medicaid administrative data will be complemented by member reported measures regarding their care experience. The physical care measures reflect a combination of preventive care (e.g., screening and immunizations) and management of chronic diseases (medical and pharmacologic). The behavioral health care processes include measures of medical management, care planning (for the BH CP population), and member reported measures of the care experience (expected to be drawn from CAHPS and Massachusetts Department of Mental Health surveys). Measures of LTSS processes include annual completion of a care plan for the LTSS CP member population and member reported measures of provider communication with the member (expected to be drawn from CAHPS) among those receiving LTSS services. Measurement of the management of health-related social needs focuses upon the utilization of flexible services, which may be supplemented from information from the Flexible Services assessment if available.

Table RQ8. Data Sources and Measures of Care Processes

Population(s)	Data Source(s)	Measure ¹	Analysis
Physical Care Processes			
ACO, SPs	Member survey	Provider communication, knowledge of member, self-management support	Descriptive
Care Processes for Maternal and Pediatric Populations			
ACO, SPs	Medicaid claims/ encounters, analytics vendor extract	Immunizations for Adolescents ²	Descriptive
ACO, SPs	Medicaid claims/ encounters, analytics vendor extract	Timeliness of Prenatal Care ²	Descriptive
MC, ACO, MCO, SPs	Medicaid claims/ encounters	Multiple Antipsychotic Use in Children ³	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO, SPs	Medicaid claims/ encounters	Follow-up care for children prescribed ADHD medication (Initiation ² and Continuation Phase)	1. O vs. E 2. Cross-temporal PS balanced
MC, ACO, MCO, SPs	Medicaid claims/ encounters	Metabolic Monitoring for Children and Adolescents on Antipsychotics ²	1. O vs. E 2. Cross-temporal PS balanced DID
ACO, SPs	Member survey	Provider communication, knowledge of member, self-management support ⁴	Descriptive
ACO	Provider/staff survey	Patient-centered care	Descriptive
BH Care Processes			
BH CP	Medicaid claims/ encounters, analytics vendor extract	Annual treatment plan completion ⁵	Descriptive
ACO BH, BH CP	Member survey	Provider/staff communication with the member ⁴	Descriptive
LTSS Care Processes			
LTSS CP	Medicaid claims/ encounters, analytics vendor extract	Annual care plan completion ⁵	Descriptive
ACO LTSS, LTSS CP	Member survey	Provider/ staff communication with the member ⁴	Descriptive
Management of Social Needs			
ACO	Medicaid claims/ encounters	Flexible services utilization ³	Descriptive

¹Measure specifications included as Appendix B

²ACO Quality Performance Measures

³ACO Quality Monitoring Measures

⁴BH and LTSS surveys are in development

Abbreviations: Attention Deficit Hyperactivity Disorder (ADHD)

RQ9 To what extent did integration between physical, behavioral, and long-term services

increase?

H9.1 Integration across the care continuum (e.g., physical health, BH, LTSS, acute care, social services) will increase

H9.2 Provider staff will report increased care integration (within and between ACOs and CPs)

Measures and rationale

Increasing integration across the care continuum is **Goal 2** of the Massachusetts Demonstration. Heterogeneous definitions and models of integration in the healthcare and business literature limit extrapolation of earlier findings to current models and settings (Armitage, 2009). For example, integration has been described at multiple levels including within and between providers and organizations, for a variety of purposes (e.g., clinical, administrative).

As described in Domain 1, *integrated patient care* is defined as “patient care that is coordinated across professionals, facilities, and support systems; continuous over time and between visits; tailored to the patients’ needs and preferences; and based on shared responsibility between patient and caregivers for optimizing health” (Singer et al. 2011). We will evaluate care coordination from the member and provider/staff perspectives based primarily upon member and provider survey responses in RQ9, building upon the information on clinical integration, care coordination, and administrative integration collected using qualitative methods in Domain 1 (State, organizational, and provider-level actions promoting delivery system transformation). Select administrative proxies for coordinated care will also be evaluated as quantitative measures in RQ9, including quality measures with physical and BH components (e.g., diabetes and cholesterol). Transitions of care represent a high-risk period of time for members, and a critical opportunity for coordination between inpatient and outpatient providers to translate into improved member outcomes and reduced healthcare expenditures. Therefore, we will examine multiple measures of timeliness of outpatient follow-up after an ED or inpatient visit across populations with physical, BH, and LTSS needs (e.g., follow-up with a CP within 3 days of inpatient discharge among CP enrollees).

Table RQ9. Data Sources and Measures of Care Integration

Population(s)	Data Source(s)	Measure ¹	Analysis
Outpatient Care Integration			
ACO, SPs	Member survey	Perceived integration of primary care and specialist care	Descriptive
ACO, SPs	Provider/staff survey	Care coordination within teams	Descriptive
ACO, SPs	Provider/staff survey	Care coordination with other providers	Descriptive
ACO, SPs	Provider/staff survey	Care coordination with other resources	Descriptive
Outpatient Care Integration for the Pediatric Population			
ACO, BH, LTSS	Member survey	Perceived integration of primary care and specialist care	Descriptive
Outpatient BH Care Integration			
MC, ACO, MCO, BH CP	Medicaid claims/encounters	Diabetes Screening for People with Schizophrenia or Bipolar Disorder. Who Are Using Antipsychotic Medications ²	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO, BH CP	Medicaid claims/encounters	Cholesterol testing for members using antipsychotics	1. O vs. E 2. Cross-temporal PS balanced DID
ACO BH, BH CP	Member survey	Perceived integration between primary care and BH providers	Descriptive
ACO BH, BH CP	Member survey	Perceived integration across BH providers	Descriptive
ACO BH, BH CP	Member survey	Member experience with their care coordination	Descriptive
ACO LTSS, LTSS CP	Member survey	Member experience with transitions of care	Descriptive
LTSS Care Integration			
ACO LTSS, LTSS CP	Member survey	Perceived integration between primary care provider and LTSS	Descriptive
ACO LTSS, LTSS CP	Member survey	Perceived integration of LTSS services provided	Descriptive
ACO LTSS, LTSS CP	Member survey	Member experience with their care coordination	Descriptive
ACO LTSS, LTSS CP	Member survey	Member experience with transitions of care	Descriptive
Inpatient and Outpatient Integration (Care Transitions)			
MC, ACO, MCO, SPs	Medicaid claims/encounters	Physician visit within 30 days of hospital discharge	1. O vs. E 2. Cross-temporal PS balanced DID
BH CP, LTSS CP	Medicaid claims/encounters	Follow-up with CP after acute or post-acute stay within 3 days ²	1. O vs. E 2. Cross-temporal PS balanced DID
BH CP	Medicaid claims/encounters	Follow-up with CP or any provider within 7 days of ED discharge ²	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO, SPs	Medicaid claims/encounters	Follow-Up After ED Visit for Mental Illness (7 days) ³	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO, CPs, SPs	Medicaid claims/encounters	Follow-Up After Hospitalization for Mental Illness (7 days) ^{2,3}	1. O vs. E 2. Cross-temporal PS balanced DID

¹Measure specifications included as Appendix B

²CP Quality Performance Measure

³ACO Quality Performance Measure

RQ10 How did the volume and mix of services utilized by members change during the course of

the Demonstration?

H10.1 The volume and mix of services utilized will shift, when clinically appropriate, in the direction of lower cost sites and types of care

H10.2 The utilization of low value care will decrease

Measures and rationale

To better understand changes in utilization patterns over time that may be driving total cost of care performance, we will first describe utilization by service categories such as inpatient (e.g., non-maternity physical health, maternity, behavioral health), ED visits, outpatient non-BH (lab and radiology, non-BH outpatient hospital), outpatient BH (e.g., Emergency Services Program, diversionary services), professional services, pharmacy, home health, durable medical equipment, emergency transportation, long-term care, other medical services, and services excluded from the TCOC (e.g., applied behavior analysis, Children's Behavioral Health Initiative, long term services and supports). The specific measures to be calculated will include crude and adjusted rates and percentages for each type of utilization. These utilization measures will be interpreted in the context of other relevant knowledge generated in the course of the evaluation. We simultaneously will be examining indicators of healthcare quality (RQs 5-9) and outcomes (Domain 3) for each of the populations in which we will be evaluating healthcare utilization patterns. The utilization measures described here will also inform whether additional analyses are warranted to understand the implications of observed utilization shifts. For example, if increased outpatient BH utilization is observed, we will evaluate the association between outpatient BH service utilization and rates of ED and acute inpatient utilization. Similarly, if the primary site of post-acute care shifts from institutional (skilled nursing or inpatient rehabilitation facilities) to home-based settings, we will evaluate hospital readmission rates among members discharged to these post-acute care settings. We will also evaluate changes in measures of low-value care.

The overarching rationale for our hypotheses is that shared risk and accountability provisions will motivate organizations and their providers to implement strategies to shift utilization to lower cost settings or services that will deliver equal or greater quality and experience for members. Progress implementing such strategies is expected to be incremental and may vary across organizations depending upon past experience managing risk and other factors (e.g., staffing and capital resources).

Post-acute care and LTSS: The proportion of hospital discharges resulting in any post-acute care (i.e., home care or institutional care) will be described. The proportion resulting specifically in institutional post-acute care (i.e., inpatient rehabilitation, skilled nursing facility, or long-term care hospital) will also be examined because, in addition to reducing the volume of post-acute care use, shifting care from higher cost institutional settings to lower cost home and community-based settings has been previously described as a mechanism for reducing spending in Medicare ACOs (McWilliams, 2017). The rate of home health and other forms of community-based LTSS utilization (e.g., durable medical equipment) will also be summarized.

Outpatient utilization and site of care: Rates of outpatient utilization will be described overall and by provider type in situations where the administrative encounter data are adequate. If the individual clinician is reliably identifiable in encounter records, outpatient utilization will be described separately for primary care, medical specialists, and behavioral health providers (including providers of diversionary services). Rates of outpatient utilization for services (e.g., laboratory services, imaging, surgical procedures) that can be provided in either a hospital outpatient department or a standalone outpatient setting will be described by site of care.

Inpatient site of care: For conditions considered to be appropriate for management in a

community hospital setting, we will examine the proportion of hospitalizations occurring in academic medical centers and community hospitals (as classified in the American Hospital Association database) over time. Shifting utilization to community hospitals for community appropriate conditions has been identified as one of seven approaches to achieving healthcare savings in Massachusetts (Health Policy Commission, 2018). Inpatient and ED utilization will be evaluated more broadly as outcomes in Domain 3 (Changes in member outcomes).

Low value care: Measures of low-value care (Table RQ10) will be evaluated as indicators of both quality and opportunities to reduce medically unnecessary expenditures. National campaigns have been underway to define and eliminate low-value care utilization (Colla, 2015). The measures selected for this study were selected due to their relevance for Medicaid populations (Charlesworth, 2016) and to include a mixture of adult and pediatric measures.

Pharmacy: An increasing number of ACOs report using strategies to optimize medication use (Wilks, 2017). We will examine the proportion of members newly initiating branded oral medications to treat select conditions (e.g., diabetes, CHF, hyperlipidemia) for which generic medications are available and recommended as first line agents.

Table RQ10. Data Sources and Measures of Utilization and Low-Value Care

Population(s)	Data Source(s)	Measure ¹	Analysis
Utilization			
MCE, ACO, MCO, SPs	Medicaid claims/encounters	Outpatient service utilization by provider and service type (rate)	1. O vs. E 2. Cross-temporal PS balanced DID
MCE, ACO, MCO, SPs	Medicaid claims/encounters	Post-acute care utilization (proportion, days)	1. O vs. E 2. Cross-temporal PS balanced DID
MCE, ACO, MCO, SPs	Medicaid claims/encounters	Institutional post-acute care utilization (proportion, days)	1. O vs. E 2. Cross-temporal PS balanced DID
MCE, ACO, MCO, SPs	Medicaid claims/encounters	Home and community based service utilization (rate, mix)	1. O vs. E 2. Cross-temporal PS balanced DID
MCE, ACO, MCO, SPs	Medicaid claims/encounters	Home and community based service utilization (rate, mix)	1. O vs. E 2. Cross-temporal PS balanced DID
MCE, ACO, MCO, SPs	Medicaid claims/encounters	Branded medication utilization for conditions with first-line generics	1. O vs. E 2. Cross-temporal PS balanced DID
MCE, ACO, MCO, SPs	Medicaid claims/encounters	Hospitalizations in community hospitals for community appropriate conditions (proportion)	1. O vs. E 2. Cross-temporal PS balanced DID
Low Value Care			
MC, ACO, MCO, SPs	Medicaid claims/encounters	Imaging for low back pain	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO, SPs	Medicaid claims/encounters	Pre-operative chest radiography	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO, SPs	Medicaid claims/encounters	Head imaging for syncope	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO, SPs	Medicaid claims/encounters	Abdomen CT combined studies	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO, SPs	Medicaid claims/encounters	CT/MRI for headache	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO, SPs	Medicaid claims/encounters	Antibiotics for acute bronchitis	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO, SPs	Medicaid claims/encounters	CT without ultrasound for childhood appendicitis	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO, SPs	Medicaid claims/encounters	Strep test with antibiotic dispensing for childhood pharyngitis	1. O vs. E 2. Cross-temporal PS balanced DID

¹Measure specifications included as Appendix B

Abbreviations: inpatient rehabilitation facilities (IRFs); emergency department (ED); computed tomography (CT); magnetic resonance imaging (MRI)

Domain 3: Changes in member outcomes**RQ11** To what extent did member outcomes improve?

H11.1 Inpatient and ED utilization rates will decrease overall

H11.2 Inpatient and ED utilization rates will decrease for adults and children with specific conditions including ambulatory care sensitive conditions

H11.3 Inpatient and ED utilization rates will decrease among adults with mental illness, substance addiction, co-occurring conditions, or LTSS needs

H11.4 Community tenure will increase

H11.5 Members will report improved ratings of health

Measures and rationale

As summarized in the Evaluation Logic Model (**Figure 1**), the effects of DSRIP investments on member outcomes are conceptually mediated through improvements in coordination, integration, and quality across the care continuum. If these hypothesized relationships hold, effects of the Demonstration initiatives will be of the largest magnitude within subgroups of members with clinical conditions where increased quality of care in the outpatient setting has the potential to prevent adverse health consequences that manifest in acute service utilization. Therefore, in addition to monitoring all-cause ED and inpatient utilization, we will examine primary care sensitive ED visits (Lines, 2017) and hospitalizations for acute and chronic ambulatory care sensitive conditions (ACSCs) (AHRQ, 2002). Because of the high risk for bounce back after a hospital stay, and in light of the Demonstration's efforts to improve transitions of care by integrating inpatient and outpatient providers, we will examine all-cause and ACSC readmissions in the 30-day period post-discharge. Pediatric, BH, and LTSS member outcomes to be evaluated are also consistent with the logic underlying the Massachusetts Demonstration. For example, the LTSS measures underscore the role of CPs in maintaining members in the community, outside of acute and long-term institutional settings. In the maternal and pediatric population, improvements in prenatal care may produce reductions in NICU utilization, while coordination and continuity of care in the outpatient setting for children with asthma may reduce asthma hospitalizations.

Beyond the proxy measures observable in administrative data, member reported measures of overall health and mental/emotional health will yield critical insights into member outcomes. However, self-rated health is acknowledged to be influenced by a complex confluence of factors related to health (e.g., conditions), psychological status (e.g., cognitive ability, mood), social status and experiences (e.g., socioeconomic status, cultural norms), and survey measurement methods (e.g., question wording, mode of administration) (Garbarski, 2016). Therefore, if we are interested in an "objective" measure of health, heterogeneity in self-rated health due to psychological, social, and survey measurement should be taken into account in the design and analysis. Concerns of response heterogeneity are generally greater when comparing across populations that vary in social experience (Subramian, 2010). We greatly reduce the potential for response heterogeneity by structuring our comparisons within the MassHealth ACO population, and to the extent that the characteristics of the ACO population are observed to change over time, we will adjust for these changes in the analysis. If linkage of defined sub-populations' survey responses to administrative data is performed, we will use the administrative data to perform a validity check on the survey responses (e.g., were increasing levels of reported health status correlated with fewer acute services used).

Table RQ11. Data Sources and Measures of Health Outcomes

Population(s)	Data Source(s)	Measure ¹	Analysis
Physical Health Outcomes			
MC, ACO, MCO, CPs, SPs	Medicaid claims/ encounters, analytics vendor extract	All-cause inpatient admissions ²	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO, CPs, SPs	Medicaid claims/ encounters, analytics vendor extract	All-cause hospital readmissions ³	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO, CPs, SPs	Medicaid claims/ encounters, analytics vendor extract	All-cause ED visits ²	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO, CPs, SPs	Medicaid claims/ encounters, analytics vendor extract	Acute unplanned admissions adult diabetes ³	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO, CPs, SPs	Medicaid claims/ encounters, analytics vendor extract	Acute unplanned admissions adult (for chronic ACSCs)	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO, CPs, SPs	Medicaid claims/ encounters, analytics vendor extract	Acute unplanned admissions adult (for acute ACSCs)	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO, CPs, SPs	Medicaid claims/ encounters, analytics vendor extract	Primary care sensitive ED visits	1. O vs. E 2. Cross-temporal PS balanced DID
Physical Health Outcomes for the Pediatric Population			
MC, ACO, MCO, SPs	Medicaid claims/ encounters	NICU hospitalizations ²	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO, SPs	Medicaid claims/ encounters	Pediatric asthma admissions ²	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO, SPs	Medicaid claims/ encounters	Pediatric readmissions ²	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO, SPs	Medicaid claims/ encounters	Pediatric ED visits (all-cause)	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO, SPs	Medicaid claims/ encounters	Pediatric hospitalizations (all-cause)	1. O vs. E 2. Cross-temporal PS balanced DID
Outcomes for the BH Population			
MC, ACO, MCO, BH CP, SPs	Medicaid claims/ encounters, analytics vendor extract	ED visits for adults with mental illness, substance addiction, or co-occurring conditions ³	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO, BH CP, SPs	Medicaid claims/ encounters, analytics vendor extract	Hospital admissions for adults with mental illness and/or substance addiction	1. O vs. E 2. Cross-temporal PS balanced DID
BH CP	Medicaid claims/ encounters, analytics	All-cause readmissions among BH CP members ⁴	1. O vs. E 2. Cross-temporal PS

Population(s)	Data Source(s)	Measure ¹	Analysis
	vendor extract		balanced DID
BH CP	Medicaid claims/ encounters, analytics vendor extract	Community tenure: BH CP members ⁴	1. O vs. E 2. Cross-temporal PS balanced DID
Outcomes for the LTSS Population			
LTSS CP	Medicaid claims/ encounters, analytics vendor extract	Community tenure: LTSS CP members ⁴	1. O vs. E 2. Cross-temporal PS balanced DID
LTSS CP	Medicaid claims/ encounters, analytics vendor extract	All-cause readmissions among LTSS CP members ⁴	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO, CPs, SPs	Medicaid claims/ encounters, analytics vendor extract	Long-term nursing home admissions	1. O vs. E 2. Cross-temporal PS balanced DID
Member Reported Health Outcomes (Adult and Pediatric)			
ACO, BH CP, LTSS CP	Member survey ⁵	Overall rating of health	Descriptive
ACO, BH CP, LTSS CP	Member survey ⁵	Overall rating of mental/ emotional health	Descriptive
ACO, BH CP, LTSS CP	Member survey ⁵	Functioning	Descriptive

¹Measure specifications included as Appendix B

²ACO Quality Monitoring Measures

³ACO Quality Performance Measures

⁴CP Quality Performance Measures

⁵BH and LTSS member surveys are in development and measures are subject to change

Abbreviations: Ambulatory care sensitive conditions (ACSCs)

RQ12 To what extent did member experience improve during the demonstration?

H12.1 Members will report improved overall ratings of their healthcare provider

Measures and rationale

The primary care survey includes questions on the member’s overall rating of the provider and staff, as well as their willingness to recommend the provider. Although the BH and LTSS surveys have not been finalized, domains of inquiry are expected to encompass general satisfaction, overall rating of treatment, and engagement in the treatment plan for the BH survey, while the LTSS survey plans to collect information on choice of services, self-determination, personal safety, and community inclusion and empowerment.

Table RQ12. Data Sources and Measures of Member Experience

Population(s)	Data Source(s)	Measure	Analysis
Adult and Pediatric Member Experience: Primary Care			
ACO	Member survey	Overall rating of provider	Descriptive
ACO	Member survey	Willingness to recommend	Descriptive
ACO	Member survey	Office staff	Descriptive
Adult and Pediatric Member Experience: BH¹			
ACO, BH CP	Member survey	General satisfaction	Descriptive
ACO, BH CP	Member survey	Overall rating of treatment	Descriptive
Adult and Pediatric Member Experience: LTSS¹			
ACO, LTSS CP	Member survey	Choice of services	Descriptive
ACO, LTSS CP	Member survey	Personal safety	Descriptive
ACO, LTSS CP	Member survey	Self determination	Descriptive
ACO, LTSS CP	Member survey	Community inclusion and empowerment	Descriptive

¹BH and LTSS member surveys in development and subject to change

G. Domain 4: Changes in healthcare cost trends

RQ13 To what extent were Medicaid total cost of care trends moderated for the ACO population?

H13.1 The rate of increase in the total cost of care for the ACO population will decrease

Measures and rationale

Healthcare costs will be quantified both in terms of the total dollars spent and in terms of per member per month expenditure rates. For each year, the expenditures will be described based on all MassHealth covered services and separately based on what services were included in the TCOC capitation rate (Model A ACOs and MCOs) or benchmark (Model B and C ACOs) for that year. When predicting and comparing expenditures across years, the common set of covered or TCOC services will be studied.

Model A ACOs (i.e., Accountable Care Partnership Plans) and MCOs will receive prospective capitated payments and will share risk for healthcare expenditures in excess or below the capitated rate. Model B (i.e., Primary Care ACOs) and Model C ACOs (MCO-Administered ACOs) will be at risk against a TCOC benchmark calculated for each year for a specified set of services. The ACOs TCOC performance (i.e., actual healthcare expenditures) will be compared against the benchmark to calculate shared savings or shared losses between the ACO and MassHealth. We will describe performance against the capitated rates for Model A ACOs and MCOs and we will describe performance against the TCOC benchmark for Model B and Model C ACOs, including the total amount of shared savings and losses payments, the number of organizations achieving shared savings and losses, and summary statistics describing the distribution of payments across organizations. The proportion of total payments to ACOs that are for administrative expenses versus member health care utilization will also be described. MassHealth payment rates to providers will also be described over the course of the baseline and Demonstration periods within healthcare utilization service categories.

To better understand changes in expenditure patterns over time that may be driving total cost of care performance, we will also evaluate expenditures by service categories such as inpatient (e.g., non-maternity physical health, maternity, behavioral health), ED visits, outpatient non-BH (lab and radiology, non-BH outpatient hospital), outpatient BH (e.g., Emergency Services Program, diversionary services), professional services, pharmacy, home health, durable medical equipment, emergency transportation, long-term care, other medical services, and services excluded from the TCOC (e.g., applied behavior analysis, Children's Behavioral Health Initiative, long term services and supports).

Table RQ13 Data Sources and Measures of Healthcare Costs

Population(s)	Data Source(s)	Measure	Analysis
MC, ACO, MCO, CPs, SPs	MassHealth reports; Medicaid claims/encounters	Total cost of care (all covered services)	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO, CPs, SPs	MassHealth reports; Medicaid claims/encounters	Total cost of care (services included in TCOC cap/benchmark)	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO, CPs, SPs	Medicaid claims/encounters	Fee for service expenditures	Descriptive
ACO Model A, MCO	MassHealth reports	Capitated payments, actual healthcare expenditures, shared risk payments	Descriptive
ACO Model B and ACO Model C	MassHealth reports	Total cost of care versus benchmark, shared savings, and shared losses	Descriptive
MC, ACO, MCO, CPs, SPs	MassHealth reports; Medicaid claims/encounters	Expenditures for healthcare utilization by service category	1. O vs. E 2. Cross-temporal PS balanced DID
MC, ACO, MCO	Medicaid claims/encounters	Provider rates by healthcare utilization service category	Descriptive
MC, ACO, MCO	MassHealth reports	Payments to managed care entities for administrative expenses	Descriptive

H. Domain 5: Sustainability of innovative delivery system changes, including ACOs, Community Partners and Flexible Services

RQ14 To what extent will innovative delivery system changes including ACOs, CPs, and Flexible Services be sustainable without DSRIP funding?

- H14.1** ACOs will develop strategies to continue to operate under an accountable and integrated care model after the Demonstration ends
- H14.2** CPs will develop strategies to continue to operate under an accountable and integrated care model after the Demonstration ends
- H14.3** ACOs will pursue strategies to continue to provide Flexible Services to members after the Demonstration ends
- H14.4** The costs and effects of the ACO program will warrant continued investment
- H14.5** The costs and effects of the CP program will warrant continued investment
- H14.6** The costs and effects of the FS program will warrant continued investment

As outlined in the STCs and the DSRIP protocol, DSRIP is a 5-year investment to support the development and implementation of the ACO, CP, and Flexible Services initiatives, with the understanding that the state and CMS need to take a longer view than the demonstration period for the moderated cost growth to lead to accrual of large-enough cost savings to obtain breakeven point for DSRIP investments

The evaluation of the sustainability of the ACO (H14.1), CP (H14.2), and Flexible Services (H14.3) programs will involve a mix of qualitative and quantitative methods and data sources. The approach to addressing each of these hypotheses will be similar. Data collected through annual phone-based interviews with ACO and CP representatives drawn from the entire universe of ACO and CP organizations will be enriched with data collected through in-person interviews with a more comprehensive set of respondents for a subset of ACOs and CPs. The

interview protocols will be designed to identify and describe, from each organization's own perspective, the full spectrum of highly influential factors influencing ACO and CP plans for continuing to operate overall and for specific programs (e.g., Flexible Services) after the Demonstration. In contrast, the quantitative methods for evaluating program sustainability will be conducted from the perspective of MassHealth. Specifically, we will first examine return on investment (ROI) by estimating the extent to which DSRIP investments (e.g., \$1.06 billion in the ACO program, \$0.5 billion in the CP program) produced healthcare cost savings that partially offset or exceeded the investments during the five-year Demonstration period and over a ten-year period extending five years beyond the Demonstration. Secondly, we will conduct cost-effectiveness analyses for select outcomes expected to be beneficially affected by the Demonstration. We will estimate the incremental cost-effectiveness ratios (ICERs), the incremental investment required to obtain an additional beneficial outcome (e.g., additional dollars spent per hospitalization avoided).

a. Data sources and target population

Qualitative data will be collected through semi-structured interviews with ACO and CP representatives in FY21. These are the same interviews described under Domain 1 (one interview for each of 17 ACOs and one interview for each of 27 CPs) designed to track implementation across all ACOs and CPs. We will include specific interview questions in the key informant guides for FY21 to elicit responses about ACO and CP about plans for continuing to operate as accountable and integrated delivery systems absent DSRIP funding, and the factors that facilitate and impede sustainability of the model overall and its component parts, including Flexible Services and ACO/CP partnerships. In turn, the case studies of select high and low-performing ACOs and CPs in FY22 (the final year of the demonstration) described in more detail under Domain 1 will provide a more in-depth examination of sustainability issues and the full range of factors that will likely influence stakeholder decision-making on this front. The case studies will also be a chance to understand how ACOs and CPs with varying levels of performance (as defined by accountability scores) describe their approach to sustainability. As noted under Domain 1, we anticipate five case studies of ACOs and six case studies of CPs, purposefully sampled to reflect performance variation.

The aim of this two-pronged approach is to assess sustainability across all ACOs at a high-level (i.e., determine which ACOs plan to maintain CP partnerships and which do not) and to probe more deeply among a sub-sample of ACOs and CPs about decision-making related to maintaining DSRIP-funded innovations (i.e., barriers, facilitators, modifications). Questions about sustainability will be incorporated into a case study protocol designed to understand the operational conditions that distinguish high and low performing ACO/CP partnerships as defined by healthcare quality and cost performance. We may select ACOs with the largest amount of shared savings and shared losses (standardized for the size of their attributed populations). The calculation of shared savings and losses involves both performance against the ACOs' TCOC benchmark and performance on the ACO quality measure slate.

Quantitative data will be used to measure costs and outcomes of ACOs, CPs, and Flexible services. Data sources include:

- 1) *Member-level Medicaid claims and encounter data*, including enrollment, claims, and encounter data for members enrolled in ACOs, CPs, those receiving Flexible Services, and comparison group members. Claims/encounter data will be used to identify individuals who participate in ACO, CP, and Flexible Services programs and to calculate costs and claims-based effectiveness measures in participant and comparison groups in each Demonstration

year.

2) *Program costs*. Program costs for ACOs, BH CPs, LTSS CPs and Flexible Services will be obtained from MassHealth. State Operations and Implementation funding will be divided among the ACO, CP, and Flexible Services programs. Components of program costs for each program are detailed below.

Measures and rationale

Measures to be collected through qualitative interviews during ACO site visits are described in Table RQ14a, while quantitative measures are described in Table RQ14b.

Qualitative measures will capture information on the perceived value of operating as an ACO or CP, as well as the perceived value of ACO components including specific DSRIP-funded innovations and flexible services. Qualitative measures will also capture information on the perceived value of ACO and CP partnerships from the ACO and CP perspectives. For ACOs and CPs, we will examine the facilitators and barriers to maintaining the organizational structures and innovations established under DSRIP and plans for maintaining these innovations and with what modifications going forward. These data will provide insight into organizational decision-making. Although the costs and effects associated with various elements of DSRIP will be important inputs influencing decisions regarding program continuation, numerous other individual (e.g., characteristics of the decision-makers), organizational (e.g., financial stability, workforce dynamics), system (e.g., workforce capacity) and contextual factors (e.g., state and federal policy) feature prominently in sustainability decisions. The measures specified for this case study approach are expected to reveal these multifaceted and interacting factors.

Table RQ14a Qualitative Data Sources and Measures

Data Collected	Tools	Measures
ACO plans for continuing to operate as an ACO	Semi-structured interviews (FY21), site visits (FY22)	<ul style="list-style-type: none"> Perceived value of operating as an ACO Facilitators and barriers to continuing to operate as an ACO If and how ACO status will be maintained
ACO plans for maintaining DSRIP-funded care delivery innovations	Semi-structured interviews (FY21), site visits (FY22)	<ul style="list-style-type: none"> Perceived value of the care innovations funded by DSRIP Facilitators and barriers to maintaining innovations funded by DSRIP If and how DSRIP-funded innovations will be maintained
ACO plans for continuing to invest in flexible services	Semi-structured interviews (FY21), site visits (FY22)	<ul style="list-style-type: none"> Perceived value of flexible services Facilitators and barriers to maintaining Flexible Services If and how Flexible Services will be maintained
ACO plans for continuing to partner with CPs	Semi-structured interviews (FY21), site visits (FY22)	<ul style="list-style-type: none"> Perceived value of CP collaborations Facilitators and barriers to maintaining CP collaborations If and how CP collaboration will be maintained
CP plans for continuing to operate as a CP	Semi-structured interviews (FY21), site visits (FY22)	<ul style="list-style-type: none"> Perceived value of operating as a CP Facilitators and barriers to continuing to operate as a CP If and how CP status will be maintained
CP plans for continuing to partner with ACOs	Semi-structured interviews (FY21), site visits (FY22)	<ul style="list-style-type: none"> Perceived value of ACO partnerships Facilitators and barriers to maintaining ACO partnerships If and how ACO partnerships will be maintained

Quantitative measures of costs and effects at the program level will complement the information derived from ACO and CP case studies.

Costs will be calculated from the perspective of the state and are described separately for the ACO, CP, and Flexible Services programs below. Additional information on the ACO program and the member and program costs for each model type can be found in the model contracts and appendices¹²⁷.

Member and program costs for ACOs will include several components that will differ by ACO model. Risk sharing and shared savings payments to ACOs were grouped as costs related to care delivered to members because the payments are directly tied to member expenditures, and we expect risk-sharing arrangements to be a necessary component of the ACO program beyond the Demonstration period.

¹²⁷ See <https://www.commbuys.com/bs0/external/bidDetail.sdo?docId=BD-17-1039-EHS01-EHS01-0000009207&external=true&parentUrl=bid>

Model A (Accountable Care Partnership Plans)

Costs Related to Care Delivered to Members

- Capitated per member per month payments including administrative costs and post-hoc adjustments for risk corridors for specific service categories (Children's Behavioral Health Initiative, applied behavior analysis, hepatitis C drugs, non-HCV high cost drugs) as well as contract-wide risk sharing payments
- Payments for non-ACO covered services

Program Costs

- DSRIP ACO startup and ongoing payments (non-at-risk and earned at-risk)
- State Operations and Implementation funding

Model B (Primary Care ACOs)

Costs Related to Care Delivered to Members

- Member healthcare costs
- Administrative payments
- Shared savings for services included in the total cost of care benchmark

Program Costs

- DSRIP ACO startup and ongoing payments (non-at-risk and earned at-risk)
- State Operations and Implementation funding

Model C (MCO Administered ACOs)

Costs Related to Care Delivered to Members

- Member healthcare costs
- Administrative payments to MCOs
- Shared savings for services included in the total cost of care benchmark

Program Costs

- DSRIP ACO startup and ongoing payments (non-at-risk and earned at-risk)
- State Operations and Implementation funding

Member and program costs for BH and LTSS CPs

- Member healthcare costs
- CP Infrastructure investments
- CP Care coordination PMPM
- CP Outcomes based payments
- State Operations and Implementation Funding

Flexible Services program costs will be detailed when finalized by MassHealth.

Member and program costs are expected to include:

- Member healthcare costs
- Flexible services DSRIP funding
- State Operations and Implementation Funding

Costs included in the evaluation of the ACO program will include costs for all ACO enrollees, including Flexible Services and CP program expenditures for ACO enrollees:

- Member healthcare costs
- ACO program costs as described for each model above
- DSRIP Flexible Services funds (upfront funding, DSRIP payments, Operations and Implementation funding)

- CP program costs for ACO enrollees

Member outcomes to be evaluated as effectiveness measures (the denominator of cost-effectiveness analyses) will include a subset of the claims-based measures included for evaluation in Domain 3 (Table RQ14b).

Table RQ14b Data Sources and Measures for Cost-Effectiveness Analyses

Population(s)	Data Source(s)	Cost Measure	Effectiveness Measures ¹	Estimate
ACO, SPs	Medicaid claims/encounters	Member and program costs	1. All-cause hospitalizations 2. ACSC hospitalizations	ICER
ACO, SPs	Medicaid claims/encounters	Member costs	1. All-cause hospitalizations 2. ACSC hospitalizations	ICER
BH CP, SPs	Medicaid claims/encounters	Member and program costs	1. All-cause readmissions for BH CP members 2. Primary care sensitive ED visits	ICER
BH CP, SPs	Medicaid claims/encounters	Member costs	1. All-cause readmissions for BH CP members 2. Primary care sensitive ED visits	ICER
LTSS CP, SPs	Medicaid claims/encounters	Member and program costs	1. All-cause readmissions for LTSS CP members 2. Long-term nursing home admissions	ICER
LTSS CP, SPs	Medicaid claims/encounters	Member costs	1. All-cause readmissions for LTSS CP members 2. Long-term nursing home admissions	ICER
Flexible Services, SPs	Medicaid claims/encounters	Member and program costs	1. All-cause ED visits 2. Primary care sensitive ED visits	ICER
Flexible Services, SPs	Medicaid claims/encounters	Member costs	1. All-cause ED visits 2. Primary care sensitive ED visits	ICER

¹Measure specifications included as Appendix B

The claims-based measures were selected based on the extent to which success on a measure is expected to track with success of the program and the broader goals of the Demonstration. For example, a reduction in nursing home admissions for LTSS CP enrolled members closely aligns with the goal of the LTSS CP program of increasing community tenure (i.e., residence outside of an institutional setting), and can be interpreted as supportive of the broader sustainability of the MassHealth program by averting expensive nursing home care (\$92,000 annually) (Genworth Financial, 2016). Similarly, effectiveness measures selected for the ACO (all-cause hospitalizations), CP (all-cause readmissions for CP members), and Flexible Services programs (all-cause and primary care sensitive ED visits for Flexible Services recipients) are outcomes germane to the mechanisms (e.g., care coordination, PHM, addressing health related social needs) by which each program is expected to improve the care, health, and functioning of members. In other words, better managing member needs in the community setting, including during high-risk periods such as care transitions, is expected to mitigate health and social causes of acute care utilization.

b. Analytic approach

Qualitative analyses will involve both quantifying ACO/CP actions with respect to maintaining DSRIP-funded innovations as well as thematic analysis. For the data gathered across all ACO and CPs, we will describe sustainability program-wide and by ACO/CP partnerships that differ on key attributes (e.g., ACO model type, CP structure) using frequencies and percentages. For the qualitative data gathered during the site visits, we will use standard qualitative techniques as described in earlier sections, including using Atlas.ti to manage, code, and analyze interview data; establishing a coding framework and interrater-reliability; and performing content analysis to determine the major themes present in the interviews. Once all data are coded, we will generate code reports and analytic matrices to understand decision-making related to sustainability and the conditions that foster and hinder sustainability.

We expect that higher-performing ACO/CP partnerships may be more likely to sustain DSRIP-funded innovations than their lower-performing counterparts, but this may not be the case as other organizational factors are likely to influence decision-making including leadership, other stakeholder buy-in, technical capacity, etc. The 5 ACO and 6 CP case studies will allow us to explore sustainability across high and lower performing ACO/CP partnerships from the perspective of ACOs and CPs.

Quantitative analyses will consist of ROI and cost-effectiveness analyses, calculated separately for the ACO, BH CP, LTSS CP, and Flexible Services programs. The goal is to isolate the ROI and cost-effectiveness of each program from other aspects of transformation. In other words, the ROI for BH CPs will compare BH CP program costs and healthcare costs of members receiving BH CP support within the ACO model to estimated healthcare costs for those members in a scenario in which they received care in an ACO but did not receive CP support. A similar approach will be undertaken to evaluate the ROI of the LTSS and Flexible Services programs, and to evaluate cost-effectiveness measures of each program. However, to estimate the net healthcare cost savings for the ACO program inclusive of the entire program (the level at which ACO accountability scores are calculated), we will include ACO enrolled members who received CP support and Flexible Services. Because investments in the CP and Flexible Services programs will affect healthcare costs for ACO enrollees, these program costs will be included along with the ACO program specific costs.

Return on Investment: We will calculate the ROI of each program from a MassHealth perspective over a 5-year horizon, using the following formula. We will then project the return on investment calculated over a ten-year horizon. The components of this formula are described in detail below for each program (ACO, CP, Flexible Services). The ROI of the CP program will be calculated separately for the LTSS and BH CPs.

Net Healthcare cost savings for CPs will be calculated as the difference between healthcare costs for CP enrolled members during the Demonstration and an estimate of the healthcare costs that would have accrued for CP enrolled members in the absence of the CP program, calculated as:

- Healthcare costs with CPs: Total cost of care to MassHealth of members receiving CP supports during the period of time members are enrolled with CPs. The total cost of care will be calculated based upon actual observed expenditures annually and summed over the 5-year Demonstration period.
- Healthcare costs without CPs: Estimated total healthcare costs over the 5-year Demonstration period to MassHealth among members eligible for CPs but who did not receive CP supports. To estimate healthcare costs for CP-eligible

members in the absence of the CP program, we will identify a comparison group - a 1:1 matched cohort of members who would have been likely to receive CP supports if CPs had been available during the baseline period prior to the implementation of CPs. Separate matched cohorts will be constructed for each year of the Demonstration to account for changes in CP enrollee characteristics over time. Because costs for CP enrollees will be calculated during the time period members are enrolled with the CP (i.e., all members will not be enrolled for the full Demonstration year for which costs are being calculated), we will match the observation period during which costs are accrued for comparison group members to the time period CP enrollees were actually enrolled with the CP. This approach ensures costs are counted during equal periods of time, while also accounting for potential bias from seasonal variation in utilization patterns.

We chose a matched baseline comparison design instead of a self-controlled analysis of CP enrollees because identification for enrollment in the CP program is based in part on prior utilization patterns, which fluctuate year to year. In other words, in order to be identified for CP supports, CP enrollees were confirmed to have high utilization in the Demonstration period, and this utilization pattern is not assured for that same individual in the pre-implementation period.

Because members may become enrolled with CPs through referral by either MassHealth or other mechanisms (e.g., self-referral, ACO provider referral), two parallel matching processes will be carried out to assemble the comparison cohort. Analyses will then first be conducted separately in each group, and if estimates are similar across the groups defined by referral mechanism, a pooled analysis will be conducted. Members identified for CP enrollment by MassHealth based on fulfillment of established inclusion and exclusion criteria will be matched to members who also fulfill these criteria from the baseline period. Members referred to CPs by other referral pathways (e.g., providers, self, family), who may not fulfill the diagnosis and utilization requirements of the MassHealth eligibility criteria, will be propensity matched to similar baseline members irrespective of fulfillment of these criteria. The use of propensity score balancing methods will assemble a comparison cohort that is highly similar to the CP enrolled members on observed characteristics. Recognizing that propensity score methods cannot directly account for differences in unobserved characteristics, this approach will be modified as needed based on the numbers and observed characteristics of groups of members referred through different mechanisms. To the extent possible, we will try to best identify comparison cohorts for members referred outside of the algorithm. If residual selection biases are suspected, a pre-post analysis will be conducted.

In order to estimate the effect of CPs independent of the effect of ACOs (i.e., contrasting ACO+CP versus ACO), the costs for each baseline comparison group (whose costs were measured in 2015-2017) must be adjusted to reflect the expected cost trends that would have occurred had the comparison group entered and been exposed to the ACO program. Therefore, we will estimate the trajectory of healthcare costs over five years if the comparison group members did not receive CPs but did otherwise receive care in an ACO. In the base case, we will assume that these members experienced a similar percentage change in total healthcare costs over the Demonstration period as ACO enrolled members who were not eligible for and did not receive CP supports (weighted to account for any differences in risk profiles). We will perform sensitivity analyses to evaluate alternative assumptions about the trajectory of healthcare expenditures in this group.

CP program costs will be calculated as the sum of the costs to MassHealth of implementing the CP program (i.e., infrastructure, care coordination, outcome based payments, and State Operations and Implementation funding), as detailed in the “Measures” section. To inform whether MassHealth should continue to invest after DSRIP, we will perform a second analysis where CP program costs will be calculated as the sum of the costs to MassHealth

for continuing the CP program (i.e., care coordination, State Operations and Implementation funding). Note that other ACO program costs are not included in the analysis because we are evaluating only the ROI of the CP program in this analysis, and not the ACO as a whole.

Net healthcare cost savings for Flexible Services–

- Healthcare costs with Flexible Services: Total cost of care to MassHealth of members receiving Flexible Services will be calculated beginning on the first day Flexible Services were delivered and extending one-year beyond the last date of receipt. Alternative observation periods may be examined, informed by actual Flexible Services utilization patterns. The total cost of care will be calculated based upon actual observed expenditures annually and summed over the 5-year Demonstration period.
- Healthcare costs without Flexible Services: Estimated total healthcare costs over the 5-year Demonstration period to MassHealth among members eligible for Flexible Services but who did not receive Flexible Services.
- Flexible Services comparison group: The approach to comparison group selection described here for Flexible Services users will be modified as needed once full plans for the implementation are finalized. The analytic approach for the Flexible Services program will depend on a few factors. The receipt of Flexible Services will be based on the results of a Flexible Services assessment. If the information collected in the assessment is available for the evaluation, we will seek to identify a comparison population of members who were eligible for Flexible Services but did not receive services (or were delayed) for administrative reasons (attenuating concerns of selection bias). If either the assessment data or a similar population of eligible members is unavailable, we will seek to select a baseline comparison group that is highly similar to Flexible Services users. However, if the receipt of Flexible Services is not well predicted by observed characteristics in the Medicaid administrative data (i.e., without the assessment data), it will be challenging to identify a comparable group of members from the baseline period. In this scenario, a pre-post analysis will be conducted, and we will interpret findings cautiously if the receipt of Flexible Services was strongly determined by baseline member expenditures.
- Flexible Services program costs will be calculated as the sum of the costs to MassHealth of implementing the Flexible Services program (i.e., Flexible Services DSRIP funding, Operations and Implementation funding) as detailed in the “Measures” section. Note that other ACO program costs are not included in the analysis because we are evaluating only the ROI of the Flexible Services program in this analysis, and not the ACO as a whole.

Net Healthcare cost savings for ACOs will be calculated using the same approach described above for CPs (i.e., using separate matched cohorts for each year of the Demonstration to account for changes in the types of members enrolled with ACOs over time). The net healthcare cost savings calculations will account for the different payment structures for ACOs by model type.

Net healthcare cost savings will be calculated as the difference between:

- Healthcare costs with ACOs: Total cost to MassHealth related to delivery of care to members enrolled with ACOs. As described in the measures section, this will include the cost of Flexible Services and CP supports delivered to ACO enrollees. The cost of care delivered to members will be calculated differently for each ACO model, then these costs will be summed to arrive at the total costs at the ACO program level.

- *Healthcare costs without ACOs*: Estimated total healthcare costs to MassHealth among members likely to have been in an ACO but who were not exposed to ACO based care.
 1. *ACO Comparison group*: To estimate healthcare costs for would-be ACO members in the absence of the ACO program, we will identify a 1:1-matched cohort of members who would have been assigned to an ACO based on their PCP affiliation if the Demonstration had been implemented during the baseline period. We will further use propensity score balancing methods to account for differences in demographic and clinical characteristics between the matched populations. To approximate what would have occurred in the absence of the Demonstration, we will adjust the costs for the baseline comparison groups (whose costs were measured in 2015-2017) to reflect the expected cost trends that would have occurred had the comparison group continued to be enrolled in the delivery system as it existed during the baseline period. In other words, to account for secular trends, we will multiply the costs calculated for the comparison group during baseline period by the percent change in costs during each Demonstration year for a similar group of members that is unexposed to the Demonstration. In the base case, we will assume that these members experienced a similar percentage change in total healthcare costs during the Demonstration period as MassHealth members enrolled in MCOs who do not receive CP supports during the Demonstration. Thus, if the non-CP MCO population experienced a 3% increase in costs from the baseline to Demonstration year 1, we would multiply the costs for the comparison group population by 1.03 to estimate what costs would have been for the ACO population in the absence of the Demonstration. We will perform sensitivity analyses to evaluate alternative assumptions (e.g., extrapolation of historical trends in the managed care eligible population, Medicaid expenditure trends in other states) about the trajectory of healthcare expenditures in this group.

ACO program costs will include program costs for all ACO enrollees, including ACO model specific program costs, Flexible Services program costs, and CP program Costs for ACO enrollees, as detailed in the “Measures” section.

Projected 10-year ROI will be estimated by describing the functional form (e.g., linear, constant, exponential) of net healthcare savings and the components of program costs that will continue after the Demonstration (listed below by program), then using this functional form to extrapolate observed trends in net healthcare savings and program costs during the Demonstration period to the five years after the Demonstration. Future projections require strong assumptions regarding continuation of observed trends, and therefore findings will be interpreted cautiously in light of this limitation. Sensitivity analyses will be performed based upon a current understanding of plans for program continuation as of the end of the Demonstration period. For example, either ACOs or MassHealth could be responsible for care coordination payments to CPs and for funding of Flexible Services after DSRIP. Therefore, we will perform analyses for both scenarios.

Program costs for the five-years post-Demonstration will include:

ACOs

- Operations component of Operations and Implementation funding

CPs

- Care coordination PMPM (if paid by MassHealth post-DSRIP)

- Outcomes based payments (if paid by MassHealth post-DSRIP)
- Operations component of Operations and Implementation funding

Flexible Services

- Payments for Flexible Services (if paid by MassHealth post-DSRIP)
- Operations component of Operations and Implementation funding

Cost effectiveness analysis: We will measure cost-effectiveness in terms of the incremental cost per difference in clinical outcomes between the program populations and the comparison populations. Incremental Cost Effectiveness Ratios (ICERs) will be calculated over a 5-year horizon from a MassHealth perspective, using the formula:

Where:

Total costs with the program (ACO, CP, Flexible Services): is the sum of program costs and healthcare costs over five years among members in the program (methodology detailed above in description of ROI analysis).

Total costs without the program are the estimated member healthcare costs without BH CPs, methodology detailed above in description of ROI analysis.

Total outcomes with the program will be calculated as rates for utilization measures for each effectiveness measure listed in Table RQ14b among members enrolled with CPs.

Total outcomes without the program will be estimated as rates for utilization measures As with costs, the outcome values calculated for baseline comparison populations will be adjusted to reflect the expected outcome trends that would have occurred had the comparison group entered and been exposed to the Demonstration.

Deterministic sensitivity analysis (e.g., varying one or two key inputs at a time to examine if the findings change enough to alter the interpretation) and probabilistic sensitivity analysis (i.e., repeatedly drawing from distributions of plausible values for key variables measured with uncertainty, simultaneously, to better understand the range of plausible findings) will be conducted to evaluate the range of plausible results for all cost-effectiveness analyses based on uncertainty in healthcare costs and outcomes. Subgroup analyses will be performed to identify possible groups of members for which the DSRIP initiatives were more or less cost effective. Because cost-effectiveness thresholds are not well defined, and cost-effectiveness is one of many factors influencing sustainability, all ICERs will be interpreted in the context of the totality of the evidence accumulated from Domains 1-6. For ICERs that do not indicate dominance of one group (i.e., where costs and outcomes are both better for the same group), we will conduct additional analyses calculating ICERs without sunk program costs to inform the cost-effectiveness of the program if it were to continue beyond the Demonstration period.

RQ15 To what extent did alternative and value-based payments constitute an increasingly larger proportion of the payments to organizations and providers managing the care of MassHealth members?

H15.1 The number of members cared for in ACOs will increase

H15.2 ACOs and MCOs will engage in value-based payment arrangements with specialist providers

H15.3 ACOs and MCOs will engage in alternative payment models and value-based payment arrangements with hospitals

H15.4 The number of primary care practices participating in ACOs will increase

Data sources and target population

The evaluation of RQ15 will utilize semi-structured interviews (described in Domain 1) and information from existing documents (MassHealth enrollment reports, MassHealth provider records). The population of interest will vary by measure and will include either the population of members enrolled with an ACO, MCO, or CP.

Measures, rationale, and analysis

The shift from fee-for-service and traditional managed care to accountable care organizations, a type of alternative payment model (APM), will be examined in the overall managed care eligible population. Another form of APM is bundled payments to a provider or group of providers. We will collect information on ACO/MCO bundled payment arrangements with specialist providers and hospitals through semi-structured interviews and existing documents.

Because both ACOs and MCOs have already accepted risk for their attributed populations, we will focus on evaluating the extent to which the organizations are able to realign the incentives for providers by tying payments to performance in the form of value-based payments. Specifically, we plan to collect information from ACO administrators through semi-structured interviews and existing documents on the size and scope of value-based payment arrangements with PCPs, specialist providers, hospitals, and other providers.

All analyses for RQ15 are planned as descriptive analyses, tracking changes in measures over the entire Demonstration period. To the extent that necessary data elements are available and consistent for each ACO and MCO in each year of the Demonstration we will summarize using quantitative metrics such as frequencies, percentages, and averages.

Due to the sensitivity of information relating to specific contracts, all information will be collected in a manner that maintains confidentiality of specific contractual relationships. All reporting will be in aggregate at the ACO or CP program level (e.g., percentages of ACOs or providers within ACOs) to ensure a specific organization cannot be connected to a specific contracting practice. While this limitation precludes discussion of contracting practices in the context of a case study of a specific organization, we expect it will facilitate collection of more detailed information on contracting practices throughout the program.

Table RQ15. Data Sources and Measures for Value-Based Payment (VBP) Arrangements

Population(s)	Data Source(s)	Measure	Analysis
MC	MassHealth enrollment reports	Percentage of managed care eligible members in ACOs	Descriptive
MC	MassHealth records	Percentage of primary care practices caring for MassHealth managed care members that are participating in an ACO	Descriptive
ACO, MCO	Semi-structured interviews, existing documents	Percentage of ACOs/MCOs paying specialist providers VBPs and the average amount at risk in such arrangements	Descriptive
ACO, MCO	Semi-structured interviews, existing documents	Average amount at risk in PCP VBP arrangements	Descriptive
ACO, MCO	Semi-structured interviews, existing documents	Percentage of ACO/MCOs using bundled payments and/or VBPs with hospitals	Descriptive

I. DOMAIN 6: Effects of Specific DSRIP Investments and Actions

RQ16 To what extent can observed changes in care processes, outcomes, and costs be attributed to DSRIP?

H16.1 Improvements in care processes will be associated with DSRIP funded delivery system changes at the organizational and state level

H16.2 Improvements in member outcomes will be associated with DSRIP funded delivery system changes at the organizational and state level

H16.3 Moderated total cost of care trends will be associated with DSRIP funded delivery system changes at the organizational and state level

H16.4 The State and local context will modify the relationship between DSRIP with DSRIP funded delivery system changes and ACO quality and cost performance

a. Data sources and target population

Several qualitative and quantitative data sources will be used to evaluate RQ16 for the summative evaluation. Qualitative and survey methods applied in Domain 1 will provide data on DSRIP investments and organizational progress in DSRIP implementation and ACO core competencies. As part of Domain 1, this data will be used to develop organizational typologies (i.e., dichotomous, ordinal, or categorical variables) that can serve as exposure measures for Domain 6. Specifically, we will address questions regarding the extent to which care quality and cost vary for members receiving care from organizations with different typologies. In this way, we will estimate associations between organizational characteristics, such as DSRIP funded organizational change, and delivery system performance. We will additionally use data collected during site visits for case studies of high and low performing ACO/CP partnerships (described in detail under Domain 1: State, organizational, and provider-level actions promoting delivery system transformation, and under Domain 5: Sustainability of Innovative Delivery System Changes).

Quantitative data sources will include Medicaid administrative data and data from MassHealth’s analytics vendor for select hybrid quality measures. Surveys of members will also serve as data sources providing information on member experience and outcomes. The population of interest will consist of members considered exposed to the program or organizational characteristic under study.

Measures and rationale

The measures to be studied for RQ16 will include a subset of the physical, BH, LTSS, member reported, and cost outcomes evaluated for adult and pediatric members under RQ11 and RQ13, respectively (Table RQ16). These measures were chosen so as to have multiple outcomes for each population (i.e., adults, children, LTSS, BH) and to represent diverse types of outcomes (health, utilization, member reported, and cost) considered most relevant to these populations. This diversity in outcomes is considered important for understanding potentially complex relationships between the many programs, organizational typologies, interactions between them, and outcomes for different populations. Ultimately, associations identified between organizational typologies and each outcome will direct future study and identify areas potentially amenable to specific policy levers.

Table RQ16 Data Sources, Outcomes, and Cost Measures

Population(s)	Data Source(s)	Measure ¹	Analysis
Health Outcomes for Adults			
ACO, MCO, CPs, SPs	Medicaid claims/ encounters	All-cause hospitalization ²	Contemporaneous Propensity Score (PS) balanced comparisons ⁵

Population(s)	Data Source(s)	Measure ¹	Analysis
ACO, MCO, CPs, SPs	Medicaid claims/encounters	All-cause hospital readmissions ³	Contemporaneous Propensity Score (PS) balanced comparisons ⁵
ACO, MCO, CPs, SPs	Medicaid claims/encounters	All-cause ED visits ²	Contemporaneous Propensity Score (PS) balanced comparisons ⁵
ACO	Medicaid claims/encounters, analytics vendor extract	Controlling High Blood Pressure ³	Contemporaneous Propensity Score (PS) balanced comparisons ⁵
ACO	Medicaid claims/encounters, analytics vendor extract	Comprehensive Diabetes Care: A1c Poor Control ³	Contemporaneous Propensity Score (PS) balanced comparisons ⁵
Health Outcomes for Pediatric Populations			
ACO, MCO, SPs	Medicaid claims/encounters	NICU utilization ²	Contemporaneous PS balanced comparisons ⁵
ACO, MCO, SPs	Medicaid claims/encounters	Pediatric asthma admissions ²	Contemporaneous PS balanced comparisons ⁵
ACO, MCO, SPs	Medicaid claims/encounters	All-cause ED visits	Contemporaneous PS balanced comparisons ⁵
Outcomes for BH Populations			
ACO, MCO, CPs, SPs	Medicaid claims/encounters	ED visits for adults with mental illness and/or substance addiction ³	Contemporaneous PS balanced comparisons ⁵
ACO, MCO, CPs, SPs	Medicaid claims/encounters	Hospitalizations for adults with mental illness and/or substance addiction	Contemporaneous PS balanced comparisons ⁵
BH CP, SPs	Medicaid claims/encounters	All-cause readmissions among BH CP members ⁴	Contemporaneous PS balanced comparisons ⁵
Outcomes for LTSS Populations			
CPs, SPs	Medicaid claims/encounters	Community tenure: BH and LTSS CP members ⁴	Contemporaneous PS balanced comparisons ⁵
LTSS CP, SPs	Medicaid claims/encounters	All-cause readmissions among LTSS CP members ⁴	Contemporaneous PS balanced comparisons ⁵
Member Reported Health Outcomes			
ACO	Member survey	Overall rating of health	Contemporaneous PS balanced comparisons ⁵
ACO	Member survey	Overall rating of mental/emotional health	Contemporaneous PS balanced comparisons ⁵
LTSS, BH, CPs	Member survey	Functioning	Contemporaneous PS balanced comparisons ⁵
Cost Outcomes			
ACO, CPs, MCO, SPs	Medicaid claims/encounters	Total cost of care (all covered services)	Contemporaneous PS balanced comparisons ⁵
ACO, MCO, CPs, SPs	Medicaid claims/encounters	Expenditures by service category (outpatient, inpatient, post-acute, lab, pharmacy, LTSS)	Contemporaneous PS balanced comparisons ⁵

Population(s)	Data Source(s)	Measure ¹	Analysis
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¹Measure specifications included as Appendix B

²ACO Quality Monitoring Measures

³ACO Quality Performance Measures

⁴CP Quality Performance Measures

⁵Comparisons that occur during an overlapping period of time (e.g., the same Demonstration year) between a segment of the ACO/MCO population that is exposed to a specific program (e.g., Flexible Services) or organizational characteristic of interest (e.g., integrated care) and a similar group of ACO/MCO enrollees that are not exposed to that characteristic.

Analysis plan

We propose to evaluate the relationship between observed delivery system transformation and changes in performance using mixed methods. We will link data gathered under Domain 1 about high-level ACO organizational structures (e.g., provider reimbursement model), processes (e.g., PHM strategies) and implementation progress with ACO-level claims-based outcome and cost measures to compare outcomes between groups of members cared for by ACOs with divergent characteristics. Recognizing that there are only 17 ACOs, and further that certain typologies may be uncommon and there may be relatively few members enrolled in ACOs with a specific typology, we will perform power calculations prior to implementing each comparison and we will interpret underpowered analyses as exploratory. We will additionally use case studies of high and low performing ACO/CP partnerships to assess stakeholder views on if and how DSRIP funding and initiatives impacted care delivery and performance.

The timing of member exposure to Demonstration programs will be captured in an exposure attribution data infrastructure.¹²⁸ In addition to capturing the timing of enrollment with ACOs and CPs, the exposure attribution data infrastructure will track when members are exposed to specific ACO organizational characteristics (which may be dichotomous, categorical, or ordinal depending on the empirical structure of the data for a given characteristic), to the extent that such characteristics have been organized into typologies in Domain 1. Furthermore, we will capture important state and federal contextual effects to which members may be exposed differentially based upon time, geography, or other factors. If ACO/MCO enrollees are exposed differentially to important contextual factors, we will also conduct analyses to examine effect measure modification (e.g., was the effect of a Demonstration program different in a specific city than outside of the city because of health-related municipal policies that acted synergistically with the Demonstration) (VanderWeele, 2012).

To estimate the effects of specific exposures (e.g., integrated care, Flexible Services, state contextual factors) that are expected to contribute to the aggregate member and cost outcomes reported in Domains 3 and 4, we will perform a series of propensity score balanced comparisons separately for each exposure of interest within the ACO/MCO enrolled population over the course of the Demonstration period. For exposure-outcome relationships that were also evaluated cross-temporally, these analyses using a contemporaneous comparison group will shed light on the extent to which findings are robust to alternative analytic approaches. Contemporaneous comparisons will only be made in situations where based on actual DSRIP implementation, there is a valid comparison group for the exposed group of interest. For example, if implementation of the CP programs occurs in such a way that a similar group of CP eligible members are present in the ACO

¹²⁸ We will set up an analytic data set that classifies each day/month/quarter/year of the study period for each MassHealth member as either exposed or not exposed (or partially exposed, as appropriate, if data are categorical or ordinal with more than two levels) to each type of program (e.g., CPs, ACOs), organizational attribute (e.g., integrated care), and state context (e.g., county level public health initiative) that is of interest for the evaluation.

and MCO populations during the Demonstration, we will compare the CP enrollees to the CP eligible members who were not enrolled and had no history of enrollment. Within the propensity balanced cohorts, logistic, Poisson (or Poisson variants, as appropriate), and linear models will be used for analyses of dichotomous (yes/no), rate (e.g., hospitalizations per 100 person-years), and continuous (e.g., expenditures) outcome measures, respectively. If valid Demonstration period comparison groups are not available for key programs (e.g., Flexible Services) that also did not have valid pre-implementation comparisons groups (for evaluation in Domains 2-4), then we will perform within-member comparisons between the period before exposure and the period during exposure to the program (i.e., a pre-post analysis).

III. Demonstration Goal 3: Maintain near universal coverage

A. Introduction

Massachusetts leads the nation in health insurance coverage. Prior to, and following implementation of, the Affordable Care Act, Massachusetts incorporated several waves of state-level reform, facilitating near universal health insurance coverage in the state. Specifically, the Massachusetts uninsured rate is 3.7%, well below the national average of 8.8%.¹²⁹

The current Demonstration invests in several programs to facilitate and sustain enrollment in insurance coverage. Some have been ongoing, such as: 1) expanded Medicaid eligibility; 2) streamlined redetermination procedures for select MassHealth members; 3) comprehensive enrollment materials and trainings to support consumer choice; 4) premium subsidies to low-income individuals to purchase commercial health insurance through the Health Connector; 5) premium assistance, coverage of out-of-pocket expenses and a coverage wrap for members with Employer Sponsored Insurance (ESI) through the Premium Assistance program; and 6) improved eligibility system and website/consumer functionality.

Other programs or waiver amendments are new or newly funded by the Demonstration in the current Demonstration period, which include: 1) Premium Assistance for the Student Health Insurance Program (SHIP); 2) Health Connector cost-sharing subsidies for members in ConnectorCare; 3) the CommonHealth 65+ program; and 4) Veteran Annuity payment disregard program.

SHIP Premium Assistance requires MassHealth students attending participating post-secondary schools in the state to enroll in school-sponsored insurance. The state provides premium and cost-sharing assistance, as well as benefit wrap-around coverage to ensure that the SHIP benefits are equivalent to MassHealth, including keeping out-of-pocket costs at the same level as if services were being received directly from MassHealth.

The ConnectorCare subsidies program provides premium assistance, cost-sharing, and gap coverage (until enrollment in ConnectorCare begins) to low-income adults. Prior to the current Demonstration approval, only premium assistance was federally matched. Following the current Demonstration approval, the cost-sharing subsidies and the gap coverage are now federally matched under this program.

Massachusetts residents age 65 and over are eligible to enroll in CommonHealth 65+, a program newly authorized for expenditure authority under the Demonstration. Individuals are eligible if they have disabilities and have paid employment for 40 hours or more per month.

The Commonwealth of Massachusetts, in conjunction with the Department of Veterans' Services, provides the veteran annuity in the amount of \$2,000 annually to eligible recipients in increments of \$1,000 paid out on February 1 and August 1 of each year, respectively. Upon approval of waiver amendments June 27, 2018 and May 23, 2019 and effective on May 23, 2019, MassHealth started disregarding state veteran annuity payments for disabled veterans and surviving parents (Gold Star parents), as well as surviving, unmarried spouses (Gold Star wives and husbands) of deceased members of the armed forces of the United States. The annuity is not countable income for determining Medicaid eligibility and post eligibility treatment of income (PETI).¹³⁰

¹²⁹ CHIA 2017 Report: <http://www.chiamass.gov/assets/docs/r/survey/mhis-2017/2017-MHIS-Report.pdf>

¹³⁰ All listed programs will be included in this evaluation if they are approved by CMS. The veteran annuity payment disregard program became effective on 10/23/19.

The evaluation will describe trends in insurance coverage in Massachusetts during the Demonstration period and will compare trends in the state to those in comparison group states. In supporting analyses, membership in programs that support high rates of insurance will be tracked.

B. Goal 3: Maintain near universal coverage

Research Question: Has near-universal coverage in MA been maintained after implementation of Demonstration investments?

H1. Massachusetts will maintain near-universal coverage over the Demonstration period

H2. The percentage of MassHealth residents with a gap in coverage over 45 days will not increase over the study period (i.e. reduced churn)

H3. Massachusetts will maintain higher coverage, overall and among populations eligible for exchange subsidies, than states without premium and cost sharing subsidies.

H4. Enrollment in new and select ongoing programs funded with Demonstration investments supports near-universal coverage in Massachusetts, including:

- Health Connector premium subsidies
- Health Connector cost-sharing subsidies
- ESI Premium Assistance enrollment
- SHIP Premium Assistance enrollment
- CommonHealth 65+ enrollment
- State veteran annuity payment disregard for eligibility and PETI

Study Design: The evaluation design will utilize a repeated cross-sectional approach to examine the trend in health insurance coverage prior to and after the current Demonstration period. We will compare the trend in coverage in Massachusetts to 23 states that are similar to Massachusetts but which do not offer premium and cost-sharing subsidies comparable to those offered by the Health Connector, overall and among populations eligible for exchange subsidies (< 300% FPL).

We will conduct secondary analyses tracking program enrollment in new Demonstration investment activities that support near-universal coverage, including SHIP Premium Assistance, CommonHealth 65+, Connector Care cost-sharing subsidies, and state veteran annuity payment disregard. We also will track select ongoing Demonstration investment activities, including ESI Premium Assistance and Connector Care premium-sharing subsidies.

Finally, we will examine details of participation in new programs, describing length of enrollment and LTSS services used by CommonHealth 65+ participants. Without the CommonHealth 65+ authority, disabled seniors would potentially lose their MassHealth coverage for LTSS, which are not covered by Medicare or private health insurance.

Study Period: The evaluation period will begin 3 years prior to implementation of the current Demonstration period (CY 2015) and extend through the end of CY2022.¹³¹ We foresee that

¹³¹ For veteran annuity disregard that was effective after the beginning of the evaluation, the evaluation team will track pre-program data up to 3 years and post-program data for up to 5 years. Findings of the new program will be included in a supplemental memo to the final evaluation report.

data through June 2020 will be included in the interim evaluation, and data through December 2022 will be included in the final report.

Data Sources:

1) *American Community Survey*: The American Community Survey (ACS) is an annual national survey conducted by the U.S. Census Bureau. The ACS collects information about health insurance coverage nationwide and by state. Data are released annually. For 2016, the sample size in Massachusetts is approximately 46,000 housing units/group quarters per year, and the combined sample size in 23 states is approximately 1,133,000. Data will be available from three years prior to the current Demonstration period, 2015, through 2022. The Census Bureau disseminates files for public use. ACS is considered to be an appropriate data source comparing insurance coverage by state. The ACS provides more robust state-level estimates than other national surveys (Current Population Survey, Behavioral Risk Factor Surveillance System) and less complicated questions than National Health Insurance Survey (Reschovsky, et al). For Massachusetts, estimates of insurance in MA has been demonstrated to be similar to Massachusetts-specific survey (Skopec, et al). Nevertheless, validity of the ACS in identifying health insurance coverage will be assessed by comparing estimates of MassHealth coverage in Massachusetts via ACS and MassHealth enrollment numbers. If there is a measurable discrepancy, we will describe and discuss the extent to which the estimates of overall insurance coverage in Massachusetts may be under- or overestimated by survey data.

2) *Program enrollment data*: We will use program reports and other summary data to track enrollment in MassHealth programs. We will obtain these data sets and operational statistics from MassHealth and the Health Connector. The data sets will include:

- *The Health Connector subsidy program data*: These data will come from summary reports from board meetings as well as summary reports of Qualified Health Plan coverage.
- *ESI Premium Assistance program data*: The program data will provide annual figures for the number of members enrolled in the program.
- *SHIP Premium Assistance program data*: These data will provide annual figures for the number of members enrolled in the program.
- *CommonHealth 65+ program data*: These data will provide annual figures for the number of members enrolled in the program.
- *State veteran annuity payment disregard program data*: These data will provide annual figures for the number of members eligible for Medicaid due to this disregard of state veteran annuity payments for purposes of Medicaid eligibility and PETI.

3) *Medicaid administrative data*: MassHealth Medicaid Management Information Systems (MMIS) enrollment data will be used to evaluate study population enrollment.

Study Population: The study population to examine hypotheses H1 and H2 will consist of all MA residents. Annual estimates of the percentage insured will be obtained from approximately 46,000 annual MA respondents to the ACS. We will use data from two years prior to the current Demonstration period, CY2015, through the most recent available, CY2022. For supporting analyses tracking enrollment in specific programs, the study populations will consist of enrollees in SHIP Premium Assistance (approximately 30,000 enrollees annually), Premium Assistance for ESI (approximately 23,000 enrollees annually), CommonHealth 65+ (approximately 5,720 enrollees annually), Health Connector premium subsidy and cost-sharing subsidy recipients (approximately 240,000 per year), and members with state veteran annuity payment disregard (approximately 4,0000 individuals, could vary annually). For ongoing programs, we will track estimates from two years prior to the current Demonstration period, CY2015, through the most recently available data, 2022. For new programs, we will track enrollment over the

Demonstration period.

Comparison Group: The comparison group will consist of 23 states that are similar to Massachusetts in their Medicaid eligibility criteria, but who do not provide income-based subsidies in addition to federal subsidies. The 23 states are: AL, AZ, AR, CA, DE, IL, IN, IA, KY, MD, MI, MT, NV, NH, NJ, NM, ND, OH, OR, PA, RI, WA, WV.¹³² These states were chosen based on the following criteria:

1) Medicaid Eligibility criteria similar to Massachusetts (~138% FPL for childless adults); 2) states that do not provide income-based subsidies on top of federal subsidies; and 3) states that have not had changes to Medicaid eligibility in the past year. We recognize that there may be additional differences between Massachusetts and the comparison group states that may account for differences in health insurance coverage. We will control for additional socio-demographic variables in the analysis (see below). Details of the rationale for selecting these states are available in Appendix E.

Data from these states will be used to estimate what the insurance rate would have been for Massachusetts in the absence of Health Connector subsidies. Given the varied and multiple Medicaid programs that are implemented in other states, it is not feasible to identify comparison group states to isolate the effect of the other specific Massachusetts programs (Premium Assistance for ESI, SHIP Premium Assistance, CommonHealth 65+, and state veteran annuity payment disregard) by identifying states that are similar to the state in all aspects except for presence of these programs.

In addition to the 23 comparison group states described above, we will also compare health insurance coverage in Massachusetts to national estimates. This comparison will provide insight into the effects of any relevant federal policy changes on insurance rates in Massachusetts relative to the nation as a whole.

There will be no comparison group for the secondary analyses, that is, the analyses tracking enrollees in each of the Demonstration activities. These population-based measures will be tracked to provide supporting evidence for the continued high insurance coverage in the state. Given that each of these programs have been implemented state-wide, it will not be feasible to identify groups for whom the programs were not available to understand what would have happened to these populations in Massachusetts in the absence of Demonstration activities.

Measures: Measures will be identified in the ACS or program enrollment data, as appropriate. Each measure will be reported on an annual basis.

- Number and fraction of MA residents less than 65 years old that are uninsured, and number and fraction of residents of 23 comparison states less than 65 years old who are uninsured- ACS data
- Number of individuals who take up Qualified Health Plan coverage with assistance from the Massachusetts Health Connector subsidy program, Connector Care – Program enrollment data
- Number of individuals in the Premium Assistance for ESI program – Program enrollment data
- Number of individuals who access Health Safety Net – Program enrollment data
- Number of individuals who are enrolled in SHIP Premium Assistance annually
- Average length of enrollment in SHIP Premium Assistance – Program enrollment data

¹³² Inclusion of additional states will be done if there is a need to incorporate states implementing new waiver amendment such as veteran annuity disregard.

- Number of individuals who are enrolled in CommonHealth 65+ annually – Program enrollment data
- Length of enrollment, and LTSS received by CommonHealth 65+ enrollees – Program enrollment data
- Number of individuals who have state veteran annuity payment disregarded for MH eligibility¹³³
- Number of individuals who have state veteran annuity payment disregarded for PETI
- Number of individuals who have state veteran annuity payment disregarded for both MH eligibility and PETI
- Average length of enrollment of individuals who have state veteran annuity payment disregarded for MH eligibility
- Average length of enrollment of individuals who have state veteran annuity payment disregarded for PETI
- Average length of enrollment of individuals who have state veteran annuity payment disregarded for both MH eligibility and PETI

Data Analysis: We will present descriptive statistics of the percentage of MA residents uninsured during each calendar year. In each calendar year, we also will compare the percentage uninsured in MA to comparison group states and US overall and we will use generalized estimating equation models to estimate predicted probabilities of being uninsured in Massachusetts and the comparison states adjusting for relevant confounding variables (e.g., age, education, receipt of Supplemental Security Income (SSI)). Analyses will be performed overall, by resident employment status (student, employed, other), and by income level.

This analysis is subject to limitations. Given the varied and multiple Medicaid programs that are implemented in other states, it is not feasible to identify comparison group states to isolate the effect of the other specific Massachusetts programs (Premium Assistance for ESI, SHIP Premium Assistance, CommonHealth 65+, and state veteran annuity payment disregard) by identifying states that are similar to the state in all aspects except for presence of these programs. Estimates of the percentage of members with health insurance coverage are obtained from survey data, which may underestimate the percentage with coverage (Skopec et al).

The percentage of MassHealth members with a 45 day or longer gap in coverage during a one-year period will be calculated quarterly. A time series approach will be used to evaluate the trends in the percentage with a gap, prior to and after the Demonstration period. Segmented regression analysis, using generalized estimating equations, will be used to evaluate trends prior to and after the start of the current Demonstration period.

Descriptive statistics will be presented to describe the number and percentage of MassHealth members enrolled in each program detailed above. Measures will be presented annually over the Demonstration period. For those programs which existed prior to the current Demonstration period, we will present data starting in 2015; otherwise, 3 years prior to the implementation of a new program/waiver amendment. While the data will be reported on an annual basis, some data sources contain monthly capture of various activities (e.g., the number of Demonstration eligible accessing premium assistance for ESI), while other data are only available on an annual basis. Data will be presented in tables and graphs in order to display trends over time for each population-level measure.

¹³³ Should data be available, we will report the numbers of individuals by disabled veterans and Gold Star parents/spouses, respectively.

Evaluation questions, measures, data sources, and analytic approach are summarized in Table 8 (next page).

Table 8: Goal 3 | Maintain universal coverage

Evaluation Question	Evaluation Hypotheses	Measure [Reported for each Demonstration Year]	Recommended Data Source	Analytic Approach
Has near-universal coverage in MA been maintained after implementation of Demonstration?	MA residents will continue to have near universal health care coverage	Number (%) of MA residents with insurance	American Community Survey	Descriptive statistics (frequency and percentages); GEE models (adjusted predicted probabilities)
Has near-universal coverage in MA been maintained after implementation of Demonstration?	The percentage of MassHealth members with a 45-day gap in coverage during one year will not increase over the study (i.e. reducing churn)	Number (%) of MassHealth members with a gap in coverage 45 days or longer in one year	MassHealth claims/encounter data	Descriptive statistics (frequency and percentages); GEE models
Has near-universal coverage in MA been maintained after implementation of Demonstration?	MA will maintain higher coverage, overall and among populations eligible for exchange subsidies, than states without premium and cost sharing subsidies	Number (%) of MA residents with insurance Number (%) of comparison state residents with health insurance Number (%) of US residents with health insurance	American Community Survey	Descriptive statistics (frequency and percentages); GEE models (adjusted predicted probabilities)
Has near-universal coverage in MA been maintained after implementation of Demonstration?	Enrollment in <i>new and select ongoing programs</i> funded with Demonstration investments supports near-universal coverage in Massachusetts	Number of individuals using cost sharing subsidies in MA	Health Connector subsidy program data	Descriptive statistics (frequencies)
Has near-universal coverage in MA been maintained after implementation of Demonstration?		Number of individuals enrolled in ESI Premium Assistance	ESI program data	Descriptive statistics (frequencies)
Has near-universal coverage in MA been maintained after implementation of Demonstration?		Number of individuals enrolled in SHIP Premium Assistance	SHIP program data	Descriptive statistics (frequencies)
Has near-universal		Number of	CommonHealth	Descriptive

Evaluation Question	Evaluation Hypotheses	Measure [Reported for each Demonstration Year]	Recommended Data Source	Analytic Approach
coverage in MA been maintained after implementation of Demonstration?		individuals enrolled in CommonHealth 65+	65+ program data	statistics (frequencies)
Has near-universal coverage in MA been maintained after implementation of Demonstration?		Number of individuals eligible for Medicaid due to state veteran annuity payment disregard Number of individuals eligible for PETI due to state veteran annuity payment disregard	Veteran Annuity Disregard program data	Descriptive statistics (frequencies)
How long do enrollees participate in SHIP Premium Assistance?	Enrollment in <i>new and select ongoing programs</i> funded with Demonstration investments supports near-universal coverage in Massachusetts	Average length of enrollment in SHIP Premium Assistance	SHIP program data, MMIS enrollment data	Descriptive statistics (mean (SD), median, range)
How long do enrollees participate in CommonHealth 65+?	Enrollment in <i>new and select ongoing programs</i> funded with Demonstration investments supports near-universal coverage in Massachusetts	Average length of enrollment in CommonHealth 65+	CommonHealth 65+ program data, MMIS enrollment data	Descriptive statistics (mean (SD), median, range)
How long do enrollees with state veteran annuity disregard remain enrolled in MassHealth?	Enrollment in <i>new and select ongoing programs</i> funded with Demonstration investments supports near-universal coverage in Massachusetts	Average length of enrollment in MassHealth among members with state veteran annuity payment disregarded for MH eligibility	MassHealth Veteran Annuity program data; and/or MMIS enrollment data	Descriptive statistics (mean (SD), median, range)
How long do enrollees with state veteran annuity disregard remain enrolled in MassHealth?	Enrollment in <i>new and select ongoing programs</i> funded with Demonstration investments supports near-universal coverage in Massachusetts	Average length of enrollment in MassHealth among members with state veteran annuity payment disregarded for PETI	MassHealth Veteran Annuity program data; and/or MMIS enrollment data	Descriptive statistics (mean (SD), median, range)
How long do enrollees	Enrollment in <i>new</i>	Average length of	MassHealth	Descriptive

Evaluation Question	Evaluation Hypotheses	Measure [Reported for each Demonstration Year]	Recommended Data Source	Analytic Approach
with state veteran annuity disregard remain enrolled in MassHealth?	<i>and select ongoing programs</i> funded with Demonstration investments supports near-universal coverage in Massachusetts	enrollment in MassHealth among members with state veteran annuity payment disregarded for both MH eligibility and PETI	Veteran Annuity program data; and/or MMIS enrollment data	statistics (mean (SD), median, range)
What MassHealth-covered LTSS healthcare services do CommonHealth 65+ enrollees use?		LTSS received by CommonHealth 65+ members	CommonHealth 65+ program data, MMIS claims data	Descriptive statistics (mean (SD), median, range)

IV. Demonstration Goal 4: Sustainably support safety net providers to ensure continued access to care for Medicaid and low-income uninsured individuals

A. Introduction

The Safety Net Care Pool (SNCP) has been a Demonstration component since July 2005. Massachusetts uses SNCP authorities to provide financial support to the most critical MassHealth safety-net providers; to fund certain state health programs; to pay hospitals, community health centers (CHCs), and institutions for mental diseases (IMDs) for services provided to uninsured and low-income individuals; and to support delivery system transformation and infrastructure and capacity building for safety net providers. The total SNCP expenditure authority is over \$1.8 billion in the first year of the current Demonstration period (representing a \$0.6 billion increase compared to the prior year), and will then decrease over the course of the Demonstration period.

Changes to the SNCP have been implemented in the current Demonstration period. Compared to past Demonstration periods, a greater portion of the SNCP will be tied to incentive-based payments to promote delivery system transformation. The programs impacted by this shift include DSRIP, Public Hospital Transformation and Incentive Initiatives (PHTII), and Safety Net Provider Payments (SNPP).

DSRIP is described above in Section II. In Massachusetts, Cambridge Health Alliance (CHA) is the sole recipient of PHTII payments. CHA is Massachusetts' only non-state, non-federal public acute hospital, and is a key participant in delivery system transformation. Prior to the current Demonstration period, up to 30% of PHTII payments were tied to performance on quality improvement measures. In the new Demonstration period, an increasing portion of PHTII funding will be at-risk based on two activities: 1) Participation in an ACO model and demonstrated success on corresponding ACO performance measures (specifically the same performance goals established under DSRIP); 2) Continuation and strengthening of initiatives approved through PHTII in the prior Demonstration period, including, but not limited to, initiatives focused on behavioral health integration and demonstrated success on corresponding performance measures.

The Disproportionate Share Hospital-like (DSH-like) pool authorizes payments for uncompensated care provided to Medicaid and low-income uninsured individuals. Under the Demonstration, a new component of the DSH-like pool is SNPP, intended to provide ongoing financial support to the state's safety-net hospitals. These hospitals serve a disproportionately high number of Medicaid and uninsured patients, and have budget shortfalls related to providing large volumes of care that is uncompensated.

Under the SNPP program, Massachusetts may make payments to eligible hospitals, in recognition of safety net providers in Massachusetts that serve a large proportion of Medicaid and uninsured individuals and have a demonstrated need for support to address uncompensated care costs. These payments are intended to provide ongoing and necessary operational support. An increasing portion of these payments, from 5 percent in Year 1 to 20 percent in Year 5, will be at risk and hospitals will be required to meet the same performance goals established for DSRIP in order to continue to receive these payments.

Though the total SNCP funding will reduce over time, efficiencies in care gained through ACO transformation coupled with improvements in performance measures resulting from increasing the portion of funding at risk is expected to promote sustainability of safety net providers. The current evaluation will examine the impact of changes to the SNCP on healthcare quality measures and uncompensated care costs at Safety Net Hospitals.

B. Goal 4: Sustainably support safety net providers to ensure continued access to care for Medicaid and low-income uninsured individuals

Research Question: What is the impact of safety-net funding investments on safety-net provider hospital quality performance and financial sustainability?

H1. Increasing the portion of at-risk funding for safety-net hospitals under the PHTII and SNPP will be associated with improved care quality at these sites.

H2. Despite a reduction in total supplemental payments provided through the Safety Net Care Pool over time, the amount of uncompensated care costs will not increase relative to trends prior to the current extension.

Study Design: To evaluate H1 for CHA, we will utilize a quasi-experimental interrupted time series approach to compare trends in hospital performance targets, measured three times per year, prior to and after the current Demonstration period. A smaller number of data points will be available for the other safety net hospitals and we will thus not have sufficient data to use a time series approach to evaluate H1 for these hospitals. We will therefore employ a difference-in-difference approach, using modeled estimates of quality measures in the post-demonstration period based on baseline measures (2015-2017), as described in *Section II, Subsection F, Subsection c*, to estimate what the quality measures would have been in the absence of the demonstration activities. As described below in the “Comparison Group” section, it is not feasible to identify a clear external comparison group, so we will use a time series approach for those analyses for which we have multiple data points per year and use difference in difference methodology as our comparison group.

To evaluate H2, we will conduct descriptive analyses to examine trends in uncompensated care costs before and after supplemental payments, prior to and during the current Demonstration period.

Study Period: To evaluate both hypotheses, the study period will begin in 2015 and continue through 2022. We foresee that data through June 2020 will be included in the interim evaluation, and data through December 2022 will be included in the final report.

Data Sources:

1) *PHTII Reports for Payment:* CHA provides tri-annual reports that hospitals under these programs will be required to submit, detailing key accomplishments in the reporting period towards the associated metrics, and outcome and improvement measures. Reports will be available from 2015 through 2022. Details of the measures reported in the PHTII that will be used in the analysis are provided in Appendix F.

2) *Uniform Medicaid & Uncompensated Care Cost & Charge Report (UCCR):* The Massachusetts Executive Office of Health and Human Services (EOHHS) Office of Medicaid requires hospitals to submit cost, charge and patient day data via the Uniform Medicaid and Uninsured Uncompensated Care Cost & Charge Report (“UCCR”). This data is used to ensure compliance with Uncompensated Care Cost Limit Protocol approved by the Centers for Medicare and Medicaid Services (“CMS”) on December 11, 2013. In addition, EOHHS uses the data to calculate the preliminary payment amounts for certain supplemental payments. These reports contain cost data from Medicare cost reports, in addition to data provided by MassHealth, on supplemental payments to safety-net hospitals. The reports are generated annually and are available from 2015 through 2022. Details of the contents of the reports can be found at: <http://www.mass.gov/eohhs/docs/masshealth/provlibrary/wcp-uCCR-instructions-03-17.pdf>

3) *Medicaid administrative data*: MassHealth MMIS enrollment, medical claims/ encounter files, and pharmacy claims files will be used to calculate quality measures for the 14 safety net hospitals.

Study Population: The study population for these analyses will be members served by CHA and the 14 safety-net hospitals eligible for Safety Net Provider Payments.

Comparison Group: Because PHTII payments will be distributed to CHA and SNPP payments will be distributed to other eligible safety-net hospitals in the state, a clear comparison group, that is, one that will estimate evaluation outcomes in the absence of the Demonstration activities, does not exist. Because PHTII quality metrics are available on a tri-annual basis, we will have enough data to adopt a time-series approach. The design is widely used and considered one of the strongest quasi-experimental designs for several reasons (Penfold, 2013; Shadish, 2001). First, the ITS design utilizes data from a larger number of time points than other quasi-experimental designs. Second, because ITS compares trends over time rather than data from single time points, the design also allows for evaluation of differential effects over various time frames, controls for confounding variables including seasonality, and controls for secular trends in the population. With this approach, estimates of what the evaluation measures would have been in the absence of the Demonstration can be estimated based on trends during the period prior to the Demonstration period.

Performance metrics for the 14 safety-net hospitals will be available on an annual basis, and we will therefore adopt a difference-in-difference approach, similar to the methodology used above in Goal 3, the comparison group will be estimated using baseline measures (2015 – 2017), adjusting for demographic and clinical characteristics of the patient population, to compare observed outcomes to estimated outcomes in the absence of current demonstration activities during each year of the study period.

Measures: Measures are defined as follows:

- ACO quality performance measures defined for DSRIP (CHA and other safety-net hospitals). See Appendix B. These measures include HEDIS-defined measures of access such as (HEDIS, 2018):
 - Initiation and Engagement of Alcohol and Other Drug Dependence Treatment (IET)
 - Prenatal and Postpartum Care (PPC)
 - Adults' Access to Preventive/ Ambulatory Health Services (AAP)
 - Children's and Adolescents' Access to Primary Care Practitioners (CAP)
 - Use of First-Line Psychosocial Care for Children and Adolescents on Antipsychotics (APP)
- ACO participation and the measure slate outlined in the PHTII protocol, for ongoing initiatives related to behavioral health integration (CHA only) (See Appendix F for the Measure Slate for CHA)
- Uncompensated care costs prior to and after supplemental payments

Data Analysis:

For H1, an interrupted time series approach will be used to compare the change in trends in PHTII performance measures pre- and post-demonstration period. The hospital-level outcome measures will be obtained from the *PHTII Reports for Payment*. We will adjust the hospital level measures, if necessary, for potential changes in patient characteristics using a multi-stage approach. To do so, we will use MassHealth enrollment and claims/encounter data, to examine, with descriptive statistics, whether selected demographic and clinical characteristics of patients receiving care at CHA (as identified in the claims/encounter data) change over the course of the evaluation period. If we find this to be the case, we will evaluate, using multivariable statistical

models, the association between patient characteristics and selected quality measures. If we find an association to exist, we will build a statistical model using data collected during 2015-2017 to describe the relationship, and use this model to estimate the projected quality measures in each evaluation year, 2018-2022, given observed changes in patient characteristics.

To evaluate changes in performance measures at the other 14 safety net hospitals, we will first use descriptive statistics to evaluate change in performance measures annually for each year of the Demonstration period. We will next utilize a difference-in-difference approach to compare changes in performance measures over the demonstration period to changes that would be expected in the absence of Demonstration activities. First, we will develop multivariable statistical models for estimating performance on a measure using member demographic and clinical characteristics during the 2015-2017 baseline period. The models developed using baseline data will then be used to predict expected outcomes in the absence of Demonstration activities during each year of the Demonstration, for members who receive care at the 14 safety net hospitals. For each Demonstration year we will compare the pre-Demonstration to post-Demonstration difference in the performance measure (observed) to the estimated pre-demonstration to post-demonstration estimated difference in the measure in the absence of demonstration activities (predicted). When higher values of a measure are desired (e.g., a higher proportion of the population screened), a ratio of observed to predicted greater than one will suggest quality improvement. When lower values of a measures are desired (e.g., readmission rates), a ratio of observed to predicted of less than one will suggest quality improvement.

To address H2, we will present, on an annual basis, uncompensated care and supplemental payments at safety-net hospitals, and uncompensated care costs before and after supplemental payments. Given the limited number of data points available, we will not be able to statistically test the hypothesis that uncompensated care costs do not increase over the evaluation period.

Hypotheses, evaluation questions, measures, data sources, and analytic approach are summarized in Table 9.

Table 9: Goal 4 | Sustainably support safety net providers to ensure continued access to care for Medicaid and low-income uninsured individuals

Evaluation Question	Evaluation Hypotheses	Measure [Reported for each Demonstration Year]	Recommended Data Source	Analytic Approach
What is the impact of safety net funding investments on safety-net provider hospital performance and financial sustainability?	Increasing the portion of funding for safety-net hospitals under the Public Health Transformation and Incentive Initiative (PHTII) and Disproportionate Share Hospital (DSH) pool will result in improved care quality at these sites.	CHA: DSRIP ACO performance measures	1) PHTII Reports for Payment 2) MMIS claims	Descriptive statistics; Interrupted time series
What is the impact of safety net funding investments on safety-net provider hospital performance and financial sustainability?	Increasing the portion of funding for safety-net hospitals under the Public Health Transformation and Incentive Initiative (PHTII) and Disproportionate Share Hospital (DSH) pool will result in improved care quality at these sites.	Safety Net Hospitals: DSRIP ACO performance measures	Safety Net Hospital reports	Descriptive statistics; difference in difference
What is the impact of safety net funding investments on safety-net provider hospital performance and financial sustainability?	Supplemental payments to hospitals funded through the DSH pool will help to reduce the total amount of uncompensated care so they can continue to serve Medicaid and uninsured residents	Uncompensated care costs pre- and post-supplemental payments	Massachusetts Uncompensated Care Cost reports.	Descriptive statistics (total, mean, median)

V. **Demonstration Goal 5:** Address the opioid addiction crisis by expanding access to a broad spectrum of recovery-oriented substance use disorder services

A. **Introduction**

Massachusetts has a long history of providing Medicaid SUD services within a managed care context, and has achieved some success in reducing hospital utilization and associated costs, without compromising quality of care (Callahan, 1995). State expansion of health insurance coverage in 2007 led to substantially higher numbers of high-risk substance abusers seeking treatment and enrolling in Medicaid (Zur J et al, 2007). More intensive opioid agonist therapy has recently been found to more effective in preventing relapse in Medicaid opioid users than behavioral therapy alone (Clark, 2015). This finding suggests that expanding long-term community-based rehabilitation approaches that include an oral agonist component could have a substantial impact on relapse and other outcomes. Other research has demonstrated that coaching can significantly reduce relapse rates in high-risk populations (LePage 2012).

The Demonstration makes changes to substance use disorder (SUD) services in order to improve state-wide capacity, divert SUD patients from inpatient and hospital settings to community-based environments, and respond to the opioid crisis. Prior to the Demonstration's extension, MassHealth covered outpatient counseling, medication assisted treatment, Inpatient Withdrawal Management (ASAM Level 4.0), short-term withdrawal management services (ASAM Level 3.7), and short-term residential services (ASAM Level 3.5) for members enrolled in fee for service. Managed Care Entities (MCEs) covered these services as well as Structured Outpatient Addiction Programs (ASAM Level 2.1). The Demonstration gives MassHealth expenditure authority for additional SUD services that previously were only provided by the Department of Public Health's Bureau of Substance Addiction Services (BSAS) at state cost, including transitional support services and residential rehabilitation services (ASAM Level 3.1) and recovery coaches. Furthermore, it expands SUD treatment in Massachusetts by adding Medicaid coverage for 24-hour community-based rehabilitation through high-intensity Residential Services (ASAM Level 3.3) and recovery support navigators.

Services at ASAM Level 3.1 have been covered as a wrap service for MassHealth members enrolled in managed care beginning November 2016. They will be phased into managed care beginning with the Behavioral Health Vendor on March 1, 2018 and the other Managed Care Entities on January 1, 2019. Expansion of ASAM Level 3.1 services will begin during calendar year 2018. All MassHealth members, except those in MassHealth Limited, are eligible for expanded substance use disorder services as part of the Demonstration (including members age 65+).

B. **Goal 5: Address the opioid addiction crisis by expanding access to a broad spectrum of recovery-oriented substance use disorder services**

Research Question: What is the impact of expanding MassHealth coverage to include residential services and recovery support services on care quality, costs and outcomes for members with substance use disorders (SUD)?

- H1.** The Demonstration will increase rates of identification, initiation, and engagement in treatment among individuals with SUD relative to trends prior to the current Demonstration period.
- H2.** The Demonstration will improve adherence to treatment among individuals with any SUD diagnosis (including, in particular, Opioid Use Disorder (OUD) diagnosis) relative to trends prior to the current Demonstration period.
- H3.** The Demonstration will reduce nonfatal overdoses and overdose deaths, particularly

those due to opioids, relative to trends prior to the current Demonstration period.

H4. The Demonstration reduces utilization of emergency department and inpatient hospital settings and overall healthcare costs among individuals with any SUD-related diagnosis and with OUD diagnosis.

H5. The Demonstration will result in fewer readmissions to the same or higher level of care relative to trends prior to the current Demonstration period.

H6. The Demonstration will result in improved access to care for comorbid physical and mental health conditions among individuals with any SUD diagnosis, including OUD diagnoses, relative to trends prior to the current Demonstration period.

H7. The Return on Investment (ROI) will support continuation of SUD Demonstration activities

Study Design: We will employ a quasi-experimental interrupted time series (ITS) approach to compare trends in care quality measures, healthcare utilization, costs, and outcomes, pre- to post-implementation of expanded SUD services. We will also use a repeated cross-sectional design to compare trends in opioid overdoses and opioid deaths in MA to the rest of the nation.

Study Period: The evaluation period will begin three years prior to implementation of the current Demonstration period (CY 2015) and extend through the end of CY2022. We foresee that data through June 2020 will be included in the interim evaluation, and data through December 2022 will be included in the final report.

Data Sources:

1) *MassHealth administrative data:* The primary data source that will be used to address hypotheses is the MassHealth Medicaid Management Information Systems (MMIS) enrollment, medical claims /encounter files, and pharmacy claims files.

2) *Massachusetts death records:* To evaluate hypothesis H3 (the Demonstration will reduce overdose deaths), claims data will be linked to Massachusetts Death records, held by the Massachusetts Registry of Vital Records and Statistics.

3) *BSAS Program data:* If available, BSAS will provide member-level data regarding utilization of residential rehabilitation services and recovery coach services (i.e., services not covered by MassHealth in the pre-Demonstration period), to be used in conjunction with MassHealth claims/encounter data to address H2 (adherence to SUD treatment). (If this dataset is not available, services newly covered by MassHealth will be evaluated in the post-implementation period only).

4) *The Chapter 55 dataset:* To the extent possible, we will use the Chapter 55 dataset to evaluate hypothesis H3 (The Demonstration will reduce nonfatal overdoses). The Chapter 55 dataset, maintained by MDPH, is a linked dataset that was created by state statute to facilitate analysis of data to inform efforts to reduce opioid overdoses in the state. The dataset links individual-level data from a broad range of sources, including vital statistics, medical and pharmacy claims data, hospital discharge records, toxicology reports, ambulance transport records, DPH program enrollment, and BSAS service utilization. Non-fatal opioid overdoses are identified from a variety of sources, such as ambulance transport data, that are not available in MassHealth claims data. If the Chapter 55 data set is not available during the analysis period, information on non-fatal overdoses will be obtained from MMIS data using ICD /CPT codes to identify overdoses, with the limitation that claims data will underestimate the number of opioid overdoses.

5) *The CDC Wide-ranging Online Data for Epidemiologic Research (WONDER) database* is an internet-based publicly-available data system intended to further public health research and program evaluation. Information about overdoses is available in the mortality and

multiple causes of death databases, which are populated using information from death certificates. Additionally, trends can be stratified at the state level, by year, and/or by a number of other demographic characteristics. For the Demonstration, we plan to use the WONDER database to compare trends in fatal overdoses in Massachusetts to the rest of the nation.

Study Population: The study population will consist of MassHealth members (excluding MassHealth Limited members) with SUD diagnoses, including alcohol or other drugs, but excluding tobacco. Members will be identified as having a SUD if they have an ICD-9/ICD-10 diagnosis on two or more medical claim/encounters, in any position, excluding lab services. Given that SUD is often underdiagnosed, sensitivity analyses will be performed identifying members with SUD using one or more ICD-9/10 code for SUD in any position, based on the codes referenced in Appendix A of the Draft SUD Section 1115 Demonstration Evaluation Design Technical Assistance document. Recent data suggests that approximately five percent of the MassHealth population (101,598 members) have a SUD diagnosis. For selected measures, the study population will be comprised of individuals with an OUD diagnosis (sample size approximately 6,500). The analysis will include for each individual with a SUD diagnosis or treatment claim, all claims from the first observed claim with an SUD diagnosis through eleven additional months after the last observed SUD claim, or the end of Medicaid enrollment, whichever comes first.

Comparison Group: Because expansion of services will be implemented statewide for all MassHealth members, a clear comparison group, that is, one that will estimate evaluation measures in the absence of the Demonstration activities, does not exist. Instead, we will use an ITS approach to compare trends in outcomes during the twelve calendar quarters prior to the intervention, to trends in outcomes observed during the implementation period. As described previously, the design is widely used and is considered one of the strongest quasi-experimental designs, and estimates of what the evaluation measures would have been in the absence of the Demonstration can be estimated based on trends during the period prior to the Demonstration period. We acknowledge limitations to this approach--specifically, that we will not be able to adequately account for external factors at the local state, and national level. In order to partially address this concern, we will compare Massachusetts trends in the number of overdoses per resident to trends in the other 49 states. We will also attempt to identify a comparison group state that is similar to Massachusetts in baseline availability of substance use treatment facilities, but who do not expand treatment services over the Demonstration period, to compare outcomes (e.g., opioid overdoses and overdose deaths) to Massachusetts using a difference-in-differences approach. Potential states are New York and Oregon. We understand, however, that this exercise may not be feasible, given the ever-evolving initiatives to address the opioid crisis. These analyses will help our understanding of the effect of Massachusetts-specific initiatives over the Demonstration period in reducing overdoses. We discuss these limitations in more detail below.

Measures: Outcome measures will be identified in the MassHealth claims/encounter data along with death files and Chapter 55 data set, using ICD9/10, CPT, revenue, and NDC codes, as appropriate. Measures align with those listed in the November 2017 State Medicaid Director's letter SMD#17-003, and include:

- Number and percentage of the study population meeting National Quality Forum (NQF) quality measures related to initiation of treatment, pharmacotherapy use, and follow-up after ED discharge related to SUD
- Number and percentage of the population utilizing substance use disorder treatment
- Number and percentage of the population utilizing other services (e.g., emergency department, hospital inpatient, ambulatory, pharmacy)
- Fatal and non-fatal overdoses, overall and opioid specific

- Number of medication assisted treatment (MAT) providers/member with SUD, identified by DEA number in MassHealth administrative data and/or from list of qualified providers obtained from SAMHSA
- Total cost of care to MassHealth including costs of pharmacy, inpatient, outpatient, emergency, and residential care, and other healthcare costs. Cost measures are described below in more detail.

Total costs and total federal costs (Total Medicaid costs*federal medical assistance percentage [FMAP] for the state) will be reported. Total costs will be categorized by SUD cost drivers: SUD costs – costs with SUD diagnosis in primary position or relevant CPT code, and non-SUD costs - costs without an SUD diagnosis in the primary position. Total costs will also be categorized by type of care: ambulatory care, emergency department, pharmacy, inpatient, residential care, and long-term care costs. All cost data will be obtained from claims/encounter data.

Data Analysis: Member characteristics, including substance use diagnoses and other clinical and demographic characteristics during the three-year baseline period (CY 2015 – CY 2017) and during each of the evaluation years, CY2018 – CY2021, will be described. To evaluate H1-H6, we will calculate measures among members each quarter who have a SUD diagnosis from three years prior to the Demonstration, CY 2015, through CY2022.

Descriptive statistics for each quarter, including counts, percentages, means or medians, as appropriate, will be presented. A time-series approach will be used to evaluate changes in evaluation measures over time. Segmented regression analysis, using generalized estimating equations, will be used to evaluate trends prior to, between each phase of implementation, and after implementation (including lag periods if warranted, to allow for the full effect of the implementation to occur). Analyses will be conducted with and without adjusting for differences in the risk profile of MassHealth members with SUD over time. Subgroup analyses will also be performed by geographic region and member risk profiles. Cost analyses are specified in more detail below. Where feasible, outcomes for established quality measures will be compared to national benchmarks (Appendix B).

For each month that an individual is enrolled in MassHealth, the analytic data file will obtain an observation with their Medicaid costs in that month, and demographic characteristics merged from the eligibility data. An indicator variable will be created to be used in all regression modeling analyses, equal to 1 for months on or after the start date of the demonstration and equal to 0 for the pre-demonstration period months.

From the individual month-level data, per member per month (PMPM) average costs will be calculated and presented in tabular format (see Appendix G). Means will also be plotted to show trends visually and to verify that month-to-month variation is within expectations, and does not indicate an underlying data error. Per member per quarter average costs will also be presented.

The interrupted time series analysis will be performed with generalized linear models. All costs will be evaluated on the log scale. The model will be specified as:

$$\text{Costs} = \beta_0 + \beta_1 \cdot \text{TIME} + \beta_2 \cdot \text{POST} + \beta_3 \cdot (\text{TIME} \cdot \text{POST}) + \text{Bi} \cdot \text{CONTROLS} + \varepsilon$$

Where: TIME is a count variable that starts with the first quarter pre-demonstration period data and ends with the last quarter of post-demonstration period data. POST is the indicator variable that equals 1 if the month occurred on or after demonstration start date. CONTROLS are covariates, such as age, gender, race, dual Medicare-Medicaid enrollment, and month.

The ITS model results will demonstrate the trends in PMPM costs in the treatment group. If the

average marginal effect of the interaction term ($\beta_3 \text{TIME} \text{POST}$) is a positive dollar amount, then the costs in the post-demonstration period are statistically significantly higher than the costs in the pre-demonstration period, whereas if the interaction term is a negative dollar amount, then the costs in the post-demonstration period are statistically significantly lower than in the pre-demonstration period. ITS models without a comparison group cannot determine whether any observed changes are associated with the demonstration. Depending on the month-to-month variability in costs, analyses may also be conducted with time as a calendar quarter.

Table shells for presenting results of the models are presented in Appendix G.

We recognize that our time series approach will not be able to adequately account for external factors, including exacerbations of the opioid epidemic, or multiple concurrent initiatives that will likely be conducted at the state, local, and national level during the Demonstration period to address the opioid crisis. In order to partially address this concern, we will compare Massachusetts trends in the number of overdoses per resident to trends in the other 49 states. We will also attempt to identify a comparison group state that is similar to Massachusetts in baseline availability of substance use treatment facilities, but who do not expand treatment services over the demonstration period, to compare to opioid overdoses to Massachusetts. Potential states are New York and Oregon. We understand, however, that this exercise may not be feasible, given the ever-evolving initiatives to address the opioid crisis. These analyses will help our understanding of the effect of Massachusetts-specific initiatives over the Demonstration period in reducing overdoses. We discuss these limitations in more detail below.

We also recognize that not all of the measures listed in the letter to Medicaid Directors may be expected to be affected by Demonstration activities. For example, any changes to the measure, “Use of opioids at high dosage in persons without cancer” may likely be attributable to external factors such as change in dose limits implemented by MassHealth Pharmacy.” As noted above, we will describe external policy initiatives or other activities occurring during the Demonstration period that may have an impact on evaluation measures.

We will calculate the ROI of SUD-treatment expansion over a five-year horizon from a MassHealth perspective. The goal is to isolate the ROI of SUD treatment expansion from other Demonstration activities (e.g., ACO implementation). In other words, we plan to compare program costs and healthcare costs of SUD members during the Demonstration period, that is, in a scenario in which both SUD treatment expansion and ACO implementation have occurred, to estimated healthcare costs of SUD members in a scenario in which there is no expansion of SUD treatment services but there are DSRIP funded initiatives (e.g., ACOs, CPs, Flexible Services) supporting delivery system transformation.

We will use the formula:

Where:

Net Healthcare cost savings will be calculated as the difference between

- Healthcare costs with SUD treatment expansion: Total cost of care to MassHealth, including costs of pharmacy, inpatient, outpatient, and residential care, and other healthcare costs over the five-year Demonstration period for members with SUD. Observed healthcare costs, measured from the claims and encounter data will be used.
- Healthcare costs without SUD treatment expansion: Estimated total cost of care to MassHealth for members with SUD in the absence of expansion of SUD treatment

services, but assuming other Demonstration activities, e.g., ACO implementation have still occurred.

Because DSRIP-related delivery system transformation is occurring at the same time as expansion of SUD services, it is not straightforward to estimate costs in the absence of SUD treatment expansion activities but in the presence of ACO transformation. We will therefore examine various assumptions about the trajectory of member total healthcare costs in the absence of SUD treatment service expansion but in the presence of delivery system transformation. In the base case, we will first calculate the percentage change in TCOC from baseline in each Demonstration year for members without SUD. We will then assume that members with SUD would have experienced a similar percentage change in total healthcare costs as members without SUD if they did not expand SUD treatment services. We will perform sensitivity analyses to evaluate alternative assumptions.

Program costs will be calculated as the sum of the costs to MassHealth of implementing expansion of recovery-oriented substance use disorder services, including costs to MassHealth of service provision and other administrative costs.

ROIs greater than 0 indicate a positive return on investment that is savings in healthcare costs greater than the program costs. ROIs of 0 indicate a cost-neutral program, that is, the healthcare savings were equal to the program costs. ROIs between 0 and < -1 indicate that healthcare savings did not fully offset program cost. ROIs of -1 indicates no healthcare cost savings, and ROIs less than -1 indicate the program increased healthcare costs.

Measures, data sources, and analytic approaches that will be used to address each evaluation hypothesis is presented in Table 10 (next page). Details on the specifications, numerator, and denominator for key measures are presented in Appendix B.

Table 10: Goal 5 | Address the opioid addiction crisis by expanding access to a broad spectrum of recovery-oriented substance use disorder services

Evaluation Question	Evaluation Hypotheses	Measure [Reported for each Demonstration quarter]	Recommended Data Source	Analytic Approach
What is the impact of expanding MassHealth coverage to include residential services and recovery support services on care quality, costs and outcomes for members with substance use disorders (SUD)?	H1. The Demonstration increases rates of identification, initiation, and engagement in treatment among individuals with SUD.	NQF # 0004 Initiation and engagement of alcohol and other drug dependence treatment / members with SUD	MMIS claims/ encounter data	Descriptive statistics; Interrupted time series approach - segmented regression
What is the impact of expanding MassHealth coverage to include residential services and recovery support services on care quality, costs and outcomes for members with substance use disorders (SUD)?	H2. The Demonstration improves adherence to treatment among individuals with any SUD diagnosis and with OUD diagnosis.	NQF 3175: Continuity of Pharmacotherapy for OUD / members receiving MAT	MMIS claims/ encounter data	Descriptive statistics; Interrupted time series approach - segmented regression
What is the impact of expanding MassHealth coverage to include residential services and recovery support services on care quality, costs and outcomes for members with substance use disorders (SUD)?	H2. The Demonstration improves adherence to treatment among individuals with any SUD diagnosis and with OUD diagnosis	NQF #2605: Follow-Up after Discharge from the ED for Mental Health or Alcohol or Other Drug Use Dependence / members with SUD	MMIS claims/ encounter data	Descriptive statistics; Interrupted time series approach - segmented regression
What is the impact of expanding MassHealth coverage to include residential services and recovery support services on care quality, costs and outcomes for members with substance use disorders (SUD)?	H2. The Demonstration improves adherence to treatment among individuals with any SUD diagnosis and with OUD diagnosis	Percentage of members with any SUD /OUD diagnosis who used the following per month: <ul style="list-style-type: none"> • Outpatient SUD services • Intensive outpatient services • Medication assisted treatment for SUD • Residential treatment, (ASAM Level 3.1), including average length of stay • ASAM level 3.3 • Clinical stabilization services (ASAM Level 3.5) • Acute Treatment Services (ASAM Level 3.7) • Inpatient Withdrawal Management 	MMIS claims/ encounter data BSAS program data, if available	Descriptive statistics; Interrupted time series approach - segmented regression

Evaluation Question	Evaluation Hypotheses	Measure [Reported for each Demonstration quarter]	Recommended Data Source	Analytic Approach
		<ul style="list-style-type: none"> • Outpatient detox • Recovery Coach • Recovery Support Navigator 		
What is the impact of expanding MassHealth coverage to include residential services and recovery support services on care quality, costs and outcomes for members with substance use disorders (SUD)?	H3. The Demonstration reduces nonfatal overdoses and overdose deaths, particularly those due to opioids, relative to trends prior to the current Demonstration period.	NQF#2940: Use of opioids at high dosage in persons without cancer / MassHealth members	MMIS claims/ encounter data	Descriptive statistics; Interrupted time series approach - segmented regression
What is the impact of expanding MassHealth coverage to include residential services and recovery support services on care quality, costs and outcomes for members with substance use disorders (SUD)?	H3. The Demonstration reduces nonfatal overdoses and overdose deaths, particularly those due to opioids, relative to trends prior to the current Demonstration period.	Non-fatal ODs, overall and opioid related / MassHealth members	MMIS claims/ encounter data; (Chapter 55 data)	Descriptive statistics; Interrupted time series approach - segmented regression
What is the impact of expanding MassHealth coverage to include residential services and recovery support services on care quality, costs and outcomes for members with substance use disorders (SUD)?	H3. The Demonstration reduces nonfatal overdoses and overdose deaths, particularly those due to opioids, relative to trends prior to the current Demonstration period.	OD deaths, overall and opioid-related /MassHealth members	MMIS claims/ encounter data; MA death records	Descriptive statistics; Interrupted time series approach - segmented regression
What is the impact of expanding MassHealth coverage to include residential services and recovery support services on care quality, costs and outcomes for members with substance use disorders (SUD)?	H4. The Demonstration reduces utilization of emergency department and inpatient hospital settings and overall healthcare costs among individuals with any SUD-related diagnosis and with OUD diagnosis.	Emergency department use /1,000 member months for members diagnosed with SUD/OD	MMIS claims/ encounter data;	Descriptive statistics; Interrupted time series approach - segmented regression
What is the impact of expanding	H4. The Demonstration	Inpatient admissions /1,000 member months for members	MMIS claims/ encounter data;	Descriptive statistics;

Evaluation Question	Evaluation Hypotheses	Measure [Reported for each Demonstration quarter]	Recommended Data Source	Analytic Approach
MassHealth coverage to include residential services and recovery support services on care quality, costs and outcomes for members with substance use disorders (SUD)?	reduces utilization of emergency department and inpatient hospital settings and overall healthcare costs among individuals with any SUD-related diagnosis and with OUD diagnosis.	diagnosed with SUD/ OUD		Interrupted time series approach - segmented regression
What is the impact of expanding MassHealth coverage to include residential services and recovery support services on care quality, costs and outcomes for members with substance use disorders (SUD)?	H4. The Demonstration reduces utilization of emergency department and inpatient hospital settings and overall healthcare costs among individuals with any SUD-related diagnosis and with OUD diagnosis.	Healthcare costs/member month, for members diagnosed with SUD/ OUD overall and by component <ul style="list-style-type: none"> • Inpatient • ED • Ambulatory care • Pharmacy • Long-term care • SUD – other costs • Non-SUD costs 	MMIS claims/ encounter data	Descriptive statistics; Interrupted time series approach - segmented regression
What is the impact of expanding MassHealth coverage to include residential services and recovery support services on care quality, costs and outcomes for members with substance use disorders (SUD)?	H5. The Demonstration results in fewer readmissions to the same or higher level of care. The Demonstration results in fewer readmissions to the same or higher level of care.	30-day and 90-day readmission rates to same level of care or higher following admission to inpatient hospitalization or 24-hour diversionary services for any SUD diagnosis and OUD diagnosis / members with SUD admitted inpatient hospitalization or 24-hour diversionary services	MMIS claims/ encounter data	Descriptive statistics; Interrupted time series approach - segmented regression
What is the impact of expanding MassHealth coverage to include residential services and recovery support services on care quality, costs and outcomes for members with substance use disorders (SUD)?	H6. The Demonstration results in improved access to care including for comorbid physical health conditions among individuals with any SUD diagnosis and with OUD diagnoses, relative to trends prior to the current Demonstration period.	MAT Prescribers / MH members diagnosed with SUD and / MH members diagnosed with OUD Healthcare Utilization <ul style="list-style-type: none"> • Outpatient SUD Professional visits / 1,000-member months • Inpatient admissions /1,000-member months • Ambulatory care visits/1,000-member months • Other utilization/1,000-member months 	MMIS claims/ encounter/provider data	Descriptive statistics; Interrupted time series approach - segmented regression

Evaluation Question	Evaluation Hypotheses	Measure [Reported for each Demonstration quarter]	Recommended Data Source	Analytic Approach
What is the impact of expanding MassHealth coverage to include residential services and recovery support services on care quality, costs and outcomes for members with substance use disorders (SUD)?	H7. The Return on Investment (ROI) will support continuation of SUD Demonstration activities	Program costs; healthcare costs	MMIS claims/ encounter data	Return on Investment

VI. Demonstration Goal 6: Continuing to provide coverage to former foster care youth who aged out of foster care under the responsibility of another state (and were enrolled in Medicaid in the state in which they lived at any time during the foster care period), as a means of increasing and strengthening overall coverage of former foster care youth and improving health outcomes for these youth

A. Introduction

In order to improve healthcare access to former foster care children under age 26 who “aged out” of the foster care system in other states, the Demonstration seeks to provide full Medicaid State Plan benefits to former foster care youth (regardless of income or assets) who are: (1) under age 26; (2) were in foster care under the responsibility of a state other than Massachusetts or a Tribe in such a state when they turned 18 or a higher age at which the state’s or Tribe’s foster care assistance ends; (3) were enrolled in Medicaid under that state’s Medicaid state plan or 1115 Demonstration at any time during the foster care period; and (4) are currently living in Massachusetts.

As per CMS request, Massachusetts is shifting authority from the State Plan to the 1115 Demonstration to continue existing coverage of certain former foster care youth. MassHealth is proactively working to maintain healthcare coverage and improve health outcomes within this population. The Demonstration offers continued access to ensure that former foster care youth will be enrolled and have access to health services. The Demonstration also encourages positive health outcomes in this population.

B. Goal 6: Continuing to provide coverage to former foster care youth who aged out of foster care under the responsibility of another state (and were enrolled in Medicaid in the state in which they lived at any time during the foster care period), as a means of increasing and strengthening overall coverage of former foster care youth and improving health outcomes for these youth.

Research Questions:

1. Does the Demonstration provide continuous health insurance coverage for former foster care individuals meeting specified eligibility criteria?
H1. Eligible former foster care individuals will be continuously enrolled for 12 months
2. How did former foster care individuals utilize health services?
H2. Former foster care individuals will access health services at rates comparable to other Medicaid members with similar characteristics
3. How do health outcomes for former foster care individuals compare to similar Medicaid members?
H3. Former foster care individuals will have positive health outcomes as defined by NQF measures, comparable to other Medicaid members with similar characteristics

Study Design: The evaluation design will utilize a post-only assessment to track enrollment, healthcare utilization, and outcomes in the study population on an annual basis. Findings will be benchmarked relative to MassHealth members with similar demographic and clinical characteristics.

Study Period: The timeframe for the post-only period will begin when the Demonstration begins, December 14, 2017 and continue through December 2022. We foresee that data through June

2020 will be included in the interim evaluation, and data through December 2022 will be included in the final report.

Data Source:

MassHealth administrative data: The primary data source is the MassHealth MMIS enrollment, medical claims/encounter files, and pharmacy claims files.

Program Enrollment data: MassHealth ID numbers of former foster care youth covered by Medicaid will be received annually from MassHealth, for linking with administrative data.

Study Population: The study population will be former youth who were in foster care out-of-state who enroll in MassHealth from 2018 - 2022. We estimate the sample size will be approximately 75 members per year.

Comparison Group: A clear comparison group, that is, one that will estimate evaluation outcomes in the study population in the absence of the Demonstration activities, does not exist for these analyses. Moreover, given the small anticipated sample size, we will not have adequate power to perform statistical analyses comparing members of the study population to a comparison group (See Appendix H). Nevertheless, we will identify a 1:1 group of Medicaid members matched on age, gender, clinical comorbidity, to benchmark the outcome measures to other Medicaid members with similar clinical and demographic characteristics. Baseline data prior to the intervention will not be available, as some of this population received insurance coverage from another source prior to the current Demonstration period in MA.

Measures: Measures will be identified from claims/encounter data, and measured annually:

- Number and percentage of the study population who were continuously enrolled in MassHealth for one year
- Number and percentage of the study population who had an ambulatory care visit
- Number and percentage of the study population who had an emergency department visit
- Number and percentage of the study population who had an inpatient visit
- Number and percentage of the study population who had a behavioral health encounter
- Number and percentage of the study population with an annual preventive visit

Given the small sample size, we anticipate having a very small number of members who take persistent medications, have asthma, are women, or were hospitalized. We are therefore unable to assess the following outcome measures:

- Total number of members on persistent medications with annual monitoring/Total number of members on persistent medications
- Total number of members with a cervical cancer screening/Total number of members eligible for cervical cancer screening.
- Number and percentage of the study population with appropriate follow-up care for hospitalizations (physical and/or mental illness)

Data Analysis: We will use descriptive statistics for the analysis, specifying and presenting all measures on an annual basis. For all evaluation questions, we will employ descriptive statistics, including frequency and percentages for dichotomous outcomes, and means/standard deviations and medians/ranges for continuous measures during each year of the Demonstration. Trends in measures over evaluation period will be presented in graphic format We will not have statistical power to statistically compare evaluation measures for former foster care to other MassHealth members with similar demographic and clinical characteristics. Nevertheless, we will benchmark to MassHealth

members with similar clinical and demographic characteristics. Analyses are also subject to limitations of using administrative data, as described on pg.6.

Measures, data sources, and analytic approaches that will be used to address each evaluation hypothesis is presented in Table 11 (next page).

Table 11: Goal 6 | Former Foster Care Youth Coverage

Evaluation Question	Evaluation Hypotheses	Measure [Reported for each Demonstration Year]	Recommended Data Source	Analytic Approach
Does the Demonstration provide continuous health insurance coverage?	Members will be continuously enrolled for 12 months	Number of members continuously enrolled/ Total number of enrollees	MMIS claims/ encounter enrollment data	Descriptive statistics (frequency and percentages)
How did members utilize health services?	Members will access health services	Number of members who had an ambulatory care visit/ Total number of members	MMIS claims/ encounter data	Descriptive statistics (and percentages)
How did members utilize health services?	Members will access health services	Number of members who had an emergency department visit/ Total number of members	MMIS claims/ encounter data	Descriptive statistics (frequencies and percentages)
How did members utilize health services?	Members will access health services	Number of members who had an inpatient visit/ Total number of members	MMIS claims/ encounter data	Descriptive statistics (frequencies and percentages)
How did members utilize health services?	Members will access health services	Number of members who had a behavioral health encounter/ Total number of members	MMIS claims/ encounter data	Descriptive statistics (frequencies and percentages)
What do health outcomes look like for members?	Members will have positive health outcomes [as defined by NQF measures]	Total number of beneficiaries with an annual preventive visit/ Total number of beneficiaries	MMIS claims/ encounter data	Descriptive statistics (frequency and percentage)

VII. Demonstration Goal 7: Ensure the long-term financial sustainability of the MassHealth program through refinement of provisional eligibility and authorization for Student Health Insurance Program (SHIP) Premium Assistance

A. Introduction

Massachusetts is one of few states to offer provisional enrollment in Medicaid. Prior to the current Demonstration period, Massachusetts offered provisional eligibility for all MassHealth applicants, even if individuals' eligibility factors could not be readily verified with federal and state data. Applicants were given a 90-day window during which they would receive complete benefits associated with their category of eligibility. Verification of the eligibility factors – excluding disability, immigration, and citizenship – needed to be ascertained within the 90-day period or else the individual would either be dis-enrolled from MassHealth or, as applicable, enrolled in a different aid category.

With this update to the Demonstration, MassHealth hopes to reduce the number of individuals receiving provisional eligibility who are ultimately not eligible for MassHealth while still protecting the most vulnerable populations. Massachusetts will be removing provisional eligibility for all adults over 21 years of age with unverified income, except for the following:

- Pregnant women with attested income at/below 200% of the Federal Poverty Level (FPL)
- Adults 21 through 64 years of age who are HIV-positive and have attested income at/below 200% FPL
- Individuals with breast and cervical cancer who are under 65 and have attested income at/below 250% FPL

SHIP Premium Assistance requires MassHealth students attending participating post-secondary schools in the state to enroll in school-sponsored insurance. The state provides premium and cost-sharing assistance, as well as benefit wrap-around coverage to ensure that the SHIP benefits are equivalent to MassHealth, including keeping out-of-pocket costs at the same level as if services were being received directly from MassHealth.

The evaluation will examine MassHealth enrollment and cost implications of changes to provisional eligibility rules and the authorization of SHIP Premium Assistance. To evaluate the changes to provisional eligibility, we will examine the extent to which this narrowing of eligibility for provisional eligibility affected provisional enrollment and MassHealth expenditures for individuals ultimately deemed ineligible for coverage. To evaluate SHIP Premium Assistance, we will estimate the cost savings and describe member experiences associated with the program

B. Goal 7: Ensure the long-term financial sustainability of the MassHealth program through refinement of provisional eligibility and authorization of SHIP Premium Assistance.

Research Question: What is the effect of the Demonstration's refinement of provisional eligibility?

- **H1.** The Demonstration's refinement of provisional eligibility will decrease the number of individuals who were deemed provisionally eligible for MassHealth based on self-attestation of eligibility factors, but were not ultimately able to verify MassHealth eligibility relative to trends before the effective date of the current Demonstration extension period.

- **H2.** The Demonstration's refinement of provisional eligibility will decrease costs to MassHealth by reducing MassHealth expenditures for individuals who are deemed provisionally eligible for MassHealth during the provisional eligibility period but cannot confirm their MassHealth eligibility within 90-days, relative to trends before the effective date of the current Demonstration extension period.

Research Question: What is the effect of the Demonstration's authorization of SHIP Premium Assistance on MassHealth expenditures?

- **H3.** The SHIP Premium Assistance program will result in cost savings to MassHealth
- **H4:** The SHIP Premium Assistance Program will result in a similar or better member experience compared with the period prior to enrollment

Study Design: To evaluate H1 and H2, we will utilize an interrupted time-series approach. To address hypothesis H1, we will use this approach to compare the trends in the number and percentage of individuals during each calendar quarter who receive provisional eligibility, but are later disenrolled due to not confirming their eligibility pre- and post- the current Demonstration period. To address hypothesis H2, we will compare the trends in health care costs incurred by members with provisional insurance who are later disenrolled due to not confirming their eligibility, pre- and post- the current Demonstration period. To evaluate H3 we will conduct a cost savings analysis. To evaluate H4, we will compare member experiences in the SHIP PA program to their experience prior to enrollment.

Study Period: The evaluation period will begin three years prior to implementation of the current Demonstration period CY 2015, and extend through the end of CY2022. We foresee that data through June 2019 will be included in the interim evaluation, and data through December 2022 will be included in the final report.

Data Sources:

- 1) *Health Insurance Exchange /Integrated Eligibility System (HIX/IES):* The HIX/IES data set contains Medicaid ID, demographic information, date of enrollment/renewal, whether the individual lost coverage after 90-days, and reason for loss of coverage. Data from HIX/IES will be used to identify individuals with provisional eligibility who lost eligibility after 90-days.
- 2) MassHealth administrative data: MassHealth MMIS enrollment, medical claims/ encounter files, and pharmacy claims files will be used to evaluate MassHealth enrollment and healthcare costs in the study populations.
- 3) Capitation rates: Capitation rates, by risk corridor and age group categories, which will be obtained from MassHealth
- 4) Member experience survey: Data about member experiences with the SHIP PA program will be collected from college students enrolled in the program.

Study Population: To evaluate H1 and H2, the study population will be comprised of MassHealth members who have provisional eligibility. The annual sample size will be approximately 135,000 per year.

To evaluate H3, the study population will be comprised of MassHealth members enrolled in SHIP Premium Assistance. The annual enrollment is approximately 30,000 members.

Comparison Group: Because the Demonstration affects MassHealth members statewide, a

clear comparison group to evaluate H1 and H2, that is, one that estimates what would have occurred in the absence of the Demonstration, does not exist. Instead, we will use an interrupted time-series approach to compare trends in measures during the twelve calendar quarters prior to the intervention to trends in outcomes observed during the implementation period. With this approach, estimates of what the evaluation outcome measures would have been in the absence of the Demonstration can be estimated based on trends during the period prior to the pre-Demonstration period. To evaluate H3, we will calculate cost to MassHealth of SHIP Premium Assistance enrollees had they not participated in the program based on what MassHealth would have paid in capitated per member per month payments. To evaluate H4, we will collect member experience before and during enrollment in the SHIP PA program to enable pre-post comparisons where applicable.

Measures: To evaluate Hypothesis H1, the outcome measure will be the number and percentage of individuals who received provisional eligibility, and the number and percentage who received provisional eligibility and who later were deemed ineligible and disenrolled as identified in HIX-IES data.

To evaluate Hypothesis H2, the outcome measure will be the total MassHealth expenditures during the provisional eligibility period, as identified in MMIS claims/encounter period, for individuals who received provisional eligibility and who later were deemed not eligible.

To evaluate H4, measures considered may include the members' perceptions of their access to care prior to and after enrollment into the SHIP PA program, the members' learned independence in coordination of benefits and services, and members' preparedness for a post-graduation transition to either MassHealth or coverage in a commercial network.

Data Analysis: Demographic characteristics of individuals receiving provisional eligibility during the three-year baseline period (CY 2015 – CY 2017) and during each evaluation year (CY2018 – CY2022) will be described. To evaluate H1, we will calculate, during each calendar quarter, the percentage with provisional eligibility and the percentage with provisional eligibility that lose eligibility after 90-days. An interrupted time-series approach will be used to evaluate changes in evaluation measures over time. Segmented regression analysis, using generalized estimating equations, will be used to evaluate trends in measures prior to and after the changes to provisional eligibility. To evaluate H2, we will calculate total MassHealth expenditures during the provisional eligibility period during each calendar quarter among those who are given provisional eligibility but are not able to verify eligibility, prior to, and after the provisional eligibility period.

We acknowledge the limitations of a time-series approach. Specifically, we will be unable to account for external factors that may affect results. In reporting our results, we will describe concurrent external events that may be affecting our results. Data are also subject to limitations of administrative data, as discussed on pg. 6.

We will calculate the annual cost savings of SHIP Premium Assistance over a five-year horizon from a MassHealth perspective.

We will use the formula below to determine cost savings:

Where:

MassHealth healthcare costs without SHIP: Total costs to MassHealth will be estimated as the sum of the capitated per member per month payments that would have been paid for SHIP Premium Assistance enrollees had they been directly covered by MassHealth and enrolled in managed care. Capitated payments will reflect the enrollee's rating category and the duration of time enrolled in SHIP Premium Assistance. Various assumptions will be assessed in sensitivity analyses.

MassHealth costs with SHIP: Cost to MassHealth for premiums, cost sharing and benefit wrap coverage for SHIP Premium Assistance members. Actual observed healthcare costs will be used.

For H4 of the SHIP PA program evaluation, we will describe member experience prior to entry and during enrollment in the SHIP PA program. We will then examine differences in member experiences between the pre-enrollment and the enrollment period. We will survey students new to the SHIP Premium Assistance program and those with longer durations in the program, which will allow us to examine heterogeneity in member experiences by length of time in the program. We will monitor response rates, assess the potential for bias from nonresponses, and check for measurement error (e.g., due to mode of administration, interviewer, inappropriate responses).

Evaluation questions, hypotheses, measures, data sources, and analytic approach that will be used to for address each evaluation hypothesis are presented in Table 12.

Table 12: Goal 7 | Ensure the long-term financial sustainability of the MassHealth program through refinement of provisional eligibility and authorization for SHIP Premium Assistance

Evaluation Question	Evaluation Hypotheses	Measure [Reported for each Demonstration Year]	Recommended Data Source	Analytic Approach
What is the impact of the Demonstration's refinement of provisional eligibility?	The Demonstration's refinement of provisional eligibility will reduce the number of provisionally eligible individuals who are ultimately not able to verify eligibility for MassHealth.	Number and percentage of provisionally-enrolled individuals	HIX/IES data	Descriptive statistics, interrupted time series
What is the impact of the Demonstration's refinement of provisional eligibility?	The Demonstration's refinement of provisional eligibility will reduce the number of provisionally eligible individuals who are ultimately not able to verify eligibility for MassHealth.	Number and percentage of provisionally-enrolled individuals later disenrolled	HIX/IES data	Descriptive statistics, interrupted time series
What is the impact of the Demonstration's refinement of provisional eligibility?	The Demonstration's refinement of provisional eligibility will decrease healthcare costs by reducing MassHealth Expenditures costs incurred for individuals who were deemed provisionally eligible for MassHealth during the provisional eligibility period but were not able to confirm their eligibility within 90 days, relative to trends before the effective date of the current Demonstration extension period.	Total healthcare costs among those provisionally enrolled who were not able to confirm their eligibility within 90 days relative to trends before the effective date of the current Demonstration extension period. Only those provisional members who did not regain their aid category within 90 days of disenrollment will be included in the analysis	HIX/IES, MMIS data	Descriptive statistics; interrupted time series approach
What is the effect of the Demonstration's authorization of SHIP Premium Assistance on MassHealth expenditures?	The SHIP Premium Assistance program will result in cost savings to MassHealth.	Healthcare costs that would have been paid by MassHealth for SHIP Premium Assistance members if they were directly covered by MassHealth and enrolled in managed care.	MMIS claims data	Cost savings
What is the effect of the Demonstration's	The SHIP Premium Assistance program will	SHIP Premium Assistance program	MMIS claims data	Cost savings

Evaluation Question	Evaluation Hypotheses	Measure [Reported for each Demonstration Year]	Recommended Data Source	Analytic Approach
authorization of SHIP Premium Assistance on MassHealth expenditures?	result in cost savings to MassHealth.	costs		
What is the effect of the Demonstration's authorization of SHIP Premium Assistance on MassHealth expenditures?	The SHIP Premium Assistance Program will result in a similar or better member experience compared with the period prior to enrollment.	Measures could include member's experience with perceived network access, actual care (personal doctor, specialist, and health plan), learned independence in coordination of benefits and services, transition to coverage post-graduation	MMIS Claims Data, SHIP Program Data, Member Experience Survey Data	Descriptive statistics, pre-post comparison

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IX. Appendices

- A1. Participating ACOs and CPs
- A2. Participating BH CPs
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- A5. Algorithms to identify members for assignment to CPs
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Appendix A1: Participating ACOs

Contractor	Model	ACO Partner	Service Area
Boston Medical Center Health Plan, Inc.	Accountable Care Partnership Plan	Boston Accountable Care Organization	Attleboro, Boston, Brockton, Fall River, Falmouth, Greenfield, Holyoke, Lynn, Malden, New Bedford, Northampton, Plymouth, Quincy, Revere, Somerville, Springfield, Taunton, Waltham, Wareham, Westfield, Woburn
Boston Medical Center Health Plan, Inc.	Accountable Care Partnership Plan	Mercy Health Accountable Care Organization	Holyoke, Northampton, Springfield, Westfield
Boston Medical Center Health Plan, Inc.	Accountable Care Partnership Plan	Signature Healthcare Corporation	Brockton, Plymouth, Quincy, Taunton
Boston Medical Center Health Plan, Inc.	Accountable Care Partnership Plan	Southcoast Health Network	Attleboro, Fall River, Falmouth, New Bedford, Plymouth, Wareham, Taunton
Fallon Community Health Plan, Inc.	Accountable Care Partnership Plan	Health Collaborative of the Berkshires	Adams, Pittsfield
Fallon Community Health Plan, Inc.	Accountable Care Partnership Plan	Reliant Medical Group	Framingham, Gardner-Fitchburg, Southbridge, Worcester
Fallon Community Health Plan, Inc.	Accountable Care Partnership Plan	Wellforce	Attleboro, Barnstable, Beverly, Boston, Brockton, Falmouth, Framingham, Haverhill, Lawrence, Lowell, Lynn, Malden, Orleans, Plymouth, Quincy, Revere, Salem, Somerville, Waltham, Wareham, Woburn
Health New England, Inc.	Accountable Care Partnership Plan	Baystate Health Care Alliance	Holyoke, Northampton, Springfield, Westfield
Neighborhood Health Plan, Inc.	Accountable Care Partnership Plan	Merrimack Valley ACO	Lawrence, Lowell, Haverhill
Tufts Health Public Plans, Inc.	Accountable Care Partnership Plan	Atrius Health	Attleboro, Beverly, Boston, Brockton, Falmouth, Framingham, Gardner-Fitchburg, Lawrence, Lowell, Lynn, Malden, Plymouth, Quincy, Revere, Salem, Somerville, Waltham, Wareham, Woburn

Contractor	Model	ACO Partner	Service Area
Tufts Health Public Plans, Inc.	Accountable Care Partnership Plan	Beth Israel Deaconess Care Organization	Attleboro, Barnstable, Beverly, Boston, Brockton, Falmouth, Framingham, Haverhill, Lowell, Lynn, Malden, Orleans, Plymouth, Quincy, Revere, Salem, Somerville, Waltham, Wareham, Woburn
Tufts Health Public Plans, Inc.	Accountable Care Partnership Plan	Cambridge Health Alliance	Boston, Lynn, Malden, Revere, Somerville, Waltham, Woburn
Tufts Health Public Plans, Inc.	Accountable Care Partnership Plan	Boston Children's ACO	Attleboro, Barnstable, Beverly, Boston, Brockton, Fall River, Falmouth, Framingham, Haverhill, Holyoke, Lawrence, Lowell, Lynn, Malden, New Bedford, Northampton, Orleans, Plymouth, Quincy, Revere, Salem, Somerville, Southbridge, Springfield, Taunton, Waltham, Wareham, Westfield, Woburn, Worcester
Community Care Cooperative, Inc.	Primary Care ACO	Not applicable	Not applicable
Partners HealthCare Accountable Care Organization, LLC	Primary Care ACO	Not applicable	Not applicable
Steward Medicaid Care Network, Inc.	Primary Care ACO	Not applicable	Not applicable
Lahey Clinical Performance Network, LLC	MCO-Administered ACO	Not applicable	Not applicable

Appendix A2: Participating BH CPs

Bidder	Consortium Entities	Affiliated Partners (Partnership Name, if applicable)	Region: Service Area
South Shore Mental Health Center, Inc.	Not applicable	<ul style="list-style-type: none"> Spectrum Health Systems, Inc. 	Greater Boston: Quincy
Boston Health Care for the Homeless Program, Inc.	Not applicable	<ul style="list-style-type: none"> Bay Cove Human Services, Inc. Boston Public Health Commission Boston Rescue Mission, Inc. Casa Esperanza, Inc. Pine Street Inn, Inc. St. Francis House Victory Programs, Inc. Vietnam Veterans Workshop, Inc. 	Greater Boston: Boston Primary
Community Counseling of Bristol County, Inc.	Not applicable	Not applicable	Southern: Attleboro, Brockton, Taunton
Southeast Community Partnership, LLC	<ul style="list-style-type: none"> South Shore Mental Health Center, Inc. Gosnold, Inc. 	<ul style="list-style-type: none"> FCP, Inc. dba Family Continuity 	Southern: Attleboro, Barnstable, Brockton, Fall River, Falmouth, Nantucket, New Bedford, Oak Bluffs, Orleans, Plymouth, Taunton, Wareham
Stanley Street Treatment and Resources, Inc.	Not applicable	<ul style="list-style-type: none"> Greater New Bedford Community Health Center, Inc. HealthFirst Family Care Center, Inc. Fellowship Health Resources, Inc. 	Southern: Attleboro, Barnstable, Fall River, Falmouth, New Bedford, Oak Bluffs, Orleans, Taunton, Wareham
Northeast Behavioral Health Corporation, dba Lahey Behavioral Health Services	Not applicable	N/A	Northern: Beverly, Gloucester, Haverhill, Lawrence, Lowell, Lynn, Malden, Salem, Woburn
Lowell Community Health Center, Inc.	Not applicable	<ul style="list-style-type: none"> Lowell House, Inc. 	Northern: Lowell

Bidder	Consortium Entities	Affiliated Partners <i>(Partnership Name, if applicable)</i>	Region: Service Area
The Bridge of Central Massachusetts, Inc.	Not applicable	<i>Central Community Health Partnership/BH</i> <ul style="list-style-type: none"> • Alternatives Unlimited, Inc. • LUK, Inc. • Venture Community Services • Adcare 	Central: Athol, Framingham Gardner-Fitchburg, Southbridge, Worcester
Community Healthlink, Inc.	Not applicable	Not applicable	Central: Gardner-Fitchburg, Worcester
Behavioral Health Network, Inc.	Not applicable	Not applicable	Western: Holyoke, Springfield, Westfield
The Brien Center for Mental Health and Substance Abuse Services, Inc.	Not applicable	Not applicable	Western: Adams, Pittsfield
Innovative Care Partners, LLC	<ul style="list-style-type: none"> • Center for Human Development, Inc. (CHD) • Gandara Mental Health Center, Inc. • ServiceNet, Inc. 	Not applicable	Western: Adams, Greenfield, Holyoke, Northampton, Pittsfield, Springfield, Westfield
High Point Treatment Center, Inc.	Not applicable	<ul style="list-style-type: none"> • Brockton Area Multi Services, Inc. (BAMSI) • Bay State Community Services, Inc. • Child & Family Services, Inc. • Duffy Health Center • Steppingstone, Inc. 	Greater Boston: Quincy Southern: Attleboro, Barnstable, Brockton, Fall River, Falmouth, New Bedford, Orleans, Plymouth, Taunton, Wareham

Bidder	Consortium Entities	Affiliated Partners <i>(Partnership Name, if applicable)</i>	Region: Service Area
Eliot Community Human Services, Inc.	Not applicable	Not applicable	<p>Greater Boston: Revere, Somerville</p> <p>Northern: Beverly, Gloucester, Lowell, Lynn, Malden, Salem, Woburn</p> <p>Central: Framingham, Waltham</p>
Riverside Community Care, Inc.	Not applicable	<ul style="list-style-type: none"> • Brookline Community Mental Health Center, Inc. • The Dimock Center, Inc. • The Edinburg Center, Inc. • Lynn Community Health Center, Inc. • North Suffolk Mental Health Association, Inc. • Upham's Corner Health Center 	<p>Greater Boston: Boston Primary, Revere, Somerville, Quincy</p> <p>Northern: Lowell, Lynn, Malden, Woburn</p> <p>Central: Framingham, Southbridge, Waltham</p>
Eastern Massachusetts Community Partners, LLC	<ul style="list-style-type: none"> • Vinfen Corporation • Bay Cove Human Services, Inc. • Bridgewell, Inc. 	Not applicable	<p>Greater Boston: Boston Primary, Revere, Somerville, Quincy</p> <p>Northern: Haverhill, Lawrence, Lowell, Lynn, Malden, Salem</p> <p>Southern: Attleboro, Barnstable, Brockton, Fall River, Falmouth, New Bedford, Orleans, Plymouth, Taunton, Wareham</p>

Bidder	Consortium Entities	Affiliated Partners <i>(Partnership Name, if applicable)</i>	Region: Service Area
Clinical Support Options, Inc.	Not applicable	Not applicable	Central: Athol Western: Adams, Greenfield, Northampton, Pittsfield
Behavioral Health Partners of Metrowest, LLC	<ul style="list-style-type: none"> • Advocates, Inc. • South Middlesex Opportunity Council • Spectrum Health Systems, Inc. • Wayside Youth and Family Support 	<ul style="list-style-type: none"> • Family Continuity (FCP), Inc. 	Northern: Beverly, Gloucester, Haverhill, Lawrence, Lowell, Lynn, Malden, Salem, Woburn Central: Athol, Framingham, Gardner-Fitchburg, Southbridge, Waltham, Worcester

Appendix A3: Participating LTSS CPs

Bidder	Consortium Entities	Affiliated Partners <i>(Partnership Name, if applicable)</i>	Region: Service Area
Boston Medical Center	Not applicable	<i>Boston Allied Partners</i> <ul style="list-style-type: none"> • Boston Senior Home Care, Inc. • Central Boston Elder Services • Southwest Boston Senior Services d/b/a Ethos 	Greater Boston: Boston-Primary
LTSS Care Partners	<ul style="list-style-type: none"> • Vinfen • Bay Cove Human Services • Justice Resource Institute • Boston Center for Independent Living • Mystic Valley Elder Services • Somerville Cambridge Elder Services • Boston Senior Home Care, Inc. 	Not applicable	Greater Boston: Boston-Primary, Revere, Somerville, Quincy Northern: Malden Southern: Brockton
Alternatives Unlimited	Not applicable	<i>Central Community Health Partnership</i> <ul style="list-style-type: none"> • The Bridge of Central Massachusetts, Inc. • LUK, Inc. • Venture Community Services, Inc. 	Central: Athol, Framingham, Gardner-Fitchburg, Southbridge, Worcester
Elder Services of Merrimack Valley	Not applicable	<i>Merrimack Valley Community Partnership</i> <ul style="list-style-type: none"> • Northeast Independent Living Program 	Northern: Haverhill, Lawrence, Lowell
Family Service Association	Not applicable	Not applicable	Southern: Attleboro, Barnstable, Brockton, Fall River, Falmouth, Nantucket, New Bedford, Oaks Bluff, Orleans, Plymouth, Taunton, Wareham
Innovative Care Partners	<ul style="list-style-type: none"> • Center for Human Development 	Not applicable	Western: Adams, Greenfield, Holyoke, Northampton, Pittsfield, Springfield, Westfield

Bidder	Consortium Entities	Affiliated Partners <i>(Partnership Name, if applicable)</i>	Region: Service Area
	<ul style="list-style-type: none"> • Gandara Mental Health Center, Inc. • Service Net, Inc. 		
Greater Lynn Senior Services	Not applicable	<i>North Region LTSS Partnership</i> <ul style="list-style-type: none"> • Bridgewell • Northeast Arc 	Northern: Beverly, Gloucester, Haverhill, Lawrence, Lowell, Lynn, Malden, Salem, Woburn
Seven Hills Family Services, Inc.	Not applicable	<i>Massachusetts Care Coordination Network</i> <ul style="list-style-type: none"> • Advocates, Inc. • Boston Center for Independent Living, Inc. • HMEA • BayPath Elder Services, Inc. • BAMSI 	Northern: Beverly, Gloucester, Haverhill, Lawrence, Lowell, Lynn, Malden, Salem, Woburn Southern: Attleboro, Barnstable, Brockton, Fall River, Falmouth, Nantucket, New Bedford, Oaks Bluff, Orleans, Plymouth, Taunton, Wareham Central: Athol, Framingham, Gardner-Fitchburg, Southbridge, Waltham, Worcester
WestMass Elder Care	Not applicable	<i>Care Alliance of Western Massachusetts</i> <ul style="list-style-type: none"> • Greater Springfield Senior Services, Inc. • Highland Valley Elder Services, Inc. • LifePath, Inc. • Elder Services of Berkshire County, Inc. • Stavros Center for Independent Living, • Adlib, Inc. • Behavioral Health Network, Inc. 	Central: Athol Western: Adams, Greenfield, Holyoke, Northampton, Pittsfield, Springfield, Westfield

Appendix A4. Participating CSAs

Bidder
Children’s Services of Roxbury
Wayside Youth and Family Support Network
Child & Family Services, Inc.
Eliot Community Human Services, Inc.
The Home for Little Wanderers
Youth Opportunities Upheld, Inc. (YOU, Inc.)
Behavioral Health Network, Inc.
Family Service Association of Greater Fall River
Brockton Area Multi-Services, Inc.
Community Counseling of Bristol County, Inc.
Community Healthlink, Inc.
North Suffolk Mental Health Association, Inc.
Bay State Community Services
Riverside Community Care, Inc.
Gandara Mental Health Center, Inc.
Justice Resource Institute
Lahey Health Behavioral Services
Clinical and Support Options, Inc.
The Brien Center

Appendix A5: BH and LTSS CP Identification Algorithms

BH CP Identification Algorithm

Individuals identified for BH CP Supports using the analytics claims-based identification process include members enrolled in managed care with a relevant diagnosis AND some relevant utilization/co-morbidities in the last 15 months. To be part of the target population, members must meet the criteria for at least one of the following three groups. Members receiving care management supports from other EOHHS programs were excluded from the BH CP program. Members in the Department of Mental Health Adult Community Clinical Supports were identified for the BH CP Program unless otherwise directed by the Department of Mental Health, regardless of managed care enrollment.

	Members must have a diagnosis from the below list...	...AND meet at least one of the following...	...AND meet at least one of the following
Highest need BH diagnosis (Group 1)	<ul style="list-style-type: none"> • Schizophrenia • Bipolar disorder • Personality/ other mood disorders • Psychosis • Trauma • Attempted suicide or self-injury • Homicidal ideation 	N/A	<ul style="list-style-type: none"> • IP visits (3+) • ED visits (5+) • Select medical comorbidities (3+) • High LTSS utilization • Current DMH enrollment
High need BH diagnosis (Group 2)	<ul style="list-style-type: none"> • Major depression • Other depression • Adjustment reaction • Anxiety • Psychosomatic disorders • Conduct disorder • PTSD 	<ul style="list-style-type: none"> • BH-related IP visits (1+) • ESP interactions (2+) • ED visits (5+) 	<ul style="list-style-type: none"> • IP visits (3+) • ED visits (5+) • Select medical comorbidities (3+) • High LTSS utilization • Current DMH enrollment
SUD diagnosis (Group 3)	<ul style="list-style-type: none"> • Any SUD diagnosis excluding caffeine and nicotine 	<ul style="list-style-type: none"> • IP visit with a primary SUD diagnosis (2+) • ESP interaction (2+) • Detoxification (2+) • Methadone treatment (1+) 	

LTSS CP Identification Algorithm

Individuals identified for LTSS CP Supports using the analytics claims-based identification process include individuals with >\$300 in expenditures on LTSS State Plan service over 3 consecutive months, over a 12-month look-back period. Members receiving care management supports from other EOHHS programs were excluded from the LTSS CP program.

LTSS State Plan services include:

Extended Care Facility	Orthotics
Hospice	Chronic inpatient & outpatient hospitals
Therapists	PCA services
Nursing Facility	Home Health
Speech and Hearing Center	Independent Nurse
Rehabilitation Center	Adult Foster Care/Group Adult Foster Care
Early Intervention	Adult Day Health
Targeted Case Management	Day Habilitation
Durable Medical Equipment	Independent living (also PCA services)
Oxygen & Respiratory Therapy Equipment	Nursing Services
Prosthetics	

Exclusions from Identification Algorithm: Certain MassHealth members were excluded from the LTSS CP identification algorithm based on the reception of certain services or enrollment in certain programs. However, these members may be referred into the CP Program on an individual basis.

LTSS CP Identification Algorithm Exclusions:

- Adult Supports Waiver
- Home Care Program – Basic, Non-Waiver
- Home Care Basic – Waiver (Frail Elder Waiver)
- Choices (Frail Elder Waiver)
- Community Living Waiver
- Traumatic Brain Injury Waiver
- Intensive Supports Waiver
- Acquired Brain Injury Non-Residential Waiver
- Autism Waiver
- Money Follows the Person Residential Waiver
- Money Follows the Person Community Living Waiver
- Acquired Brain Injury Residential Habilitation Waiver
- Community Case Management
- Non-waiver 24/7 Residential Supports (Shared Living and Group Home)

Appendix B:
1115 Demonstration Evaluation
Specifications of Quantitative Measures Derived from Existing Data Sources

Overview

The table below lists process and outcome measures derived from existing data sources to be used in the quantitative evaluation of Demonstration Goals 1-2 (DSRIP) and Goals 3-7. These measures were selected to capture the Demonstration's effects on healthcare access, program enrollment, care processes, needs identification, integration, healthcare utilization, member outcomes, and healthcare costs.

Measure Selection

Accountability measures comprising the Massachusetts Medicaid ACO measure slate and the 2 CP measure slates were selected by MassHealth after iterative feedback from stakeholders in Massachusetts and from CMS. Measures that were not selected by MassHealth for accountability purposes but that were deemed important for monitoring will also be studied. Additional measures were selected based on NQF endorsement and from established measure stewards to study Demonstration effects on processes and outcomes across other important conceptual areas, particularly those included in the DSRIP Implementation Logic Model. Standard epidemiologic measures (e.g., rates, proportions) will also be calculated to track changes in utilization and costs over the study period. Similar to other state evaluations, measure selection accounts for outcomes specific to Massachusetts' 1115 Demonstration.

The table below is organized into two main sections: Goals 1 and 2 (DSRIP) and Goals 3-7. Similar to other states, the measures selected here includes the steward, NQF measure number (if applicable), NQF endorsement, and national benchmarks from CMS, NCQA, and ARHQ, if available. Measures operationalized by MassHealth and UMMS do not have national benchmarks.

Note: Some measure specifications are still under review between the State and CMS, to be finalized at a later date.

Goals 1 and 2 (DSRIP) are organized by evaluation domain:

- Domain 1: State, organizational, and provider-level actions promoting delivery system transformation
- Domain 2: Changes in care processes
- Domain 3: Changes in member outcomes
- Domain 4: Changes in healthcare cost trends
- Domain 5: Sustainability of innovative delivery system changes, including ACOs, CPs, and Flex Services
- Domain 6: Effects of specific DSRIP investments and actions

Goals 3 to 7 are organized by goal:

- Goal 3: Maintaining near-universal coverage
- Goal 4: Sustainably support safety net providers to ensure continued access to care for Medicaid and low-income uninsured individuals
- Goal 5: Address the opioid addiction crisis by expanding access to a broad spectrum of recovery-oriented substance use disorder services.
- Goal 6: Continuing to provide coverage to former foster care youth who aged out of foster care under the responsibility of another state (and were enrolled in Medicaid at any time in the state in which they lived), as a means of increasing and strengthening

overall coverage of former foster care youth and improving health outcomes for these youth.

- Goal 7: Ensure the long-term financial sustainability of the MassHealth program through refinement of provisional eligibility and authorization for SHIP Premium Assistance

Measure Stewards

Measure stewards are recognized as expert organizations involved in developing measure definitions. The stewards used in this evaluation include:

- National Council for Quality Assurance (NCQA) – a national nonprofit organization that monitors healthcare quality and accredits health plans. The Healthcare Effectiveness Data and Information Set (HEDIS) developed and maintained by NCQA is a tool used by the majority of American health plans to measure performance on various aspects of healthcare and services provided
- Agency for Healthcare Research and Quality (AHRQ) – a federal agency that strives to improve the quality and safety of American healthcare systems
- Choosing Wisely – A national initiative that works with patients and clinicians to avoid wasteful and/or unnecessary healthcare services
- MassHealth – the program that administers Medicaid and the Children’s Health Insurance Program in Massachusetts

Measure Data

Measures include national or state benchmarks where available. CMS benchmarks are presented here at the 50th and 90th percentile. The other benchmarks appear as rates (ARHQ measures), or percentiles. Most measures will be calculated from the following data sources:

- Massachusetts Medicaid administrative data: This member-level database is comprised of eligibility, enrollment, and billing records for healthcare services for the MassHealth member population.
- Health Insurance Exchange/Integrated Eligibility Information System (HIX/IES) data: The HIX/IES data set contains Medicaid ID, demographic information, date of enrollment/renewal, whether the individual lost coverage or had their aid category changed after 90-days, and reason for loss of coverage.
- Extracts from MassHealth’s analytics vendor: MassHealth has contracted with an outside vendor to develop datasets, conduct analyses, and produce reports to support monitoring and accountability measurement. These extracts will include information on hybrid quality measures that require clinical information and claims/encounter data.
- Chapter 55 opioid overdose data: a linked dataset that was created by a MA statute to facilitate analysis of data to inform efforts to reduce opioid overdoses in the state. The dataset links individual-level data from a broad range of sources, including vital statistics, medical and pharmacy claims data, hospital discharge records, toxicology reports, ambulance transport records, DPH program enrollment, and BSAS service utilization.

A few measures to be used in the evaluation of Goals 3-7 utilize data from other sources such as the Massachusetts Uncompensated Care Cost reports, Safety Net Hospital reports, and program data from MassHealth.

**Appendix B:
Specifications of Quantitative Measures Derived from Existing Data Sources**

DSRIP Evaluation Measures	
Domain 2 Measures	
Measure: Oral Health Evaluation	
<i>Steward: American Dental Association on behalf of the Dental Quality Alliance (#2517)</i>	
<i>*MassHealth ACO quality measure</i>	
<i>NQF Endorsed: Yes</i>	
Description	Percentage of enrolled children under age 21 years who received a comprehensive or periodic oral evaluation within the reporting year.
Numerator	Unduplicated number of enrolled children under age 21 years who received a comprehensive or periodic oral evaluation as a dental service
Denominator	Unduplicated number of enrolled children under age 21 years
Data Sources	Medicaid claims/encounters data
National Benchmark	None
Measure: Developmental Screening in the First 3 Years of Life	
<i>Steward: National Committee for Quality Assurance (#1448)</i>	
<i>*MassHealth ACO monitoring measure</i>	
<i>NQF Endorsed: No; Recommended for use in the Child Core Set for Medicaid</i>	
Description	The percentage of children ages one, two, and three years who had a developmental screening performed 3 Rates – Rate 1: Developmental Screening by Child’s First Birthday Rate 2: Developmental Screening by Child’s Second Birthday Rate 3: Developmental Screening by Child’s Third Birthday
Numerator	Children who had documentation of a developmental screening (screening for risk of developmental, behavioral, and social delays) using a standardized tool by their first, second, and third birthdays
Denominator	Children with a visit who turned one, two, and three years of age
Data Sources	Medicaid claims/encounters data
National Benchmark	None
Measure: Adolescent Wellcare	
<i>Steward: National Committee for Quality Assurance</i>	
<i>*MassHealth ACO monitoring measure</i>	
<i>NQF Endorsed: No; Recommended for use in the Child Core Set for Medicaid</i>	
Description	Percentage of adolescents ages 12 to 21 who had at least one comprehensive well-care visit with a primary care practitioner (PCP) or an obstetric/gynecologic (OB/GYN) practitioner during the measurement year
Numerator	At least one comprehensive well-care visit with a PCP or an OB/GYN practitioner during the measurement year. The practitioner does not have to be the practitioner assigned to the adolescent
Denominator	The eligible population
Data Sources	Medicaid claims/encounters data
National Benchmark	2016 Medicaid HMO = 50.6% Source: https://www.ncqa.org/hedis/measures/child-and-adolescent-well-care-visits/
Measure: Lead Screening	
<i>Steward: National Committee for Quality Assurance</i>	
<i>*MassHealth ACO monitoring measure</i>	
<i>NQF Endorsed: No; Recommended for use by NCQA</i>	
Description	Among children who turn two (2) years of age as of December 31st of the measurement year, the percentage with at least one lead venous or capillary blood test on or before the child’s second (2nd) birthday.
Numerator	Children should have at least one (1) lead venous or capillary blood test on or before their second (2nd) birthday
Denominator	Children who turn two (2) years of age as of December 31st of the measurement year

Data Sources	Medicaid claims/encounters
National Benchmark	2016 Medicaid HMO = 67.6% Source: http://www.ncqa.org/report-cards/health-plans/state-of-health-care-quality/2017-table-of-contents/lead-screening
Measure: BH CP Engagement in 90 Days <i>Steward: MassHealth</i> <i>*MassHealth ACO and CP quality measure</i> <i>NQF Endorsed: No</i>	
Description	Percentage of enrollees 18 to 64 years of age who engaged with a BH Community Partner and received a completed treatment plan within 3 months (92 days) of Community Partner assignment
Numerator	ACO attributed members 18 to 64 years of age, who were assigned to a BH CP on or between October 3rd of the year prior to the measurement year and October 2nd of the measurement year, and who had documentation of engagement within 90 days of assignment
Denominator	ACO attributed members 18 to 64 years of age who were assigned to a BH CP on or between October 3rd of the year prior to the measurement year and October 2nd of the measurement year
Data Sources	Medicaid claims/encounters data
National Benchmark	None
Measure: Initiation and Engagement of Alcohol, Opioid, or Other Drug Abuse or Dependence Treatment <i>Steward: National Committee for Quality Assurance (#0004)</i> <i>*MassHealth ACO quality measure</i> <i>NQF Endorsed: Yes</i>	
Description	The percentage of adolescent and adult patients with a new episode of alcohol or other drug (AOD) dependence who received the following: -Initiation of AOD Treatment: The percentage of patients who initiate treatment through an inpatient AOD admission, outpatient visit, intensive outpatient encounter or partial hospitalization within 14 days of diagnosis -Engagement of AOD Treatment: The percentage of patients who initiated treatment and who had two or more additional services with a diagnosis of AOD within 30 days of the initiation visit
Numerator	Initiation of AOD Dependence Treatment: Initiation of AOD treatment through an inpatient admission, outpatient visit, intensive outpatient encounter or partial hospitalization within 14 days of the index episode start date. --- Engagement of AOD Treatment: Initiation of AOD treatment and two or more inpatient admissions, outpatient visits, intensive outpatient encounters or partial hospitalizations with any AOD diagnosis within 30 days after the date of the Initiation encounter (inclusive)
Denominator	Patients age 13 years of age and older who were diagnosed with a new episode of alcohol or other drug dependence (AOD) during the first 10 and ½ months of the measurement year (e.g., January 1-November 15)
Data Sources	Medicaid claims/encounters data, analytics vendor extract
National Benchmark	Initiation: 2016 Medicaid HMO = 40.8% Engagement: 2016 Medicaid HMO = 12.5% http://www.ncqa.org/report-cards/health-plans/state-of-health-care-quality/2017-table-of-contents/alcohol-treatment
Measure: LTSS CP Engagement in 90 Days <i>Steward: MassHealth</i> <i>*MassHealth ACO and CP quality measure</i> <i>NQF Endorsed: No</i>	
Description	Percentage of enrollees 3 to 64 years of age who engaged with a LTSS Community Partner and received a completed care plan within 3 months (92 days) of Community

	Partner assignment
Numerator	ACO attributed members 3 to 64 years of age, who were assigned to a LTSS CP on or between October 3rd of the year prior to the measurement year and October 2nd of the measurement year, and who had documentation of engagement within 90 calendar days of assignment
Denominator	ACO attributed members 3 to 64 years of age who were assigned to a LTSS CP on or between October 3rd of the year prior to the measurement year and October 2nd of the measurement year
Data Sources	Medicaid claims/encounters, analytics vendor extract
National Benchmark	None
Measure: Health related social needs screening <i>Steward: MassHealth</i> <i>*MassHealth ACO quality measure</i> <i>NQF Endorsed: No</i>	
Description	Percentage of members 0 to 64 years of age who were screened for health-related social needs in the measurement year
Numerator	Members 0 to 64 years of age who were screened for health-related social needs in the measurement year
Denominator	Members 0 to 64 years of age
Data Sources	Medicaid claims/encounters data, analytics vendor extract
National Benchmark	None
Measure: Asthma Medication Ratio <i>Steward: National Committee for Quality Assurance</i> <i>*MassHealth ACO quality measure (#1800)</i> <i>NQF Endorsed: Yes</i>	
Description	The percentage of patients 5–64 years of age who were identified as having persistent asthma and had a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year
Numerator	The number of patients who have a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year
Denominator	All patients 5–64 years of age as of December 31 of the measurement year who have persistent asthma by meeting at least one of the following criteria during both the measurement year and the year prior to the measurement year: <ul style="list-style-type: none"> • At least one emergency department visit with asthma as the principal diagnosis • At least one acute inpatient encounter with asthma as the principal diagnosis • At least four outpatient visits or observation visits on different dates of service, with any diagnosis of asthma AND at least two asthma medication dispensing events. Visit type need not be the same for the four visits. • At least four asthma medication dispensing events for any controller medication or reliever medication
Data Sources	Medicaid claims/encounters
National Benchmark	2016 Medicaid HMO = 61.1% Source: http://www.ncqa.org/report-cards/health-plans/state-of-health-care-quality/2017-table-of-contents/asthma
Measure: Gap in HIV Medical Visits <i>Steward: Health Research and Services Administration (#2080)</i> <i>NQF Endorsed: Yes</i>	
Description	Percentage of patients, regardless of age, with a diagnosis of HIV who did not have a medical visit in the last 6 months of the measurement year A medical visit is any visit in an outpatient/ambulatory care setting with a nurse practitioner, physician, and/or a physician assistant who provides comprehensive HIV care.
Numerator	Number of patients in the denominator who did not have a medical visit in the last 6 months of the measurement year (Measurement year is a consecutive 12-month period of time).
Denominator	Number of patients, regardless of age, with a diagnosis of HIV who had at least one

	medical visit in the first 6 months of the measurement year. (The measurement year can be any consecutive 12-month period.)
Data Sources	Medicaid claims/encounters
National Benchmark	None
Measure: Continuity of care for children with complex medical conditions (Continuity of Primary Care for Children with Medical Complexity) <i>Steward: Seattle Children's (#3153)</i> <i>NQF Endorsed: Yes</i>	
Description	This measure assesses the percentage of children with medical complexity age 1 to 17 years old who have a Bice-Boxerman continuity of care index of ≥ 0.5 in the primary care setting over a 12-month period.
Numerator	<p>Number of eligible children (1) who have a Bice-Boxerman COC index ≥ 0.50 in the primary care setting during the measurement year.</p> <p>1. Eligible children are defined as children who are continuously enrolled for 12 months with no more than a 30-day gap in enrollment. Children with a gap greater than 30 days are excluded because of the potential for them to be enrolled in a different health plan at that time. In such cases, the child's administrative data for the health plan being measured would be incomplete and thus might not reflect the health plan's true performance on the measure. The timeframe of 30 days as the length of the gap was chosen to be consistent with the month-to-month eligibility assessments used by many Medicaid health plans.</p>
Denominator	<p>Children with medical complexity (1) who are 1-17 years old (2) and who have had ≥ 4 primary care visits (3) during the measurement year.</p> <p>1. Children with medical complexity are defined as children who are classified by the Pediatric Medical Complexity algorithm, Version 2 (PMCA-V2) as having no chronic illness or non-complex chronic illness. 2. Children must be ≥ 1 year and ≤ 17 years of age on the last day of the measurement year. 3. Research has shown that stability of the COC index increases as the number of visits increases (i.e. less subject to significant change as a result of minor variations in care dispersion).</p>
Data Sources	Medicaid claims/encounters
National Benchmark	None
Measure: Antidepressant medication management <i>Steward: National Committee on Quality Assurance (#0105)</i> <i>NQF Endorsed: Yes</i>	
Description	<p>The percentage of patients 18 years of age and older with a diagnosis of major depression and were treated with antidepressant medication, and who remained on an antidepressant medication treatment. Two rates are reported.</p> <p>a) Effective Acute Phase Treatment. The percentage of patients who remained on an antidepressant medication for at least 84 days (12 weeks). b) Effective Continuation Phase Treatment. The percentage of patients who remained on an antidepressant medication for at least 180 days (6 months).</p>
Numerator	Adults 18 years of age and older who were treated with antidepressant medication, had a diagnosis of major depression, and who remained on an antidepressant medication treatment
Denominator	Patients 18 years of age and older with a diagnosis of major depression and were newly treated with antidepressant medication
Data Sources	Medicaid claims/encounters data
National Benchmark	Acute Phase Treatment: 2016 Medicaid HMO = 53.1% Continuation Phase Treatment: 2016 Medicaid HMO = 38%
Measure: Adult access to preventive/ambulatory health services	

Steward: National Committee on Quality Assurance	
NQF Endorsed:	
Description	This measure is used to assess the percentage of members 20 years and older who had an ambulatory or preventive care visit. Medicaid members who had an ambulatory or preventive care visit during the measurement year
Numerator	One or more ambulatory or preventive care visits during the measurement year
Denominator	Members age 20 years and older as of December 31 of the measurement year
Data Sources	Medicaid claims/encounters data
National Benchmark	None
Measure: Annual primary care visit	
Steward: MassHealth	
*MassHealth CP quality measure	
NQF Endorsed: No	
Description	Percentage of enrollees 18 to 64 years of age who had an annual primary care visit in the measurement year
Numerator	Number of enrollees who had at least one primary care visit during the measurement year
Denominator	Eligible population
Data Sources	Medicaid claims/encounters data
National Benchmark	None
Measure: Immunizations for Adolescents	
Steward: National Committee on Quality Assurance (#1407)	
*MassHealth ACO quality measure	
NQF Endorsed: Yes	
Description	The percentage of adolescents 13 years of age who had the recommended immunizations (meningococcal vaccine and one tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) or one tetanus, diphtheria toxoids vaccine (Td)) by their 13th birthday
Numerator	Adolescents 13 years of age who had one dose of meningococcal vaccine and one tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) or one tetanus, diphtheria toxoids vaccine (Td) by their 13th birthday
Denominator	Adolescents who turn 13 years of age during the measurement year
Data Sources	Medicaid claims/encounters, analytics vendor extract
National Benchmark	2016 Medicaid HMO = 75.1% Source: http://www.ncqa.org/report-cards/health-plans/state-of-health-care-quality/2017-table-of-contents/immunizations-for-adolescents
Measure: Timeliness of Prenatal Care	
Steward: National Committee on Quality Assurance (#1517)	
*MassHealth ACO quality measure	
NQF Endorsed: No; Recommended as part of the Child Core Set for Medicaid	
Description	The percentage of deliveries of live births between November 6 of the year prior to the measurement year and November 5 of the measurement year. For these women, the measure assesses the following facets of prenatal and postpartum care: Rate 1: Timeliness of Prenatal Care. The percentage of deliveries that received a prenatal care visit as a member of the organization in the first trimester or within 42 days of enrollment in the organization. Rate 2: Postpartum Care. The percentage of deliveries that had a postpartum visit on or between 21 and 56 days after delivery.
Numerator	1. Deliveries with a prenatal care visit as a member of the organization in the first trimester or within 42 days of enrollment in the organization. 2. Deliveries that had a postpartum visit on or between 21 and 56 days after delivery.
Denominator	Deliveries of live births between November 6 of the year prior to the measurement year and November 5 of the measurement year
Data Sources	Medicaid claims/encounters, analytics vendor extract
National Benchmark	2016 Medicaid HMO = 81.7%

	Source: http://www.ncqa.org/report-cards/health-plans/state-of-health-care-quality/2017-table-of-contents/perinatal-care
Measure: Primary care provider visit (children) <i>Steward: National Committee on Quality Assurance</i> <i>NQF Endorsed: No; Recommended as part of the Child Core Set for Medicaid</i>	
Description	Percentage of children and adolescents ages 12 months to age 19 who had a visit with a primary care practitioner (PCP). Four separate percentages are reported: <ul style="list-style-type: none"> - Children ages 12 to 24 months and 25 months to age 6 who had a visit with a PCP during the measurement year - Children ages 7 to 11 and adolescents ages 12 to 19 who had a visit with a PCP during the measurement year or the year prior to the measurement year
Numerator	For ages 12 to 24 months, ages 25 months to age 6: One or more visits with a PCP (Ambulatory Visits Value Set) during the measurement year. For ages 7 to 11, ages 12 to 19: One or more visits with a PCP (Ambulatory Visits Value Set) during the measurement year or the year prior to the measurement year. Count all children/adolescents who had an ambulatory or preventive care visit to any PCP.
Denominator	The eligible population
Data Sources	Medicaid claims/encounters data
National Benchmark	2015 Medicaid HMO = 90.2% Source: https://www.ncqa.org/Portals/0/PublicComment/HEDIS-Ad-Hoc/5.%20Child%20and%20Adolescent%20Access.pdf?ver=2017-07-13-092457-440
Measure: ED Boarding of Members with BH Conditions <i>Steward: None</i> <i>NQF Endorsed: No</i>	
Description	The rate of ED visits resulting in boarding among members with BH conditions
Numerator	The number of ED visits for members with a BH condition with an arrival date and discharge date separated by one or more days (a minimum duration in the ED of 24 hours).
Denominator	The person-time contributed by members of the population of interest during the measurement period
Data Sources	Medicaid claims/encounters data
National Benchmark	None
Measure: Multiple Antipsychotic Use In Children <i>Steward: National Committee on Quality Assurance</i> <i>*MassHealth ACO monitoring measure</i> <i>NQF Endorsed: No; Recommended as part of the Child Core Set for Medicaid</i>	
Description	Percentage of children and adolescents ages 1 to 17 who were treated with antipsychotic medications and who were on two or more concurrent antipsychotic medications for at least 90 consecutive days during the measurement year
Numerator	Beneficiaries on two or more concurrent antipsychotic medications for at least 90 consecutive days during the measurement year
Denominator	The eligible population
Data Sources	Medicaid claims/encounters data
National Benchmark	2016 Medicaid HMO = 2.4% Source: http://www.ncqa.org/report-cards/health-plans/state-of-health-care-quality/2017-table-of-contents/use-of-multiple-concurrent-antipsychotics-in-children-and-adolescents
Measure: Follow-up care for children prescribed ADHD medication (Initiation and Maintenance Phase) <i>Steward: National Committee on Quality Assurance (#0108)</i> <i>*MassHealth ACO quality measure (initiation phase)</i> <i>NQF Endorsed: Yes</i>	

Description	Percentage of children newly prescribed attention-deficit/hyperactivity disorder (ADHD) medication who had at least three follow-up care visits within a 10-month period, one of which was within 30 days of when the first ADHD medication was dispensed. Two rates are reported. <u>Initiation Phase:</u> Percentage of children ages 6 to 12 as of the Index Prescription Start Date (IPSD) with an ambulatory prescription dispensed for ADHD medication, who had one follow-up visit with practitioner with prescribing authority during the 30-day Initiation Phase. <u>Maintenance Phase:</u> Percentage of children who remained on ADHD medication for at least 210 days and who, in addition to the visit in the Initiation Phase, had at least two additional follow-up visits with a practitioner within 270 days (9 months) after the Initiation Phase ended.
Numerator	<u>Initiation Phase:</u> Patients who had at least one face-to-face visit with a practitioner with prescribing authority within 30 days after the IPSD. <u>Maintenance Phase:</u> Patients who had at least one face-to-face visit with a practitioner with prescribing authority during the Initiation Phase, and at least two follow-up visits during the Continuation and Maintenance Phase. One of the two visits during the Continuation and Maintenance Phase may be a telephone visit with a practitioner.
Denominator	<u>Initiation Phase:</u> Children 6-12 years of age who were dispensed an ADHD medication during the Intake Period and who had a visit during the measurement period. <u>Maintenance Phase:</u> Children 6-12 years of age who were dispensed an ADHD medication during the Intake Period and who remained on the medication for at least 210 days out of the 300 days following the IPSD, and who had a visit during the measurement period.
Data Sources	Medicaid claims/encounters data
National Benchmark	Initiation: 2016 Medicaid HMO = 44.5% Maintenance: 2016 Medicaid HMO = 54.5% Source: http://www.ncqa.org/report-cards/health-plans/state-of-health-care-quality/2017-table-of-contents/adhd

Measure: Metabolic Monitoring for Children and Adolescents on Antipsychotics

Steward: National Committee on Quality Assurance (#2800)

**MassHealth ACO quality measure*

NQF Endorsed: Yes

Description	The percentage of children and adolescents 1–17 years of age who had two or more antipsychotic prescriptions and had metabolic testing.
Numerator	Children and adolescents who received glucose and cholesterol tests during the measurement year.
Denominator	Children and adolescents who had ongoing use of antipsychotic medication (at least two prescriptions).
Data Sources	Medicaid claims/encounters data
National Benchmark	2016 Medicaid HMO = 33.3% Source: http://www.ncqa.org/report-cards/health-plans/state-of-health-care-quality/2017-table-of-contents/metabolic-monitoring-for-children-and-adolescents-on-antipsychotics

Measure: Annual treatment plan completion (BH CP)

Steward: MassHealth

**MassHealth CP quality measure*

NQF Endorsed: No

Description	Percentage of BH CP enrollees 18 to 64 years of age who received a completed a treatment plan within the measurement year
Numerator	Enrollees 18 to 64 years of age who completed a treatment plan
Denominator	Enrollees 18 to 64 years of age
Data Sources	Medicaid claims/encounters, analytics vendor extract
National Benchmark	None

Measure: Annual care plan completion (LTSS CP)

Steward: MassHealth <i>*MassHealth CP quality measure</i> NQF Endorsed: No	
Description	Percentage of LTSS CP enrollees 3 to 64 years of age who received a completed a care plan within the measurement year
Numerator	Enrollees 3 to 64 years of age who completed a care plan
Denominator	Enrollees 3 to 64 years of age
Data Sources	Medicaid claims/encounters, analytics vendor extract
National Benchmark	None
Measure: Flexible services utilization Steward: MassHealth <i>*MassHealth ACO monitoring measure</i> NQF Endorsed: No	
Description	The rate of flexible service utilization
Numerator	The number of members that received at least one Flexible Service during the measurement period
Denominator	The person-time contributed by members in the population during the measurement period
Data Sources	Medicaid claims/encounters
National Benchmark	None
Measure: Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications (SSD) Steward: National Committee on Quality Assurance (#1932) <i>*MassHealth ACO quality measure</i> NQF Endorsed: Yes	
Description	The percentage of patients 18 – 64 years of age with schizophrenia or bipolar disorder, who were dispensed an antipsychotic medication and had a diabetes screening test during the measurement year.
Numerator	Among patients 18-64 years old with schizophrenia or bipolar disorder, those who were dispensed an antipsychotic medication and had a diabetes screening testing during the measurement year.
Denominator	Patients ages 18 to 64 years of age as of the end of the measurement year (e.g., December 31) with a schizophrenia or bipolar disorder diagnosis and who were prescribed an antipsychotic medication
Data Sources	Medicaid claims/encounters data
National Benchmark	2016 Medicaid HMO = 80.7% Source: http://www.ncqa.org/report-cards/health-plans/state-of-health-care-quality/2017-table-of-contents/schizophrenia
Measure: Cholesterol testing for members using antipsychotics Steward: National Committee on Quality Assurance NQF Endorsed: No	
Description	Percentage of members age 18 to 64 with a filled prescription for second generation antipsychotic medication in the prior year who had at least one LDL-C screening performed within 180 days of last prescription fill
Numerator	Among the patients 18 to 64 years old who were dispensed a second generation antipsychotic medication in the prior year who had at least one LDL-C screening performed within 180 days of last prescription fill
Denominator	Patients ages 18 to 64 with a filled prescription for second generation antipsychotic medication in the prior year
Data Sources	Medicaid claims/encounters data
National Benchmark	None
Measure: Physician visit within 30 days of hospital discharge Steward: MassHealth	

NQF Endorsed: No	
Description	Percentage of hospitalizations for enrollees 18 to 64 years of age where the member received follow-up within 30 days of hospital discharge
Numerator	Enrollees 18 to 64 years of age who had a follow-up visit within 30 days of hospital discharge
Denominator	Enrollees 18 to 64 years of age who were hospitalized
Data Sources	Medicaid claims/encounters data
National Benchmark	None
Measure: Follow-up with CP after any hospitalization within 3 days	
<i>Steward: MassHealth</i>	
<i>*MassHealth CP quality measure</i>	
NQF Endorsed: No	
Description	Percentage of acute or post-acute stays for enrollees 18 to 64 years of age where the member received follow-up from the CP within 3 business days of discharge
Numerator	Enrollees 18 to 64 years of age who received follow-up care from the CP within 3 business days of discharge
Denominator	Enrollees 18 to 64 years of age who were hospitalized in the measurement year
Data Sources	Medicaid claims/encounters data
National Benchmark	None
Measure: Follow-up with BH CP or provider after ED visit	
<i>Steward: MassHealth</i>	
<i>*MassHealth CP quality measure</i>	
NQF Endorsed: No	
Description	Percentage of ED visits for enrollees 18 to 64 years of age where the member received follow-up within 7 days of ED discharge
Numerator	Enrollees 18 to 64 years of age who received follow-up care from a BH CP or provider after an ED visit
Denominator	Enrollees 18 to 64 years of age who had an ED visit in the measurement year
Data Sources	Medicaid claims/encounters data
National Benchmark	None
Measure: Follow-up after emergency department for mental illness (7 days)	
<i>Steward: MassHealth</i>	
<i>*MassHealth ACO quality measure</i>	
NQF Endorsed: No	
Description	The percentage of ED visits for members 6 to 64 years of age with a principal diagnosis of mental illness, who had a follow-up visit for mental illness within 7 days of the ED visit.
Numerator	ACO attributed members 6 to 64 years of age as of the date of the ED visit who received follow-up within 7 days after discharge.
Denominator	ACO attributed members 6 to 64 years of age as of the date of the ED visit
Data Sources	Medicaid claims/encounters data
National Benchmark	None
Measure: Follow-up after hospitalization for mental illness (7 days)	
<i>Steward: MassHealth</i>	
<i>*ACO and CP Performance Measure</i>	
NQF Endorsed: No	
Description	The percentage of discharges for members 6 to 64 years of age who were hospitalized for treatment of selected mental illness diagnoses and who received a follow-up visit with a mental health practitioner within 7 days of discharge
Numerator	ACO attributed members 6 to 64 years of age as of the date of discharge who had a follow-up visit with a mental health practitioner within 7 days after discharge
Denominator	ACO attributed members 6 to 64 years of age as of the date of discharge
Data Sources	Medicaid claims/encounters data
National Benchmark	None
Measure: Imaging for low back pain	
<i>Steward: National Committee on Quality Assurance (#0312)</i>	

<i>NQF Endorsed: No; Recommended for use in the CMS Medicare Shared Savings Program</i>	
Description	Percentage of patients at least 18 years of age with a diagnosis of back pain for whom the physician ordered imaging studies during the six weeks after pain onset, in the absence of “red flags” (overuse measure, lower performance is better).
Numerator	The number of patients with an order for or report on an imaging study during the six weeks after pain onset.
Denominator	Patients at least 18 years of age with back pain lasting six weeks or less.
Data Sources	Medicaid claims/encounters data
National Benchmark	2016 Medicaid HMO = 70.5% Source: http://www.ncqa.org/report-cards/health-plans/state-of-health-care-quality/2017-table-of-contents/low-back-pain

Measure: Pre-operative chest radiography <i>Steward: Choosing Wisely</i> <i>NQF Endorsed: No; Recommended for use in the Child Core Set for Medicaid</i>	
Description	Percentage of patients receiving a chest x-ray within 30 days prior to low or intermediate risk non-cardiothoracic surgery
Numerator	The number of patients who receive a chest x-ray within 30 days prior to low/intermediate risk non-cardiothoracic surgery
Denominator	Patients at least 18 years of age who undergo low to intermediate risk non-cardiothoracic surgery
Data Sources	Medicaid claims/encounters
National Benchmark	None

Measure: Head imaging for syncope <i>Steward: Choosing Wisely</i> <i>NQF Endorsed: No; Recommended by the AAFP</i>	
Description	Percentage of patients receiving a CT or MRI of the head or brain following a syncope event
Numerator	The number of patients who receive a CT or MRI of the head or brain following a syncope event
Denominator	Patients at least 18 years of age who have a syncope event
Data Sources	Medicaid claims/encounters
National Benchmark	None

Measure: Abdomen CT combined studies <i>Steward: Centers for Medicare and Medicaid Services</i> <i>NQF Endorsed: No; Recommended by CMS</i>	
Description	This measure calculates the percentage of abdomen and abdominopelvic computed tomography (CT) studies that are performed without and with contrast, out of all abdomen and abdominopelvic CT studies performed (those without contrast, those with contrast, and those with both) at each facility.
Numerator	Of studies identified in the denominator, number of abdomen and abdominopelvic studies with and without contrast (combined studies)
Denominator	The number of abdomen and abdominopelvic studies performed with contrast, without contrast, or both without and with contrast.
Data Sources	Medicaid claims/encounters
National Benchmark	None

Measure: CT/MRI for headache <i>Steward: National Committee on Quality Assurance</i> <i>NQF Endorsed: No</i>	
Description	Percentage of patients who receive a CT or MRI of the head or brain after having a headache or migraine
Numerator	The number of patients who receive a CT or MRI of the head or brain after having a headache or migraine
Denominator	Patients 18 to 64 who have a diagnosis of headache
Data Sources	Medicaid claims/encounters data
National Benchmark	None

Measure: Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis

Steward: National Committee on Quality Assurance (#0058) NQF Endorsed: Yes	
Description	The percentage of adults 18–64 years of age with a diagnosis of acute bronchitis who were not dispensed an antibiotic prescription.
Numerator	Patients who were dispensed antibiotic medication on or three days after the index episode start date (a higher rate is better). The measure is reported as an inverted rate (i.e. 1- numerator/denominator) to reflect the number of people that were not dispensed an antibiotic.
Denominator	All patients 18 years of age as of January 1 of the year prior to the measurement year to 64 years as of December 31 of the measurement year with an outpatient or ED visit with any diagnosis of acute bronchitis during the Intake Period (January 1–December 24 of the measurement year)
Data Sources	Medicaid claims/encounters data
National Benchmark	2016 Medicaid HMO = 30.4% Source: http://www.ncqa.org/report-cards/health-plans/state-of-health-care-quality/2017-table-of-contents/acute-bronchitis

Measure: CT without ultrasound for childhood appendicitis Steward: Choosing Wisely NQF Endorsed: No	
Description	Percentage of children age 1-18 with a diagnosis of appendicitis who had a CT scan, but not an ultrasound, within 30 days prior to the diagnosis
Numerator	The number of children age 1-18 with a diagnosis of appendicitis who had a CT scan without ultrasound within 30 days prior to diagnosis
Denominator	All patients 1-18 with a diagnosis of appendicitis
Data Sources	Medicaid claims/encounters data
National Benchmark	None

Measure: Strep test with antibiotic dispensing for childhood pharyngitis Steward: National Committee on Quality Assurance (#0002) NQF Endorsed: No	
Description	The percentage of children 2–18 years of age who were diagnosed with pharyngitis, dispensed an antibiotic and received a group A streptococcus (strep) test for the episode. A higher rate represents better performance (i.e., appropriate testing).
Numerator	A group A streptococcus test (Group A Strep Tests Value Set) in the seven-day period from three days prior to the Index Episode Start Date (IESD) through three days after the IESD.
Denominator	Children age 2 years as of July 1 of the year prior to the measurement year to 18 years as of June 30 of measurement year who had an outpatient or ED visit with only a diagnosis of pharyngitis and were dispensed an antibiotic for the episode of care during the 6 months prior to through the 6 months after the beginning of the measurement year.
Data Sources	Medicaid claims/encounters data
National Benchmark	2016 Medicaid HMO = 66.5% Source: http://www.ncqa.org/report-cards/health-plans/state-of-health-care-quality/2017-table-of-contents/pharyngitis

Domain 3 Measures

Measure: All cause inpatient admissions Steward: MassHealth *MassHealth ACO monitoring measure NQF Endorsed: No	
Description	Rate of all-cause acute hospital admissions (or observation stays)
Numerator	The number of acute inpatient admissions from any cause
Denominator	The person-time contributed by members in the population of interest during the measurement period
Data Sources	Medicaid claims/encounters data
National Benchmark	None

Measure: Unplanned hospital readmissions within 30 days (overall)

Steward: National Committee on Quality Assurance (#1768) <i>*MassHealth ACO quality measure</i> NQF Endorsed: Yes	
Description	For beneficiaries ages 18 to 64, the number of acute inpatient stays during the measurement year that were followed by an unplanned acute readmission for any diagnosis within 30 days and the predicted probability of an acute readmission. Data are reported in the following categories: <ul style="list-style-type: none"> • Count of Index Hospital Stays (IHS) (denominator) • Count of 30-Day Readmissions (numerator) • Expected Readmissions Rate
Numerator	All acute inpatient discharges on or between January 1 and December 1 of the measurement year
Denominator	The eligible population
Data Sources	Medicaid claims/encounters data
National Benchmark	Medicare Shared Savings Program 2018-19 Benchmark 50 th Percentile: 14.91 Medicare Shared Savings Program 2018-19 Benchmark 90 th Percentile: 14.27
Measure: All cause ED Visits <i>*MassHealth ACO monitoring measure</i> NQF Endorsed: No	
Description	Rate of all cause ED visits for enrollees 3 to 64 years of age
Numerator	All ED visits by enrollees 3 to 64 years of age on or between January 1 and December 1 of the measurement year
Denominator	Enrollees 3 to 64 years of age
Data Sources	Medicaid claims/encounters data
National Benchmark	None
Measure: Primary Care Sensitive ED Visits NQF Endorsed: No	
Description	Rate of primary care sensitive ED visits for enrollees 3 to 64 years of age
Numerator	All primary care sensitive ED visits by enrollees 3 to 64 years of age on or between January 1 and December 1 of the measurement year
Denominator	Person-time contributed by enrollees 3 to 64 years of age
Data Sources	Medicaid claims/encounters data
National Benchmark	None
Measure: Acute unplanned admissions adult diabetes (Diabetes Short-Term Complications Admission Rate) Steward: Agency for Healthcare Research and Quality (#0272) <i>*MassHealth ACO quality measure</i> NQF Endorsed: Yes	
Description	Rate of acute unplanned hospital admissions (or observation stays) for members with diabetes
Numerator	The outcome measure is the observed number of acute unplanned hospital admissions (or observation stays) per 1,000-member months at risk for admissions
Denominator	The expected number of admissions (or observation stays) for members with diabetes when adjusting for the ACO case mix
Data Sources	Medicaid claims/encounters data
National Benchmark	2013 National Overall Population: 68.94 admissions / 100,000 admissions Source: https://www.qualityindicators.ahrq.gov/Downloads/Modules/PQI/V60-ICD09/Version_60_Benchmark_Tables_PQI.pdf
Measure: Acute unplanned admissions adult (chronic ACSCs) NQF Endorsed: No	
Description	Rate of admissions for members with chronic ACSCs
Numerator	The number of acute unplanned hospital admissions for adults with chronic ACSCs (or observation stays)
Denominator	The person-time contributed by members in the population of interest during the measurement period
Data Sources	Medicaid claims/encounters data
National Benchmark	None

Measure: Acute unplanned admissions adult (acute ACSCs) <i>NQF Endorsed: No</i>	
Description	Rate of admissions for members with acute ACSCs
Numerator	The outcome measure is the observed number of acute unplanned hospital admissions for adults with acute ACSCs (or observation stays) per 1,000-member months at risk for admissions
Denominator	The expected number of admissions (or observation stays) for members 18 to 65 years of age when adjusting for the ACO case mix
Data Sources	Medicaid claims/encounters data
National Benchmark	None
Measure: NICU Hospitalizations <i>Steward: MassHealth</i> <i>*MassHealth ACO monitoring measure</i> <i>NQF Endorsed: No</i>	
Description	Rate of NICU hospitalizations per 1,000 live births
Numerator	The outcome measure is the observed number of NICU hospitalizations per 1,000-member months at risk
Denominator	The expected rate of NICU hospitalizations for members when adjusting for case mix
Data Sources	Medicaid claims/encounters data
National Benchmark	None
Measure: Pediatric asthma admissions <i>Steward: Agency for Healthcare Research and Quality</i> <i>*MassHealth ACO monitoring measure</i> <i>NQF Endorsed: No</i>	
Description	Admissions with a principal diagnosis of asthma per 100,000 population, ages 2 through 17 years. Excludes cases with a diagnosis code for cystic fibrosis and anomalies of the respiratory system, obstetric admissions, and transfers from other institutions.
Numerator	Discharges, for patients ages 2 through 17 years, with a principal ICD-9-CM diagnosis code for asthma.
Denominator	Population ages 2 through 17 years in metropolitan area (1) or county. Discharges in the numerator are assigned to the denominator based on the metropolitan area or county of the patient residence, not the metropolitan area or county of the hospital where the discharge occurred.
Data Sources	Medicaid claims/encounters data
National Benchmark	National Population 2014 = 41.13 admissions / 100,000 admissions Source: https://www.qualityindicators.ahrq.gov/Downloads/Modules/PQI/V60-ICD09/Version_60_Benchmark_Tables_PQI.pdf
Measure: Pediatric readmissions <i>Steward: MassHealth</i> <i>*MassHealth ACO monitoring measure</i> <i>NQF Endorsed: No</i>	
Description	Rate of pediatric readmissions (or observation stays) for members under age 18
Numerator	The outcome measure is the observed number of pediatric readmissions for members under 18 per 1,000-member months at risk for admissions
Denominator	The expected rate of readmissions for members under 18 years of age when adjusting for case mix
Data Sources	Medicaid claims/encounters data
National Benchmark	None
Measure: Pediatric ED Visits (all-cause) <i>NQF Endorsed: No</i>	
Description	Rate of all-cause pediatric ED visits for members under age 18
Numerator	The observed number of all cause pediatric ED visits for members under 18
Denominator	The person-time contributed by members in the population of interest during the measurement period
Data Sources	Medicaid claims/encounters data

National Benchmark	None
Measure: Pediatric hospitalizations (all-cause)	
<i>NQF Endorsed: No</i>	
Description	Rate of all-cause hospital admissions (and observation stays) for members under age 18
Numerator	The observed number of all cause pediatric hospitalizations for members under 18
Denominator	The person-time contributed by members in the population of interest during the measurement period
Data Sources	Medicaid claims/encounters data
National Benchmark	None
Measure: ED Visits for Adults with SMI, Addiction, or Co-occurring Conditions	
<i>Steward: MassHealth</i>	
<i>*MassHealth ACO quality measure</i>	
<i>NQF Endorsed: No</i>	
Description	Rate of ED visits for members 18 to 64 years of age identified with a diagnosis of serious mental illness and/or substance addiction
Numerator	The expected number of admissions (or observation stays) for members with mental illness and/or SUD and/or co-occurring conditions when adjusting for the ACO case mix
Denominator	The expected number of admissions (or observation stays) for members with mental illness and/or SUD and/or co-occurring conditions when adjusting for the ACO case mix
Data Sources	Medicaid claims/encounters data
National Benchmark	None
Measure: Hospital admissions for adults with mental illness and/or substance addiction	
<i>NQF Endorsed: No</i>	
Description	Rate of acute hospital admissions (or observation stays) for members 18 to 64 years of age identified with a diagnosis of serious mental illness and/or substance addiction
Numerator	The number of hospital admissions for adults with SMI and/or SUD
Denominator	The person-time contributed by members in the population of interest during the measurement period
Data Sources	Medicaid claims/encounters data
National Benchmark	None
Measure: All cause readmissions among BH CP members	
<i>Steward: MassHealth</i>	
<i>*MassHealth CP monitoring measure</i>	
<i>NQF Endorsed: No</i>	
Description	The rate of acute unplanned hospital readmissions within 30 days of discharge for BH CP enrollees 18 to 64 years of age
Numerator	The outcome measure is the observed number of all-cause readmissions among BH CP members per 1,000-member months at risk for admissions
Denominator	The expected number of readmissions among BH CP members when adjusting for the ACO case mix
Data Sources	Medicaid claims/encounters data
National Benchmark	None
Measure: Community tenure: BH and LTSS CP members	
<i>Steward: MassHealth</i>	
<i>*MassHealth CP monitoring measure</i>	
<i>NQF Endorsed: No</i>	
Description	The rate of eligible days CP enrollees 18 to 64 years of age resided in their home or in a community setting without utilizing acute or post-acute inpatient services
Numerator	The number of days CP enrollees 18-64 years of age resided in their home or in a community setting without utilizing acute or post-acute inpatient services
Denominator	The person-time contributed by members in the population of interest during the measurement period
Data Sources	Medicaid claims/encounters data
National Benchmark	None
Measure: All cause readmissions among LTSS CP members	

Steward: MassHealth	
<i>*MassHealth CP monitoring measure</i>	
NQF Endorsed: No	
Description	The rate of acute unplanned hospital readmissions within 30 days of discharge for LTSS CP enrollees 18 to 64 years of age
Numerator	The outcome measure is the observed number of all-cause readmissions among BH CP members per 1,000-member months at risk for admissions
Denominator	The expected number of readmissions among BH CP members when adjusting for the ACO case mix
Data Sources	Medicaid claims/encounters data
National Benchmark	None
Measure: Long-term nursing home admissions	
<i>NQF Endorsed: No</i>	
Description	The rate of long-term (>100 days) nursing home admissions
Numerator	The number of long-term nursing home admissions for MassHealth members 18-64 years of age
Denominator	The person-time contributed by members in the population of interest during the measurement period
Data Sources	Medicaid claims/encounters data
National Benchmark	None
Domain 4 Measures	
Measure: Total cost of care (All covered services)	
<i>NQF Endorsed: No</i>	
Description	Costs of all MassHealth covered services
Numerator	Costs of all MassHealth covered services (excludes cosmetic surgery, treatment for infertility, experimental treatment, personal comfort items, non-covered laboratory services, other services specified as not covered by MassHealth)
Denominator	The person-time contributed by members in the population of interest during the measurement period
Data Sources	Medicaid claims/encounters data
National Benchmark	None
Measure: Total cost of care (services included in cap/benchmark)	
<i>NQF Endorsed: No</i>	
Description	Costs for services included in the capitated rate or total cost of care benchmark (See ACO model appendices)
Numerator	Costs for services included in the capitated rate or total cost of care benchmark
Denominator	The person-time contributed by members in the population of interest during the measurement period
Data Sources	Medicaid claims/encounters data
National Benchmark	None
Measure: Expenditures by service category	
<i>NQF Endorsed: No</i>	
Description	Costs for specific categories and sub-categories of services including inpatient (e.g., non-maternity physical health, maternity, behavioral health), ED visits, outpatient non-BH ((lab and radiology, non-BH outpatient hospital), outpatient BH (e.g., Emergency Services Program, diversionary services), professional services, pharmacy, home health, durable medical equipment, emergency transportation, long-term care, other medical services, and services excluded from the TCOC (e.g., applied behavioral analysis, Children’s Behavioral Health Initiative, long term services and supports).
Numerator	Costs for specific categories and sub-categories of services (calculated separately for each category of service)
Denominator	The person-time contributed by members in the population of interest during the measurement period
Data Sources	Medicaid claims/encounters data
National Benchmark	None
Goals 3-7 Evaluation Measures	

Goal 3 Measures	
Measure: Uninsured MA Residents	
<i>NQF Endorsed: No</i>	
Description	Number and fraction of uninsured MA residents less than 65 years of age that are uninsured
Numerator	Number of uninsured MA residents less than 65 years of age
Denominator	Total number of MA residents less than 65 years of age
Data Sources	American Community Survey
National Benchmark	None
Measure: Uninsured Residents of 23 Comparison States (See Appendix E)	
<i>NQF Endorsed: No</i>	
Description	Number and fraction of uninsured residents from 23 comparison group states less than 65 years of age
Numerator	Number of uninsured residents from the 23 states less than 65 years of age
Denominator	Total number of residents from the 23 states less than 65 years of age
Data Sources	American Community Survey
National Benchmark	None
Measure: Number of individuals using cost sharing subsidies in MA	
<i>NQF Endorsed: No</i>	
Description	Number of individuals who take up Qualified Health Plan coverage with assistance from the MA Health Connector subsidy program
Numerator	Number of individuals who take up Qualified Health Plan coverage with assistance from the MA Health Connector subsidy program
Denominator	N/A
Data Sources	Health Connector subsidy program data
National Benchmark	None
Measure: Number of individuals enrolled in ESI Premium Assistance	
<i>NQF Endorsed: No</i>	
Description	Number of MassHealth members enrolled in ESI Premium Assistance
Numerator	Number of MassHealth members enrolled in ESI Premium Assistance
Denominator	N/A
Data Sources	ESI program data
National Benchmark	None
Measure: Number of MassHealth members with a gap in coverage 45 days or longer in one year	
<i>NQF Endorsed: No</i>	
Description	Number (%) of MassHealth members with a gap in coverage 45 days or longer in one year
Numerator	Number (%) of MassHealth members with a gap in coverage 45 days or longer in one year
Denominator	Total number of MassHealth members
Data Sources	MMIS enrollment data
National Benchmark	None
Measure: Number of individuals enrolled in SHIP Premium Assistance	
<i>NQF Endorsed: No</i>	
Description	Number of MassHealth members enrolled in SHIP Premium Assistance
Numerator	Number of MassHealth members enrolled in SHIP Premium Assistance
Denominator	N/A
Data Sources	SHIP Premium Assistance program data
National Benchmark	None
Measure: Number of individuals enrolled in CommonHealth 65+	
<i>NQF Endorsed: No</i>	
Description	Number of MassHealth members enrolled in CommonHealth 65+

Numerator	Number of MassHealth members enrolled in CommonHealth 65+
Denominator	N/A
Data Sources	CommonHealth 65+ program data
National Benchmark	None
Measure: Length of enrollment in SHIP <i>NQF Endorsed: No</i>	
Description	Average length of enrollment for MassHealth members in SHIP Premium Assistance
Numerator	Total months that members were enrolled in SHIP Premium Assistance
Denominator	N/A
Data Sources	SHIP Premium Assistance program data, MMIS enrollment data
National Benchmark	None
Measure: Number (and type) of LTSS services utilized by CommonHealth 65+ enrollees <i>NQF Endorsed: No</i>	
Description	Total number of LTSS services utilized by CommonHealth 65+ enrollees, overall and by type
Numerator	Total number of LTSS services utilized by CommonHealth 65+ enrollees, overall and by type
Denominator	N/A
Data Sources	CommonHealth 65+ program data, MMIS claims data
National Benchmark	None
Measure: Length of enrollment in CommonHealth 65+ <i>NQF Endorsed: No</i>	
Description	Average length of enrollment of MassHealth members 65 and older in CommonHealth 65+
Numerator	Total months that members were enrolled in CommonHealth 65+
Denominator	N/A
Data Sources	CommonHealth 65+ program data, MMIS enrollment data
National Benchmark	None
Goal 4 Measures	
Measure: DSRIP ACO Performance Measures (Cambridge Health Alliance) <i>NQF Endorsed: No</i>	
Description	Measures related to the behavioral health integration at CHA. For specifications, see the section of Appendix B for Goals 1 and 2 (DSRIP) above.
Data Sources	PHTII reports for payment, MMIS claims
National Benchmark	None
Measure: DSRIP ACO Performance Measures (Safety Net Hospitals) <i>Steward: MassHealth</i> <i>NQF Endorsed: See specific measures</i>	
For specifications, see the section of Appendix B for Goals 1 and 2 (DSRIP) above.	
Measure: Uncompensated care costs pre-supplemental payments <i>Steward: Centers for Medicaid and Medicare Services</i> <i>NQF Endorsed: No</i>	
Description	Total cost of uncompensated care for pre- supplemental payments to safety net hospitals
Numerator	Total cost of uncompensated care for pre-supplemental payments to safety net hospitals
Denominator	N/A
Data Sources	Massachusetts Uncompensated Care Cost reports
National Benchmark	None
Measure: Uncompensated care costs post-supplemental payments <i>Steward: Centers for Medicaid and Medicare Services</i>	

NQF Endorsed: No	
Description	Total cost of uncompensated care costs for post- supplemental payments to safety net hospitals
Numerator	Total cost of uncompensated care costs for post- supplemental payments to safety net hospitals
Denominator	N/A
Data Sources	Massachusetts Uncompensated Care Cost reports
National Benchmark	None
Goal 5 Measures	
Measure: Initiation and engagement of alcohol and other drug dependence treatment	
<i>Steward: National Committee for Quality Assurance (#0004)</i>	
NQF Endorsed: Yes	
Description	<p>The percentage of adolescent and adult patients with a new episode of alcohol or other drug (AOD) dependence who received the following.</p> <ul style="list-style-type: none"> - Initiation of AOD Treatment: The percentage of patients who initiate treatment through an inpatient AOD admission, outpatient visit, intensive outpatient encounter or partial hospitalization within 14 days of the diagnosis. - Engagement of AOD Treatment: The percentage of patients who initiated treatment and who had two or more additional services with a diagnosis of AOD within 30 days of the initiation visit.
Numerator	<p>-Initiation of AOD Dependence Treatment: Initiation of AOD treatment through an inpatient admission, outpatient visit, intensive outpatient encounter or partial hospitalization within 14 days of the index episode start date.</p> <p>-Engagement of AOD Treatment: Initiation of AOD treatment and two or more inpatient admissions, outpatient visits, intensive outpatient encounters or partial hospitalizations with any AOD diagnosis within 30 days after the date of the Initiation encounter (inclusive).</p>
Denominator	Patients age 13 years of age and older who were diagnosed with a new episode of alcohol or other drug dependency (AOD) during the first 10 and ½ months of the measurement year (e.g., January 1-November 15).
Data Sources	MMIS claims/encounter data
National Benchmark	Initiation: 2016 Medicaid HMO = 40.8% Engagement: 2016 Medicaid HMO = 12.5%
Measure: Continuity of Pharmacotherapy for OUD	
<i>Steward: University of Southern California (#3175)</i>	
NQF Endorsed: Yes	
Description	Percentage of adults 18-64 years of age with pharmacotherapy for opioid use disorder (OUD) who have at least 180 days of continuous treatment
Numerator	Individuals in the denominator who have at least 180 days of continuous pharmacotherapy with a medication prescribed for OUD without a gap of more than seven days
Denominator	Individuals 18-64 years of age who had a diagnosis of OUD and at least one claim for an OUD medication
Data Sources	MMIS claims/encounter data
National Benchmark	
Measure: Follow-Up after Discharge from the ED for Mental Health or Alcohol or Other Drug Use	

Dependence Steward: National Committee for Quality Assurance (# NQF Endorsed:	
Description	The percentage of discharges for patients 18 years of age and older who had a visit to the emergency department with a primary diagnosis of mental health or alcohol or other drug dependence during the measurement year AND who had a follow-up visit with any provider with a corresponding primary diagnosis of mental health or alcohol or other drug dependence within 7- and 30-days of discharge. Four rates are reported: <ol style="list-style-type: none"> 1) The percentage of emergency department visits for mental health for which the patient received follow-up within 7 days of discharge. 2) The percentage of emergency department visits for mental health for which the patient received follow-up within 30 days of discharge. 3) The percentage of emergency department visits for alcohol or other drug dependence for which the patient received follow-up within 7 days of discharge. 4) The percentage of emergency department visits for alcohol or other drug dependence for which the patient received follow-up within 30 days of discharge.
Numerator	The numerator for each denominator population consists of two rates: Mental Health: Rate 1: An outpatient visit, intensive outpatient encounter or partial hospitalization with any provider with a primary diagnosis of mental health within 7 days after emergency department discharge Rate 2: An outpatient visit, intensive outpatient encounter or partial hospitalization with any provider with a primary diagnosis of mental health within 30 days after emergency department discharge Alcohol or Other Drug Dependence: Rate 1: An outpatient visit, intensive outpatient encounter or partial hospitalization with any provider with a primary diagnosis of alcohol or other drug dependence within 7 days after emergency department discharge Rate 2: An outpatient visit, intensive outpatient encounter or partial hospitalization with any provider with a primary diagnosis of alcohol or other drug dependence within 30 days after emergency department discharge
Denominator	Patients who were treated and discharged from an emergency department with a primary diagnosis of mental health or alcohol or other drug dependence on or between January 1 and December 1 of the measurement year
Data Sources	MMIS claims/encounter data
National Benchmark	None
Measure: Outpatient SUD services usage per month NQF Endorsed: No	
Description	Percentage of members with any SUD /OUD diagnosis who used the following per month: <ul style="list-style-type: none"> • Outpatient SUD services • Intensive outpatient services • Medication assisted treatment for SUD • Residential treatment, (ASAM Level 3.1), including average length of stay • ASAM level 3.3 • Clinical stabilization services (ASAM Level 3.5) • Acute Treatment Services (ASAM Level 3.7) • Inpatient Withdrawal Management • Outpatient detox • Recovery Coach • Recovery Support Navigator
Numerator	Total number of members with any SUD/OUD diagnosis who used any of the listed

	services per month
Denominator	Total number of members with SUD/ODD diagnosis
Data Sources	MMIS claims/encounter data, BSAS program data (if available)
National Benchmark	None
Measure: Use of Opioids at High Dosage in Persons Without Cancer <i>Steward: Pharmacy Quality Alliance (#2940)</i> <i>NQF Endorsed: Yes</i>	
Description	The proportion (XX out of 1,000) of individuals without cancer receiving prescriptions for opioids with a daily dosage greater than 120mg morphine equivalent dose (MED) for 90 consecutive days or longer, AND who received opioid prescriptions from four (4) or more prescribers AND four (4) or more pharmacies.
Numerator	Any member in the denominator with opioid prescription claims where the MED is greater than 120mg for 90 consecutive days or longer* AND who received opioid prescriptions from 4 or more prescribers AND 4 or more pharmacies.
Denominator	Any member with two or more prescription claims for opioids filled on at least two separate days, for which the sum of the days' supply is greater than or equal to 15.
Data Sources	MMIS claims/encounter data
National Benchmark	
Measure: Nonfatal overdoses, overall and opioid-related <i>NQF Endorsed: No</i>	
Description	Percentage of members who had a non-fatal overdose
Numerator	Total number of all cause and opioid-related nonfatal overdoses in MassHealth members
Denominator	Total number of MassHealth members
Data Sources	MMIS claims/encounter data, Ch. 55 Public Health Dataset
National Benchmark	None
Measure: Overdose deaths, overall and opioid-related <i>NQF Endorsed: No</i>	
Description	Percentage of members who had a fatal overdose
Numerator	Total number of all cause and opioid-related fatal overdoses in MassHealth members
Denominator	Total number of MassHealth members
Data Sources	MMIS claims/encounter data, MA death records
National Benchmark	None
Measure: ED use for any SUD-related diagnosis and OUD diagnosis <i>NQF Endorsed: No</i>	
Description	ED visits for SUD-related diagnoses and for OUD/1,000 member months for SUD-related and OUD diagnoses
Numerator	Total number of ED visits for SUD-related and OUD diagnoses
Denominator	1,000-member months among members with SUD/ODD diagnosis
Data Sources	MMIS claims/encounter data
National Benchmark	None
Measure: Inpatient admissions for any SUD-related diagnosis and OUD diagnosis <i>NQF Endorsed: No</i>	
Description	Inpatient admissions for SUD and OUD / 1,000-member months for SUD-related and OUD diagnoses
Numerator	Total number of inpatient admissions for SUD-related and OUD diagnoses
Denominator	1,000-member months among members with SUD/ODD diagnosis
Data Sources	MMIS claims/encounter data
National Benchmark	None
Measure: Healthcare costs, overall	

NQF Endorsed: No	
Description	Total cost of healthcare among individuals with any SUD-related diagnosis and OUD diagnosis
Numerator	Total cost of individuals with any SUD-related diagnosis and OUD diagnosis
Denominator	N/A
Data Sources	MMIS claims/encounter data
National Benchmark	None
Measure: Healthcare costs, inpatient	
NQF Endorsed: No	
Description	Total cost of inpatient hospitalization healthcare among individuals with any SUD-related diagnosis and OUD diagnosis
Numerator	Total cost of individuals with any SUD-related diagnosis and OUD diagnosis with inpatient healthcare costs
Denominator	N/A
Data Sources	MMIS claims/encounter data
National Benchmark	None
Measure: Healthcare costs, ED	
NQF Endorsed: No	
Description	Total cost of ED utilization among individuals with any SUD/OUN diagnosis
Numerator	Total cost of individuals with any SUD-related diagnosis and OUD diagnosis who utilize the ED
Denominator	N/A
Data Sources	MMIS claims/encounter data
National Benchmark	None
Measure: Healthcare costs, ambulatory care	
NQF Endorsed: No	
Description	Total cost of ambulatory care among individuals with any SUD/OUN diagnosis
Numerator	Total cost of individuals with any SUD-related diagnosis and OUD diagnosis with ambulatory healthcare costs
Denominator	N/A
Data Sources	MMIS claims/encounter data
National Benchmark	None
Measure: Healthcare costs, pharmacy	
NQF Endorsed: No	
Description	Total pharmacy costs among individuals with any SUD/-related diagnosis and OUD diagnosis
Numerator	Total cost of individuals with any SUD-related diagnosis and OUD diagnosis with pharmacy costs
Denominator	Total healthcare costs
Data Sources	MMIS claims/encounter data
National Benchmark	None
Measure: 30-day readmission rates to the same level of care or higher following hospitalization for any SUD and OUD diagnosis	
NQF Endorsed: No	
Description	Percentage of members with any SUD or OUD diagnosis that are readmitted to the same or higher level of care within 30 days
Numerator	Members with any SUD or OUD diagnosis that are readmitted to the same or higher level of care within 30 days
Denominator	Total number of MassHealth members with SUD/OUN diagnosis
Data Sources	MMIS claims/encounter data
National Benchmark	None
Measure: 90-day readmission rates to the same level of care or higher following hospitalization for any SUD and OUD diagnosis	

NQF Endorsed: No	
Description	Percentage of members with any SUD or OUD diagnosis that are readmitted to the same or higher level of care within 90 days
Numerator	Members with any SUD or OUD diagnosis that are readmitted to the same or higher level of care within 90 days
Denominator	Total number of MassHealth members with SUD/OUN diagnosis who were admitted to inpatient hospitalization or 24-hour diversionary services for any SUD diagnosis and OUD diagnosis
Data Sources	MMIS claims/encounter data
National Benchmark	None
Measure: Healthcare utilization	
<i>NQF Endorsed: No</i>	
Description	Healthcare service utilization among members with SUD diagnosis
Numerator	Total number of members with SUD and OUD diagnoses who used healthcare services used among members with SUD and OUD diagnoses: <ul style="list-style-type: none"> • Outpatient SUD Professional visits • Inpatient visits • Ambulatory care visits • Other
Denominator	1,000 member months among members with SUD/OUN diagnosis
Data Sources	MMIS claims/encounter data
National Benchmark	None
Measure: MAT Prescribers	
<i>NQF Endorsed: No</i>	
Description	Total number of providers who prescribe MAT
Numerator	Providers who prescribe MAT
Denominator	N/A
Data Sources	MMIS claims/encounter data
National Benchmark	None
Goal 6 Measures	
Measure: Continuous enrollment in Medicaid	
<i>NQF Endorsed: No; See Appendix H</i>	
Description	Percentage of former foster care youth continuously enrolled for 12 months in Medicaid
Numerator	Number of members identified as former foster care youth who are continuously enrolled
Denominator	Total number of members who were former foster care youth
Data Sources	MMIS claims/encounter data
National Benchmark	None
Measure: Ambulatory care visits	
<i>NQF Endorsed: No; See Appendix H</i>	
Description	Percentage of former foster care youth who have an ambulatory care visit
Numerator	Number of members identified as former foster care youth who had an ambulatory care visit
Denominator	Total number of members who were former foster care youth
Data Sources	MMIS claims/encounter data
National Benchmark	None
Measure: ED visits	
<i>NQF Endorsed: No; See Appendix H</i>	
Description	Percentage of former foster care youth who have an ED visit
Numerator	Number of members identified as former foster care youth who had an ED visit
Denominator	Total number of members who were former foster care youth
Data Sources	MMIS claims/encounter data

National Benchmark	None
Measure: Inpatient visits <i>NQF Endorsed: No; See Appendix H</i>	
Description	Percentage of former foster care youth who have an inpatient visit
Numerator	Number of members identified as former foster care youth who had an inpatient visit
Denominator	Total number of members who were former foster care youth
Data Sources	MMIS claims/encounter data
National Benchmark	None
Measure: Behavioral health encounters <i>NQF Endorsed: No; See Appendix H</i>	
Description	Percentage of former foster care youth who have a behavioral health encounter
Numerator	Number of members identified as former foster care youth who had a behavioral health encounter
Denominator	Total number of members who were former foster care youth
Data Sources	MMIS claims/encounter data
National Benchmark	None
Measure: Annual Preventive care visit <i>NQF Endorsed: No; See Appendix H</i>	
Description	Percentage of former foster care youth who have an annual preventive care visit
Numerator	Number of members identified as former foster care youth who had an annual preventive care visit
Denominator	Total number of members who were former foster care youth
Data Sources	MMIS claims/encounter data
National Benchmark	None
Goal 7 Measures	
Measure: Number of MassHealth members who are provisionally enrolled <i>NQF Endorsed: No</i>	
Description	Total number of members who are provisionally enrolled in MassHealth
Numerator	Total number of members who are provisionally enrolled in MassHealth
Denominator	N/A
Data Sources	HIS/IES data
National Benchmark	None
Measure: Provisionally-enrolled individuals later disenrolled <i>NQF Endorsed: No</i>	
Description	Percentage of provisionally-enrolled individuals who later disenrolled from Medicaid
Numerator	Total number of provisionally-enrolled individuals who later disenrolled from Medicaid
Denominator	Total number of provisionally-enrolled individuals
Data Sources	HIS/IES data
National Benchmark	None
Measure: Healthcare costs among those provisionally-enrolled and later disenrolled <i>NQF Endorsed: No</i>	
Description	Total healthcare costs among those provisionally enrolled who were disenrolled due to absence of required confirmation.
Numerator	Total healthcare costs among those members provisionally enrolled who were disenrolled due to absence of required confirmation
Denominator	N/A
Data Sources	MMIS Claims data
National Benchmark	None
Measure: Healthcare costs paid by MassHealth for SHIP enrollees	

<i>NQF Endorsed: No</i>	
Description	Total healthcare costs among SHIP Premium Assistance enrollees
Numerator	Total healthcare costs among SHIP Premium Assistance enrollees
Denominator	N/A
Data Sources	SHIP Premium Assistance program data, MMIS claims data
National Benchmark	None
Measure: SHIP program costs	
<i>NQF Endorsed: No</i>	
Description	Total costs of SHIP Premium Assistance
Numerator	Total costs of SHIP Premium Assistance
Denominator	N/A
Data Sources	SHIP Premium Assistance program data
National Benchmark	None

Appendix C:
Independent Evaluator Qualifications, Faculty Leads, and
Scientific Advisory Council (SAC)

MassHealth has selected the University of Massachusetts Medical School (UMMS) to be the Independent Evaluator for the 1115 Demonstration, including the DSRIP Program.

UMMS was founded in 1962 to provide affordable medical education for state residents and increase the number of primary care physicians in underserved areas. Today, it is an academic health sciences center of 6,180 employees with a reputation as a world-class research institution and a leader in primary care education. The Medical School attracts more than \$289 million annually in research funding, placing it among the top 50 medical schools in the nation.

Faculty members and staff participating in the Demonstration Evaluation have been drawn from the Departments of Quantitative Health Sciences (QHS), Family Medicine and Community Health (FMCH), the Center for Health Policy and Research (CHPR) and the Center for Health Law and Economics (CHLE).

Formed in 2009, the QHS Department is located on the Medical School campus and is comprised of quantitative health scientists. Arlene Ash, PhD., leads the QHS Division of Biostatistics and Health Services Research, and will serve as the faculty lead for quantitative components of the Demonstration evaluation. QHS also houses the Quantitative Methods Core (QMC) which provides biostatistical, epidemiological, and other methodological consultation and technical support for research across the campus. Dr. Eric Mick, PhD is the Assistant Director of the QMC and will lead the statistical team for the Demonstration evaluation.

CHPR and CHLE are components of Commonwealth Medicine, the public-sector consulting arm of UMMS founded in 2000. CHPR faculty and staff have deep experience in the evaluation of Medicaid programs and routinely partner with health and human services agencies, nonprofits, and other organizations to evaluate program outcomes and support evidence-based policy making. Dr. Jay Himmelstein, CHPR's founding director and Chief Health Policy Strategist, will serve as the UMMS executive sponsor and faculty lead for the overall evaluation. CHLE specializes in public and private sector coverage options, delivery systems, financing, and legislative reform. Rachel Gershon, JD, MPH, a Senior Associate at CHLE, will serve as Senior Policy advisor to the evaluation.

The Draft Evaluation Design has been informed by review and feedback from the 1115 Demonstration Scientific Advisory Committee (SAC), a group comprised of nationally recognized experts in Medicaid program evaluation and health services research, convened to assure scientific rigor and feasibility of the evaluation design. It is anticipated that SAC members will be involved on an ongoing basis to help address evaluation implementation challenges as needed and review evaluation deliverables as appropriate.

1. Faculty Leadership

Jay Himmelstein, MD, MPH

Professor of Quantitative Health Sciences and Family Medicine and Community Health
1115 Demonstration Principal Investigator and UMMS Executive Sponsor

Dr. Jay Himmelstein will serve as Principal Investigator and UMMS Executive Sponsor for the 1115 Demonstration Evaluation. In this role, he will lead the interdisciplinary team of faculty members and staff conducting the Section 1115 MA Demonstration evaluation

activities, providing strategic direction, and serving as the executive liaison with MassHealth and CMS. Dr. Himmelstein will be responsible for overseeing the efforts of the qualitative and quantitative teams and will provide final sign off on evaluation deliverables including the interim and final reports.

Dr. Himmelstein is a Professor of Family Medicine and Community Health and Quantitative Health Sciences and Chief Health Policy Strategist for CHPR. His professional career in research, policy development, and service is dedicated to improving health care and health outcomes for those served by the public sector. He has placed special emphasis on Medicaid programs and health services for people with disabilities, and is a nationally recognized physician, educator, and researcher. Dr. Himmelstein was the founding Director of the UMMS Center for Health Policy Research and led the Center from 1997-2007 in producing over 100 evaluation and research reports related to the Massachusetts Medicaid program. He has authored over 100 peer-reviewed articles, chapters, and technical reports and has served on national review committees for the National Academy of Science and several editorial review boards.

Arlene Ash, PhD

Professor and Division Chief, Biostatistics and Health Services Research,
Department of Quantitative Health Sciences

Co-Principal Investigator and Lead Quantitative Researcher

Dr. Arlene Ash will serve as Co-Principal Investigator and Lead Quantitative Researcher, directing quantitative analyses for the Demonstration and overseeing the quantitative team. She will participate in designing of analytic methods for the evaluation's process and outcome measures and will oversee the statistical team and all its outputs. Dr. Ash will also be a member of the evaluation leadership team and will participate in weekly leadership meetings.

Dr. Ash is Professor and Division Chief for Biostatistics and Health Services Research in QHS at UMMS, and an internationally recognized methods expert in health services research. She pioneered tools for using administrative data to monitor and manage health care delivery systems, including those now used by the Medicare program. Dr. Ash was one of six appointees to the COPSS-CMS white paper project: "Statistical Issues in Assessing Hospital Performance." Her UMMS team has helped MassHealth incorporate social determinants of health into Medicaid/CHIP global payments.

Deborah Gurewicz, PhD

Assistant Professor, Department of Family Medicine and Community Health
Investigator, Center for Healthcare Organization and Implementation Research,
Department of Veterans Affairs

Co-Principal Investigator and Lead Qualitative Researcher

Dr. Deborah Gurewicz will serve as Co-Principal Investigator and Lead Qualitative Researcher, overseeing all qualitative aspects of the evaluation, including design and piloting of interview instruments, surveys, and mixed-methods approaches. Additionally, Dr. Gurewicz will oversee the training of qualitative field staff and contribute to all evaluation deliverables to MassHealth and CMS. Dr. Gurewicz will be a member of the leadership team and participate in weekly leadership meetings and coordinating meetings with MassHealth as appropriate.

Trained as a health services researcher, Dr. Deborah Gurewicz specializes in research on

organizational behavior, especially in safety net health care delivery settings. This work has concentrated in primary care settings, but has also included hospitals, home health agencies, and behavioral health care providers. Areas of focus for Dr. Gurewich include primary care, care integration, and program implementation. Methodologically, Dr. Gurewich's research has used a combination of qualitative and quantitative techniques, including case studies and survey methodologies. She has extensive experience using comparative case studies and in the design and management of multi-site data collection efforts.

Karen Clements, MPH, ScD

Assistant Professor, Biostatistics and Health Services Research,
Department of Quantitative Health Sciences

Co-Principal Investigator and Lead Researcher for Demonstration Goals 3-7

Dr. Karen Clements will serve as Co-Principal Investigator and will be the lead researcher for goals 3-7, overseeing analyses addressing return on investment and cost effectiveness of the Demonstration across all seven goals. She will work on the quantitative aspects of the evaluation, including study design of goals 3-7 and contribute to all deliverables for MassHealth and CMS. Dr. Clements will also be a member of the leadership team and attend weekly leadership meetings. Dr. Clements will receive analytical and technical support for goals 3-7 from Dr. Arlene Ash, Dr. Matthew Alcusky, Dr. Eric Mick, and the core evaluation team.

Dr. Clements is a trained epidemiologist with 15 years of experience in health services and health economics and outcomes research. She has expertise in design and analysis of studies that utilize secondary data sources, including administrative databases and health survey data, and experience designing decision analytic models for economic evaluations. Dr. Clements has led or participated in dissemination efforts for her studies, including co-authoring over 30 peer-reviewed manuscripts and authoring numerous technical reports, data briefs, posters, and oral presentations. She has extensive project management experience gained through leading projects with multi-disciplinary research teams, as well as experience in program evaluation using large linked administrative databases.

Matthew Alcusky, PharmD, MS

Assistant Professor, Department of Quantitative Health Sciences

Co-Principal Investigator

Dr. Matthew Alcusky will serve as Co-Principal Investigator and is responsible for integrating and supporting evaluation efforts across all demonstration goals. He will oversee the core research team, consisting of evaluation support staff and function as the day-to-day scientific liaison with MassHealth and CMS as needed. Dr. Alcusky will also be a member of the leadership team and participate in leadership and coordinating meetings with MassHealth.

Dr. Alcusky is a pharmaco-epidemiologist and health services researcher focused on generating evidence from quantitative data sources to inform clinical practice and guide health policy. Recently, his research has included the study of prescribing patterns, comparative safety and effectiveness, and medication related healthcare utilization, often in vulnerable segments of the Medicaid and Medicare populations. Dr. Alcusky has previously studied the relationship between hospital cost and quality in the Medicare program, the relationship between post-acute site of care and health outcomes and is currently evaluating the longitudinal effects of a large regional medical home initiative.

Eric Mick, ScD

Associate Professor of Epidemiology, Department of Quantitative Health Sciences,
Assistant Director of Quantitative Methods Core,
Co-Investigator, Senior Statistician

Dr. Eric Mick will serve as Co-Investigator and Senior Statistician. As Assistant Director of the Quantitative Measurement Core for the Department of Quantitative Health Sciences and for this project, Dr. Mick will be responsible for supervising study biostatisticians and for developing, managing, and analyzing the administrative data that will be used to track implementation efforts and outcomes. Dr. Mick will be responsible for translating the research design into clearly documented working code. He will be a member of the overall evaluation leadership team, participating in leadership meetings and coordinating meetings with MassHealth, as appropriate.

Dr. Mick was trained as a psychiatric and genetic epidemiologist and his methodological areas of interest are epidemiology (descriptive and clinical), analysis of “big-data” (genomic research and administrative databases), and multivariate methods for longitudinal data. His current focus is on informing health care delivery reform through risk adjustment modeling of total cost of care and measures of quality.

2. Consulting Subject Matter Experts

Glenn Pransky, MD, M.Occ.H

Associate Professor, Quantitative Health Sciences and Family Medicine and Community Health
Chair of the Scientific Advisory Committee (SAC) and Scientific Advisor

Dr. Glenn Pransky will serve as Chair of the Scientific Advisory Committee and will advise Dr. Himmelstein and the faculty leads on evaluation design and implementation. He will be responsible for reviewing evaluation designs and deliverables for completeness and scientific rigor.

Dr. Pransky’s research focuses on disability prevention strategies, enhancing recovery in musculoskeletal disorders, health care effectiveness, work disability in older workers, and methods to achieve safe and sustained return to work. Research methods include health data and claims analysis, qualitative and quantitative observational studies, geospatial and multilevel analyses, and intervention studies. Dr. Pransky has co-authored over 130 articles in the scientific literature on various topics and was the cofounder of the ICOH Scientific Section on Work Disability Prevention Research.

Rachel Gershon, JD, MPH

Senior Associate, Center for Health Law and Economics
Senior Policy Advisor

Rachel Gershon will serve as a Senior Policy Advisor to faculty leads and evaluation staff across all goals, assuring that the evaluation team is correctly interpreting Medicaid guidelines and details of all policy initiatives. She will participate in coordination meetings with MassHealth and external stakeholders and serve as a reviewer of all evaluation deliverables.

Rachel performs legal and policy analysis regarding Medicaid, health reform, and social services. Specific areas of her work include health care affordability, Accountable Care

Organizations, long-term supports and services, housing supports, language access, and consumer protections. Rachel also brings experience advising and representing individuals who receive public benefits, including Medicaid, Medicare, prescription assistance, Supplemental Security Income (SSI) and Social Security.

Robin Clark, PhD

Professor, Departments of Family Medicine and Community Health and Quantitative Health Sciences

Co-Investigator

Dr. Clark will serve as Co-Investigator and provide methodological and subject matter expertise for goal 5. He will be available for consultation during the design and analysis of this component of the evaluation.

Dr. Clark's current work focuses on implementation of treatment for individuals with addiction in real world settings and the impact of Medicaid policies on the accessibility, effectiveness and cost of treatment for opioid addiction. Dr. Clark is also studying policies and practices that support individuals with persistently high health care costs and multiple chronic conditions.

Dr. Clark is a Professor in the Departments of Family Medicine and Community Health and Quantitative Health Sciences. He specializes in the economic evaluation of health care policies and interventions, with a special focus on substance abuse, mental health and primary care. His work has been funded by the National Institute on Drug Abuse, the National Institute of Mental Health, the Robert Wood Johnson Foundation, the Blue Cross and Blue Shield Foundation of Massachusetts and by health and human services agencies in several states.

Alexis Henry, ScD

Dr. Henry will provide consultation and subject matter expertise related to community-based behavioral health services, particularly services for DMH clients (e.g. ACCS model). In addition, she will offer consultation on approaches to conducting qualitative interviews with consumers and other stakeholders.

Dr. Henry is Associate Professor in the Department of Psychiatry and oversees CHPR's research and evaluation activities. Her work focuses on the impact of health and social policies and programs on the well-being of transition-age and working-age people with disabilities, particularly those served by public programs. Over the past decade, she has worked closely with the MA DMH and with community-based provider organizations to evaluate the effectiveness of services for DMH clients. In collaboration with MassHealth, Dr. Henry has led studies examining the perceptions and experiences of members enrolled in One Care, the state's integrated care demonstration for working-age dual-eligible beneficiaries (Medicare and Medicaid), using focus groups, surveys and other methods. Her work has been funded by the Social Security Administration, the Centers for Medicare and Medicaid Services, the Substance Abuse and Mental Health Service Administration, the MA Department of Public Health and others.

3. 1115 Demonstration Evaluation Scientific Advisory Committee (SAC)

The MA 1115 Demonstration Scientific Advisory Committee (SAC) has reviewed and provided feedback on the evaluation methods and approaches in this Draft Demonstration Evaluation

Design Document. Members were selected based on their areas of health services research expertise and methodological experience in evaluating the impact of policy changes on health care systems and populations of interest. The SAC has reviewed the proposed evaluation methods and data sources to assure that the proposed approaches in the EDD are feasible and meet prevailing standards of scientific and academic rigor.

The SAC will be consulted over the life of this evaluation as scientific advisors and will be asked to review CMS deliverables. The SAC will be available as needed to consult with Demonstration faculty to address potential obstacles to the evaluation and provide guidance relating to specific analyses, interpretation of findings, and may collaborate on reports in the scientific literature.

Dr. Glenn Pransky will serve as Chair of the Scientific Advisory Committee and will be responsible for communicating and incorporating SAC guidance into the evaluation design and implementation.

SAC Members:

John Ayanian, MD, MPP

Director, Institute for Health Policy and Innovation, University of Michigan

Dr. Ayanian's area of expertise for this evaluation includes him serving as director of the 1115 Demonstration evaluation of Medicaid expansion for the state of Michigan, including its effects on access, utilization, and health outcomes for Medicaid enrollees. Additional areas of expertise include health care disparities, quality of care, and risk adjustment in CMS payment systems.

Dr. Ayanian is the inaugural director of the Institute for Healthcare Policy and Innovation (IHPI), one of the world's largest groups of healthcare and health policy researchers, involving more than 450 experts from across the University of Michigan and partner organizations. Dr. Ayanian also serves as the Alice Hamilton Professor of Medicine in the University of Michigan Medical School, Professor of Health Management and Policy in the School of Public Health, and Professor of Public Policy in the Gerald R. Ford School of Public Policy. At the University of Michigan, Dr. Ayanian leads an institute with multiple projects using large-scale health care data resources to assess the impact of policy, payment, and practice changes on patients' health.

Randall P. Ellis, PhD

Professor, Dept. of Economics, Boston University

Dr. Ellis's area of expertise relevant to this evaluation includes research on risk adjustment in public insurance programs, provider payment incentives, reimbursement models, and treatment costs and impacts for substance abuse disorders in disadvantaged populations

Dr. Ellis is a professor in the Department of Economics at Boston University, where he has been on the faculty since 1981. He earned his Ph.D. in economics from MIT after attending Yale University and the London School of Economics and Political Science. For 35 years, his research has focused on health economics, spanning both US and international economics topics. He is a past president of the American Society of Health Economists. Dr. Ellis has been the principal or co-investigator on numerous research projects that developed Diagnostic Cost Group (DCG) and Hierarchical Condition Category (HCC) models, with funding from CMS and others. CMS now uses HCC models for risk adjust payments to Medicare Advantage health plans, Part D plans and the Health Insurance Exchanges. His

risk adjustment research received the Academy Health 2008 Health Services Research Impact Award.

John McConnell, MA, MS, PhD

Director, Center for Health Systems Effectiveness, Oregon Health Sciences Center

Dr. McConnell has several areas of expertise relevant to this evaluation. He is the principal investigator for the Oregon 1115 Demonstration evaluation team. His health economics research has addressed total costs of care (in context of provider accountability), displaced costs estimates, and Medicaid quality of care. He has studied the impact of CCO (ACO-type) implementation on coordination, access, quality, outcomes, costs, avoidable care (linked database evaluation) and behavioral and physical healthcare integration in Medicaid populations. Dr. McConnell also has conducted research on costs and outcomes in alternate substance abuse care pathways, and developing comparison populations for waiver evaluation, including interstate data. A focus of his current work is understanding the effectiveness of reform of the Medicaid payment and delivery system, with Oregon serving as a leading example.

Dr. McConnell is a health economist and Director of the Center for Health Systems Effectiveness at OHSU. His research has also addressed emergency and trauma care, organizational management, behavioral health, and state health policy.

Deborah Peikes, MPA, PhD

Senior Fellow, Mathematica Policy Research

Dr. Peikes's areas of expertise relevant to this evaluation include the impact of alternative primary care models on health outcomes, and qualitative studies of health care systems. Her expertise includes program evaluation, evaluation of patient-centered medical homes, primary care effectiveness and integration of care for persons with multiple comorbidities.

Dr. Peikes is a leader in research on how to improve the delivery of primary care through the patient-centered medical home and related models of care, value-based purchasing, care coordination and disease management for people with chronic illnesses, and the health, employment, and social integration of beneficiaries with severe disabilities. Dr. Peikes currently leads a large-scale, mixed-methods evaluation of the Comprehensive Primary Care Plus, a multi-payer initiative to improve care delivery in thousands of primary care practices, for CMS. She also led the evaluation of the Comprehensive Primary Care initiative, an earlier intervention to transform primary care delivery and payment.

Rebecca Wells, PhD

Professor, Management, Policy and Community Health, University of Texas School of Public Health

Dr. Wells's experience relevant to this evaluation includes being the principal investigator for the Texas 1115 Demonstration and DSRIP evaluation. Her expertise and research focus has included program and infrastructure change, implementation and performance measures for DSRIP funded initiatives, behavioral health and substance abuse disorder program effectiveness, as well as evaluating the impacts of community support services programs.

Dr. Wells served on the University of Texas Health Policy and Management faculty full time for seven years. Since then, she has continued to collaborate with both University of Texas and University of North Carolina faculty on projects related to medical homes, case management, and behavioral health care. Dr. Wells currently serves on the UNC-based Workforce Development Center led by Dorothy Cilenti, examining how community collaboration affects factors contributing to diabetes, and is evaluating an innovative case management program for clients of a new sobering center model. She recently led the evaluation of Texas's \$11 billion Medicaid 1115(a) waiver value-based payment program.

Appendix D:
1115 Demonstration Evaluation
Summary Table of DSRIP Domains, Research Questions, and Hypotheses

Domain 1: State, organizational, and provider-level actions promoting delivery system transformation	
Research Questions	Hypotheses
RQ1: To what extent did the state take actions to support delivery system transformation?	<p>H1.1. DSRIP ACO and CP funding will support delivery system transformation</p> <p>H1.2. Statewide investment (SWI) initiatives aimed at increasing the supply, preparedness, and retention of the community-based workforce (SWI 1 through 4) will support delivery system transformation</p> <p>H1.3 SWI initiatives aimed at providing technical assistance to ACOs and CPs, supporting provider preparedness to enter alternative payment models, reducing emergency department boarding, and improving access for people with disabilities and for whom English is not a primary language (SWI 5 through 8) will support delivery system transformations</p>
RQ2: To what extent did ACOs take organizational-level actions to transform care delivery under an accountable and integrated care model?	<p>H2.1. ACOs will vary with respect to governance structure (e.g., lead provider, role of provider and patients), service scope, and local conditions (e.g., experience participating in payment reforms, local context/market served)</p> <p>H2.2. ACOs will engage providers (primary care and specialty) in delivery system change through financial (e.g., shared savings) and non-financial levers (e.g., data reports)</p> <p>H.2.3. ACOs will implement Health Information Technology (HIT)/Health Information Exchange (HIE) infrastructure to support population health management (e.g., reporting, data analytics) and data exchange within and outside the ACO</p> <p>H2.4 ACOs will implement non-CP-related population health management activities including risk stratification, needs screenings and assessments, and programs to address identified needs</p> <p>H2.5 ACOs will implement structures and processes to coordinate care across the care continuum</p> <p>H2.6 ACOs will implement processes to identify and address health-related social needs (HRSN), including management of Flexible Services</p> <p>H2.7 ACOs will implement strategies to reduce the total cost of care (e.g., utilization management, referral management, administrative cost reduction), excluding the population health management/care programs mentioned above</p> <p>H2.8. Accountable Care Partnership Plans (Model A) will transition more of the care management responsibilities to their ACO partners over the course of the demonstration</p> <p>H2.9 ACOs will establish processes to facilitate member engagement</p> <p>H2.10 ACOs will monitor quality performance and establish mechanisms to support quality improvement efforts</p>
RQ3: How and to what extent did CPs target resources and take actions to operate under an accountable and integrated care model?	<p>H3.1: CPs will engage constituent entities in delivery system change</p> <p>H3.2: CPs will recruit, train and/or retrain staff by leveraging SWIs and other supports</p> <p>H3.3: CPs will develop HIT/HIE infrastructure and interoperability to support care coordination (e.g. reporting, data analytics) and data exchange (e.g., internally with ACOs & MCOs, and externally with BH, LTSS, specialty providers, and social service entities)</p> <p>H3.4: CPs will develop systems to coordinate services across the care continuum that complement services provided by other state agencies (e.g., DMH)</p>
RQ4: How and to what extent did ACOs, MCOS,	H4.1: ACOs, MCOs, & CPs establish structures and processes to promote improved administrative coordination between organizations (e.g. enrollee

and CPs align resources and take common actions to operate under an accountable and integrated care model?	assignment, engagement and outreach) H4.2: ACOs, MCOs, & CPs establish structures and processes to promote improved clinical integration across their organizations (e.g. flow of patient and patient information across settings, integrated care plans) H4.3: ACOs, MCOs, & CPs establish structures and processes for joint management of performance, quality, and conflict resolution
Domain 2: Changes in care processes	
Research Question	Hypotheses
RQ5: To what extent did the identification of member needs including physical, BH, LTSS, and social needs improve?	H5.1: The identification of individual members' unmet needs (including health-related social needs, BH, and LTSS needs) will improve
RQ6: To what extent did access to physical care, BH care, and LTSS improve?	H6.1: Access to physical care services will improve or remain consistent for members H6.2: Access to BH services for will improve or remain consistent for members H6.3: Access to LTSS will improve or remain consistent for members
RQ7: To what extent did engagement with physical care, BH care, and LTSS improve?	H7.1: Engagement with physical care services will improve or remain consistent for members H7.2: Engagement with BH services will improve or remain consistent for members H7.3: Engagement with LTSS will improve or remain consistent for members
RQ8: To what extent did care processes improve for physical, BH, and LTSS?	H8.1: Physical health care processes (e.g., wellness & prevention, chronic disease management) will improve for members H8.2: BH care processes will improve for members H8.3: LTSS processes will improve for members H8.4: The management of health-related social needs will improve through use of Flexible Services and/or other social service interventions for members H8.5: Provider staff will report an improved experience delivering healthcare services to members
RQ9: To what extent did integration between physical health, behavioral, and long-term services increase?	H9.1: Integration across the care continuum (e.g., physical health, BH, LTSS, acute care, social services) will increase H9.2: Provider staff will report increased care integration (within and between ACOs and CPs)
RQ10: How did the volume and mix of services change during the course of the Demonstration?	H10.1: The volume and mix of services utilized will shift, when clinically appropriate, in the direction of lower cost sites and types of care H10.2: The utilization of low value care will decrease
DOMAIN 3: Changes in member outcomes	
Research Question	Hypotheses
RQ11: To what extent did member outcomes improve?	H11.1: Inpatient and emergency department utilization rates will decrease overall H11.2: Inpatient and emergency department utilization rates will decrease for adults and children with specific conditions including ambulatory care sensitive conditions H11.3: Inpatient and emergency department utilization rates will decrease among adults with mental illness, substance addiction, co-occurring conditions, or LTSS needs H11.4: Community tenure will increase

	H11.5: Members will report improved ratings of health
RQ12: To what extent did member experience improve during the Demonstration?	H12.1: Members will report improved overall ratings of their healthcare provider
DOMAIN 4: Changes in healthcare cost trends	
Research Question	Hypotheses
RQ13: To what extent were Medicaid total cost of care trends moderated for the for the ACO population?	H13.1: The rate of increase in the total cost of care for the ACO population will decrease
DOMAIN 5: Sustainability of innovative delivery system changes, including ACOs, Community Partners and Flexible Services	
Research Question	Hypotheses
RQ14: To what extent will innovative delivery system changes including ACOs, CPs, and Flexible Services will be sustainable without DSRIP funding?	<p>H14.1: ACOs will develop strategies to continue to operate under an accountable and integrated care model after the Demonstration ends</p> <p>H14.2: CPs will develop strategies to continue to operate under an accountable and integrated care model after the Demonstration ends</p> <p>H14.3: ACOs will pursue strategies to continue to provide Flexible Services to members after the Demonstration ends'</p> <p>H14.4 The costs and effects of the ACO program will warrant continued investment</p> <p>H14.5 The costs and effects of the CP program will warrant continued investment</p> <p>H14.6 The costs and effects of the FS program will warrant continued investment</p>
RQ15: To what extent did alternative and value-based payments constitute an increasingly larger proportion of the payments to organizations and providers managing the care of MassHealth members?	<p>H15.1: The number of members cared for in ACOs will increase</p> <p>H15.2: ACOs and MCOs will engage in value-based payment arrangements with specialist providers</p> <p>H15.3: ACOs and MCOs will engage in alternative payment models and value-based payment arrangements with hospitals</p> <p>H15.4 The number of primary care practices participating in ACOs will increase</p>
DOMAIN 6: Effects of Specific DSRIP Investments and Actions	
Research Question	Hypotheses
RQ16: To what extent can observed changes in care processes, outcomes, and costs be attributed to DSRIP?	<p>H16.1: Improvements in care processes will be associated with key DSRIP inputs and outputs</p> <p>H16.2: Improvements in member outcomes will be associated with key DSRIP inputs and outputs</p> <p>H16.3: Moderated total cost of care trends will be associated with key DSRIP inputs and outputs</p> <p>H16.4: The State and local context will modify the relationship between DSRIP outputs and ACO quality and cost performance</p>

Appendix E:

1115 Demonstration and Evaluation Selection of Comparison States for Goal 3

To determine a comparison group for the evaluation of Massachusetts' subsidies, we first identified states with similar Medicaid eligibility criteria (around 138% FPL for adults):¹³⁴

Alabama	Minnesota
Arizona	Montana
Arkansas	Nevada
California	New Hampshire
Colorado	New Jersey
Connecticut	New Mexico
Delaware	New York
Illinois	North Dakota
Indiana	Ohio
Iowa	Oregon
Louisiana	Pennsylvania
Kentucky	Rhode Island
Maryland	Vermont
Michigan	Washington
	West Virginia

Of these 29 states, we excluded three states that provided subsidies for lower income members on top of federal subsidies:¹³⁵

Minnesota
New York
Vermont

We also excluded states that had had changes to Medicaid eligibility criteria in the past year (2017):¹³⁶

Colorado
Connecticut
Louisiana

Following these exclusions, we were left with 23 states to use as a collective comparison group: Alabama, Arizona, Arkansas, California, Delaware, Illinois, Indiana, Iowa, Kentucky, Maryland, Michigan, Montana, Nevada, New Hampshire, New Jersey, New Mexico, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, Washington, and West Virginia.

¹³⁴ Kaiser Family Foundation - [https://www.kff.org/health-reform/state-indicator/medicaid-income-eligibility-limits-for-adults-as-a-percent-of-the-federal-poverty-level/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Parents%20\(in%20a%20family%20of%20three\)%22,%22sort%22:%22desc%22%7D](https://www.kff.org/health-reform/state-indicator/medicaid-income-eligibility-limits-for-adults-as-a-percent-of-the-federal-poverty-level/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Parents%20(in%20a%20family%20of%20three)%22,%22sort%22:%22desc%22%7D)

¹³⁵ Potential Consequences of Proposal to Further Reduce Eligibility for HUSKY Insured Parents (April 2016)

¹³⁶ <https://www.kff.org/medicaid/state-indicator/states-reporting-at-least-one-eligibility-expansion-or-restriction/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Eligibility%20Standard%20Expansions%22,%22sort%22:%22desc%22%7D>

Appendix F:
1115 Demonstration and Evaluation – Cambridge Health Alliance Measure Slate for Goal 4

				Reporting DY21/SFY 2018						
Measure	Source	Geography	Cambridge	Somerville	Everett	Malden	Revere	Statewide	Reported	
1 Overall age-adjusted rate per 100,000 for premature death (below age 75)	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	194	292	419	284	341	275	Yes	
Age-adjusted rate per 100,000 for premature death (below age 75), for White, Non-Hispanic	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	175	309	482	336	390	282	Yes	
Age-adjusted rate per 100,000 for premature death (below age 75), for Black, Non-Hispanic	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	261	311	264	201	N/A Rates based on 1 to 4 deaths are not reported (DPH Guidelines)	313	Yes	
Age-adjusted rate per 100,000 for premature death (below age 75), for Hispanic	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	246	156	136	112	282	227	Yes	
Age-adjusted rate per 100,000 for premature death (below age 75), for Asian/Pacific Islander, non-Hispanic	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	149	166	N/A Rates based on 1 to 4 deaths are not reported (DPH Guidelines)	151	244	121	Yes	
Age-adjusted rate per 100,000 for premature death (below age 75), for American-Indian, Non-Hispanic	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	0	0	0	0	0	245	Yes	
2 Overall age-adjusted rate per 100,000 for hospital discharges for primary care manageable conditions: asthma	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	774	798	1,021	826	929	920	Yes	
Age-specific rate per 100,000 for hospital discharges for primary care manageable conditions: asthma - Under-15	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	465	385	536	440	632	450	Yes	
Age-specific rate per 100,000 for hospital discharges for primary care manageable conditions: asthma - 15-29 years old	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	176	213	711	447	633	607	Yes	
Age-specific rate per 100,000 for hospital discharges for primary care manageable conditions: asthma - 30-44 years	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	530	494	836	718	669	859	Yes	
Age-specific rate per 100,000 for hospital discharges for primary care manageable conditions: asthma - 45+ years	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	1,397	1,497	1,548	1,305	1,436	1,394	Yes	
Age-adjusted rate per 100,000 for hospital discharges for primary care manageable conditions: asthma - White, Non-Hispanic	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	655	700	1,031	908	874	803	Yes	

Measure	Source	Geography	Reporting DY21/SFY 2018							Reported
			Cambridge	Somerville	Everett	Malden	Revere	Statewide		
Age-adjusted rate per 100,000 for hospital discharges for primary care manageable conditions: asthma - Black, Non-Hispanic	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	1,126	1,450	1,031	1,019	1,394	1,556	Yes	
Age-adjusted rate per 100,000 for hospital discharges for primary care manageable conditions: asthma - Hispanic	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	1,351	902	909	677	628	1,661	Yes	
Age-adjusted rate per 100,000 for hospital discharges for primary care manageable conditions: asthma - Asian/Pacific Islander, non-Hispanic	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	219	282	N/A Rates based on 1 to 4 deaths are not reported (DPH Guidelines)	489	530	327	Yes	
Age-adjusted rate per 100,000 for hospital discharges for primary care manageable conditions: asthma - American Indian, Non-Hispanic	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	N/A Rates based on 1 to 4 deaths are not reported (DPH Guidelines)	N/A Rates based on 1 to 4 deaths are not reported (DPH Guidelines)	0	0	N/A Rates based on 1 to 4 deaths are not reported (DPH Guidelines)	580	Yes	
3 Age-adjusted rate* per 100,000 for suicide mortality	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	7	N/A Rates based on 1 to 4 deaths are not reported (DPH Guidelines)	N/A Rates based on 1 to 4 deaths are not reported (DPH Guidelines)	N/A Rates based on 1 to 4 deaths are not reported (DPH Guidelines)	8	9	Yes	
4 Age-adjusted rate* per 100,000 for Hepatitis C incidence	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	70	61	161	131	171	129	Yes	
5 Percentage of children fully immunized at kindergarten entry	Immunization Program, MA Department of Public Health and Department of Elementary and Secondary	Cambridge, Somerville, Everett, Malden, Statewide	98.8%	97.7%	92.8%	97.0%	Data not available at school level	94.1%	Yes	
6 Percent of adolescents reporting specific risk behaviors (as available), from the Youth Risk Behavior Survey (YRBS)- high school surveys (Lifetime Heroin Use)	Youth Risk Behavior Survey (YRBS) (Bi-Annual)	Cambridge, Somerville, Everett, Malden, (as available by community) Statewide	0.6%	0.1%	0.0%	1.0%	Data not available at school level	1.7%	Yes	
Percent of adolescents reporting specific risk behaviors (as available), from the Youth Risk Behavior Survey (YRBS)- high school surveys (Lifetime Opioid Use without Rx)	Youth Risk Behavior Survey (YRBS) (Bi-Annual)	Cambridge, Somerville, Everett, Malden, (as available by community) Statewide	N/A Question not asked	N/A Question not asked	N/A Question not asked	3.9%	Data not available at school level	N/A (See Note)	Yes	
Percent of adolescents reporting specific risk behaviors (as available), from the Youth Risk Behavior Survey (YRBS)- high school surveys (Current Tobacco Use)	Youth Risk Behavior Survey (YRBS) (Bi-Annual)	Cambridge, Somerville, Everett, Malden, (as available by community) Statewide	6%	5%	2.0%	2.0%	Data not available at school level	8%	Yes	
Percent of adolescents reporting specific risk behaviors (as available), from the Youth Risk Behavior Survey (YRBS)- high school surveys (Current Marijuana Use)	Youth Risk Behavior Survey (YRBS) (Bi-Annual)	Cambridge, Somerville, Everett, Malden, (as available by community) Statewide	26%	16%	13%	10%	Data not available at school level	25%	Yes	
Percent of adolescents reporting specific risk behaviors (as available), from the Youth Risk Behavior Survey (YRBS)- high school surveys (Current Alcohol Use)	Youth Risk Behavior Survey (YRBS) (Bi-Annual)	Cambridge, Somerville, Everett, Malden, (as available by community) Statewide	32%	19%	17%	15%	Data not available at school level	34%	Yes	

Measure	Source	Geography	Reporting DY21/SFY 2018						Reported
			Cambridge	Somerville	Everett	Malden	Revere	Statewide	
Percent of adolescents reporting specific risk behaviors (as available), from the Youth Risk Behavior Survey (YRBS)- high school surveys (Depressive Symptoms in Prior Year)	Youth Risk Behavior Survey (YRBS) (Bi-Annual)	Cambridge, Somerville, Everett, Malden, (as available by community) Statewide	25%	31%	31%	25%	Data not available at school level	27%	Yes
Percent of adolescents reporting specific risk behaviors (as available), from the Youth Risk Behavior Survey (YRBS)- high school surveys (Lifetime Sexual Intercourse)	Youth Risk Behavior Survey (YRBS) (Bi-Annual)	Cambridge, Somerville, Everett, Malden, (as available by community) Statewide	33%	33%	33%	24%	Data not available at school level	36%	Yes
Percent of adolescents reporting specific risk behaviors (as available), from the Youth Risk Behavior Survey (YRBS)- high school surveys (Current Sexual Intercourse)	Youth Risk Behavior Survey (YRBS) (Bi-Annual)	Cambridge, Somerville, Everett, Malden, (as available by community) Statewide	N/A Question not asked	N/A Question not asked	N/A Question not asked	17%	Data not available at school level	28%	Yes
Percent of adolescents reporting specific risk behaviors (as available), from the Youth Risk Behavior Survey (YRBS)- high school surveys (Condom Use at Last Intercourse)	Youth Risk Behavior Survey (YRBS) (Bi-Annual)	Cambridge, Somerville, Everett, Malden, (as available by community) Statewide	64%	60%	65%	70%	Data not available at school level	63%	Yes
Percent of adolescents reporting specific risk behaviors (as available), from the Youth Risk Behavior Survey (YRBS)- middle school surveys (Lifetime Heroin Use)	Youth Risk Behavior Survey (YRBS) (Bi-Annual)	Cambridge, Somerville, Everett, Malden, (as available by community) Statewide	0.6%	0.0%	0.0%	0.9%	Data not available at school level	N/A Question not asked	Yes
Percent of adolescents reporting specific risk behaviors (as available), from the Youth Risk Behavior Survey (YRBS)- middle school surveys (Lifetime Opioid Use without Rx)	Youth Risk Behavior Survey (YRBS) (Bi-Annual)	Cambridge, Somerville, Everett, Malden, (as available by community) Statewide	N/A Question not asked	N/A Question not asked	N/A Question not asked	3.8%	Data not available at school level	N/A Question not asked	Yes
Percent of adolescents reporting specific risk behaviors (as available), from the Youth Risk Behavior Survey (YRBS)- middle school surveys (Current Tobacco Use)	Youth Risk Behavior Survey (YRBS) (Bi-Annual)	Cambridge, Somerville, Everett, Malden, (as available by community) Statewide	0.7%	1.0%	2.0%	1.0%	Data not available at school level	1.4%	Yes
Percent of adolescents reporting specific risk behaviors (as available), from the Youth Risk Behavior Survey (YRBS)- middle school surveys (Current Marijuana Use)	Youth Risk Behavior Survey (YRBS) (Bi-Annual)	Cambridge, Somerville, Everett, Malden, (as available by community) Statewide	2.0%	2.0%	2.0%	3.0%	Data not available at school level	2.4%	Yes
Percent of adolescents reporting specific risk behaviors (as available), from the Youth Risk Behavior Survey (YRBS)- middle school surveys (Current Alcohol Use)	Youth Risk Behavior Survey (YRBS) (Bi-Annual)	Cambridge, Somerville, Everett, Malden, (as available by community) Statewide	4.0%	3.0%	5%	5%	Data not available at school level	4.4%	Yes
Percent of adolescents reporting specific risk behaviors (as available), from the Youth Risk Behavior Survey (YRBS)- middle school surveys (Depressive Symptoms in Prior Year)	Youth Risk Behavior Survey (YRBS) (Bi-Annual)	Cambridge, Somerville, Everett, Malden, (as available by community) Statewide	21%	N/A Question not asked	31%	22%	Data not available at school level	18%	Yes
Percent of adolescents reporting specific risk behaviors (as available), from the Youth Risk Behavior Survey (YRBS)- middle school surveys (Lifetime Sexual Intercourse)	Youth Risk Behavior Survey (YRBS) (Bi-Annual)	Cambridge, Somerville, Everett, Malden, (as available by community) Statewide	3.0%	4.0%	7%	6%	Data not available at school level	N/A Question not asked	Yes
Percent of adolescents reporting specific risk behaviors (as available), from the Youth Risk Behavior Survey (YRBS)- middle school surveys (Current Sexual Intercourse)	Youth Risk Behavior Survey (YRBS) (Bi-Annual)	Cambridge, Somerville, Everett, Malden, (as available by community) Statewide	N/A Question not asked	N/A Question not asked	N/A Question not asked	4.0%	Data not available at school level	N/A Question not asked	Yes

Measure	Source	Geography	Reporting DV21/SFY 2018							Reported
			Cambridge	Somerville	Everett	Malden	Revere	Statewide		
Percent of adolescents reporting specific risk behaviors (as available), from the Youth Risk Behavior Survey (YRBS)- middle school surveys (Condom Use at Last Intercourse)	Youth Risk Behavior Survey (YRBS) (Bi-Annual)	Cambridge, Somerville, Everett, Malden, (as available by community) Statewide	N/A Question not asked	N/A Question not asked	69%	61%	Data not available at school level	N/A Question not asked	Yes	
7 Age-adjusted rate per 100,000 for Opioid poisoning mortality	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	9	14	48	23	32	16	Yes	
8 Ranking top cause of 1) hospitalizations, by city: Age-adjusted rate* per 100,000 for hospitalizations (by individual cause)	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	Endocrine: Diabetes Mellitus Related, Rate: 1,573	Endocrine: Diabetes Mellitus Related, Rate: 2,129	Endocrine: Diabetes Mellitus Related, Rate: 2,649	Endocrine: Diabetes Mellitus Related, Rate: 2,158	Endocrine: Diabetes Mellitus Related, Rate: 2,246	Mental Disorders: All (Related), Rate: 4,087	Yes	
Ranking top cause of 2) Emergency Department visits, by city: Age-adjusted rate* per 100,000 for Emergency Department visits (by individual cause).	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	Mental Disorders: All, Rate: 2,950	Musculoskeletal Diseases: All, Rate: 3,101	Musculoskeletal Diseases: All, Rate: 4,872	Musculoskeletal Diseases: All, Rate: 3,590	Musculoskeletal Diseases: All, Rate: 3,798	Musculoskeletal Diseases: All, Rate: 2,844	Yes	
9 Age-specific rate* per 100,000 for 1) Emergency Department -visits related to falls among those age 65 years and over, by city.	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	3,765	5,140	3,767	4,250	3,817	4,348	Yes	
Age-specific rate* per 100,000 for 2) mortality related to falls among those age 65 years and over, by city.	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	N/A Rates based on 1 to 4 deaths are not reported (DPH Guidelines)	87	105	86	N/A Rates based on 1 to 4 deaths are not reported (DPH Guidelines)	52	Yes	
10 Age-adjusted rate* per 100,000 for Emergency Department visits related to alcohol or substance use.	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	1,956	1,543	1,586	1,332	1,245	987	Yes	
11 Age-adjusted rate* per 100,000 for Emergency Department visits related to Opioid poisoning.	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	172	164	484	470	495	323	Yes	
12 Age-adjusted rate* per 100,000 for hospitalizations related to Hypertension.	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	3,404	4,328	5,220	4,332	4,646	4,107	Yes	
13 Age-adjusted rate* per 100,000 for 1) hospitalizations related to Renal Failure or Renal Disorder.	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	1,390	1,789	2,083	1,737	1,936	1,592	Yes	
Age-adjusted rate* per 100,000 for 2) Emergency Department visits related to Renal Failure or Renal Disorder.	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	N/A Rates based on 1 to 4 deaths are not reported (DPH Guidelines)	N/A Rates based on 1 to 4 deaths are not reported (DPH Guidelines)	N/A Rates based on 1 to 4 deaths are not reported (DPH Guidelines)	N/A Rates based on 1 to 4 deaths are not reported (DPH Guidelines)	N/A Rates based on 1 to 4 deaths are not reported (DPH Guidelines)	12	Yes	

*Age-adjusted and age-specific rates are expressed per 100,000 persons.

^ Measures are reported using the most recent available data from public sources.

Appendix G:
 1115 Demonstration Evaluation
 Description of SUD Related Costs for Goal 5

Type of cost	Pre-Demonstration		Post-Demonstration	
	Month 1	Month 2	Month 1	Month 2
Treatment group costs				
Total costs	<ul style="list-style-type: none"> Total costs Total federal costs 			
SUD cost drivers	<ul style="list-style-type: none"> SUD-other Non-SUD 			
Type or source of care cost drivers	<ul style="list-style-type: none"> Outpatient costs – non ED Outpatient costs – ED Inpatient costs Pharmacy costs Long-term care costs 			

Adjusted cost outcomes: ITS results (present marginal effects and standard errors)

	Total costs	Total federal costs	SUD-other	Non-SUD	Outpatient non-ED	Outpatient ED	Inpatient	Pharmacy	Long-term care
Demonstration period									
Time (continuous)									
Demonstration period * time (continuous)									
Covariates									
Constant									

Appendix H:
1115 Demonstration and Evaluation
CMS Former Foster Care Evaluation Design¹³⁷

Comparison groups for the Former Foster Care Evaluation Design propose conducting chi squared testing to determine the impact of the demonstration on the target population. Based on a sample size calculation for chi squared tests, with standard assumptions for power and expected differences between target population and the comparison group, the number of individuals in the target population whom the state would need to have data on is 40.

1. Certain metrics proposed for the evaluation design would not be captured on the entire enrolled population because not all beneficiaries will use the services represented by the proposed metrics (e.g., length of time to follow-up after hospitalization, number of beneficiaries on appropriate medication management for asthma, and number of beneficiaries on persistent medication with annual monitoring).
2. Therefore, we looked at the prevalence of hospitalizations, asthma and utilization of persistent medication to help determine how large of a sample size we will need to expect to have at least 40 enrollees who could be tracked by each metric. Where possible, we looked for the most recent prevalence rates from scientific sources within the Medicaid population. If such data could not be easily obtained, we looked for data on the overall American population.
 - a. **Rate of Hospitalization:** per the Agency for Health Care Research and Quality (AHRQ), in 2012, approximately 21% of the Medicaid population was hospitalized in 2012. We would need at least 200 enrollees to have at least 40 of those receive a hospitalization at the expected rate of 21%.
 - b. **Rate of Asthma:** per the Centers for Disease Control (CDC), in 2014, approximately 10.5% of the population below 100% of the FPL had asthma. We would need 400 enrollees to have at least 40 of those be expected to have asthma.
 - c. **Rate of Individuals who utilize persistent medications:** per the National Quality Forum (NQF), in 2006, approximately 29% of the American population is on 5 or more medications. We would need 145 enrollees to expect to have at least 40 on medication which would be monitored via this metric.

3. Therefore, setting the criteria for potential enrollees to be **at least 500** will help ensure that an adequate number of individuals actually enroll, and that they acquire services which would fall into the proposed metrics.

4. Because Massachusetts is expecting to enroll 70 individuals, Massachusetts will not be able to meet the criteria for having at least 500 potential enrollees. Therefore, Massachusetts has modified the evaluation design to remove the comparison group. The state will still capture all proposed metrics on the target population.

Appendix I:

¹³⁷From CMS: <https://www.medicaid.gov/federal-policy-guidance/downloads/cib112116.pdf>

1115 Demonstration Evaluation
Acronyms and Definitions

Acronym	Definition
ACO	Accountable Care Organizations
ACS	American Community Survey
AHRQ	Agency for Healthcare Research and Quality
AMA	American Medical Association
APCD	All Payer Claims Database
ASAM	American Society of Addiction Medicine
BH	Behavioral Health
BSAS	Bureau of Substance Abuse Services
CDC	Centers for Disease Control and Prevention
CFIR	Consolidated Framework for Implementation Research
CHA	Cambridge Health Alliance
CHC	Community Health Center
CHPR	Center for Health Policy Research
CMS	Centers for Medicare and Medicaid Services
CP	Community Partner
CPT	Current Procedural Terminology
CSA	Community Service Agency
CY	Calendar Year
DMH	Department of Mental Health
DPH	Department of Public Health
DSH	Disproportionate Share Hospital
DSRIP	Delivery System Reform Incentive Payment
DUA	Data Use Agreement
DY	Demonstration Year
ED	Emergency Department
EDD	Evaluation Design Document
EOHHS	Executive Office of Health and Human Services
ESI	Employer Sponsored Insurance
FMCH	Family Medicine and Community Health
FPL	Federal Poverty Level
FY	Fiscal Year
HIT	Health Information Technology
HIE	Health Information Exchange
HIX-IES	Health Insurance Exchange/Integrated Eligibility System
HRSA	Health Resources and Services Administration
HRSN	Health Related Social Needs
IA	Independent Assessor
ICER	Incremental Cost Effectiveness Ratio
IE	Independent Evaluator
ICD	International Classification of Diseases
ISA	Interdepartmental Services Agreement
ITS	Interrupted Time Series
LTSS	Long Term Support Services
MA	Massachusetts
MCO	Managed Care Organization

MC	Managed Care Eligible
MDS	Minimum Data Sets
MMIS	MassHealth Medicaid Management Information
MRI	Magnetic Resonance Imaging
NASCO	National Survey of Accountable Care Organizations
NCQA	National Committee on Quality Assurance
NQF	National Quality Forum
OD	Overdose
ODU	Opioid Use Disorder
PCC	Primary Care Clinician
PCP	Primary Care Provider
PCPI	Physician Consortium for Performance Improvement
PHM	Population Health Measure
PHTII	Public Hospital Transformation and Incentive Initiative
PMPM	Per Member Per Month
PMPY	Per Member Per Year
QHS	Quantitative Health Sciences
ROI	Return on Investment
RQ	Research Question
SAC	Scientific Advisory Committee
SHIP	Student Health Insurance Program
SMI	Serious Mental Illness
SNF	Skilled Nursing Facility
SNCP	Safety Net Care Pool
SNPP	Safety Net Provider Payments
STC	Standard Terms and Conditions
SUD	Substance Use Disorders
SWI	Statewide Investments
TA	Technical Assistance
TCOC	Total Cost of Care
UCC	Uncompensated Care Cost
UCCR	Uncompensated Care Cost & Charge Report
UMMS	University of Massachusetts Medical School

Evaluation of the MassHealth 1115 Demonstration Extension Budget Narrative: July 1, 2018 through June 30, 2024

MassHealth has selected the University of Massachusetts Medical School (UMMS) to be the Independent Evaluator for the overall 1115 Demonstration and DSRIP Program. The University of Massachusetts Medical School (UMMS) is requesting \$5,939,321 including \$1,049,395 in funding for Year 1 (FY '19) to conduct the evaluation for the overall 1115 Demonstration and DSRIP Program. This narrative describes anticipated costs for the full six years of the project, from July 2018 to June 2024 (See Table 1 for a breakdown of costs for each project year).

It is anticipated that approximately 15% of the total evaluation budget will be spent on survey and measure development, 30% on qualitative data collection, cleaning, and coding, 20% on quantitative data collection, cleaning and coding, and 35% on analyses and reports generation.

Faculty members and staff participating in the Demonstration Evaluation have been drawn from the Departments of Quantitative Health Sciences (QHS), Family Medicine and Community Health (FMCH), the Center for Health Policy and Research (CHPR) and the Center for Health Law and Economics (CHLE).

PROJECT PERSONNEL

Investigators

Jay Himmelstein, MD, MPH (FTE 25% in Years 1-2; 20% in Years 3-5; 15% in Year 6)
1115 Demonstration Principal Investigator and Executive Sponsor

Dr. Jay Himmelstein will serve as Principal Investigator and UMMS Executive Sponsor for the 1115 Demonstration Evaluation. In this role, he will lead the interdisciplinary team of faculty members and staff conducting the Section 1115 MA Demonstration evaluation activities, providing strategic direction, and serving as the executive liaison with MassHealth and CMS. Dr. Himmelstein will be responsible for directing the efforts of the qualitative and quantitative teams across all seven Demonstration goals and will provide final sign off on evaluation deliverables including the interim and final reports.

Arlene Ash, PhD (FTE 20% in Years 1-4; 15% in Years 5-6)
Co-Principal Investigator and Lead Quantitative Researcher

Dr. Arlene Ash will serve as Co-Principal Investigator and Lead Quantitative Researcher, directing quantitative analyses for the Demonstration and overseeing the quantitative team. She will participate in designing analytic methods for the evaluation's process and outcome measures and will oversee the statistical team and all its outputs. Dr. Ash will also be a member of the overall evaluation leadership team and participate in leadership meetings and coordinating meetings with MassHealth, as appropriate.

Deborah Gurewich, PhD (FTE 25% in Year 1; 20% in Years 2-5; 15% in Year 6)
Co-Principal Investigator and Lead Qualitative Researcher (Sub-contract)

Dr. Deborah Gurewich will serve as Co-Principal Investigator and Lead Qualitative Researcher, overseeing all qualitative aspects of the evaluation, including design and piloting of interview instruments, surveys, and mixed-methods approaches. Additionally, Dr. Gurewich will oversee the training of qualitative field staff and contribute to all evaluation deliverables to MassHealth

and CMS. Dr. Gurewich will be a member of the overall evaluation leadership team and participate in leadership meetings and coordinating meetings with MassHealth, as appropriate.

Karen Clements, MPH, ScD (FTE 45% in Years 1-5; 35% in Year 6)
Co-Principal Investigator

Dr. Karen Clements will serve as Co-Principal Investigator and will be the lead investigator for goals 3-7, overseeing analyses addressing return on investment and cost effectiveness of the Demonstration across all seven goals. She will work on the quantitative aspects of the evaluation, including study design of goals 3-7, and contribute to all deliverables for MassHealth and CMS. Dr. Clements will also be a member of the overall evaluation leadership team and participate in leadership meetings and coordinating meetings with MassHealth as appropriate. Dr. Clements will receive analytical and technical support for goals 3-7 from Dr. Arlene Ash, Dr. Matthew Alcusky, Dr. Eric Mick, and the core evaluation team.

Matthew Alcusky, PharmD, MS (FTE 50% in Years 1-5; 45% in Year 6)
Co-Principal Investigator

Dr. Matthew Alcusky will serve as Co-Principal Investigator and is responsible for integrating and supporting evaluation efforts across all demonstration goals. He will oversee the core research team, consisting of evaluation support staff, and function as the day-to-day scientific liaison with MassHealth and CMS as needed. Dr. Alcusky will also be a member of the overall evaluation leadership team and participate in leadership meetings and coordinating meetings with MassHealth, as appropriate.

Eric Mick, ScD (FTE 21.5% in Year 1; 20% in Years 2-3; 15% in Years 4-6)
Co-Investigator, Senior Statistician

Dr. Eric Mick will serve as Co-Investigator and Senior Statistician. As Assistant Director of the Quantitative Measurement Core for the Department of Quantitative Health Sciences and for this project, Dr. Mick will be responsible for supervising study biostatisticians and for developing, managing, and analyzing the administrative data that will be used to track implementation efforts and outcomes. Dr. Mick will be responsible for translating the research design into clearly documented working code. He will be a member of the overall evaluation leadership team, participating in leadership meetings and coordinating meetings with MassHealth, as appropriate.

TBH (FTE 40% in Years 1-5; 25% in Year 6)
Phuong Huang, Ph.D., Qualitative Researcher, Co-Investigator

Dr. Huang, a qualitative researcher with extensive extensive experience in methods and oversight of implementing qualitative studies will be responsible for training and directly overseeing the qualitative field staff and implementing the evaluation design as approved by CMS across all qualitative elements.

Consulting Subject Matter Experts

Glenn Pransky, MD, M.Occ.H (FTE 10% in Year 1; 5% in Years 2-6)

Dr. Glenn Pransky will serve as Scientific Advisor and Chair of the Scientific Advisory Committee (SAC) and will advise Dr. Himmelstein and the faculty leads on evaluation design and implementation. He will be responsible for reviewing evaluation designs and deliverables for completeness and scientific rigor. Dr. Pransky will also be a member of the evaluation leadership team and a reviewer of all project deliverables.

Rachel Gershon, JD, MPH (FTE 5% in Years 1-6)

Rachel Gershon will serve as Senior Policy Advisor to faculty leads and evaluation staff across all goals, assuring that the evaluation team is correctly interpreting Medicaid guidelines and details of all policy initiatives. She will participate in coordination meetings with MassHealth and external stakeholders and serve as a reviewer for evaluation designs and deliverables. Rachel will also be available to participate in leadership meetings as needed.

Robin Clark, PhD (FTE 5% in Years 1-6)

Dr. Clark will provide methodological and subject matter expertise for goal 5. He will be available for consultation during the design and analysis of this component of the evaluation.

Alexis Henry, ScD (FTE 9% in Year 1; 5% in Years 2-4)

Dr. Henry will provide consultation and subject matter expertise related to community-based behavioral health services, particularly services for DMH clients (e.g. ACCS model). In addition, she will offer consultation on approaches to conducting qualitative interviews with consumers and other stakeholders.

Sarah Goff, MD, M.P.H. (FTE 10% in Year 1; 5% in Years 2-5) **Co-Investigator (Sub-Contract)**

Dr. Goff will participate on the qualitative research team lead by Dr. Gurewich, will lead the development of the interview guides during year 1, and participate in the pilot testing of the interview guides and training of the interview staff. She will also act as a subject matter expert supporting the team on evaluation of pediatric sub-populations.

Project Staff

TBN, MPH (FTE 46% in Year 1; 50% in Years 2-5; 30% Year 6) **Project Manager**

The Project Manager will support the Principal Investigator and the other investigators in all aspects of this project. She will be responsible for development and coordination of the project management plan and assisting with both quantitative and qualitative data collection efforts. Her project responsibilities will include participation in qualitative data collection, coordinating staff efforts for quantitative data development, monitoring progress of all aspects of the project, and project reporting. She will also develop and submit the IRB application for this project. She will be a participant on both the core and leadership teams and attend weekly meetings.

Aparna Ghosh Kachoria, MPH (FTE 55% in Years 1-5; 40% in Year 6)
Project Analyst-Field Interviewer

Aparna Kachoria will support investigators in the development of interview instruments and related evaluation tools. Additionally, Aparna will assist with coordination of the SAC and provide support to the Project Director. She is responsible for attending all research meetings and supporting the evaluation team. She will be a participant on both the core and leadership teams and attend weekly meetings. Working as a Field Interviewer, Aparna will be part of the Qualitative Analysis Team conducting interviews with MA state, ACO, and CP representatives. Additionally, she will be responsible for maintaining all interview data (interview notes and audio recordings). In this capacity she will work under the supervision of the Qualitative Researchers throughout the life of the study.

Quantitative Analysis Team (FTE 120% in Years 1-5; 80% in Year 6)

The Quantitative Analysis Team will include biostatisticians who will provide development support for statistical programming necessary for data management, processing, and statistical analysis of large claims-based datasets. Programming will also include programming for tables and figures for presentations, publications, reports. The biostatisticians will serve as primary liaison for primary data sources, translating them into useable statistical analysis datasets.

Qualitative Analysis Team (FTE 105% in Year 1; 155% in Year 2; 150% in Year 3; 100% in Years 4; 44% in Years 5 and 40% in Year 6)

The Qualitative Analysis Team will be responsible for collecting and analyzing all qualitative data available over the course of the project. The team will be trained to conduct key interviews with MA state, ACO and CP representatives, and consumers. This team will work under the supervision of the Qualitative Researchers throughout the life of the study. Responsibilities also include maintaining all interview data, including interview notes and audio recordings and for coordinating with a professional transcriptionist once the interviews are complete for transcription.

Administrative Support Team (FTE 40% in Years 1-4; 27% in Year 5; 13% in Year 6)

The Administrative Support Team will provide financial, contracting and other administrative duties as needed for this project.

TOTAL SALARY COSTS, YEARS 1-6: \$3,321,496

Fringe Benefits

Costs for fringe benefits for benefitted personnel are calculated at the established UMMS institutional rate of 32%.

TOTAL FRINGE COSTS, YEARS 1-6: \$1,039,919

TOTAL UMMS PERSONNEL COST (salary and fringe): \$4,361,415

NON-PERSONNEL COSTS

Travel

Local and National Travel

Local travel for the 1115 Evaluation Demonstration will include costs for team members to travel to project locations throughout the Commonwealth for data collection purposes. Additionally, there will be periodic progress meetings in Boston (Mass Health Central Office). Expected costs include mileage (reimbursed currently at \$0.545 /mile) parking and tolls. Mileage and tolls costs are calculated from UMMS campus location to each site destination and MassHealth in Boston.

TOTAL COST OF TRAVEL: **\$20,255**

Supplies/Licenses/Administrative Expenses

Routine office supplies to support this project include office supplies as well as software licenses, and audio recording equipment and supplies.

TOTAL COST OF SUPPLIES: **\$22,079**

Sub-Contracts

Boston University, Deborah Gurewich, PhD \$252,096
Co-Principal Investigator and Lead Qualitative Researcher

Dr. Deborah Gurewich will serve as Co-Principal Investigator and Lead Qualitative Researcher, overseeing all qualitative aspects of the evaluation, including design and piloting of interview instruments, surveys, and mixed-methods approaches. Additionally, Dr. Gurewich will oversee the training of qualitative field staff and contribute to all evaluation deliverables to MassHealth and CMS. Dr. Gurewich will be a member of the leadership team and participate in weekly leadership meetings and coordinating meetings with MassHealth as appropriate.

UMass Amherst, Sarah Goff, MD, PhD \$58,938

Dr. Goff will participate on the qualitative research team lead by Dr. Gurewich, will lead the development of the the interview guides during year 1, participate in the pilot testing of the interview guides and training of the interview staff. She will also act as a subject matter expert supporting the evaluation of pediatric sub-populations.

UMMS's Office for Survey Research (OSR) \$130,402

The Office for Survey Research staff includes senior survey researchers, project managers and data analysts. OSR will work closely with the qualitative team and IA to develop the provider survey, advising on survey question design, and will be responsible for fielding the provider survey in Wave 1 and Wave 2. OSR will work with the qualitative team to identify and finalize the samples for both Wave 1 and Wave 2, field the survey in each wave, construct the survey data sets, conduct the analyses of data from each wave and will conduct analyses of the combined Wave 1 and Wave 2 survey data.

Scientific Advisory Committee (SAC) \$50,000

The SAC will be consulted over the life of this evaluation as scientific advisors and will be asked to review CMS deliverables. The SAC will be available as needed to consult with Demonstration faculty to address potential obstacles to the evaluation and provide guidance relating to specific analyses, interpretation of findings, and may collaborate on reports in the scientific literature.

TOTAL COSTS OF ALL SUB-CONTRACTS: \$426,035

Other Non-personnel Cost

Transcription \$39,680

We will subcontract with a professional transcription service. Transcription services will be used to transcribe qualitative interviews conducted for the study. One interview will equal approximately 5 hours of transcription time. The current rate for transcription services is \$32.00/hour.

Participant Stipends \$3,000

We are requesting \$3,000 for participant stipends. This will allow us to provide \$50 stipends for participating to each of 60 MassHealth members who is interviewed about their experiences.

Occupancy/Space \$84,816

Current occupancy/space costs at the UMMS Shrewsbury MA campus (333 South Street) are calculated at \$4,000 per FTE. Occupancy costs are charged for the Team members whose primary location is in Shrewsbury. Occupancy costs are treated as a direct cost in projects with an indirect rate of 18.25%. Occupancy costs are consistently charged as direct costs to Interdepartmental Service Agreements with MA state agencies.

TOTAL OTHER NON-PERSONNEL COST: \$127,496

TOTAL NON-PERSONNEL COSTS: \$661,267

TOTAL DIRECT COSTS: \$5,022,682

Total Indirect Costs

We will apply UMMS' current approved indirect rate of 18.25%.

TOTAL INDIRECT COST: \$916,639

TOTAL PROJECT COSTS, YEAR 1-6: \$5,939,321

Evaluation of the MassHealth 1115 Demonstration Extension
Budget Narrative: July 1, 2018 through June 30, 2024

Table 1. Breakdown of Costs by Project Years

	Year 1 FY19	Year 2 FY20	Year 3 FY21	Year 4 FY22	Year 5 FY23	Year 6 FY24	Total
<u>Personnel Staff Costs</u>							
Salary	585,991	619,915	607,905	571,503	515,928	420,254	3,321,496
Fringe	187,517	186,991	182,951	182,881	165,097	134,481	1,039,919
Total Personnel	773,509	806,906	790,856	754,383	681,025	554,735	4,361,415
<u>Non-Personnel</u>							
Travel	5,400	3,000	4,461	2,752	2,350	2,292	20,255
Supplies	6,573	2,665	3,200	2,700	4,741	2,200	22,079
<u>Sub-Contracts</u>							
Office of Survey Research	5,000	65,402		60,000			130,402
Boston Medical Center	45,800	41,816	42,652	43,505	44,375	33,947	252,096
UMass Amherst	19,000	9,690	9,884	10,081	10,283		58,938
Scientific Advisory Committee	10,000	10,000	10,000	10,000	10,000		50,000
<u>Other Non-Personnel</u>							
Transcription, stipends, occupancy	22,156	27,920	22,900	32,760	12,840	8,920	127,496
<u>Total Non-Personnel</u>	113,929	160,493	93,097	161,799	84,590	47,359	661,267
Total Direct Cost	887,438	967,399	883,954	916,182	765,615	602,094	5,022,682
Total Indirect Cost	161,957	176,550	161,322	167,203	139,725	109,882	916,639
TOTAL PROJECT COSTS	1,049,395	1,143,949	1,045,275	1,083,385	905,339	711,976	5,939,321