State of New Jersey
DEPARTMENT OF HUMAN SERVICES
PO BOX 700
TRENTON NJ 08625-0700

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

ELIZABETH CONNOLLY
Acting Commissioner

March 1, 2017

Mr. Tim Hill
Acting Director
Centers for Medicare & Medicaid Services
Center for Medicaid & CHIP Services
7500 Security Boulevard
Baltimore, MD 21244-1850

Dear Mr. Hill:

The State of New Jersey, through the Department of Human Services (DHS), formally submits the attached revised 1115 New Jersey Waiver Demonstration Renewal Application (11-W00279/2) for your consideration.

In compliance with CMS guidance received December 23, 2016, where New Jersey's draft application was deemed complete pending two requirements, New Jersey provided a second public comment period from January 9, 2017 through February 10, 2017 in which the entire application, including budget neutrality, was available for viewing on the Department's website via the following web link:

http://www.state.nj.us/humanservices/dmahs/home/waiver.html.

The state also held a public forum on January 23, 2017 that included a walkthrough of the major concepts the waiver application, including details on any changes that were made as a result of stakeholder feedback from the first round of comments from June thru August of 2016. In addition to the in-person presentation, DHS, through its Division of Medical Assistance and Health Services, provided teleconferencing capabilities for this meeting for individuals who could not attend in person. Additional detail on New Jersey's stakeholdering process is described in the application.

New Jersey respectfully requests notification of when the application will be posted for the Federal public comment period. Staff will be reaching out to schedule a meeting to discuss next steps.

Please contact me at 609-292-3717 if you have any questions or need additional information.

Sincerely,

[redacted]

Elizabeth Connolly
Acting Commissioner

EC:02

c: Meghan Davey
Valerie Harr
Michael Melendez

NJ FamilyCare 1115 Comprehensive Demonstration Application for Renewal

Strengthening Medicaid: Alignment & Redesign Through Integration

NJ Department of Human Services

2/24/2017

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Executive Summary

The New Jersey Department of Human Services, Division of Medical Assistance and Health Services is pleased submit the following 1115 Waiver renewal application for the 1115 Comprehensive Waiver. The Comprehensive Waiver was approved in October 2012 for five years with the ultimate goal of changing New Jersey's health care delivery landscape to ensure a more community and person-centered continuum of care. As described in the historical narrative below, and through the interim evaluation report the §1115 waiver not only consolidated authority for several existing Medicaid waivers, but initiated a variety of health reforms in New Jersey's Medicaid program. The key changes authorized by the Waiver are an expansion in managed care to Long Term Services and Supports (LTSS) and behavioral health (BH) services, targeted home and community-based services (HCBS) for populations of children and in-home community supports for individuals with intellectual and developmental disabilities, administrative simplifications in the Medicaid eligibility process for low-income applicants seeking LTSS, and the establishment of a hospital-based Delivery System Reform Incentive Payment (DSRIP) Program.

The renewal application builds upon the successes and opportunities of the current Demonstration through targeted initiatives designed to modernize and align the way New Jersey: provides behavioral health and substance use disorder services; integrates care for incarcerated individuals; expands the scope and duration of support services for individuals with intellectual and developmental disabilities and creates a supportive housing benefit for homeless and chronically homeless high utilizer beneficiaries. Also included in this renewal is the continuation of DSRIP funding and a new population health initiative.

The renewal application is organized into the following sections:

- A review of the alignment and integration made possible under the current Demonstration waiver;
- A summary of planned initiatives proposed under this renewal application;
- A description of the requested waiver and expenditure authorities,
- A summary of demonstration quality activities;
- Copies of the Interim Evaluation and DSRIP mid-point Evaluation;
- An overview of the planned budget neutrality methodology and monitoring activities;
- A summary of DMAHS's comprehensive public input process; and,
- A summary of compliance with the Demonstration's Special Terms and Conditions.

Historical Summary

In October 2012, New Jersey's application for a five-year section 1115(a) Waiver Demonstration to streamline the administration and operation of its Medicaid and CHIP programs was approved by the federal Centers for Medicare and Medicaid Services. The Demonstration runs through June 30, 2017. The New Jersey 1115 Comprehensive Waiver Demonstration (Demonstration) was initiated to:

- Integrate primary, acute, behavioral health care, and long term services and supports;
- Establish a federally funded Supports Program that provides a wide array of services to individuals with intellectual or developmental disabilities who are living at home with their families;
- Advance Managed Long Term Services and Supports (MLTSS), which increases utilization of home and community based services for seniors and individuals with disabilities, instead of nursing facility or other institutional care;
- Make changes to the hospital delivery system of care by transitioning funding from the Hospital Relief Subsidy Fund to an Incentive Payment model;
- Increase community-based services for children who are dually diagnosed with developmental disabilities and mental illness by providing case management, behavioral and individual supports; and,
- Expand managed care to individuals in need of long term services and supports; divert more individuals from institutional placement through increased access to home and community-based services (HCBS), and to promote delivery system reform through hospital funding incentives under a Delivery System Reform Incentive Payment (DSRIP) Program.

Over the five-year approval of the Comprehensive Waiver Demonstration, New Jersey requested amendments and technical corrections to the original waiver. A summary of these changes include:

- **April 18, 2013:** Initial technical corrections to the Demonstration were approved by CMS that aligned the Special Terms and Conditions (STCs) with how New Jersey was operating the demonstration.
- **August 8, 2013**: The Delivery System and Reform Incentive Payment (DSRIP) program was modified so that the Hospital Relief Subsidy Fund (HRSF) transition payments could be extended through December 31, 2013.
- **December 23, 2013**: A conforming change was made to align the terms of the Graduate Medical Education program to the Medicaid State Plan. DMAHS also received approval

to include the Medicaid Expansion group as part of the Affordable Care Act (ACA) Transition Plan.

- **March 27, 2014**: An amendment was approved to revise the state and CMS DSRIP action deadlines.
- **August 14, 2014**: Technical corrections were approved that included adding the Qualified Income Trust group, updating Per Member per Month's (PMPM) based on the Graduate Medical Education (GME) amount, inclusion of the MLTSS Services Dictionary and benefit updates for Attachment B.
- **February 11, 2016**: DMAHS received approval to expand eligibility for the Supports Program to include individuals that are in need of services and do not currently qualify financially. Also, the terms were revised to allow individuals who are currently in the Supports Program to access Private Duty Nursing (PDN) services from the Managed Long Term Services and Supports (MLTSS) program.

Since approval of the demonstration, New Jersey has consolidated the delivery of health care operations and services under several separate state authorities, including the Medicaid State Plan, existing CHIP State Plan, four previous 1915(c) waiver programs, a 1915(b) waiver program and two standalone section 1115 demonstrations.

During the last five years, New Jersey has sought to achieve the following objectives:

- Create "no wrong door" access and less complexity in accessing services for integrated health and long-term care (LTC) care services;
- Provide community supports for LTC and mental health and addiction services;
- Provide in-home community supports for an expanded population of individuals with intellectual and developmental disabilities;
- Provide needed services and HCBS supports for an expanded population of youth with severe emotional disabilities; and,
- Provide need services and HCBS supports for an expanded population of individuals with co-occurring developmental/mental health disabilities.
- Encourage structural improvements in the health care delivery system through DSRIP funding.

As part of its effort to realize these objectives since the approval of the Demonstration, the state has worked to plan and implement a wide range of delivery system reforms including:

- ✓ Implemented a comprehensive integrated community-based MLTSS benefit.
- ✓ Implemented targeted home and community-based programs for beneficiaries with serious emotional disturbance, autism spectrum disorder; and intellectual and developmental disabilities.

- ✓ Provided DSRIP funding for hospitals to make significant structural improvements in the health care delivery system.

Concepts for Renewal: Looking Ahead to the Next Five Years

Introduction

The renewal of the Demonstration provides an additional opportunity for New Jersey to continue improving on the Demonstration delivery system efforts, while continuing to advance its commitment to transform Medicaid into a value-based, data-driven health care delivery system. The state is requesting a five-year extension of its 1115 Waiver in order to build upon these accomplishments and its progress in rebalancing efforts to encourage and promote community-based, integrated care focused on the whole person. As such, the state is proposing the following:

1. Maintain its Managed Long Term Services and Supports (MLTSS) program;
2. Move to an integrated, coordinated, and organized behavioral health delivery system, that includes a flexible and comprehensive substance use disorder (SUD) benefit;
3. Increase access to services and supports for individuals with intellectual and developmental disabilities;
4. Further streamline NJ FamilyCare eligibility and enrollment;
5. Develop an uninterrupted re-entry system for incarcerated individuals;
6. Include reinvestment dollars targeting housing support services for individuals who are homeless or at-risk of being homeless;
7. Enhance access to critical providers and underserved areas through alternative provider development initiatives;
8. Continue DSRIP funding to promote and foster health care delivery system innovations; and,
9. Expand and enhance population health partnerships with community and faith-based organizations, public health organizations, healthcare providers, employers, and other stakeholders to improve health outcomes for Medicaid-eligible individuals.

This application builds upon the successes of the Demonstration through targeted initiatives designed to modernize and align the way New Jersey: provides behavioral health and substance use disorder services; integrates care for incarcerated individuals; expands the scope and duration of support services for individuals with intellectual and developmental disabilities and creates a supportive housing benefit for homeless and chronically homeless high utilizer beneficiaries. Also included in this renewal is the continuation of DSRIP funding and a new population health initiative.

Below are brief descriptions of each proposal under the renewal. The proposal begins with a brief background on the alignment or integration efforts accomplished to date, and then provides a summary of the requested change under this renewal application.

Program Descriptions:

Maintaining Managed Long Term Services and Supports

Rebalancing service delivery away from institutional care to an integrated, home and community-based setting is a long-standing goal of NJ FamilyCare. The Demonstration facilitated streamlining benefits and eligibility for four existing 1915(c) home and community-based services (HCBS) waivers under one Managed Long Term Services and Supports (MLTSS) Program.

Objectives achieved:

- Create "no wrong door" access and less complexity to integrated care and long term services and supports (LTSS)
- Provide Community Supports for LTSS and Mental Health and Addiction Services

After an extensive stakeholder input process, the MLTSS program was implemented on July 1, 2014 and represents New Jersey's successful effort to achieve the objectives of creating "no wrong door" access and rebalance its long term care system to promote HCBS and integrate primary care, behavioral health and long-term care services and supports into one simplified, comprehensive benefit. Seniors and people with disabilities enrolled in MLTSS have access to a broad array of home and community-based services, such as Private Duty Nursing, Home Delivered Meals, and Non-Medical Transportation, which support integrated community-based living. As part of its efforts, DMAHS and the Division of Aging Services (DoAS) worked with the County Welfare Agencies (CWAs), Aging and Disability Resource Connections (ADRCs), and Managed Care Organizations (MCOs) to develop a workflow to ensure that no matter which door a person availed themselves to in order to access MLTSS, an individual would be able to move through the process smoothly and efficiently.

A major benefit New Jersey has found under the Demonstration is the ability to allow several different target groups access to the same benefits. When there were four separate 1915(c) waivers, individuals in one waiver were not allowed to access the benefits in another waiver. For example, Private Duty Nursing (PDN) could only be accessed through the CRPD waiver. If the individual was in the Global Options waiver program, they could not utilize the PDN benefit. By eliminating these siloes through building one large program, the state has seen a significant shift

from institutional to home and community-based care for both the MLTSS and overall long-term care (LTC) populations.

As of June 2016, approximately 28,700 beneficiaries were enrolled in MLTSS. Of these individuals, 65% are in home and community-based settings. For the total LTC population, which includes individuals in nursing facilities who did not transition to MLTSS and those participating in MLTSS, at the start of the MLTSS program, only 28.9% were receiving care outside of a nursing facility. As of June 2016, that percentage has grown to 40.5%.

In January 2015, the MLTSS benefit was carved into New Jersey's Dual Eligible Special Needs Plan (DSNP), which serves dual eligible beneficiaries thus integrating the community managed long-term support and services with both Medicare and Medicaid services and creating a fully-integrated dual eligible special needs plan (FIDE SNP). New Jersey is one of the few states, if not the only state, that require all of its DSNPs to become FIDE SNPs.

Today, DMAHS and the Division of Aging Services (DoAS) continues to ensure that consumers, stakeholders, managed care organizations, providers and other community-based organizations are informed about the program through regular meetings. As part of the Demonstration, quarterly stakeholder meetings are held specific to MLTSS to inform of the progress of the program and to solicit public input. The state also has bi-weekly calls with the MCOs in order to work through any issues that have arisen through the implementation and operation of the program as well as an internal state operations workgroup that addresses policy issues that are in need of discussion.

Renewal objective:

- **Maintain its Managed Long Term Services and Supports (MLTSS) program.**

The state is requesting to continue its MLTSS program with revisions to the Special Terms and Conditions to reflect the program's movement from the transition of the 1915(c) waivers into and implementation of MLTSS to ongoing operation. The state is looking towards focusing on improving upon the integration of care, the overall quality and health outcomes of its MLTSS population, and continuing to accelerate the rebalancing of the program away from institutional care.

As part of this effort, New Jersey has been selected to participate in the Medicaid Innovation Accelerator Program (IAP) Incentivizing Quality and Outcomes (IQO) Implementation track of IAP's Community Integration-Long-Term Services and Supports program area. New Jersey's goals during this opportunity are to transition current performance measures from a focus on compliance with organizational process to focus on: responsiveness to personal outcomes,

identifying outcome based measures that best impact our HCBS members' person-centered experience and quality of life; optimizing stakeholder community engagement in the development of the IQO strategy and policy related changes; obtaining knowledge and tools through our collaboration with NJ's IQO Implementation Team Coaches and their expertise in LTSS policy, medical economics and research; and MCO Care Management (CM) operations to develop a successful roadmap for implementation.

Strengthening Behavioral Health: Moving to an Integrated and Managed Delivery System that Includes a Flexible and Comprehensive Substance Use Disorder (SUD) Benefit

Fundamental to the vision for the evolution of New Jersey's Medicaid system is the goal of a fully integrated care continuum of acute, primary, long-term, social, and behavioral health. The successful launch of the MLTSS program provided a strong catalyst to further integration efforts and to increase care coordination around targeted, high-cost populations.

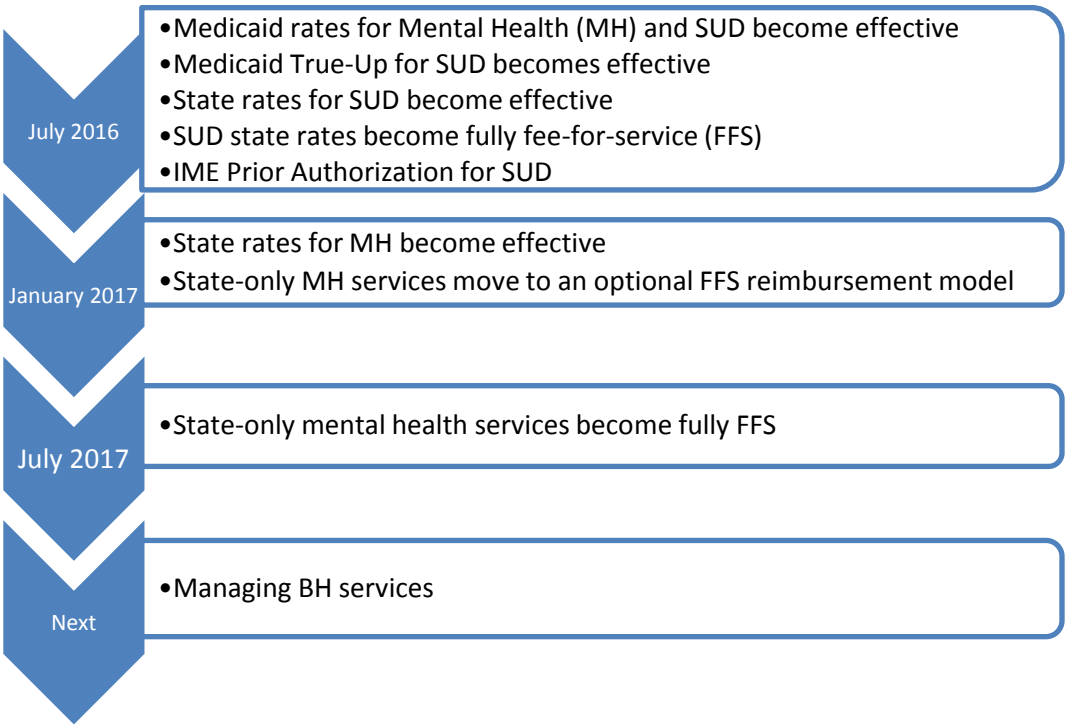
Under the current 1115 Demonstration, the state proposed establishing an Administrative Services Organization (ASO) and then moving to an at-risk managed care system. In July 2015, the state contracted with a non-risk bearing Interim Managing Entity (IME) to manage a portion of the behavioral health services - both Medicaid and state-only funded services - for Substance Use Disorder (SUD) and the mental health Community Support Services (CSS) programs as a first step in the overall reform of behavioral health services for adults. The IME functions as an ASO-like entity in that it manages a 24/7/365 addictions hotline and provides referrals to treatment or other services to callers and their families. The IME received over 62,165 calls from July 2015 through August 2016 and makes referrals to various levels of care for individuals seeking SUD treatment.

The state also proposed pursuing the Health Home option available in section 2703 of the Affordable Care Act for individuals with serious mental illness or serious emotional disturbance. To date, CMS has approved State Plan Amendments (SPA) for Behavioral Health Homes (BHH) in five (5) counties for both adults and children. There are approximately 700 adults and 211 children served through these Health Homes. Funding was provided in the Fiscal Year 2017 state budget to expand BHH into six more counties and to serve other populations, including individuals with forensic involvement or SUD over the next several years.

Under Governor Chris Christie's leadership, the state made an unprecedented investment of over $120 million to increase Medicaid and state-only funded rates for behavioral health services, which is expected to assist in the recruitment and enhanced training among provider staff. The funding also should increase system capacity, providing greater access for individuals seeking treatment, standardize reimbursement across providers and create greater budgetary flexibility

for providers. In addition, the state will expand its Presumptive Eligibility (PE) program to allow behavioral health providers the ability to complete a PE application for an uninsured individual, which will increase access to care for people most at- risk. Further, the state is seeking CMS approval to incorporate the SUD benefits that are in the Alternative Benefit Plan to individuals in NJ FamilyCare Plan A, referred to as "true up," within the SPA authority. The goal of this change is to maintain parity of benefits available to individuals in each plan and to meet the growing need of individuals seeking SUD services within the Medicaid program. The timeline for these efforts are identified in illustration 1.

Illustration 1: Timeline for New Jersey Behavioral Health Initiatives



In September of 2015, New Jersey was one of eight states awarded a Substance Abuse and Mental Health Services Administration(SAMHSA) Planning grant for Certified Community Behavioral Health Clinics (CCBHC). CCBHC Planning Grants are the first phase of a two-phase process. Phase I provided funds for one year to states to certify community behavioral health clinics, establish a Prospective Payment System (PPS) for Medicaid reimbursable behavioral health services provided by the certified clinics, and prepare an application to participate in a two-year demonstration program. NJ has submitted their application for the two-year demonstration program and the award announcement will be made sometime in December 2016.

Renewal objective:

- **Achieve better care coordination for the promotion of integrated behavioral and physical health to a more patient centered care experience, and to offer aligned financial incentives and value-based payments.**

Through this renewal, the state is proposing reform strategies for payment and services that promote integrated behavioral and physical health care. The rationale of this reform is: to achieve better care coordination and the promotion of integrated behavioral and physical health for a more patient-centered care experience and to offer aligned financial incentives and value-based payments. New Jersey is eager to move forward with the following initiatives:

- *Integrate behavioral and physical health: Under New Jersey's current structure, physical health services are the responsibility of the managed care organizations (MCOs) and most behavioral health services are provided through a FFS system or under a managed, non-risk structure through the IME. The state is seeking Waiver authority in this renewal to move to a managed delivery system that integrates physical and behavioral health care.*

- *Define performance measures and methodology for distributing earned incentives: In an integrated system, a set of quality incentive payments would be available for care systems that meet state identified performance goals related to quality and outcome measures for integrated behavioral health care and effective mental health and substance use disorder treatment. The quality incentive payments would be allocated after care organizations have met the goals.*

The state is also looking to work with the other provider types, such as Federal Qualified Health Centers and hospital systems, as a part of the renewal process to determine if there are specific areas where the integration of behavioral and physical health can be improved.

Other Behavioral Health Reform Strategies:

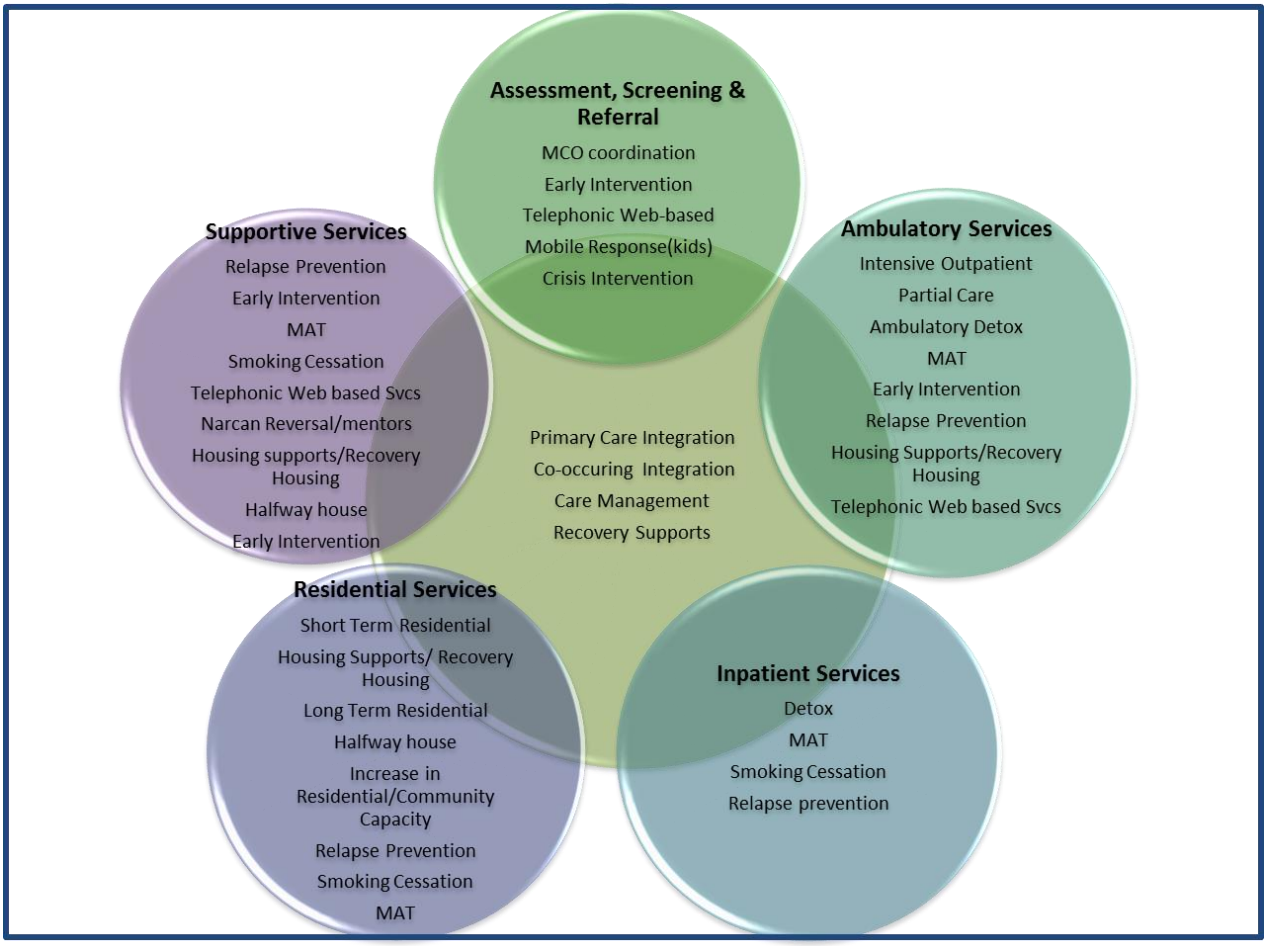
On July 27, 2015 CMS released a State Medicaid Director (SMD) letter announcing a new opportunity for states to design a service delivery system (SDS) for individuals with SUD under section 1115 of the Social Security Act (SSA) to ensure a continuum of care is available to service individuals with SUD. New Jersey seeks waiver authority through this renewal to create an SUD continuum of care that would provide a comprehensive and coordinated SUD benefit to adults and children.

The state Medicaid program, DMAHS, met with DMHAS and DCF to discuss the state's current Medicaid and state-only funded SUD services. It was determined that there is inconsistency in the SUD benefit.

The state proposes to use the nationally recognized American Society of Addiction Medicine (ASAM) criteria for a CONTINUUM of care to direct individuals to the appropriate level of service and define the SUD benefit. Levels of care identified in this continuum are: access/screening/referral, ambulatory services, supportive services, residential services, and inpatient services. The state found that there are four main topics that overlapped in all five areas of service in the NJ SDS: primary care integration, co-occurring care integration, recovery supports, and care management (see illustration #2). Other areas identified as key to individuals' recovery: housing supports/recovery housing, crisis intervention, early intervention, and smoking cessation. Based on these findings, the state proposes using Waiver authority to create an SUD continuum of care that incorporates both Medicaid and state funds to best meet the needs of individuals seeking SUD treatment and support them in obtaining and maintaining recovery. As part of this continuum, New Jersey is also requesting authority to claim expenditures for services provided in Institutions for Mental Disease (IMD) for up to thirty days as the current Federal exclusion places severe limitations on Residential Treatment options.

Further development of New Jersey's SUD Service Delivery Continuum will involve a robust stakeholder process and a cross-system workgroup for planning and development of SUD services. The stakeholder and inter-agency workgroups will have an opportunity to provide input into the state's plans. Network adequacy has become an emergent issue for addiction treatment and Withdrawal Management (detox) in the midst of a statewide and national Opioid Crisis. New Jersey will continue to explore the implementation of new services under Ambulatory Detox in addition to the request related to the IMD exclusion as part of efforts to address this.

Illustration 2: New Jersey SUD Service Delivery CONTINUUM



New Jersey applied for and was accepted to receive technical assistance through CMS' Medicaid Innovator Accelerator Program (IAP) Substance Use Disorder (SUD) and Beneficiaries with Complex Needs (BCN) Technical Assistance, which was provided in late 2014 and early 2015. The State applied for these opportunities to inform policy, program and payment reform as it plans the SUD continuum of care in the following areas: identification of a value-based reimbursement methodology that incentivizes better health outcomes through performance metrics and, develops methods of enhancing data analytic capabilities in order to effectively share beneficiary information across different state agencies for better care coordination.

Enhancing the Targeted Home and Community Based Services (HCBS) Programs

Expanding Access to Services for Adults

The Supports Program is administered by the Department's Division of Developmental Disabilities (DDD) and it provides assistance to NJ FamilyCare adults with intellectual and developmental disabilities so that they may continue to live with their families or in the

community. Examples of supports include, but are not limited to: assistive technologies, employment and day services, various therapies, home and vehicle modifications, transportation, and training. An initial group of approximately 82 beneficiaries were enrolled in July and August of 2015. Approximately 500 individuals currently are enrolled in the Supports Program and a total of 14,000 are expected to be enrolled within the next year.

Along with service provision to beneficiaries, a key component of this program is a shift from a multitude of varied provider payment methodologies to a single Medicaid-based fee-for-service system that began in 2015.

Objective (*in progress*):

- Provide in-home community supports for an expanded population of individuals with intellectual and developmental disabilities

In effort to continue to expand access to individuals with intellectual and developmental disabilities, the state submitted and was approved for an amendment to expand eligibility for the Supports Program to individuals who meet the functional criteria for the program, and are under 300 percent of the Federal Benefit Rate (FBR). Since the amendment's approval in February 2017, the state has worked to operationalize the amendment and currently have 6 individuals enrolled through this eligibility expansion.

The second part of the amendment allowed individuals enrolled in the Supports Program to also access the state's Private Duty Nursing (PDN) benefit through the Supports Plus PDN program provided they meet certain clinical criteria. This program helps the state better meet the needs of individuals with intellectual and developmental disabilities who are medically fragile.

The state is requesting to maintain the Supports Program as-is in order to continue its work towards full implementation of the program.

Along with the Supports Program, DDD also administers the Community Care Waiver (CCW), under 1915(c) HCBS waiver authority. The CCW is the only waiver program provided outside of New Jersey's 1115 Comprehensive Waiver.

Renewal objective:

- **Simplify and streamline the administration and oversight of services in order to better monitor the overall health of the Medicaid population; as well as act as the first step to remove silos of care for I/DD youth transitioning from the children's system into the adult system.**

To further simplify and streamline the administration of services, the state requests moving its 1915(c) Community Care Waiver (CCW), under the Demonstration. New Jersey believes this administrative simplification will allow the state to better monitor the overall health of its Medicaid population, streamline oversight of all Medicaid-based programs, and act as the first step to remove silos of care for higher acuity I/DD youth transitioning from the children's system into the adult system and for adults receiving services under the Supports Program, who transition into the CCW.

Since the implementation of the 1115 Comprehensive Waiver the below justifications have been identified as cause to add the CCW:

- *Easier to Navigate Service System for Medicaid participants*

An intellectual or developmental disability may present in a child, an adult, or a senior and may be part of a co-occurring disability such as a mental illness. Currently DCF's Division of Children's System of Care, DHS's Divisions of Mental Health and Addiction Services and Aging Services have collapsed their 1915(c) HCBS Waivers or developed specialized HCBS-like programs within New Jersey's current 1115 Comprehensive Waiver. Including the CCW in the 1115 Comprehensive Waiver renewal promotes access through a continuum of services under one federal authority. Despite best efforts, state divisions and services can be confusing and disjointed to navigate for individuals seeking services. The inclusion of the CCW within the Comprehensive Wavier renewal will help families manage the system and access services more expeditiously.

- *Enhance Efficient Operational Consistency Through Inter-agency Collaboration*

Many of the 1115 Comprehensive Waiver policy objectives and goals intersect with the CCW; however, if the CCW remains outside of the Comprehensive Waiver, these services will not be a part of the broader operational improvements, including technology re-designs. Changes proposed in the Comprehensive Waiver that intersect with the CCW include, but are not limited to, the following: automation of the eligibility redetermination process; reducing the reliance on institutional care through the increased use of home and community-based services; expansion of available home and community-based services to meet participants' needs while drawing down additional matching federal funds; improving health outcomes through increased interactions with MCO care managers; working towards seamless coordination of care needs for individuals with both mental illness and developmental disabilities; simplification of administrative burdens by aligning quality plans and financial oversight practices; and, enhancing the community infrastructure by increasing available service providers.

- *Changes in the CCW*

DDD is awaiting federal approval of the CCW renewal application, which included major system changes to align the CCW with the Supports Program. Some of the proposed changes in the CCW renewal include the addition of an eligibility group (Workability), implementation of a new level-of-care assessment tool, the addition of new waiver services based on feedback from stakeholders, and transitioning to a single service plan and a fee-for-service system. The movement of the CCW into the 1115 Comprehensive Waiver Demonstration would allow DDD the flexibility to add additional eligibility groups similar to the Supports Program, and to be a part of future statewide demonstration amendments. The CCW serves approximately 11,000 participants, a large population that would benefit from innovative opportunities being considered for people receiving services from the 1115 Comprehensive Waiver Demonstration.

Pilot Program for Adults with I/DD and Co-occurring Behavioral Health Needs

New Jersey is exploring a pilot program for adults that will address the distinct support needs of individuals with co-occurring developmental disabilities and acute behavioral health needs. This pilot, which would be administered by DDD, would provide many of the same or similar HCBS supports as are available to individuals in the Supports Program and Community Care Waiver; however, services would be designed to be more fully integrated to meet the distinct needs of this population. Additional services also may be included as needed, and both provider qualifications and rates would be set with this specific population in mind.

Serving Children and Families with Comprehensive Supports

In 2013, services for youth with disabilities were transferred from the Department of Human Services to the Department of Children and Families (DCF) to provide a single point of entry for families of children with disabilities and to consolidate services for youth through 21 years of age. The Autism Spectrum Disorder (ASD) pilot, the Individuals with Intellectual and Developmental Disabilities with Co-occurring Mental Illness (ID/DD-MI) pilot and the Serious Emotional Disturbance (SED) program are administered by the Division of Children's System of Care (CSOC) under DCF.

The Children's System of Care (CSOC) under DCF is considered a national model for providing services and supports to youth and families. CSOC's main objective is to help youth be successful at home, in school, and in the community and to divert the need for out-of-home services. These objectives are supported by a robust system that includes a single portal for access to care that is available 24 hours per day, 7 days per week, 365 days per year (24/7/365); Care Management Organizations (CMO) that utilize a wraparound model to serve its youth and families; mobile crisis response and stabilization services that are available 24/7/365, Family

Support Organizations that provide family-led peer support and advocacy for families; and a technical assistance and training component, for which the mission is to support attaining the requisite knowledge and skills to provide services and support the unique needs and strengths of families and children with complex needs. The training and technical assistance effort draws on a commitment to competency-based curriculum-design, and development of local expertise and training capacity.

Objectives (*in progress*):

- Provide needed services and home and community-based supports for an expanded population of youth with severe emotional disabilities
- Provide needed services and home and community-based supports for an expanded population of individuals with co-occurring developmental/mental health disabilities

The services approved under the ASD, ID/DD-MI and SED components of the Demonstration provide CSOC the opportunity to further expand the service array for children, youth and their families in order to help youth stay at home and in their communities. The CSOC, through its Contracted System Administrator (aka Administrative Service Organization) authorizes services to youth and their families.

As of June 2016, there were 77 individuals in the ASD pilot and 268 in the ID/DD-MI pilot. Many of the children and youth authorized to receive the services covered by the above-referenced waivers, presented with a high level of need. Without these service options, many may have required immediate out-of-home care, which would have removed the youth from his/her family and natural home setting, at much higher cost. The CSOC finished the implementation of the SED program in September 2016, and over 3,000 youth are accessing the new services.

The implementation of the children's programs under the Demonstration has shown positive outcomes. Due to the increased number of - and access to - services provided in the waiver programs, the number of youth who are placed out of the home has remained steady. CSOC has been able to expand the number of youth it can serve through state-only dollars because of an increase in federal funding.

Renewal objective:

- **To provide access to services earlier in life in order to avoid unnecessary out-of-home placements, decrease interaction with the juvenile justice system, and see savings in the adult behavioral health and I/DD systems.**

Federal partnership for services covered under the waiver allows CSOC to help expand support services to additional youth and families within a seamless system of care. The current Waiver provides DCF/CSOC the authority to claim and receive federal participation on services delivered to eligible youth identified as "waiver" participants that would be authorized and delivered, but at a state-only cost. To continue building upon these successes, New Jersey will expand its pilot programs under the current Waiver to serve more children with intellectual and developmental disabilities (I/DD), autism, and behavioral health challenges. Under CSOC, a new Children's Support Services program will be initiated to expand access to services currently offered under the Individuals with Intellectual and Development Disabilities who may also have a co-occurring Mental Illness (ID/DD-MI) pilot, and include additional services such as Assistive Technology and Supportive Employment.

New Jersey is proposing a new eligibility group to allow access to more children who are in need of these services. Providing access to services earlier in life will avoid unnecessary out-of-home placements, decrease interaction with the juvenile justice system, and lead to savings in the adult behavioral health and I/DD systems. The waivered services will be provided under fee-for-service reimbursement through CSOC, while the acute care benefits under the Medicaid State Plan will be provided through managed care.

Based on guidance received from CMS, the state has an internal workgroup that includes staff from CSOC, DMAHS, Department of Banking and Insurance (DOBI), and the Department of Health that are developing a comprehensive package of services for youth with ASD to include in the Medicaid State Plan.

Tables 1 below show new eligibility group requested under the Children's Supports Services Program.

Table 1 ***New Expansion Eligibility Group under Children's Support Services Program***

Eligibility Group	Population Description	Standards/Methodologies	Waiver Authority Required
Youth Expansion Group	Healthcare related services for individuals who are otherwise not eligible under the Medicaid State Plan due to individual or parental income.	Income up to 300% of SSI/Federal Benefit Rate (FBR) per month; Resources SSI standard; will be considered HH1 after meeting Children & Families Functional LOC requirements	Expenditure Authority: Cost Not Otherwise Matchable

Proposed services included within the new eligibility group include: case/care management, individual supports, natural supports training, intensive in-community services, respite, non-medical transportation, interpreter services, goods and services, assistive technology, individual supportive employment, and career planning.

Streamlining Eligibility and Enrollment into Managed Care

New Jersey has drawn value from the use of cloud-based technology. After being the first state to use "MAGI in the Cloud" web services to automate modified adjusted gross income(MAGI) eligibility determinations in 2014In 2015, New Jersey also became the first state to receive authority to connect to the federal data hub using a cloud service. The ability to connect to the federal data hub enables New Jersey to receive application information for individuals who were determined eligible for NJ FamilyCare by the Federally Facilitated Marketplace (FFM) in real time, eliminating the prior manual and error-prone data transfer process.

The NJ FamilyCare application process experienced an upgrade, as well. A new, streamlined application for MAGI populations now is located on a cloud platform, which enables applicants to create an account, save their work, and log back in later to add information. In addition, an assistor Portal was created to improve the user experience for Application Assistors. After pilot testing, the new cloud worker portal administration tool was launched in December 2015; this tool enables a more efficient application process and eases the administrative burden required to perform annual renewals for NJ FamilyCare staff, vendors, and beneficiaries. Work currently is underway to include the application for the Aged, Blind, and Disabled programs in the cloud platform, which will expand these upgrades to more of the NJ FamilyCare population.

Renewal objective:

- **To build on current processes to further streamline eligibility and enrollment for NJ FamilyCare beneficiaries.**

The state is requesting to expand on current Demonstration authority allowing individuals with income under 100% of the Federal Poverty Level (FPL) who are applying for long-term care and home and community-based services to self-attest to the transfer of assets pursuant to Section 1917 of the Social Security Act to individuals with income up to 300% of the Federal Benefit Rate (FBR) applying for HCBS programs. This request was originally proposed in the initial Waiver; however, the state did not have its Asset Verification System (AVS) operational at that time. The AVS was implemented in July 2016 and New Jersey would like to further streamline the eligibility process for consumers by expanding the group who can self-attest that they have not transferred assets.

Also, to continue improving the operations of the NJ FamilyCare program, the state is requesting the authority to:

- Require new managed care enrollees to choose a Medicaid MCO upon application, or be auto- assigned. Members will be allowed a 90 day period after MCO enrollment to change MCOs without cause. After the 90 day period, plan changes only for cause will be allowed.

It is New Jersey's belief that an individual's care should be managed from the earliest point possible. This request will help to remove the fee-for-service period often experienced by individuals when they first enter the program and allow care coordination by the MCO to happen much earlier.

New Program: Transitioning Incarcerated Individuals into the Community upon Re-Entry

In a study published by the New Jersey Department of Corrections (DOC), out of a cohort of 11,388 state inmates released in 2010, the recidivism rate was 32 percent within 36 months and 35.9 percent of that cohort were re-admitted for a drug offense. Medicaid expansion has allowed many of these individuals to obtain health coverage and care; however, there is more that the state believes it can do to encourage this population to access the array of benefits to which they may be entitled in order to reduce recidivism by reducing drug addiction.

Two primary challenges to meeting these individuals' needs upon re-entry are enrollment into Medicaid to provide coverage for the needed mental health and physical health services and linking them to a provider that can address their multiple needs. New Jersey has made significant progress to address this challenge by establishing processes to enroll individuals in prisons and jails into Medicaid, or when possible, to suspend enrollment at the time of incarceration so that their coverage can be restored upon release without a new application.

Enrollment into managed care currently cannot begin prior to the first of the month following release. This is a significant obstacle to the access to and coordination of care for individuals returning from both jail and prison. It does not meet individual's needs to establish relationships with providers and to arrange treatment immediately upon release.

Renewal objective:

- **To provide access to needed medical and behavioral health services to incarcerated individuals upon release in order to reduce recidivism by treating substance use disorder and other mental health issues.**

Under this waiver renewal, the state requests authority to allow individuals re-entering the community to retain Medicaid eligibility for 18 to 24 months before redetermination to safeguard continuity of services. New Jersey also requests to auto-assign these individuals into an MCO to ensure that their care is managed at the earliest point possible, preferably upon release. These individuals would be eligible to receive services from NJ FamilyCare's SUD program, which includes recovery based supports.

The DOC's correctional facilities currently provide discharge planning services that assist inmates with completing NJ FamilyCare applications 30 days prior to their release. These applications are sent to a special processing team at the state's Health Benefits Coordinator to determine eligibility. Upon release, the applicant is provided with a packet of information that includes NJ FamilyCare information. However, the state would like the individuals to leave the facility not only determined eligible for NJ FamilyCare but also enrolled in a NJ FamilyCare MCO with medical appointments scheduled so that treatment can start as soon as possible. New Jersey will provide education and training to NJ FamilyCare mental health and substance use disorder providers, MCOs, and staff under the NJ Department of Corrections and in county jails. This education and training will aid in collaboration and efforts in getting these individuals' post-release appointments made prior to release and in ensuring that the proper care is provided. The state will look to require each MCO to have a dedicated care manager working with the jails, prisons, and re-entry programs to ensure both health and social needs are being met post release.

New Jersey also is considering a Behavioral Health Home under Section 2703 of the Affordable Care Act for these individuals. With appropriate protocols, BHH's case managers can engage with an individual prior to release and ensure an initial appointment has been made within two days of release. Existing BHH provider agencies have leveraged relationships with the county jails and utilize current funding sources to coordinate care prior to release for individuals residing in county jails within the counties in which they provide services. These relationships and funding allow the current providers to "hit the ground running" when coordinating care.

The BHH case manager can establish a relationship with the client, initiate an initial plan of care, and initiate services immediately upon release. Once the client is enrolled in managed care, the case manager can work with the managed care plan to coordinate all services that the client may need, such as physical health, housing, and other social needs. The BHH will become the client's approved primary care provider. They will provide the primary and behavioral health care and work with the managed care plan to address complex medical needs requiring specialists as well as addressing social needs including housing, employment, legal and family concerns.

New Program: Housing Support Services for Individuals who are Homeless or At-risk of Homelessness

New Jersey understands the direct link between people's physical health and their housing needs. The state has a long history of funding supportive housing and recently has made critical investments in connection with its Olmstead program; however, there remains a significant need for attainable housing and supported housing-related activities and services.

Renewal objective:

- **To improve the overall health outcomes of NJ FamilyCare beneficiaries through providing supports to obtain or maintain housing and providing the ability to coordinate care across physical health and social services.**

DMAHS' strategic partnership with Rutgers Biomedical and Health Sciences (RBHS) has uniquely positioned New Jersey to make significant data-driven investments in permanent supportive housing programs that will directly help the most expensive and most complex consumers. The RBHS report recommends that these interventions coordinate with social services because "factors outside the health care system, including homelessness" directly exacerbate medical conditions and lead to high-cost episodic treatment. RBHS's recommendation is corroborated by national studies demonstrating significantly higher health care spending for this population (e.g., inpatient, emergency department, and long term services).

High-Fidelity Housing First

With this Waiver Renewal application, New Jersey requests to expand the use of the High-Fidelity Housing First (HFHF) model to meet the needs of individuals who are at-risk for homelessness or who are considered to be chronically homeless. HFHF is a Substance Abuse and Mental Health Services Administration (SAMHSA)-developed evidence-based approach to end homelessness, comprised of seven key elements, including 1) choice of housing; 2) separation of housing and services; 3) decent, safe, and affordable housing; 4) integration in the community; 5) rights of tenancy; 6) access to all housing options; and 7) flexible, voluntary services.

Over a decade of independent research demonstrates that HFHF improves the health and well-being of consumers, while reducing costs, by avoiding reliance on expensive acute systems like hospitals, jails, and shelters. Indeed, it has worked in New Jersey where groups like the Mercer County Alliance to End Homelessness have generated over three years' worth of data demonstrating housing retention and a reduction in health care spending in their population. DMAHS looks forward to continuing conversations on how this model can be scaled-up to contribute to better overall health outcomes.

Medicaid Permanent Supportive Housing Services (MPSHS)[1]

From the outside, permanent supportive housing looks like any other housing model. To someone that is homeless, permanent supportive housing offers a safe, and stable environment that can, at a State's option, provide an array of physical, behavioral and social services which support an individual's desire to successfully live a longer and healthier life in the community in which they choose. There are also numerous studies and policy papers linking the idea of permanent supportive housing with better health outcomes, higher client satisfaction and financial savings to the overall health care delivery system.

Consistent with the guidance CMS published in June of 2015, New Jersey proposes to provide housing-related services to Medicaid recipients, including individuals who are homeless, chronically homeless and at-risk for homelessness as defined by the U.S. Department of Housing and Urban Development (HUD). While all types of homeless services users will be examined, populations of special interest will include repeat emergency shelter users and other housing service users with disabilities, behavioral health diagnoses, and multiple chronic physical health conditions.

As with other NJ FamilyCare practices, New Jersey anticipates including the PSHS into its managed care contract and envisions each of the contracted managed care organizations working with community housing providers to provide a wide array of permanent housing supportive services to ensure individuals can remain in the community, in safe, affordable housing. Currently the MLTSS benefit already requires each MCO to employ a housing specialist for individuals who meet nursing home level-of-care. We expect to expand the use of the already developed staffing standards to other populations as they are phased-in.

Broadly defined, these are a range of flexible services that support individuals and families as they identify, attain, and keep housing. Specifically, services will target individuals who are transitioning from a variety of circumstances including, but not limited to, institutional settings, hospitals, nursing homes, residential treatment centers, assisted living facilities, homelessness or chronic homelessness, correctional facilities and foster care. Housing services will fall into broad categories, as follows:

- Housing Screening Services will include conducting tenant screenings and housing assessments that identify Medicaid recipients' preferences and barriers related to successful tenancy. This service will result in the development of individualized housing

[1] *New Jersey has been selected for both tracks under the Medicaid Innovation Accelerator Program Community-Integration – Long Term Service and Supports (CI-LTSS) Medicaid Housing-Related Services and Partnerships opportunity. The state is using this technical learning opportunity to gain insight into other successful models and innovations to provide housing services through successfully partnering with other state and Federal housing agencies.*

support plans based upon housing assessments, which will be used to assist with the housing application and search processes;

- Housing Transition Services will identify resources to cover moving and start-up expenses, ensuring that living environments are safe and ready for move-in. This service also will assist with arranging for and supporting moves, as well as developing housing support crisis plans aimed at prevention and early intervention services when housing is jeopardized;

- Housing and Tenancy Sustaining Services will provide education and training on the role, rights, and responsibilities of the tenant and landlord. This service includes coaching on developing and maintaining key relationships with landlords/property managers with a goal of fostering successful tenancy. It assists with the housing recertification process and coordinates with Medicaid recipients who are tenants to review, update, and modify their housing support and crisis plan on a regular basis to address housing retention barriers. This service will also assist with resolving disputes with landlords and/or neighbors to reduce the risk of eviction or other adverse action.

New Jersey believes that through the supportive housing initiatives above, there is a significant opportunity for improvement in overall health outcomes and the ability to coordinate care across physical health and social services. As a result, New Jersey is interested in pursuing conversations with CMS around a possible shared savings arrangement or the approval of a plan to reinvest a portion of the savings back into the program resulting from implementation of a supportive housing benefit.. We understand that CMS does not pay for room and board, but would like to discuss options on how these savings could be leveraged for a future expansion of the program or with other state-only monies to fund housing vouchers to be used to provide housing stability to individuals eligible for this benefit. Lastly, through technical support offered through the Medicaid Innovator Accelerator Program – Community Integration Long Term Services and Supports Housing Partnership Track the Division of Medical Assistance and Health Services (DMAHS) has been working with its other state housing partners, such as the Department of Community Affairs and the New Jersey Housing and Mortgage and Finance Agency (HMFA) to identify additional ways to create new housing opportunities through a mix of tenant and/or project-based vouchers and through the use of the New Jersey's Qualified Allocation Plan (QAP).

New program: Enhancing Access to Critical Providers and Underserved Areas through Alternative Provider Development Initiatives

In order for New Jersey to realize the vision articulated in this renewal application, it needs to think outside of the traditional workforce model and look at flexible, technology-driven workforce models to accommodate the growing medical and social needs of the New Jersey Medicaid population.

Renewal objective:

- **To increase access to care for NJ FamilyCare beneficiaries.**

New Jersey supports the increased use of purchasing care based on value, not volume, and rewarding providers that align with performance metrics in supporting NJ FamilyCare beneficiaries' experience accessing care. These financial incentives target areas in the State where there is a documented need for increased access.

In areas for which incentives cannot address direct care access issues, the 1115 Waiver Demonstration renewal will seek to increase the use of evidence-based telehealth options, such as Project ECHO (Extension for Community Healthcare Outcomes), to support NJ FamilyCare beneficiaries in accessing the appropriate care in a cost-effective manner.

Project ECHO is a medical education and care delivery model that trains primary care clinicians to provide specialty care services through the use of videoconferencing technology. The model is in use in several states, including New Mexico, Wisconsin, Tennessee and Ohio. The goal of Project ECHOis to train a provider community that will provide the right care, in the right place, at the right time. New Jersey is exploring how this model can be used to expand access to care for NJ FamilyCare beneficiaries.

Continuing Efforts through the Delivery System Reform Incentive Payment (DSRIP) Program

DMAHS is committed to the expansion of valuebased purchasing strategies that link financial incentives to provider performance on a set of defined measures in an effort to achieve better value by driving improvements in quality and slowing the growth in health care spending to improve the quality of care for its 1.7 million NJ FamilyCare beneficiaries.

Objective achieved:

- Provide DSRIP funding for hospitals to make significant structural improvements in the health care delivery system

In partnership with the Department of Health (DOH), the DSRIP program was designed for hospitals to achieve three objectives: better care for individuals, better overall health of the population, and lower costs. These objectives were achieved by transitioning hospital funding to a model in which payment was contingent on achieving health improvement goals. As of December 2015, 49 eligible New Jersey hospitals were approved to participate in the DSRIP Program, and focus areas for their projects include diabetes, cardiac care, behavioral health, chemical addiction/substance abuse, asthma, obesity, and pneumonia. Details on the DSRIP Program extension can be found in Attachment A.

New Program: Population Health Partnerships to Improve the Health of Medicaid-Eligible Populations

New Jersey is transitioning from a clinician-driven healthcare system of episodic care to one focused on wellness, prevention and community engagement. Put simply, the goal of population health is to keep the well healthy, support individuals at risk for health problems and prevent people with chronic conditions from getting sicker. Population health refocuses healthcare on not only the sick but also on the well. Population health requires that health considerations are evaluated when developing policies and coordination among government, healthcare providers, employers, schools, local public health officials, community health workers and community and faith-based organizations.

New objective:

- *To reduce hospitalizations and costs associated with disease and injury.*

Population health aims to reduce hospitalizations and costs associated with disease and injury. Equally important, population health aims to reduce and eliminate preventable illnesses and diseases by creating an environment that is committed to wellness and prevention. The New Jersey Department of Health (DOH) promotes stronger collaborations among hospitals, FQHCs, local health officials, government, employers, communities and schools. The DOH will help its partners deliver desired outcomes targeted in our state health improvement plan, Healthy New Jersey (NJ) 2020. Healthy NJ 2020 sets a vision for public health, desired outcomes and the indicators that will help us understand how well public health is being improved and protected. Healthy NJ 2020 covers numerous issues, including chronic disease, immunization and improved birth outcomes.

A major focus of the DOH's strategic plan is to improve population health by strengthening New Jersey's health system. Facilitating the collaboration and coordination between public health and health care is a priority objective of the DOH. To achieve this goal various activities will be explored over the next several years with the intent to: 1) drive coordination by leveraging state,

community and provider resources, 2) identify and implement multi-sector strategies to achieve measurable improvements, and 3) use data to inform decisions across the healthcare continuum.

In support of this focus, the DOH Commissioner convened the Population Health Action Team (PHAT) on August 3, 2016, to advance population health improvement initiatives statewide. Current membership includes Commissioners from the state's Human Services, Environmental Protection, Community Affairs, Agriculture, Education, and Transportation agencies. PHAT will drive the implementation of the state health improvement plan, promote and foster the development of health in all policies and the expansion and strengthening of key public and private partnerships. Overarching goals of the Population Health Action Team are to: remove policy barriers across the agencies and enhance coordination in the provision of public services that foster healthy outcomes; focus on vital, health-related priorities using combined resources and expertise; close geographic, racial/ethnic, gender or other differences in health outcomes across the state; and, develop innovative solutions to address health in transportation, education, access to healthy food, economic opportunities, and areas where health is not typically a primary consideration.

In collaboration with PHAT, the DOH will host a series of population health conferences over the next several years to build understanding and support for population health improvement. On September 14, 2016, DOH hosted an all day Summit which focuses on best practices in population health, effective collaboration models and innovative health improvement initiatives statewide.

According to a recent Kaiser Foundation report, given Medicaid's longstanding role serving a diverse population with complex needs, a number of Medicaid delivery and payment reform initiatives include a focus on linking health care and social needs. For example, Colorado and Oregon are both implementing Medicaid payment and delivery models that provide care through regional entities. These Coordinated Care Organizations (CCOs) in Oregon and Regional Care Collaborative Organizations (RCCOs) in Colorado focus on integration of physical, behavioral, and social services as well as community engagement and collaboration. Early experiences suggest that CCOs are connecting with community partners and beginning to address social factors that influence health through a range of projects.

Healthcare delivery in New Jersey is often fragmented, episodic, uncoordinated, inefficient, and costly. Several health care providers and health systems may exist in the same region but not communicate. Further, the flow of information between health systems and community-based organizations is limited, but important to facilitate transitions in care. However, existing regional collaborative organizations such as the Camden Coalition, Trenton Health Team and the Greater Newark Health Care Coalition have demonstrated that a proactive and coordinated approach within regions can significantly impact health care delivery and outcomes. These organizations

are identifying and examining system barriers to providing high quality care and cost effective services.

The Trenton Health Team, Greater Newark Health Care Coalition, and Camden Coalition have all achieved organizational non-profit status, participate in health information exchange that ensures providers have patient information when seeing patients, and communicate with partners and communities through community advisory boards and health advocates. In addition, these collaboratives have undertaken the implementation of community health assessments which inform priority setting. A similar structure is under development to serve the vulnerable population in Paterson. A common difficulty in developing these collaboratives has been funding and/or sustainability. A mechanism through which organizations can potentially establish an infrastructure to sustain the required activities is critical. To enhance and sustain the work achieved in the existing collaboratives, the DOH is promoting the development of up to seven (7) regional collaborative organizations in the next several years.

Regionally collaborative groups develop policies and data-informed plans that manage emergency department utilization; target conditions for health outcomes improvement (e.g., diabetes, asthma); manage/improve residents' health outcomes through comprehensive vehicles including ambulatory, acute, behavioral and social services.

A regional focus on wellness initiatives for residents is essential to achieving population health improvement goals statewide. Regional planning will assist in the goal of building relationships across the healthcare provider community — from community-based organizations to private practices to front line hospital staff to FQHCs to social workers across a region. Using those relationships and guided by data to inform and evaluate, DOH will promote the development of the aforementioned seven (7) regional collaboratives to demonstrate a coordinated approach to improving care delivery and patient outcomes, while reducing costs.

Description of Waiver and Expenditure Authorities

In closing, New Jersey is requesting to continue the following Waiver and expenditure authorities previously approved by CMS for the current waiver demonstration, including:

1. Waiver Authorities:

    a. Statewideness under 1902(a)(1)
        i. To enable the state to conduct a phased transition of Home and Community Based Services (HCBS) for Medicaid beneficiaries from fee-for-service to a managed care delivery system based on geographic service areas.

b. Amount, Duration, and Scope under 1902(a)(10)(B)
    i. To the extent necessary to enable the State to vary the amount, duration, and scope of services offered to individuals, regardless of eligibility category, by providing additional services to enrollees in certain targeted programs to provide home and community-based services.

c. Freedom of Choice under 1902(a)(23)(A)
    i. To the extent necessary, to enable the State to restrict freedom of choice of provider through the use of mandatory enrollment in managed care plans for the receipt of covered services. No waiver of freedom of choice is authorized for family planning providers.

d. Direct Payment to Providers under 1902(a)(32)
    i. To the extent necessary to permit the state to have individuals self-direct expenditures for HCBS long-term care and supports.

2. Expenditure Authority:

a. Title XIX – Costs Not Otherwise Matchable

    i. Expenditures for health care-related costs related to services (other than those incurred through Charity Care) under the Serious Emotional Disturbance Program for children up to age 21 who meet the institutional or needs based level of care for serious emotional disturbance.

    ii. Expenditures for the 217-Like Expansion Populations: Expenditures for the provision of Medicaid State plan services and HCBS services for individuals identified in the Special Terms and Conditions (STCs) who would otherwise be Medicaid-eligible under section 1902(a)(10)(A)(ii)(VI) of the Act and 42 CFR § 435.217 in conjunction with section 1902(a)(10)(A)(ii)(V) of the Act, if the services they receive are under an HCBS waiver granted to the State under section 1915(c) of the Act.

    iii. HCBS for SSI-Related State Plan Eligibles: Expenditures for the provision of HCBS waiver-like services that are not described in section 1905(a) of the Act, and not otherwise available under the approved state plan, but that could be provided under the authority of section 1915(c) waivers, that are

furnished to HCBS/MLTSS Demonstration Participants with qualifying income and resources, and meet an institutional level-of-care.

iv. Expenditure for HCBS/MLTSS furnished to Low Income Individuals Who Transferred Assets: Expenditures for the provision of LTC and HCBS that could be provided under the authority of 1915(c) waivers that would not otherwise be covered due to a transfer of assets penalty when the low-income individual has attested that no transfers were made during the look back period.

v. Expenditures Related to the Delivery System Reform Incentive Payment (DSRIP) Program: Subject to CMS' timely receipt and approval of all deliverables, expenditures for incentive payments from pool funds for the Delivery System Reform Incentive Payment (DSRIP) Program for the period of the Demonstration.

vi. Expenditures related to the Supports Program: Expenditures for health-care related costs for individuals who are not Medicaid eligible, over the age of 21, meet the functional eligibility criteria for the Supports Program, and have income up to 300 percent of the Federal Benefit Rate (FBR).

b. Title XIX Requirements Not Applicable:

i. Reasonable Promptness under Section 1902(a)(8): To the extent necessary to enable the State to limit enrollment through waiting lists for the Supports, Children's Support Services Program, and the Persons with Intellectual Disabilities Out of State Programs, Medication Assisted Treatment Initiative, and Serious Emotional Disturbance to receive HCBS services.

ii. Income and Asset Standards under Section 1902(a)(17): To enable the state to disregard Title II benefits received based on parents income for an individual who was not receiving Supplemental Security Income (SSI) as of his/her 18th Birthday. Therefore, these individuals will qualify for the Supports Program.

c. CHIP Requirements Not Applicable to the CHIP expenditure Authorities

i. Restrictions on Coverage and Eligibility to Targeted Low-Income Children under Section 2103 and 2110: Coverage and eligibility for the

demonstration populations are not restricted to targeted low-income children.

ii. Federal Matching Payment and Family Coverage Limits under Section 2105: Federal matching payment is available in excess of the 10 percent cap for expenditures related to the demonstration populations and limits on family coverage are not applicable. Federal matching payments remain limited by the allotment determined under section 2104. Expenditures other than for coverage of the demonstration populations remain limited in accordance with section 2105(c)(2).

iii. Annual Reporting Requirements under Section 2108: annual reporting requirements do not apply to the demonstration populations.

iv. Purchase of Family Coverage Substitution Mechanism under Section 2105(c)(3)(B): To permit the State to apply the same waiting period for families opting for premium assistance that it applies for children that receive direct coverage under the Children's Health Insurance State Plan.

New Jersey is requesting <u>new</u> authority for the following:

1. Waiver Authorities:

    a. Freedom of Choice under Section 1902(a)(23)
        i. To the extent necessary to enable the state to provide managed care from the earliest point possible, beneficiaries will be auto-assigned and enrolled into an MCO if a choice is not made on the application for assistance. The beneficiary will be allowed 90 days to change plans without cause after enrollment.

    b. Redeterminations
        i. To the extent necessary to allow the state to defer redeterminations for formerly incarcerated individuals to 24 months from the initial eligibility determination.

    c. Medicaid and CHIP Managed Care Final Rule (CMS -2390-F)
        i. To the extent necessary, since the State is in the midst of reviewing the final rule, we respectfully request the ability to engage in discussion with CMS on areas of the Waiver that may be affected by the final rule.

2. Expenditure Authorities

    a. Title XIX Costs Not Otherwise Matchable
        i. Expenditures Related to the Children and Family Support Services Program: Expenditures for health-care related costs for individuals who are not Medicaid-eligible, under the age of 21, meet the functional eligibility criteria for the Children's Supports Program, and have income up to 300 percent of the Federal Benefit Rate (FBR).

        ii. Expenditures not otherwise eligible may be claimed for services provided in an Institution for Mental Disease (IMD) as expenditures under the State's Title XIX State Plan.

    b. Expenditures to allow a court-ordered guardian fee as part of the Personal Needs Allowance under the post-eligibility treatment of income.

Other authorities may be requested depending on discussions between the state and CMS.

Overview of the Renewal Demonstration Evaluation

There are seven hypotheses New Jersey will test in the evaluation of the Comprehensive Waiver Renewal.

I. Expanding Medicaid managed care to include long-term care services and supports will result in improved access to care and quality of care and reduced costs, and allow more individuals to live in their communities instead of institutions.

II. The implementation of an integrated and managed behavioral health delivery system will improve access to services, quality of care, and will reduce overall spending when comparing pre- and post-implementation periods.

III. The expansion of the 2012-2017 Waiver programs offering home and community-based services to a broader population of Medicaid and CHIP beneficiaries with serious emotional disturbance (SED), autism spectrum disorder, or intellectual /developmental disabilities will lead to better care outcomes.

IV. Expanding self-attestation of transfer of assets for individuals applying for long-term care and home and community-based services up to 300% of the Federal Benefit Rate will be implemented effectively.

V. Individuals being released from state prisons and jails will be assigned to NJ FamilyCare MCOs and engage in care in a timely and sustained way in order to maximize their opportunities for successful transition back into the community.

VI. Health services utilization patterns will improve and Medicaid spending will be reduced for individuals enrolled in Medicaid Supportive Housing Services (MSHS) relative to similar populations not receiving such services.

VII. The Delivery System Reform Incentive Payment (DSRIP) Program will result in better care for individuals (including access to care, quality of care, health outcomes), better health for the population, and lower cost through improvement.

Two hypotheses (I & VII) are unchanged from the evaluation of the initial demonstration and pertain to reforms that will continue unmodified during the extension period. Two hypotheses are updated (III & IV) and pertain to programs developed under the initial demonstration that will be expanded during the extension period. Three hypotheses (II, V & VI) in the renewal application are new and pertain to new initiatives in the NJ FamilyCare program.

In this overview of the Waiver Renewal evaluation design, the proposed Demonstration hypotheses, potential outcome measures, and data sources are noted for each of the key programs under the Waiver Renewal. This information broadly outlines the evaluation approach and strategy. Final outcome measures and details will depend on consultation between DMAHS and the evaluator and the availability of noted data sources.

HYPOTHESES, DATA AND OUTCOMES

Managed Long Term Services and Supports

New Jersey seeks to maintain its Managed Long Term Services and Supports (MLTSS) program. Evaluation activities during the extension period will be continued, providing a longer post-implementation period for testing the following hypothesis.

Hypothesis I: Expanding Medicaid managed care to include long-term care services and supports will result in improved access to care and quality of care and reduced costs, and allow more individuals to live in their communities instead of institutions.

Outcome Measures: Avoidable hospital use, 30-day hospital readmissions, rates of follow-up care in the post-acute phase, spending relating to hospital use overall, avoidable hospital use, total spending by the LTC-eligible population, MLTSS assessment timeliness, setting of care for

the LTC-eligible population, MLTSS critical incidents, MLTSS appeals and grievances, stakeholder perceptions of MLTSS progress and impacts.

Refer to Chapter 2, Table 1 and Chapter 3, Table A in the draft interim evaluation report for a more detailed list of outcome measures that can be potentially used to evaluate this hypothesis.

Data Sources: Statewide Medicaid claims/encounter data set (MMIS); MLTSS-related measures reported by managed care organizations, the State's external quality review organization, and state government; key informant interviews with stakeholders.

Behavioral Health Delivery System Reform

New Jersey seeks to continue movement towards an integrated and managed behavioral health (BH) delivery system that includes a flexible and comprehensive substance use disorder (SUD) benefit. The evaluation will address the following hypothesis:

Hypothesis II: The implementation of an integrated and managed behavioral health delivery system will improve access to services, quality of care, and will reduce overall spending when comparing pre- and post-implementation periods.

Outcome Measures: These will relate to physical and behavioral health outcomes among individuals with behavioral health conditions. Total Emergency Department(ED) visits, preventable ED visits, and ambulatory care sensitive hospital inpatient admissions among individuals with histories of behavioral health conditions, spending on physical health (i.e., not mental health or SUD) services for individuals with histories of behavioral health disorders, spending on behavioral health, share of individuals receiving mental health treatment services among those with histories of mental health disorders, share of individuals receiving SUD treatment among those with histories of SUD, stakeholder perceptions of the transition process and its impact.

Data Sources: Statewide Medicaid claims/encounter data set (MMIS), key informant interviews with stakeholders

Children's Programs

New Jersey seeks to expand its pilot Waiver programs offering home and community-based services to a broader population of Medicaid and CHIP beneficiaries with serious emotional disturbance (SED), autism spectrum disorder, and intellectual /developmental disabilities (IDD). The pilot program for children with co-occurring IDD and mental illness will be broadened into a new Children's Support Services program which will include a new eligibility group and offer

additional services. The overall strategy for evaluating these programs will be similar to that for the initial Demonstration period with necessary modifications to incorporate the expanded population served during the extension period. The evaluation will address the following hypothesis:

Hypothesis III: The expansion of the 2012-2017 waiver programs offering home and community-based services to a broader population of Medicaid and CHIP beneficiaries with serious emotional disturbance (SED), autism spectrum disorder, or intellectual /developmental disabilities will lead to better care outcomes.

Outcome Measures: ED and inpatient utilization and costs among individuals eligible for services, mental health-related inpatient hospitalizations and associated 30-day re-admissions, admission to psychiatric hospitals, out-of-home treatment, stakeholder perceptions of the Supports Program's implementation and impacts.

Refer to Chapter 4, Table A in the draft interim evaluation report for a more detailed list of candidate outcome measures that can be potentially used to evaluate this hypothesis. Hospital-related outcomes can only be calculated for individuals receiving State Plan services.

Data Sources: Statewide Medicaid claims/encounter data set (MMIS)

Eligibility and Enrollment Flexibility

New Jersey seeks to further streamline NJ FamilyCare eligibility and enrollment. The self-attestation of transfer of assets procedure started during the initial demonstration period will be expanded to higher income levels. The evaluation will address the following hypothesis:

***Hypothesis IV*:** Expanding self-attestation of transfer of assets for individuals applying for long-term care and home and community-based services up to 300% of the Federal Benefit Rate will be implemented effectively.

Outcome Measures: Error rate on audited self-attestation forms, average approval time among LTC-eligible applicants, setting of care (HCBS vs. nursing facility) for the LTC-eligible population

Data Sources: Statewide Medicaid claims/encounter data set (MMIS), audit results from the Bureau of Quality Control

Transitioning Incarcerated Individuals

New Jersey seeks to develop an uninterrupted re-entry system for incarcerated individuals. The evaluation will address the following hypothesis:

***Hypothesis V*:** Individuals being released from state prisons and jails will be assigned to NJ FamilyCare MCOs and engage in care in a timely and sustained way in order to maximize their opportunities for successful transition back into the community.

Outcome Measures: Stakeholder perceptions of the implementation and effectiveness of this initiative, percentage of formerly incarcerated individuals who: are notified of their MCO assignment and provided with information about how to access care upon release from prison/jail, have an encounter with a health care or behavioral health provider within 14 days of release, remain enrolled in NJ FamilyCare (assuming continued eligibility) for a period of at least 18 months, re-engage with the criminal justice system following release

Data Sources: Statewide Medicaid claims/encounter data set (MMIS) and criminal justice system data (e.g., data available from 'administrative offices of the courts'). Appropriate datasets would be decided in consultation with DMAHS and other relevant state agencies.

Medicaid Supportive Housing Services

New Jersey seeks targeted housing support services for individuals who are homeless or at-risk of being homeless. The evaluation will address the following hypothesis:

Hypothesis VI: Health services utilization patterns will improve and Medicaid spending will be reduced for individuals enrolled in Medicaid Supportive Housing Services (MSHS) relative to similar populations not receiving such services.

Outcome Measures: Medicaid spending and utilization rates overall and related to: total inpatient admissions, avoidable inpatient admissions, total emergency department (ED) visits, avoidable ED visits

Data Sources: Statewide Medicaid claims/encounter data set (MMIS) linked to the Homeless Management Information System (HMIS) for 19 of New Jersey's 21 counties (HMIS data for the two remaining counties will be added if feasible).

Delivery System Reform Incentive Payment Program

New Jersey seeks to continue DSRIP funding to promote and foster health care delivery system innovations. Mixed method evaluation strategies from the initial demonstration period will be

continued, utilizing a longer post-implementation period to evaluate the following hypothesis and examining whether any positive impacts are sustained in the longer term.

***Hypothesis VII*:** The Delivery System Reform Incentive Payment (DSRIP) Program will result in better care for individuals (including access to care, quality of care, health outcomes), better health for the population, and lower cost through improvement.

Outcome Measures: Stakeholder and participating hospitals' perceptions of DSRIP program strengths, weaknesses, and effectiveness in improving population health; Avoidable hospital use and associated costs, 30-day hospital readmissions, mental health inpatient utilization, ED visits for asthma, rates of follow-up care in the post-acute phase, hospital total and operating margins

Refer to Chapter 3, Table A in the DSRIP midpoint evaluation report for a more detailed list of outcome measures that can be used to evaluate this hypothesis and four of the six associated sub-hypotheses of the DSRIP evaluation.

Data Sources: Statewide Medicaid claims/encounter data set (MMIS), key informant interviews, hospital web survey, CMS cost reports

ANALYTIC STRATEGY

The evaluation analysis will adopt a mixed method approach utilizing quantitative as well as a qualitative analysis. The quantitative component will involve analysis of Medicaid claims/encounter data, hospital discharge data, and aggregated or summary statistics from secondary sources. The qualitative component will be key informant interviews that will capture stakeholder perceptions relating to program implementation, potential, and perceived impacts.

Quantitative Analysis

This description, specifically the multivariate statistical analysis, is mostly relevant to the claims data analysis where it is possible to adjust for patient and provider characteristics and examine trends over time. Depending on the frequency at which summarized statistics from secondary sources are available, we will construct trends and examine for statistical differences.

Pre-and Post-Implementation Periods: Analysis of Medicaid claims data will entail examining changes in the levels and trends of the selected metrics (relating to each of the seven hypotheses) subsequent to the policy implementation. Measuring differences in these outcomes between time periods before and after the implementation of the program/policy change will identify the program effect. For policies in the Renewal Waiver that were also in the initial Waiver, we will assess changes in trends over three distinct periods. These include the baseline period for the first

evaluation: January 1, 2011-September 30, 2012; the first demonstration period: Oct 1, 2012 – June 30, 2017; and the second demonstration period starting July 1, 2017. For new policies such as those relating to Medicaid Supportive Housing Services or the re-entry system for incarcerated individuals, we will examine a baseline period prior to the time of policy implementation and examine changes in outcomes between the baseline and the post-implementation period.

Difference-in-Differences Estimation: For estimating the policy effect, the evaluation will utilize a difference-in-difference estimation technique that identifies the impact of the Demonstration by comparing the trend in outcome for the program eligible (intervention) population from the pre- to the post-implementation period to that in a comparison group (where available) which is otherwise similar, but not subject to the policy effect. Such an estimation strategy is able to identify changes in outcomes that are due to program impact and distinct from secular trends. It accounts for the effect of unobserved factors, as long as their impact on one of the groups relative to the other does not change over time.

Example of comparison groups include: for the Medicaid Supportive Housing Services, individuals not receiving services who are identified to be similar to the intervention group (through statistical matching procedures); for the DSRIP program, those hospitals which are not taking part in a particular care management initiative; for the MLTSS policy, those individuals who are similar in terms of health and other demographic characteristics but not subject to the MLTSS policy.

This assumption relating to the DD approach that there are no unmeasured factors due to which the outcomes would change relatively between the intervention and comparison groups may not always be fulfilled. In that case, the unobserved factors may result in the two groups having differential trends and the computed effect size will include this difference over time. Accordingly, we will test to see whether there existed significant differences in trends between the intervention and comparison group prior to policy implementation. If this difference is in the same direction as the DD estimate and of comparable magnitude, which would imply that the DD model may be overestimating the effect.

Segmented Regression Analysis: While we will develop comparison groups wherever feasible in our evaluation analyses to facilitate separation of program impact from secular trends, it may not be always possible to have suitable comparison groups. In those cases we will use Segmented Regression Analysis. Such a model assumes that the policy effect may lead to a change in level, and also a change in the existing time trend of the metric measuring quality or any other relevant outcome of interest. The regression analysis is able to measure this change in trend or level. Potential confounding may arise from factors that determine our outcomes of interest and change

at the same time as the policy implementation. However, our multivariate analysis adjusting for patient, provider and geographic factors are expected to mitigate such effects.

Adjusting for patient, provider and geographic factors: Our multivariate analysis will control for patient characteristics that may affect outcomes. These include beneficiary demographics, Medicaid eligibility category, health history (including chronic illness and behavioral health co-morbidities) and information specific to the policy of interest (e.g., in case of Medicaid supportive services, homeless service use history will be taken into account). We will incorporate hospital fixed effects (to account for time-invariant differences across hospitals) for inpatient quality-based measures and zip code fixed effects (to account for time-invariant measures across geographic locations) for measures reflecting ambulatory care.

Dose Response: Wherever applicable we will examine whether there is a "dose-response" relationship (e.g., between the scope/depth of housing-related support services delivered and the outcomes.)

Qualitative Analysis

Key informant interviews will be conducted with officials from the Department of Human Services, as well as representatives of working groups, community partners, provider and consumer associations to obtain viewpoints about expected benefits and unanticipated consequences for patients and families. The interview protocols will be finalized based on input from stakeholders.

Program Quality and Monitoring Activities

The state is involved in a variety of quality activities to ensure the integrity of the program and ensure beneficiaries receive the best care possible. In compliance with STC 8(b)(iv), a summary of state quality and monitoring activities are listed in Attachment B.

Interim Evaluation

The Rutgers Center for State Health Policy (CSHP) was selected to evaluate the New Jersey 1115 Comprehensive Waiver. Its Interim Evaluation of the demonstration is included in Attachments C, C.1, and C.2.

Budget Neutrality and Monitoring

Under this Renewal, there are some program expenditures that will remain outside the demonstration. These include:

- Services for individuals who are eligible for Medicare but do not receive a "full" Medicaid benefit because their income or assets are too high. These groups include Qualified Medicare Beneficiaries (QMB) Only, Supplemental Low Income Beneficiaries, Qualified Individuals (QI1s) and additional Qualified Individuals (QI2s). (The QMB Plus group does receive a full Medicaid benefit and are included in the comprehensive waiver.)
- Medicaid administrative expenditures claimed by schools.
- Medicaid administrative costs for DHS and its sister agencies. (Administrative costs are excluded from the tests of budget neutrality under Section 1115 waivers.)
- FFS expenditures for emergency services-only populations.

More information on Budget Neutrality and enrollment trends can be found under Attachment D.

Public Notice Process

Prior to submitting the renewal application, the New Jersey Department of Human Services, Division of Medical Assistance and Health Services (DMAHS) had an extensive public comment process. In addition to being highlighted on the Department's website under "Hot Topics" (http://www.state.nj.us/humanservices/dmahs/home/waiver.html) a dedicated Medicaid Comprehensive Waiver webpage was posted and promoted on the DMAHS homepage (http://www.state.nj.us/humanservices/dmahs/home/waiver.html). Available on the site is a copy of the 1115 Comprehensive Waiver Renewal Application, a copy of the public notice, including the postal address for individuals choosing to send comments via the United States Postal Service (USPS), and slide presentations from the June 15, 2016 Medical Assistance Advisory Council Meeting and the DMHAS public stakeholder meeting on June 28, 2016. There also is a link to a video of the presentation that was given to the DMHAS Stakeholders on June 28, 2016. Stakeholders can access this video via YouTube (http://www.state.nj.us/humanservices/dmahs/home/waiver.html) or on any web enabled device; including cell phones. All slide and video presentations included information on sending comments via the USPS, Attn: Margaret Rose, Division of Medical Assistance and Health Services, Office of Legal and Regulatory Affairs, P.O. Box 712 Trenton, NJ 08625-0712, as well as a fax number, 609-588-7343. Lastly, a direct link to the email address developed specifically for stakeholders and interested members of the public to provide public comment on the proposed waiver concepts.

A public notice was published in newspapers statewide on June 6, 2016 allowing for a thirty (30) day public comment period. An update was added to the website extending the public comment for an additional thirty (30) days, thus indicating the comments were being accepted thru Friday, August 12, 2016 at 5:00 p.m. Both the notice and a copy of the Renewal Application were made available for public review on the Waiver homepage. In addition, notice of public comment period was sent via the Department of Human Services electronic mailing list on June 10, 2016 to all interested stakeholders, including interested public entities. A copy of this email was also sent to our CMS Regional Office contact and Project Officer for this Demonstration.

A second public comment period was provided from January 9, 2016 through February 10, 2016 at 5:00 p.m. The state provided on its website (http://www.state.nj.us/humanservices/dmahs/home/waiver.html) information regarding how to comment and an updated renewal application, which included budget neutrality and the summary of comments from the previous public comment period.

During the course of both public comment periods, the state received over 190 written comments from stakeholders. The public comments have been summarized and are included in Attachment E.

The Department engaged in an extensive stakeholder process, as summarized here:

Summary of Stakeholder Discussions				
Meeting Name	**Date**	**Location**	**Estimated Number of Attendees**	**Types of Attendees[2]**
Chamber of Commerce Southern New Jersey's Health Issues Committee	6/10/2016	Cherry Hill	50	Interested Parties
Medical Assistance Advisory Council (MAAC) Meeting[3]	6/15/2016	Ewing	100-150	Statewide Interested Parties, CMS, MCO's etc.
Home Care & Hospice Association	6/16/2016	Atlantic City	100	Statewide, Interested Parties, MCO's, DMAHS Staff
Monthly Contract Issues[4]	6/16/2016	Hamilton	50-60	MCO's, DMAHS Staff

[2] *For illustration purposes only and does not constitute an exhaustive list of attendees.*

[3] *Meeting minutes are taken by a professional stenographer and posted to the MAAC website.*

[4] *Teleconferencing was made available during this meeting for providers who could not attend in person.*

Mid-Managers Meeting	6/20/2016	Hamilton	80-90	DMAHS Staff
Medicaid Supervisor's Meeting	6/21/2016	Hamilton	50-60	CWA Staff, DMAHS Staff
Division of Mental Health and Addiction Services Stakeholder Meeting	6/28/2016	Hamilton	75-100	Statewide Interested Parties, MCO's etc.
Division of Developmental Disabilities Stakeholder Meeting	6/29/2016	Hamilton	60-70	Statewide Interested Parties
Managed Long-Term Services and Supports Stakeholder Meeting[5]	6/30/2016	Hamilton	40-50	Statewide Interested Parties, MCO's etc.
County Welfare Agencies (CWA) Director's Meeting	7/8/2016	Hamilton	20-30	CWA Staff, DMAHS Staff, Division of Family Development Staff
Children's System of Care Stakeholder Meeting	7/28/2016	New Brunswick	40-50	Statewide Interested Parties, etc.
Division of Mental Health and Addiction Services Quarterly Stakeholder Constituency Leadership	8/4/2016	Trenton	15-20	DMHAS Staff, Mental Health and Addiction Advocacy Leadership
Medical Assistance Advisory Council (MAAC) Meeting[67]	1/23/2017	Ewing	100-150	Statewide Interested Parties, CMS, MCO's etc.

In addition to the aforementioned public meetings, DMAHS has met with interested stakeholder groups and advocates including, but not limited to:

- New Jersey Hospital Association
- Managed Care Organizations

[5] *Teleconferencing was made available during the public MLTSS Steering Committee Meeting*
[6] *Meeting minutes are taken by a professional stenographer and posted to the MAAC website.*
[7] *Teleconferencing was made available to the public for this meeting.*

    - Aetna
    - Amerigroup New Jersey
    - Horizon NJ Health
    - Wellcare Health Plans
    - United Healthcare Community Plan
- NAMI New Jersey
- Legal Services of New Jersey
- The ARC of New Jersey
- New Jersey Association of Mental Health and Addictions Agencies
- American Association of Retired Persons (AARP)

In addition to periodic ad hoc meetings, updates on the status of this application will be provided primarily through the Medical Assistance Advisory Council and the MLTSS Steering Committee meetings. The purpose of these meetings is give regular updates on policies affecting the operation of the DMAHS program or the MLTSS benefit and to solicit input from the public. These meeting will also be the primary venue where the post-award public input process will take place. The MAAC meeting schedule, along with the date, time and location is published on the MAAC website (http://www.state.nj.us/humanservices/dmahs/boards/maac/) in December of the preceding year. MAAC meetings are typically scheduled once a quarter. DMAHS anticipates the public post-award forum to occur sometime in the Fall of 2017. Within thirty (30) days of notice of approval, and at least thirty (30) days prior to the Fall MAAC meeting, DMAHS will publish information on the Comprehensive Waiver webpage, and the DMAHS homepage as to on the date, time, and location of the MAAC forum where the post-award forum will be held. The MLTSS Steering Committee currently meets quarterly and a notice of the post award public forum through this Committee will be made on the DMAHS website. It is anticipated that is forum will occur during the first MLTSS Steering Committee meeting post-award and after the MAAC post-award forum.

STC Compliance

STC compliance can be found under Attachment F.

Conclusion

Since the approval of the 1115 Comprehensive Waiver Demonstration in October 2012, New Jersey has accomplished a significant amount of work in its efforts to strengthen and transform the NJ FamilyCare delivery system to achieve the goals and objectives of the Demonstration.

New Jersey has successfully implemented a Managed Long Term Services and Supports program that keeps individuals out of institutions and in the community; increased access to needed specialized services for those with intellectual and developmental disabilities; streamlined the eligibility process; and provided DSRIP funding for hospitals to make significant structural changes in the health care delivery system.

The state's request for a five-year extension to the Demonstration will provide New Jersey the ability to continue to support and engage NJ FamilyCare beneficiaries, and build an integrated delivery system that will streamline access to care, and improve quality while managing the cost growth of the program.

Enclosures/Attachments

Attachment A – DSRIP
Attachment B – Quality and Monitoring Activities
Attachment C – Interim Evaluation
Attachment C.1 – Supplement to the Interim Evaluation
Attachment C.2 – DSRIP Mid-point Evaluation
Attachment D – Budget Neutrality
Attachment E – Summary of Public Comments
Attachment F – STC Compliance

ATTACHMENT A
Delivery System Reform Incentive Payment (DSRIP) Program
Renewal Request

Background

The New Jersey Department of Health (DOH) operates the Delivery System Reform Incentive Payment (DSRIP) program as required by Section 93(e) of the Special Terms and Conditions (STCs) for New Jersey's 1115(a) Medicaid and Children's Health Insurance Program (CHIP) Comprehensive Waiver. DSRIP program requirements are detailed in the Planning Protocol (PP) and Funding and Mechanics Protocol (FMP). CMS approved these protocols on August 8, 2013.

DSRIP is designed to result in better care for individuals (including access to care, quality of care and health outcomes), better health for the population, and lower costs by transitioning hospital funding to a model where payment is contingent on achieving health improvement goals. Hospitals may qualify to receive incentive payments for implementing quality initiatives within their community and achieving measurable, incremental clinical outcome results demonstrating the initiatives' impact on improving the New Jersey health care system.

The DSRIP program supports the Healthy New Jersey 2020 vision: "For New Jersey to be a state in which all people live long, healthy lives."

As described in the Planning Protocol, New Jersey's described goals include:

- Improve care processes
- Improve patient satisfaction
- Improve patient adherence to their treatment regimen
- Reduce unnecessary admissions/ readmissions
- Reduce unnecessary emergency department visits

Hospitals were offered a menu of 17 pre-defined projects with activities that were identified and developed by the Department and the hospital industry because they represented realistic and achievable improvement opportunities for New Jersey. In order to focus the DSRIP incentive budget and resources, New Jersey was seeking to improve the cost and quality of care for eight prevalent or chronic conditions. The focus areas are as follows:

1. Asthma
2. Behavioral Health
3. Cardiac Care
4. Chemical Addiction/ Substance Abuse
5. Diabetes
6. HIV/ AIDS
7. Obesity
8. Pneumonia

Based on the requirements of these protocols, 55 hospital applications were submitted and approved on May 6, 2014. 11 of the projects were selected representing 7 of the focus areas.

Since that time, 49 hospitals have continued their participation in the program and completed implementation of Stage 1 and Stage 2 infrastructure activities, and Stage 3 and Stage 4 performance measurement.

–Stage 1 – Infrastructure Development

–Stage 2 – Piloting and redesign of chronic and preventive care models

–Stage 3 – Quality improvement measurements specific to clinical performance of the Hospital's DSRIP project

–Stage 4 – Population-focused improvement measurement across several domains of care

New Jersey DSRIP Initial Demonstration Program

DSRIP programs are different from other payment programs because it begins a migration from fee-for-service as a method of payment to pay for performance as a method of payment to a population health payment design. This migration requires a series of foundation steps that needed to be built to create a successful program.

There have been a number of program design, implementation, and industry engagement issues that needed to be constructed as foundational steps. The initial planning and implementation has been over a protracted time period attributed to the complexities of the DSRIP program design. Since hospitals and states have never been part of a DSRIP program before the entire program needed to be built from the ground up. Below is a list that includes some of the first time ever efforts undertaken by NJ hospitals and the State. Also there is not a significant body of work nationally NJ could draw from in creating the NJ DSRIP program.

State of NJ DSRIP Tasks	**NJ Hospitals DSRIP Tasks**
• **Designed Protocols, the Databook and** **Other resources used in the DSRIP program and updated documents based on program changes and experience. Final Protocol design was not completed until the start of DY2.**	• **Participate in the design of the DSRIP program including stage 3 and stage 4 clinical and process measures.**
• **Design project activities and**	• **Develop their DSRIP project**

milestones, project specific measures, universal measures and a payment methodology.	**including an application submitted to the State and CMS, build program infrastructure, and design internal data collection systems and processes for EHR/Chart measures.**
• **Review and "coach" hospitals to develop project applications based on state and CMs reviews. Project applications were not approved until the end of DY2**	• **Engage project partners including the design of systems to collect data and share measure performance results.**
• **Design the attribution algorithm used in patient assignment for hospitals, and, then hospital project partners. The attribution algorithm and project partner requirement was completed in DY3.**	• **Engage hospital medical staff and other members of leadership in understanding the DSRIP program and performance results.**
• **Develop project measure improvement target goals including benchmarks and expected improvement target goals.**	• **Participate in learning collaboratives including making presentations on successes and challenges of DSRIP projects.**
• **Educate NJ hospital providers and project partners in their specific expected improvement target goals. NJ hospitals have never had a significant amount of payments linked to clinical and process measures and never for the low income population. This task was completed in DY4.**	• **For many NJ hospitals the DSRIP program has been the introduction to using attribution as a method of assigning patients.**
	• **Realign internal information systems and processes to capture and analyze measure data.**

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New Jersey's Approach to the Next Generation DSRIP Program

Because pay for performance for project specific measures begins in DY4 [SFY 2016] and extends through DY5 [SFY 2017] the NJ concepts for developing the next generation DSRIP program are shown below.

1. Extend the NJ DSRIP program by two [2] additional years to June 30, 2019. A two year extension to the current program provides a more complete and comprehensive term to evaluate performance and enabling NJ to develop an enhanced DSRIP program going forward.

    a. Consider based upon input from CMS and the hospital industry creating a stronger link between payment and performance by establishing minimum expected improvement target goals, minimum attributed Medicaid enrollees and Charity care recipients.

    b. Consider introducing new substitute project measures and/or new measures provided the number of measures and data collection is a reasonable undertaking for hospitals.

    c. NJ anticipates stable program funding similar to the present annual funding of $166.6 million.

    d. A stronger link to project return on investment.

    e. Initiate program enhancements as described below:

        i. Increase the detail of patient-level information provided to hospitals.

        ii. Increase the amount and timeliness of performance measurement (e.g. increasing trending frequency, comparing participating and non-participating hospitals, etc.).

        iii. Encourage increased health information technology capabilities to receive more real-time data regarding admissions, transfers, discharges, emergency department and primary care visits.

        iv. Encourage increased health information exchange to support increased provision of data-informed patient care.

        v. Establish a coordinated plan with Managed Care Organizations (MCOs) to support DSRIP-specific project and statewide reform goals.

vi. Create administrative efficiency for the state and CMS by establishing operating parameters which require either state-only, or both state and federal review and approval.

These enhancements will strengthen capacity of the health care industry to more effectively coordinate care and become accountable for population health. This will reinforce the expectations CMS has expressed to continue to build hospitals' partnerships with the broader community in order to manage the needs of all residents in the right setting at the right time.

2. NJ to propose a design for a new DSRIP demonstration program expansion by June 30, 2018 to begin on July 1, 2019 and extend through June 30, 2022 with an option for renewal term of an additional two years if mutually agreed to by NJ and CMS. It is anticipated the new NJ DSRIP demonstration program will incorporate the following enhancements leading to more targeted performance improvement and a return on investment:

    a. Lessons learned in NJ from the project specific pay-for-performance outcomes including measures to be discontinued and new measures.

    b. Analysis of the low income population high users of services and high cost services with a focus on addressing high utilization and high cost services.

    c. Consideration for developing provider networks into long-term sustainable medical delivery systems serving the low income population focused on delivering the right care in the right setting at the right cost leading to population health.

    d. Developing a low income population recipient incentive program to actively participate in preventive care programs.

<u>Demonstration and Renewal Periods</u>

The original five year demonstration program was separated between a transition payment period and DSRIP implementation payment periods. The transition period allowed the DSRIP program to fully reimburse all hospitals at historical rates during the development of the program. As of January 2014, reimbursement was limited to participating DSRIP hospitals based on DSRIP stage funding allocation. DY 5 is the final year of the current DSRIP program and will serve as the transition year to the proposed two year extension and next generation DSRIP program.

Demonstration Year	**Implementation Period**	**Dates**
Demonstration Year 1	Transition Period	July 2012 – June 2013

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Demonstration Year 2	Transition Period	July 2013 – December 2013
	DSRIP Implementation	January 2014 - June 2014
Demonstration Year 3	DSRIP Implementation	July 2014 – June 2015
Demonstration Year 4	DSRIP Implementation	July 2015 – June 2016
Demonstration Year 5	DSRIP Implementation: Note 1	July 2016 – June 2017
Renewal Year 1	DSRIP Extension	July 2017 – June 2018
Renewal Year 2	DSRIP Extension	July 2018 – June 2019
Renewal Year 3	DSRIP Expansion	July 2019 – June 2020
Renewal Year 4	DSRIP Expansion	July 2020 – June 2021
Renewal Year 5	DSRIP Expansion	July 2021 – June 2022

For the renewal years 1 and year 2, it is proposed that funding allocations continue similar to DY 5 funding amounts and allocations to the Universal Performance Pool (UPP) including a UPP carve out for project partner participation payments, Stage 1 and 2, Stage 3, and Stage 4.

For renewal years 3-5, it is proposed that some adjustments occur to allocations to help support additional information technologies needs under this type of program. Additionally, development of targeted measures and improvement will be discussed with stakeholders through a deliberative design phase based on meeting the trigger. Also NJ would like to consider an incentive payment for low income population enrollees practicing targeted preventive care behaviors.

Stages	**Payment Mechanism**		**Allocation Percentage [Beyond RY2 is to be Determined based on the design of the DSRIP expansion years 7/1/2019-6/30/2022]**								
Description		**DY2**	**DY 3**	**DY 4**	**DY 5**	**RY 1**	**RY 2**	**TBD**	**RY3**	**RY 4**	**RY5**
Universal Performance Pool (UPP) Carve Out – all hospitals are eligible to receive monies from a shared performance pool		0%	10 %	15 %	25 %	22 %	20 %		18%	18 %	18%

of funding.											
Community Partner Participation Carve out based on meeting partner requirements as part of UPP						3%	5%		5%	5%	5%
Stages I Project Activities – incentive payment award is based on hospital investments in technology, tools, and human resources	Pay for Achievement	90%	75%	50%	25%	25%	25%		25%	15%	15%
Stage II Project Activities – incentive payment award is based on accomplishing the piloting, testing, and replicating of chronic patient care models.											
Stage III Quality Improvements – incentive payment award is based on either a pay for reporting or pay for performance basis. Clinical performance measures that measure the impact of Stage 1 and 2 activities; number of measures varies by project	Pay for Reporting	5%	15%	-	-	-	-		10%	20%	20%
	Pay for Performance	0%	-	35%	50%	50%	50%		40%	40%	40%
Stage IV Population Focused [UPP] Improvements – clinical performance measures that include reporting performance on measures across domains of care	Pay for Reporting	5%	10%	15%	25%	25%	25%		25%	25%	25%
Low income population preventive care incentive payment if hospital proposal is approved as part of UPP									2%	2%	2%

Initial DSRIP Results

The DSRIP program has begun to successfully meet the high expectations and aims set out for the program in New Jersey including meeting CMS' three-part aims for better care, smarter spending and healthier people. New Jersey has seen improvements in the following:

- Increased infrastructure, health information technology and data analytics
- Enhanced provider collaboration and community engagement
- Improved care processes and services provided
- Improved health outcomes
- Decreased costs

Individual hospitals have shown very impressive preliminary findings. These remarkable improvements have been presented and shared by providers during the New Jersey DSRIP Learning Collaborative.

Increased infrastructure, health information technology and data analytics		
Increased number of chronic condition clinics	Newark Beth Israel Medical Center[i]	Opened The Transitional Care Center (TCC) for high risk patients with medical monitoring and other support until patients are able to get an appointment with their primary care provider.
Increased work force trained and dedicated to system reform	Multiple hospitals	Additional case managers, new asthma educators, addition of peer support specialists, and patient care navigators have been added to the work force.
Attributed patients are being assessed for diagnoses and new linkages of care or social supports	Our Lady of Lourdes Medical[ii]	Transitions RN identifies barriers to therapeutic regimen adherence. Assesses inability to afford prescriptions, no reliable transportation, food, shelter, addiction, mental health issues and then consults with social worker, case managers, and discharge planners to assist with community resource referrals. Hospital is also contracting with transportation vendor.
	Jersey City Medical	Homeless are being linked to the Medical and Social Services for the Homeless (MASSH)

	Center	program. HIV patients are being linked to Center for Comprehensive Care (CCC) program.
Increased population health management preparedness and data analysis	Cape Regional Medical Center[iii]	Detailed analytics have been integrated into hospital workflows quantifying outcomes for an entire patient population instead of a patient sampling. Real-time data feeds occur to each of the hospital and reporting partner practices to provide real-time numerator and denominator data in order to reach out and intervene as clinically necessary.
Increased electronic medical record capabilities and notifications for clinical decision support	Englewood Hospital and Medical Center	New daily inpatient report identifying patients with chronic cardiac conditions with a LACE score greater than 7 with Medicaid, Charity Care, and Self-pay status are enrolled in the program. LACE scores represent the length of stay of the index admission, acuity of admission, co-morbidities of the patient, and number of emergency department visits in the last six months.
Enhanced provider collaboration and community engagement		
Hospital and community partner relationship development and collaboration	Jersey City Medical Center[iv]	More than 100 school nurse relationships, 30 outreach events, 20 back to school events and/or PTO meetings attended.
	Inspira Medical Center Elmer	Quarterly consortiums at Woodbury/Vineland and Monthly calls with Capital and Trinitas are held.
Increased primary care provider collaboration	Jersey City Medical Center	Lunch and Learns held with FQHCs.
	Barnabas Health[v]	In order to secure a reporting partner, agreed to assist Zufall Clinic FQHC patients' with access to specialty services like the OB clinic, orthopedics

		and plastic surgery.
	Our Lady of Lourdes Medical	Transitions RNs using practice offices for follow-up visits.
Improved care processes and services provided		
Increased treatment plan development and follow-up	Newark Beth Israel Medical Center	Percent of patients who had documented outpatient follow-up appointment: Baseline June 2014 data = 17%; Feb-May 2015 data = 4 months with 100% scheduling compliance. "I understand the purpose for taking each of my medications" Baseline =75%; April-June 2015 = 91% "The staff explains my test results so that I know what they mean" Baseline = 80%; April-June 2015 = 91% Model is being spread throughout the medical center for other patient populations.
Increased chronic condition management and services	Barnabas Health	Pulmonary physicians are completing baseline spirometry on all asthma patients
	Inspira Medical Center Elmer[vi]	106 of 116 patients referred for substance abuse consults accepted secondary screenings, others continued into treatment. – Refusal = 35; Brief Education = 24 Inpatient Tx = 17; Brief Intervention = 14

		Intensive Outpatient = 5; Individual/Psychiatrist = 4 12 Step Meetings = 4; Suboxone Maintenance = 1 Acute Detox = 1; Detox = 1
	Our Lady of Lourdes Medical	Home visit is scheduled ideally within 1-3 days post discharge. Coach targets 4 key areas: Medication reconciliation, follow-up appointments, red flags, personal health record completion.
	Monmouth Medical Center Southern Campus[vii]	Community Health Workers are completing home visits to facilitate patient engagement, meeting them in-home or in the community (i.e. coffee shops, church, etc.).
Increased patient engagement and shared decision making	Bergen Regional Medical Center[viii]	Increase in patient experience (5 point scale): – Physician listens to you Baseline (135) = 4.03; Q3 (446) = 4.7 – Physician takes enough time Baseline (135) = 4.04; Q3 (446) = 4.67 – Physician explains what you want to know Baseline (135) = 3.98; Q3 (446) = 4.68 – Physician encourages me to participate Baseline (213) = 4.62; Q3 (466) = 4.66
Increased medication management	CarePoint Health Bayonne Medical Center[ix]	Added Meds to Beds service where the patient's prescription is brought to the OPD Pharmacy and the medication is returned to the patient prior to discharge.
Improved health outcomes		
	Bergen Regional Medical	– Average Quarterly ER Visits per quarter per patient:

	Center	Baseline 2013-2014 = 0.308; Q1-Q2 2015 = .196; Reduction of 159 Visits – Average Quarterly Inpatient Admissions per quarter per patient: Baseline 2013-2014 = 0.114; Q1-Q2 2015 = .096; Reduction of 26 Admissions
	Inspira Medical Center Elmer	– Average Length of Stay: Baseline Aug 2014-Dec 2014 = 4.22; 2015 YTD = 2.98
	University Medical Center of Princeton at Plainsboro[x]	– 6 months Pre enrollment Admissions = 14 6 months Post enrollment Admissions = 5 – 6 months Pre enrollment 30-day Readmissions = 2 6 months Post enrollment 30-day Readmissions = 1 – 6 months Pre enrollment ED visits = 36 6 months Post enrollment ED visits = 30
	Palisades Medical Center[xi]	– 30-day AMI Readmission rate: Baseline Aug 2014-Jan 2015 = 21.9%; Feb 2015-June 2015 = 17.7%
Decreased Cost		
	Barnabas Health	– ER Visits: 2012 Baseline per quarter = 109; DY4 Q1 = 13; 88% Reduction Per visit savings = $358.95 Total quarter savings = $35,459

		– Admissions: 2012 Baseline per quarter = 21; DY4 Q1 = 5; 76% Reduction Per visit savings = $3,900 Total quarter savings = $62,400
	St. Josephs[xii]	– Reduction of 59 Admissions – Reduction of 0.5 days – 20 percent reduction in ED Visits – $1.4 million cost savings

This snapshot of the various successes are exciting and demonstrates the level of commitment by the DSRIP participating hospitals in achieving a new, reformed health system focused on providing the best care possible for all of New Jersey. The DSRIP program supports this emerging transformation. Not only is there commitment from the hospitals, but it is clear that reform is taking place in the delivery of health care. To continue to move towards sustainable transformation, enduring process adoption and commitment at a steady, incremental pace is required.

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[ii] Our Lady Of Lourdes Medical, CHF Program, October 8, 2015. https://dsrip.nj.gov/Documents/LC%203%20&%204%20Our%20Lady%20of%20Lourdes_10-8-2015.pdf
[iii] Cape Regional Medical Center, "Meaningful Use of Patient-Generated Data." October 8, 2015. https://dsrip.nj.gov/Documents/LC%205%20Cape%20Regional%20Med%20Ctr%20_10-08-2015.pdf
[iv] Jersey City Medical Center – Pediatric Asthma Case Management and Home Evaluation Program, October 8, 2015. https://dsrip.nj.gov/Documents/LC%201%20Jersey%20City%20Medical%20Center_10-8-2015.pdf
[v] Barnabas Health Hospital Presentation, October 8, 2015. https://dsrip.nj.gov/Documents/LC%201%20St.%20Barnabas%20Med%20Ctr_10-8-2015.pdf
[vi] Inspira Medical Center Elmer, October 8, 2015. https://dsrip.nj.gov/Documents/LC%202%20Inspira%20Medical%20Center%20-Elmer_10-8-2015.pdf
[vii] Monmouth Medical Center Southern Campus, Integrated Health Home for the Seriously Mentally Ill, July 9, 2015. https://dsrip.nj.gov/Documents/Monmouth%20Med%20Ctr_Southern%20Campus_LC2_07.09.2015.pdf
[viii] Bergen Regional Medical Center – Shared Decision Making: Electronic Self-Assessment, October 8, 2015. https://dsrip.nj.gov/Documents/LC%202%20Bergen%20Regl%20Med%20Ctr_10-8-2015v2.pdf
[ix] CarePoint Health – Bayonne Medical Center – Cardiac Care- Heart Failure, October 8, 2015. https://dsrip.nj.gov/Documents/LC%203%20&%204%20Bayonne%20Med%20Ctr_10-8-2015.pdf

[x] University Medical Center of Princeton at Plainsboro, Diabetes Group Visits. October 8, 2015. https://dsrip.nj.gov/Documents/LC%205%20University%20Med%20Ctr%20at%20Princeton_10-8-2015.pdf
[xi] Palisades Medical Center, Care Transitions Intervention Model to Reduce 30-Day Readmissions for Chronic Cardiac Conditions. July 9, 2015. https://dsrip.nj.gov/Documents/Palisades%20Med%20Ctr_LC3_4_07.09.2015.pdf
[xii] St. Joseph's Healthcare System, Hospital-Based Educators Teach Optimal Asthma Care. July 9, 2015. https://dsrip.nj.gov/Documents/St.%20Joseph%20Regional%20Med%20Ctr_LC1_07.09.2015.pdf

Attachment B
Quality and Monitoring Activities

In compliance with STC 8(b)(iv), below is an overview of the quality monitoring activities performed during the demonstration. Reports are available upon request.

New Jersey has a consistent and coordinated framework via overarching interagency authority and oversight to deliver timely, appropriate quality health care across all populations. The programs under the Comprehensive Waiver are administered by various state agencies, however, the Department of Human Services' Division of Medical Assistance and Health Services (DMAHS) maintains authority over monitoring and oversight of the programs.

Below are quality activities performed by DMAHS, the Division of Developmental Disabilities (DDD), the Department of Children and Families, Division of Children's System of Care (CSOC), and the External Quality Review Organization (EQRO). These activities monitor the quality and performance of the Medicaid Managed Care Organizations (MCOs), Fully-integrated Dual Special Needs Plans (FIDE SNPs), Managed Long-Term Services and Supports (MLTSS) program, and Targeted Home and Community-Based Services programs.

Monitoring Quality in Managed Care

The Balanced Budget Act of 1997 established that state agencies contracting with Medicaid Managed Care Organizations (MCOs) provide for an annual external, independent review of the quality outcomes, timeliness of, and access to the services included in the contract between the state agency and the MCO. Subpart E – External Quality Review of 42 Code of Federal Regulations (CFR) sets forth the requirements for annual external quality review (EQR) of contracted MCOs. CFR 438.350 requires states to contract with an External Quality Review Organization (EQRO) to perform an annual EQR for each contracted MCO. The states must further ensure that the EQRO has sufficient information to carry out the EQR; that the information be obtained from EQR related activities; and that the information provided to the EQRO be obtained through methods consistent with the protocols established by the Centers for Medicaid and Medicare Services (CMS).

To meet these federal requirements, the New Jersey (NJ) Department of Human Services Division of Medical Assistance and Health Services (DMAHS) contracted with IPRO, an EQRO. In collaboration with the EQRO, DMAHS evaluates, assesses, monitors, and guides the Medicaid managed care program for the state. Since April 2011, New Jersey has contracted with IPRO to conduct EQRO activities.

IPRO performs the following three CMS-required activities:

- Assessment of Compliance with Medicaid Managed Care Regulations
- Validation of Performance Measures Reported by the MCO

- Validation of Performance Improvement Projects

In addition, IPRO also conducts clinical and non-clinical focused studies, audits of the care management program, and most recently, has begun to conduct surveys to assess member satisfaction. Through the development of studies and assessments, the EQRO evaluates enrollees' quality and outcomes of care, and identifies opportunities for MCO improvement. To facilitate these various activities, DMAHS ensures that the EQRO has access to enrollment data and health care and pharmacy claims and encounters. The MCOs collaborate with the EQRO to ensure that medical and care management records are available for focused clinical reviews.

The below summary includes the required and optional quality-related activities conducted by the EQRO.

Assessment of Compliance with Medicaid Managed Care Regulations

The Annual Assessment of MCO Operations determines MCO compliance with the NJ FamilyCare Managed Care Contract requirements and with State and federal regulations in accordance with the requirements of CFR 438.204(g). The EQRO conducts a comprehensive Annual Assessment of MCO Operations, including MLTSS beginning in 2015, to review for compliance with contractual, federal and State operational and quality requirements. The review cycle occurs at intervals no greater than twelve (12) months and evaluates each of the MCO's structures, processes, and outcomes of operations and monitors for adherence to, and effectiveness of, individual MCO Quality Assurance Programs. Areas included in the review during this waiver cycle include:

A. Access
B. Quality Assessment and Performance Improvement
C. Quality Management
D. Efforts to Reduce Healthcare Disparities
E. Committee Structure
F. Programs for the Elderly and Disabled
G. Provider Training and Performance
H. Satisfaction
I. Enrollee Rights and Responsibilities
J. Care Management and Continuity of Care
K. Credentialing and Recredentialing
L. Utilization Management
M. Administration and Operations
N. Management Information Systems

Comprehensive reviews of all requirements include documentation submission along with an onsite visit, documentation review, file review, MCO staff interviews, and as appropriate, the direct observation of the key program areas and systems evaluations. MCOs demonstrating contractual compliance performance at or above eighty-five percent (85%) receive a partial review every other year of only those elements that are "Not Met" or "N/A" during the comprehensive review. MCOs will receive a comprehensive assessment the first two years when newly entering the New Jersey market.

Evaluation of the MCOs Internal Quality Assurance Program (QAP)

As part of the Annual Assessment of MCO Operations, the EQRO monitors each MCO's adherence to its internal Quality Assurance Program (QAP). This evaluation ensures that the internal QAP complies with the standards for internal QAPs, which are specified in Section 4.6 of the NJ FamilyCare Managed Care Contract. The QAP is evaluated to ensure that it consists of systematic activities to monitor and evaluate the care delivered to its enrollees according to objective standards, results in improvement to access, quality and utilization of care, and affords for review by appropriate health professionals of the processes followed in delivering health services.

The Annual Assessment of MCO Operations is designed to show trends, comparisons across MCOs, best practices, deficiencies, other areas of concern, and opportunities covering all areas of the assessment.

Validation of the MCOs Performance Measures

The NJ FamilyCare Managed Care Contract article 4.6.2 (P) requires NJ FamilyCare MCOs to report annually on HEDIS® measures. The EQRO reviews the reported rates and the methodology used to calculate those measures. For measures that are not reviewed by a NCQA auditor, the EQRO performs validation of the measures. If a NCQA auditor deems a measure as not reportable or if the MCO is not fully compliant, the MCO data files are analyzed by the EQRO.

Two of the current 24 HEDIS® performance measures included in the MCO contract were not reported until 2014. These measures are: Human Papillomavirus Vaccine for Female Adolescents and Medication Management for People with Asthma. Five of the current measures began to be reported in 2013. These measures are: Controlling High Blood Pressure, Adult BMI Assessment, Annual Monitoring for Patients on Persistent Medications, Children and Adolescents' Access to Primary Care Practitioners and Ambulatory Care.

In addition, three State-specific measures are reported. These New Jersey Specific Performance Measures were first reported in 2013 and include the following:

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- Annual Preventative Dental Visits-by Dual, Disability, Other and Total categories
- Children and Adolescents' Access to Primary Care- by Dual, Disability, Other and Total categories
- Adults' Access to Preventative Care-by Dual, Disability, Other and Total categories

Quality Improvement Projects (QIPs)

Quality improvement projects and topics are defined annually by the State. They include measurable improvement goals and the specific measures and strategies for achieving each of the QIP objectives. QIPs are designed to achieve, through ongoing measurements and intervention, significant improvement, sustained over time, in clinical and non-clinical care areas that are expected to have a favorable effect on health outcomes and enrollee satisfaction. When conducting QIPs, MCOs follow the ten-step CMS protocol. Evaluation and validation of QIPs is performed by the EQRO.

During this waiver cycle, Amerigroup, HealthFirst, Horizon and United submitted progress reports in 2013 for their sustainability year for the QIP topics concerning the EPSDT services of Dental Care, Lead Screening, and Well Child Care and Prenatal Care and Birth Outcomes. In 2014, final reports for these QIP topics were submitted by the MCOs.

In 2013, Amerigroup, HealthFirst, Horizon and United, with the guidance of the EQRO, initiated a collaborative QIP on the topic of Identification of Management of Adolescent Overweight and Obesity. Progress reports continued to be submitted in 2014 and 2015. HealthFirst submitted a progress report in June 2014 and a final report in September 2014 for the Identification of Management of Adolescent Overweight and Obesity QIP, as they exited the NJ FamilyCare Managed Care Contract in 2014. WellCare entered the NJ market and in 2014 submitted their Identification and Management of Adolescent Overweight and Obesity QIP proposal.

A new proposal for the topic of Preterm Births was submitted by Amerigroup, Horizon, United and WellCare in 2014. Progress reports were submitted during 2015.

Focused Studies

The completion of clinical and/or non-clinical focused studies is determined by the State, based upon State, federal and waiver program requirements and goals. In compliance with CMS Protocols and State guidelines, a written study design to conduct each of the studies is developed. The written protocol is based on nationally recognized practice guidelines and

standards where applicable. Through the development of the study design, MCOs can provide advance notice to providers and plan for resource allocation.

In 2013, the EQRO completed three clinical focused studies that started during 2012. These studies evaluated the quality of Early Periodic Screening, Diagnosis, and Treatment (EPSDT) services and the quality of services for Children with Special Health Care Needs (CSHCN). The EPDST studies aimed to describe primary care and dental service utilization, lead screening/follow-up, and immunizations among children enrolled in Medicaid Managed Care in New Jersey to identify the extent to which children are receiving required EPSDT services during primary care physician (PCP) visits, and to identify targets of improvement efforts.

The EQRO initiated three non-clinical focused studies in 2014 that evaluated transportation services provided through the state medical transportation broker, LogistiCare. The first was a utilization analysis designed to capture demographic, frequency, and timeliness metrics of individual trips. The second study was a rider analysis that assessed rider utilization, provider consistency, and rider penetration rates. The third study evaluated member and facility experience with LogistiCare and transportation providers using telephone interviews and written surveys.

In 2014, the EQRO also submitted a proposal for one clinical focused study relating to perinatal care. This project began in 2014 and was ongoing in 2015. The study used Medicaid encounter data, claims data, and medical record review to describe the quality of perinatal care received by a sample of Medicaid women, with the aim of identifying potentially actionable gaps in care that may affect birth outcomes. The study also included an evaluation of MCO identification of pregnant members and enrollment in prenatal support programs and in obstetric case management for all members meeting the eligibility and continuous enrollment criteria for the study.

The EQRO is currently working with DMAHS on the design of focused studies related to access and availability of network providers and age-appropriate developmental surveillance.

Care/Case Management Audits

The EQRO evaluates the effectiveness of each MCO's contractually-required care management program. This annual on-site audit includes a statistically valid sample of enrollees. Specific populations audited are members who receive services from the Division of Developmental Disabilities and the Division of Child Protection and Permanency, along with members in the general population. Audit activities include an evaluation of the following metrics: identification, outreach, preventive services, continuity of care, and coordination of services.

Quality Technical Reports

The EQRO aggregates the information on all CMS required activities and EQR related voluntary activities and prepares a report that summarizes timeliness, quality and access to care. This is a retrospective report of the activities that occurred in the prior year.

Consumer and Health Care Provider Satisfaction Surveys (CAHPS)

The CAHPS survey is an annual survey conducted by the state and each Managed Care Organization. The state survey was completed by the health benefits coordinator up until 2014, and moved to the EQRO in 2015. These surveys are submitted to the Agency for Healthcare Research and Quality (AHRQ) and are also used to inform the NJ FamilyCare Annual report.

Annual Report

The State through the DMAHS Office of Business Intelligence compiles an annual report showing the progress of the overall NJ FamilyCare program. This report is comprehensive and includes descriptions of all NJ FamilyCare initiatives, achievements for the past year, a status check on various aspects of the program, and intended initiatives for the upcoming year. The historical performance and progress of the MLTSS program (and other waiver initiatives) are discussed in this report.

Monitoring Quality and Access to Care: Managed Long-Term Services and Supports (MLTSS)

In addition to the existing NJ FamilyCare Managed Care Contract requirements, a MLTSS set of reporting requirements were developed and included in the Contract. As a result, the EQRO conducts one, unified set of mandatory external quality review activities outlined in 42 CFR 438.358, including the Annual Assessment of Operations, Performance Measures and QIPs, that review the quality of the NJ FamilyCare plan and the requirements of the MLTSS program.

The State worked with its EQRO, IPRO, to develop a comprehensive set of MLTSS elements that were added to the 2015 Annual Assessment and initiate a MLTSS QIP. The EQRO is working with the State to validate and refine the current MLTSS Performance Measures, calculate Performance Measures, and develop future Performance Measures. The EQRO conducts focused studies to calculate some of the MLTSS Performance Measures and audits of the MLTSS care management program. Through the development of studies and assessments, the EQRO evaluates the quality and outcomes of MLTSS service delivery and identify opportunities for MCO improvement. The MCOs collaborate with the EQRO to ensure that the MLTSS member records, claims, and authorizations are available for focused reviews.

Beginning in 2016, the EQRO began participating in the State's monthly MLTSS MCO Quality Workgroup meetings via teleconference.

Required and Optional MLTSS Quality-Related Activities Conducted by the EQRO.

A. Assessment of Compliance with Medicaid Managed Care Regulations (including MLTSS contract requirements)

The EQRO conducts a comprehensive Annual Assessment of MCO Operations to review for compliance with contractual, federal, and State operational and quality requirements. Beginning in 2015, MLTSS was included in this review. The review cycle occurs at intervals no greater than twelve (12) months and includes MLTSS in the sample records for review. MCOs demonstrating contractual compliance performance at or above eighty-five percent (85%) receive a partial review every other year of only those elements that are "Not Met" or "N/A" during the comprehensive review. However, if the elements are related to specific performance measures or required by the Special Terms and Conditions of the Comprehensive Waiver they will be reviewed according to the respective required periodicity.

B. Validation of the MCOs Performance Measures

The NJ FamilyCare Managed Care Contract article 9.11.E requires NJ FamilyCare MCOs to report on Performance Measures (PM) for the MLTSS program. The EQRO will assess the MCOs process for calculating performance measures and whether the process adhered to each measure's specifications, and the accuracy of the PM rates as calculated and reported by the MCOs. The EQRO will perform this validation for eighteen (18) measures as some measures are combined measures. Utilizing the performance measures outlines provided by the State, the EQRO is developing PM specifications for the MCOs. The annual validation report will include the results of the EQRO review of the MCO documentation, the EQRO's prepared rate tables and analysis of PM results.

C. Quality Improvement Projects (QIPs)

The EQRO reviews the QIPs for methodological soundness of design, conduct and reporting to ensure real improvement in care and confidence in the reported improvements. In cooperation with the State, the EQRO assisted in the identification of the initial QIP topic for MLTSS. The 2015 MLTSS QIP topic was 'Falls Prevention'. When conducting QIPs, the MCOs follow the ten-step CMS protocol. The MLTSS QIP topic was introduced to the MCOs during the August 2015 QIP training provided by the

EQRO. The five MLTSS MCOs submitted their respective MLTSS QIP Proposal related to prevention of falls to the EQRO for review and acceptance. The MCOs are required to submit their initial progress reports to the EQRO in June 2016 with a progress report update in September 2016.

D. MLTSS Care Management Audits

The EQRO evaluates the effectiveness of each MCO's contractually-required MLTSS care management program. For year one of the MLTSS program this audit was conducted in two parts. During March/April 2015, the EQRO reviewed a sampling of MLTSS members' records from the four MLTSS MCOs who were enrolled in MLTSS between the period of July 1, 2014 and December 31, 2014 and still enrolled with the MCO at the time of the record selection. Audit activities include an evaluation of the following metrics: identification, outreach, face-to-face visits, initial plan of care, ongoing care management, and gaps in care. The tool used for the audit included State-specific contract requirements/standards, reviewer guidelines (noting specific elements that must be reviewed by the EQRO reviewers), and selected MCO staff members to clarify and confirm findings. To complete the review for the first year, additional records were selected from the original four MLTSS MCOs so that there was a minimum of one-hundred records reviewed in total for the January 2016 review. This sampling included MLTSS members enrolled in MLTSS between the period of January 1, 2015 through June 30, 2015 and were still enrolled in the MCO at the time of the record selection. Based on the findings of the initial six-month review, the MCOs were required to submit a work plan to the State addressing the EQRO's recommendations as well as any Performance Measure that scored less than eighty-five percent (85%). The State in conjunction with the EQRO reviewed and requested modifications and updates on the work plans. The work plan will be validated during the next annual MLTSS care management audit scheduled for August/September 2016.

E. Calculation of Performance Measures

The EQRO uses the data from the annual assessment, focus studies, and MLTSS care management (CM) audit to calculate certain MLTSS Performance Measures. The results of the MLTSS Performance Measures calculated by the EQRO are included in the State's respective quarterly/annual report to CMS for the respective deliverable period. The following, is a listing of PM the EQRO is responsible for calculating along with the respective data source:

- (8) Plans of Care (POC) established within 30-days of enrollment into MLTSS/HCBS (CM Audit)

- (9) POC reassessments for MLTSS/HCBS members conducted within 30-days of annual level of care redetermination (CM audit, deferred for 1st year)
- (9a) POC amended based on change of member condition (CM audit, deferred for 1st year)
- (10) Plans of Care are aligned with members needs based on the results of the NJ Choice Assessment (CM Audit)
- (11) POC developed using "person-centered principles" (CM Audit)
- (12) MLTSS/HCBS POC that contain a back-up plan (CM audit)
- (13) MLTSS/HCBS services are delivered in accordance with the POC, including the type, scope, amount, frequency, and duration. (Focus Study – lag report based on claims/authorizations)
- (15, 15a) MCO MLTSS providers are credentialed/re-credentialed in a timely manner (incorporated in the Annual Assessment report)
- (16) MCO member training on identifying/reporting critical incidents (CM Audit, deferred for 1st year)

MLTSS MCO Quality Workgroup

In November 2014, the DMAHS' Office of MLTSS Quality Monitoring formed a workgroup, "MLTSS MCO Quality Workgroup", with representation from each of the MCOs, DoAS, and DMAHS. This workgroup meets on a monthly basis and primarily focuses on the MLTSS PM and other MLTSS contract required reports. The workgroup's initial focus was to review each of the PM, define the numerator and denominator, identify acceptable data sources, measurement period, and due dates. These meetings facilitate the discussion of reporting elements that may present challenges to the MCOs in reporting and developing a consensus on how to address so that the data received from each MCO can be aggregated and representative of the overall MLTSS program. Each month, the Office of MLTSS/QM reviews the information received from the MCO to date, identifies any issues raised by the MCOs, and facilitates resolution. It is understood that the data received for the first year of MLTSS is an opportunity for the MCOs to begin evaluating their data analytics, make necessary changes, and to serve as a baseline moving forward. In addition to the PM deliverables, this workgroup discusses other MCO contract required, MLTSS reporting requirements. Reporting templates are developed and agreed upon along with the reporting timeline. Any areas of concern are discussed at a following meeting along with recommendations and resolution. The PM data self-reported by the MCOs is shared during these meetings with the MCOs to illustrate the outcome and for the participants to examine the results. This affords the work group the opportunity to view how their respective MCO is reportedly performing in comparison to another MCO. In addition to sharing the PM data with the MCOs, it is also presented to the Medical Assistance Advisory Council (MAAC) and the MLTSS Steering Committee during their quarterly meetings.

MAAC meeting minutes/presentations can be found at: http://www.nj.gov/humanservices/dmahs/boards/maac/.

InterDivisional MLTSS Quality Committee

The InterDivisional MLTSS Quality Committee is an operational committee comprised of leadership representation from the DMAHS and DoAS that meets on a monthly basis. The committee is focused on aligning Divisional quality activities and business processes with MLTSS quality management goals; overseeing and providing strategic direction for MLTSS quality oversight; and providing decisions to or recommendations for resolution of issues or determination the need to escalate to agency and/or department administration. The goals of the committee are to continue development of a monitoring program to review, aggregate and integrate various data elements to assess MCO and MLTSS program performance; identify and facilitate timely resolution and remove barriers to issues that may impede the effective implementation of the MLTSS Quality Strategy, and to promote quality principles throughout the MLTSS Quality Enterprise.

A work group within this committee is currently examining the existing PMs identified for MLTSS and researching outcome measures for consideration in the waiver renewal that cross the span of the State's long-term services and supports programs (PACE, MLTSS/HCBS, MLTSS/NF, and FIDE SNP that are more quality driven versus process or compliance driven. Once quality measures are identified for consideration, the State will consult with its EQRO in the development of the measurements with intended implementation in July 2017.

Medicaid IAP Incentivizing Quality and Outcomes (IQO) Technical Assistance

New Jersey applied and was accepted into the Medicaid IAP Incentivizing Quality and Outcomes (IQO) Technical Assistance opportunity for MLTSS community, Implementing IQO Strategies beginning in September 2016. As the State is planning to transition our performance measures from a focus on compliance with organizational process to focus more on responsiveness to personal outcomes and quality, we applied for this opportunity to explore tying our measures to a purchasing strategy and further innovation. We are seeking program support in the following areas: identification of quality measurement strategy, effective stakeholder engagement during incentive design, operational aspects of implementing incentives, data sets and analytics to support community-based long-term services and supports, and purchasing strategy design.

National Core Indicators – Aging and Disabilities

The NCI-AD is an initiative designed to support states' interest in assessing the performance of their programs and delivery systems and improving services for older adults, individuals with physical disabilities, and caregivers. NCI-AD is a collaborative effort between the National Association of States United for Aging and Disabilities (NASUAD), Human Services Research Institute (HSRI), and the National Association of State Directors of Developmental Disabilities Services (NASDDDS). The NCI-AD's primary aim is to collect and maintain valid and reliable data that give states a broad view of how publicly-funded services impact the quality of life and outcomes of service recipients. New Jersey is participating in this initiative to examine their funded long-term services and supports (LTSS) programs regardless of funding source (NJ FamilyCare/Medicaid; PACE; or Older Americans Act). The NCI-AD is an in-person survey that focuses on the performance of NJ's LTSS systems instead of specific services and provides an opportunity for cross agency comparison. New Jersey is anticipating the use of the NCI-AD project as one of the tools used to assess the performance of NJ's funded LTSS programs and how they impact the quality of life and outcomes of service recipients; as well as a tool to ensure choice, person-centered planning and other components of the HCBS settings rule. New Jersey is one of six States participating in the expedited survey schedule and thirteen overall States participating in year one of the survey. New Jersey conducted their survey between July 2015 and October 2015 of individuals participating in the LTSS programs from July 2014 through December 2014 and still in the program at time of sample selection in May 2015. The results of the first year results will be available in NASUAD's mid-year report released in May 2016.

MLTSS Performance Measure Data Report

The Office of MLTSS/QM reviews the data, analysis, and action taken for the MLTSS Performance Measures that were developed in response to the Special Terms and Conditions of the 1115 Comprehensive Medicaid Waiver, reported by the respective specified data source (DoAS, MCOs, EQRO, and DDS). The results are reported to CMS in New Jersey's 1115 Comprehensive Medicaid Waiver's Quarterly and Annual Report. As the MCOs and DoAS further refine their system requirements for PM reporting, they submit corrected reports to the Office of MLTSS/QM. Corrections submitted by the MCOs as a part of the refinement of their reporting systems are included at the end of this attachment.

Care Management Monitoring

The transitioning of care management responsibilities from one-hundred community-based agencies to four MCOs began February 1, 2014, and concluded July 1, 2014 when MLTSS was implemented. In collaboration with DMAHS, DoAS launched a comprehensive strategy that ensured:

1. A smooth transition of individuals served through DoAS and the Division of Disability Services' (DDS) four 1915(c) Home and Community-Based Waiver programs to MLTSS under the 1115 Demonstration Waiver.
2. The infrastructure for the fee-for-service system was maintained during the transition phase, while simultaneously building capacity within the managed care service delivery system; and
3. The 1915(c) care management system was strengthened to meet the new MLTSS care management requirements, thus enabling the MCOs to build upon and advance their care management services for the MLTSS program.

This approach enabled the MCOs to build their care management capacity, administrative infrastructure and streamline the transition process to MLTSS over a five month period. It also:

1. Provided a systematic approach to transitioning from a fee-for-service to MLTSS model;
2. Ensured the health and safety and continuity of care for the 1915 c waiver participants;
3. Ensured that the MCOs maintained the same care management responsibilities, credentialing, and oversight as the former HCBS waiver care management agencies had;
4. Enabled MCOs to develop their service delivery system and complete comprehensive training, while gaining experience before assuming the transfer of 11,000 waiver participants; and
5. Ensured quality management through an interdivisional collaboration that served as the foundation for the new MLTSS Quality Management Unit.

The State enrolled the MCOs as 1915(c) waiver care management agencies to assume responsibility for individuals served through the Global Options for Long Term Care, (GO), Traumatic Brain Injury (TBI), Aids Community Care Alternative Program (ACCAP), and Community Resources for Persons with Disabilities (CRPD) waivers. This allowed the MCOs to build their care management capacity. Additionally, the State established specific assurances and a checklist that MCOs had to satisfy before they were approved for FFS waiver care management.

The DoAS Office of Community Choice Options (OCCO) conducted in-service training sessions for State clinical assessors and the 21 Area Agencies on Aging (AAA)/Aging and Disability Resource Connection (ADRC) Information and Referral Specialists and Outreach Workers on how to counsel consumers on selecting a MCO that met their healthcare needs. Once trained the State and ADRC specialists provided one-on-one counseling to consumers, which helped to further mitigate any potential conflict in selecting a MCO for HCBS waiver services and MLTSS.

<u>MLTSS Mandatory Training Sessions for MCOs</u>

Attachment B
Quality and Monitoring Activities

MCO training for Long-Term Services and Supports included:

- Care management standards, clinical and financial eligibility process, service coordination, service limitation and special considerations in service planning, Plan of Care, approved provider types, individual service agreements, service verification, special requests, documentation and monitoring recordkeeping, re-evaluation of level of care, and the intricacies of assisted living settings and services in those setting.
- Special needs and service planning for children and adults with medically complex disabilities;
- Traumatic Brain Injury (TBI) overview, care management, and plan of care development; and;
- AIDS waiver and community services.
- Adult Protective Services and the Office of Public Guardian
- Aging and Disability delivery service systems available through the county area agencies on aging, county offices of disability services, county welfare agencies and community based organizations.

All of the essential trainings were recorded and posted to the Department's website.

Effective January 2014, MCOs were required to utilize the NJ Choice to determine Medical Day Care (MDC) eligibility. The eligibility is determined at the MCO level and not reviewed/determined by the State. In preparation for this change, the Department conducted training on the NJ Choice and Medical Day Care Eligibility. Following the training, a pilot program was initiated.

The purpose of the pilot was to oversee the implementation of the NJ Choice, identify areas of weakness, provide feedback on areas of strength and weakness, and to monitor action plans. This pilot also served to aid the MCOs in gaining experience and proficiency in the assessment tool and process that would be used for MLTSS eligibility. The trainings and pilot began in September 2013.

Benchmarks were established for proficiency standards. The pilot allowed a significant number of master trainers and assessors to be fully trained and proficient in the assessment processes. The pilot ended in March 2014 with all MCOs being recognized as proficient in assessment processes.

The attached training outline documents the trainings held for the MCOs in preparation for MLTSS implementation. The trainings were held in various formats including in-person or via webinar. Many of the essential trainings were recorded and posted to the Department's website.

The MCOs were required to ensure that all staff completed the trainings by December 2014. Several essential training sessions were mandatory before assuming MLTSS job responsibilities including NJ Choice and Options Counseling.

Effective April 28, 2014, the transfer of care management responsibilities to the MCOs began for select members, partly in response to the instability of the former care management agencies that were losing CM to the MCOs. Technical assistance was offered to the MCO Care Managers by the State. Recognizing that the transfer of client records/files would be critical to ensure a smooth transition process, DoAS created a Participant Record Transfer Protocol that established how the cases were transferred in an organized and efficient manner.

A Care Management Hotline for was established specifically for former care management agencies to use during the MLTSS implementation. This was in anticipation that the prior care management agency as the longstanding point of contact would continue to receive requests and calls from their former participants. Each call to the hotline was logged and forwarded to the appropriate unit. This logging allowed the Department to track the types of issues.

Post-implementation

Clinical Assessments

The MCO is required to submit all assessments completed with the NJ Choice to the Department. This includes assessments for MDC and MLTSS. The MDC assessments are collected for rate setting and quality assurance purposes. There is currently no quality assurance plan for the MDC assessments.

In the first several months of MLTSS implementation, the Department identified issues with the quality of the comprehensive assessments conducted by the MCOs for MLTSS. This was most apparent through the high rate of Not Authorized review outcomes. Not Authorized is identified as an assessment that is conducted by the MCO and reviewed by the Department. The Department review is unable to make a determination for level of care eligibility because the clinical criteria are not indicated. The Department is responsible for conducting a face to face reassessment for the Not Authorized outcomes. Due to the high percentage (ranged 18-33%) identified, the Department implemented an aggressive training strategy. The attached training outline documents the trainings held specifically for the MCOs specific to MLTSS processes and assessment.

Webinars

Nine webinars were provided between August 2014 and February 2015. Key webinars related to assessment included:

- Key Areas of NJ Choice – focus on the areas of the assessment tool that are specific to the clinical eligibility criteria as well as those areas that have a direct correlation
- Narratives – focus on the NJ Choice narrative which provides an overall summary of the assessment findings. Correlation between the narrative and the assessment coding is essential to a level of care determination
- Special Care Nursing Facility (SCNF) Level of Care (LOC) Need – individuals who require a higher level of care need and require medically complex services are identified in the assessment process. These individuals receive a higher cost threshold for community services
- Trends in Requests For Information; NF LOC overview – focus on reasons why a level of care determination cannot be made; the required information for assessment; the criteria for nursing facility level of care

Care Management Collaboration

Several Care Management meetings were convened to discuss care management and assessment issues and collaboration on solutions. The following solutions had a direct impact on improving assessment quality.

- Ability of MCO to obtain and utilize assessments conducted by the State that qualified individuals for MLTSS within four months of enrollment.
- Evaluation by MCOs of the outstanding Not Authorized outcomes and strategy to have those that appeared to have errors in the initial assessment were reassessed by the MCO.
- Individual meetings with each MCO to review assessments in which outstanding information was still pending; provide guidance obtaining and submitting the information

NJ Choice Annual Recertification

Individuals who conduct assessment utilizing the state's standardized assessment tool are required to undergo annual recertification and demonstrate competency. The annual recertification for the MCOs was held in February 2015 for Care Management Supervisors and Master Trainers. These individuals were responsible for implementing the training internally for their assessment staff between the period of February through August 2015. The annual recertification for State and ADRC assessors was held in April 2015. The State added a Role Play Module and a Mentoring Module to the training to enhance the skills of the assessors. The Role Play Module focuses on typical scenarios and challenges, skill building for interview skills, and identification of deficits that impact level of care need. The Mentoring Module gives the

assessor the opportunity to strengthen and enhance their skills in real life situations with support, guidance, and feedback.

Mentoring

The Mentoring Module as part of the annual recertification process is the responsibility of the entity that is conducting assessment. In order to prepare these entities for the mentoring module, the State implemented an extensive Mentoring Program for the 5 NJ FamilyCare MCOs and 3 ADRC counties. This mentoring program paired entity assessors, identified as Lead Mentors based on the strong assessment and interview skills, with State assessors, identified as Master Mentors based on strong assessment, interview, and mentoring skills. The Master Mentor was responsible for modeling assessment skills, observing the Lead Mentor skills, and providing feedback and guidance on areas of weakness.

Outcomes

The collaborative meetings, webinars, enhanced recertification process, and mentoring were all implemented to improve the quality of the screening and assessment of individuals for MLTSS. In the immediate months following the conclusion of the recertification and mentoring process, the MCO Not Authorized rate dropped from an overall average of 25 percent to 12 percent (range 8 to 12 percent) which was a significant improvement.

The Not Authorized rate for the month of November 2015 has an overall average of 6 percent (range 1 to11 percent) before factoring in the final State determination. The State has proposed a new quality measure for the Not Authorized rate for the July 2015 contract (pending CMS approval). The measure requires that the Not Authorized rate is to be at or below 7 percent. This rate is calculated after the State's final determination of nursing facility level of care. Three of the five MCOs are meeting this standard prior to the State's final determination which indicates that their final rate will be within the quality measure parameters. The remaining two MCOs pre-determination rate is 8 percent and 11 percent. The State expects both these MCOs will drop within the parameters this quarter.

Ongoing Quality Assurance Development

The Department has implemented a workgroup to focus on training needs and quality assurance measures related to training and assessment quality. The workgroup consists of representatives from the MCOs and the Divisions of Medical Assistance and Health Services and Aging Services. The goal of the workgroup is to identify training needs, processes, and quality assurance measures. The MCOs are required to submit monthly training calendars to the Department for the purpose of quality assurance purposes.

Attachment B
Quality and Monitoring Activities

The Department has begun to implement a formal clinical assessment audit tool to record and track audits of the clinical assessment. This auditing occurs on each case that is reviewed by the Department, but the tools will allow the Department to capture data, identify trends, and develop reports.

DoAS continues to monitor and report on two performance measures for MLTSS, 17 and 17A. 17 is the timeliness of Critical Incident (CI) written reports received within the required two business days. 17A is reporting on the timeliness of Critical Incident (CI) reporting (verbally within 1 business day) for media and unexpected death incidents.

MLTSS Quality Monitoring Activities Conducted within the Office of Business Intelligence

MLTSS Slides

The DMAHS Office of Business Intelligence prepares and presents a monthly slide deck showing enrollment in MLTSS and the services consumed by MLTSS members. There are three main sections in these slides:

- **Enrollment and Service Consumption –** These slides allow senior staff and other MLTSS decision makers and operational staff to track the intended rebalancing of the NJ FamilyCare long term care system away from institutional settings towards home and community based services, provides some migration statistics that allow decision makers to see if there are changes or tweaks that are needed in the MLTSS assessment and enrollment process, and allows for review of services being consumed by the overall MLTSS population. These slides are updated monthly and presented on the third Thursday of each month to the New Jersey MLTSS Operations Team.

- **Quality -** These slides allow senior staff and other MLTSS decision makers and operational staff to track how each managed care plan is performing on some of the 40+ quality measures included in the MLTSS Quality Strategy. These slides are updated as additional data is received; some measures are monthly, some quarterly, some are reported twice and year, and others are annual.

- **Fiscal –** These slides show the financial health and projected cost of the MLTSS initiatives. These slides are updated on an ad-hoc basis as needed or requested.

Encounter Data Monitoring

New Jersey managed care plans must submit all services provided to MLTSS recipients to the State in HIPAA-compliant formats. These service encounters are edited by New Jersey's fiscal agent, Molina Medicaid Solutions before being considered final. MLTSS service encounters are subject to some, but not all, of New Jersey's encounter data monitoring requirements. New Jersey implements liquidated damages on its health plans for excessive duplicate encounters and excessive denials by Molina; the total dollar value of encounters accepted by Molina must also equal 98 percent of the medical cost submitted by the plans in their financial statements. Certain acute care encounters (including those for MLTSS enrolled individuals) are subject to monthly minimum utilization benchmarks that must be met. If these benchmarks are not met nine months after the conclusion of a given service month, up to 2 percent of capitation payments to the plans begin to be withheld; if plans meet these thresholds over the subsequent nine months, these withheld capitation payments are returned to the plans. However, if plans do not meet these benchmarks at this point, the withheld capitations are converted to liquidated damages. MLTSS waiver services are not currently subject to these benchmarks while the State compiles a history of these services that can be used to establish a benchmark for these services.

Quality Monitoring Components of the NJ Dual-Eligible Special Needs Plan Program

The New Jersey Dual Eligible Special Needs Plan (DSNP) program began January 1, 2012. Only participating NJ FamilyCare Medicaid Managed Care Organizations (NJFC MCOs) are eligible to contract with the state for the DSNP/FIDE product. Each participating NJFC MCO signs a MIPPA (Medicare Improvements for Patients and Providers Act of 2008) wraparound contract in addition to amendments to the NJFC MCO Contract.

Beneficiary enrollment in the DSNP/FIDE product is *voluntary*, but upon electing to enroll in a DSNP, simultaneous enrollment in the Medicare Advantage DSNP company's NJ FamilyCare product is *mandatory*. This allows the state to monitor performance holistically across each DSNP enrollee's experience with Medicare and Medicaid. By DMAHS' design, contract performance review is an integrated evaluation of how well the contractors perform every aspect of the Medicaid wraparound function from enrollment to initial benefit determination, to honoring enrollee rights and proper marketing material review and beyond.

NJ maintains a unique contract for its DSNP program and a distinct quality monitoring cycle for its DSNP program separate and apart from quality monitoring for the NJFC program. It combines formal annual assessment by the EQRO of contract compliance and performance, contractual reporting to the DMAHS, HEDIS, CAHPS, ad hoc reporting and notices of deficiency when corrective action is required.

Attachment B
Quality and Monitoring Activities

Participation by Medicaid managed care contractors in the NJ DSNP program is voluntary. During the first four years of operation, three DSNPs exited the market and two entered. The result is an inconsistent set of contractors represented in annual quality reporting. Owing to the rapid rate of change and growth within the scope of the DSNP program during the "startup" years (2012 - 2015), a full annual assessment was performed for each participating plan for each year.

Recently, New Jersey added significant expansions to the DSNP benefit package--Managed Long-Term Services and Supports in 2016, following the addition of nursing facility services in 2015. With each major evolution of the DSNP program, the EQRO's annual audit tool receives corresponding updates to the scope and depth of operational evaluation. All participating DSNP plans will receive a full review of 2015 and 2016 operations to examine performance with MLTSS services in contract.

A summary of specific DSNP quality monitoring and reporting follows:

External Quality Review Organization (EQRO)

NJ evaluates the mandatory EQRO activities for the DSNP MIPPA Contract, including validation of performance measures, QIPs, and annual assessments. Operational domains evaluated during the annual assessment include:

- Access
- Quality Assessment and Performance Improvement (QAPI)
- Programs for the Elderly and Disabled
- Enrollee Rights and Responsibilities
- Care Management and Continuity of Care
- Credentialing and Recredentialing
- Utilization Management
- Administration and Operations
- Management Information Systems

On-site file review includes:

- Provider Grievances
- Member Grievances
- Member Appeals
- Utilization Management
- Care Management
- Credentialing

- Recredentialing

Where the EQRO finds that contract quality and compliance achieved a "not met" score, the Contractor must supply a corrective action plan for monitoring by the EQRO.

Quality Improvement Projects (QIPs)

Additionally, NJ DSNP Contractors participate in individual QIPs. These QIPs are distinct projects from those submitted for NJFC or for Medicare Advantage purposes. The DSNP QIP domain is chosen by the DMAHS in consultation with the EQRO; each contractor then determines the project topic within the domain established by the DMAHS. For the 2012-2015 QIP cycle, the DSNP topic was Medication Therapy Management. The topic for 2016-2019 is Preventing Avoidable Complications. The first such report was issued in 2013, but initial QIP project proposals were submitted in September 2012.

Quality Technical Reports (QTRs)

The EQRO produces an annual quality technical report for the DSNP covering all mandatory EQRO activities for the DSNP MIPPA Contract (Annual Assessment, Performance Measure Validation, and QIPs).

Consumer and Health Care Provider Satisfaction Surveys (CAHPS)

CAHPS reporting provides essential insight into member experience during the early years of the DSNP product. There are CAHPS reports for each year of operation from 2013 onward, but a varying mix of contractors were evaluated based on participating MCOs at the time of the annual survey.

Contractual Quality Monitoring and Reporting

Contractor representatives attend two monthly meetings--DSNP IT Issues and DSNP Policy, Operations and Contract Issues. During these meetings quality and performance feedback is provided by the state and, where improvement is needed across contractors, solutions are discussed and monitored. The DMAHS Dual Integration Unit, which oversees the operation of the DSNPs (now FIDE SNPs), issues when necessary, ad hoc requests for information on structure and process and quality outcomes. The unit maintains a compliance reporting inbox for state monitoring.

In the 2015 MIPPA contract year, which runs January 1 thru December 31, the DMAHS added to the DSNP MIPPA contract the Integrated Denial Notice report, which follows the natural

history of each case of denied benefit through final resolution with Medicare and/or Medicaid appeal, grievance and fair hearing options.

Additionally, there are ongoing efforts by the DMAHS to continually refine monitoring, reporting and alignment of contractual reporting with the DMAHS' DSNP/FIDE SNP operational oversight needs.

Monitoring Quality for the Targeted Home and Community-Based Services Programs

State Medicaid Agency Oversight

Division of Medical Assistance and Health Services' (DMAHS) Quality Management Unit has been assigned to oversee and monitor the Quality Management Strategies of Division of Developmental Disabilities (DDD) and Department of Children and Families' (DCF) Children System of Care (CSOC) in the implementation of their Home and Community Based Services (HCBS) programs. DDD is responsible for the daily program operations of Supports Program and Intellectual Developmental Disability Program for Out of State (IDD/OOS). CSOC is responsible for the daily administration of Autism Spectrum Disorder Program (ASD), Serious Emotional Disturbance Program (SED), and Intellectual Disabilities Developmental Disabilities with Co-occurring Mental Health Diagnosis Program (ID/DD-MI).

The Quality Management Unit has a system in place that measures performance, identifies opportunities of improvement and monitors quality outcomes. QMU's Quality Monitoring Oversight of the programs consists of three components:

- Oversight Management
- Quality Assurance and Quality Improvement Monitoring, and
- Coordination of Interdepartmental Resources

Oversight Management

The QMU staff is responsible for implementing the DMAHS HCBS Program Oversight and Monitoring Work Plan to ensure that the functions related to the operations and performance of Supports Program, IDD-OOS, ASD, SED, and IDD/MI programs are performed according to CMS requirements and the activities of the program itself. QMU administrative staff works with DDD and CSOC to ensure that their quality assurance programs have been implemented and that the functions and activities stated in their Quality Management Strategy (QMS) for program participants are performed in accordance with CMS' requirements for quality assurance.

Attachment B
Quality and Monitoring Activities

DMAHS is the Administrative Authority over DDD's CCW under 1915(c) HCBS Waiver. DMAHS has established the QMU in its Office of Preventive Services in 2008 to perform the quality oversight of the CCW. The QMU maintains the same quality monitoring oversight for DDD's Support Program and IDD/OOS. Quality measures are discussed in the Quality Assurance Advisory Committee meetings to remedy identified problem areas in order to improve upon program operations. The QMU Clinical Lead Liaison participates in DDD's quality assurance meetings in order to review its data collection findings, discuss trends, and assist in developing remediation strategies. QMU's first meeting with DDD to discuss the Quality Plan for Supports Program and IDD/OOS occurred in May 2015. Succeeding communication between the two offices, QMU and DDD to target quality assurance of both programs went smoothly. Latest meeting was conducted on February 19, 2016 and covered an overview of the Supports Program. QMU is currently coordinating with DDD the iRecord Training to be attended by the entire QMU staff. The Comprehensive Audit of the Supports Program is scheduled in August 2016. The audit is a review of significant sample of participant records to ensure that DDD adheres to its Quality Management Strategy. QMU will utilize its Quality Oversight Monitoring Work Plan upon implementation of IDD/OOS Program.

DMAHS' QMU meetings with CSOC to discuss quality measures identified in the Quality Plan for each program started in March of 2015. The QMU staff works collaboratively with CSOC Administrative Staff for information sharing to achieve successful outcomes. An open dialogue is maintained between QMU and CSOC to facilitate effective communication. The QMU staff has participated in the CSOC Strength and Needs Assessment Training conducted in July 2015, NJ CSOC Wraparound Training in December 2015, CSOC Cyber Training in March 2016, and several other meetings and trainings conducted with DMAHS' Office of Business Intelligence directed for the successful implementation of the CSOC programs. QMU is scheduled to do the Comprehensive Audit of CSOC's ASD, SED and IDD/MI programs in May 2016.

Quality Assurance and Quality Improvement Monitoring

The QMU staff conducts an annual retrospective review of participant records and use the data obtained to measure the performance of DDD and CSOC to ensure they comply with their Quality Management Strategy. The QMU audit process provides the framework for the collection and analysis of aggregate data to identify areas for quality improvement at the system level. Participants of each program are randomly selected for an audit sampling using a CMS referred "Sample Size Calculator". A statistically significant sample is generated that represent a 95 percent confidence level, 5 percent confidence interval, and 50 percent response distribution. The QMU staff reviews the records utilizing the QMU Measures to include desired outcomes, indicators, measurements, evaluation criteria, data sources, and supporting documents. The audit captures the following:

- Quality of life
- Level of care need determinations and re-evaluations
- Responsiveness of Plans of Care to participants needs
- Assurance that individuals receive services from qualified providers
- Health and welfare of participants
- Fiscal accountability is assured for the services rendered

The QMU audit assesses compliance to assurances by determining the compliance rate for each sub-assurance:

Numerator: Number of deficient participant records for each sub-assurance Denominator: Number of participant records reviewed for each sub-assurance

The Comprehensive Audit also assesses gaps in services, barriers to care, access to services, care coordination, tracking mechanisms, as well as networking capabilities. The State Operating Agency is responsible to begin the remediation process upon discovery of a provider not meeting with waiver standards for participation. The QMU informs DDD and CSOC Administrative Staff of the stratified findings at the completion of audit. A report of system-wide strengths, weaknesses and recommendations is created and sent to both operating agencies. DDD and CSOC are required to submit a Plan of Correction (POC) if documentation of assurance is lacking in more than 14% of the records reviewed. Identified areas of non-compliance that have the potential for adversely affecting the health and well-being of participant or functioning of staff is followed-up on an urgent basis by QMU Healthcare Administrator who confers with the DMAHS Medical director for follow-up measures.

The QMU is scheduled to perform the Comprehensive Audit on CSOC's ASD, SED and ID/DD-MI Programs in May of 2016. DMAHS' Office of Business Intelligence is currently working on the significant sample from the universe of each program. The Comprehensive Audit of Supports Program immediately follows the completion of QMU's audit on CSOC's programs and is to be conducted in August 2016.

Coordination of Interdepartmental Resources

Regulatory and State policy compliance issues identified in the QMU audit findings will be addressed with the Office of Legal and Regulatory Affairs (OLRA) and Eligibility Policy which are also DMAHS' CMS liaison and responsible for ensuring that DDD and CSOC operate their respective programs in accordance with federal regulations and the provisions of each program by reviewing, approving, and submitting to CMS all new, renewals and extensions of

applications and amendments. All required follow-up will be conducted by the QMU with collaboration of DDD and CSOC. In instances that may have the potential for adversely affecting health and well-being of participants, functioning of staff or potentially impacting upon fiscal responsibility, the QMU Clinical Lead Liaison notifies the QMU Healthcare Administrator who confers with the DMAHS Division Director for follow up measures. DDD or CSOC is copied on all required follow-up.

Other collaborative resources available to the QMU in the performance of its quality monitoring include the State fiscal agent, Office of Program Integrity and Accountability, Medicaid Fraud, Division of the State Comptroller and Office of Business Intelligence.

Department of Children and Families, Children's System of Care Quality Activities

New Jersey's Department of Children and Families (DCF), Children's System of Care (CSOC) provides a single point of access for support and services to youth and their families/caregivers that present with serious emotional and/or behavioral challenges, substance use challenges, and/or intellectual/developmental disabilities. CSOC's objectives are to deliver services that enable the youth to remain at home, in school and in the community.

The NJ Children's System of Care is founded on the following Core Values and Principles:

I. Core Values:

- Child/Youth Centered & Family Driven – Families are engaged as active participants at all levels of planning, organization, and service delivery
- Culturally and Linguistically Competent – learning and incorporating the youth and family's culture, values, preferences, and interests into the planning process, including the identified language of the family
- Community Based – identifying and utilizing supports that are least restrictive, accessible, and sustainable to maintain and strengthen the family's existing community relationships

II. Principles:

- Accessible
- Accountable
- Collaborative
- Comprehensive
- Cost Effective
- Family Involvement
- Flexible

- Home, School, and Community Based
- Individualized
- Needs Driven
- Normalized
- Outcome Based
- Promoting Independence
- Strengths Based
- Team Based
- Unconditional Care

Services authorized for CSOC involved youth are:

- Clinically appropriate
- Individualized
- Provided in the least restrictive environment
- Family-driven, with families engaged as active participants

CSOC works to assure that its system of care is culturally competent and responsive to differences in culture, race and ethnicity, and identity. CSOC and it system partners collaborate across child-serving systems (child welfare, juvenile justice).

CSOC's Continuous Quality Improvement Plan:

The CSOC has recently drafted a revised system-wide Continuous Quality Improvement (CQI) plan. The CQI outlines CSOC's system-wide vision of the quality improvement process. As part of the plan, the requirements of the 1115 Demonstration Waiver quality strategy reporting have been incorporated for quality oversight of the three DCF/CSOC components under the Waiver; the Intellectually/ Developmentally Disabled and Mental Illness (ID/DD-MI); Autism Spectrum Disorder (ASD); and Serious Emotionally Disturbed (SED).

The CQI plan is designed to assess CSOC's performance across services throughout the state of New Jersey. The plan outlines the formal process by which CSOC sets objective indicators for the monitoring and evaluation of the quality of services provided to the youth and families. It assists CSOC in the identification of areas of strength and needs as well as areas of improvement and promotes a performance driven system of care that strives on achieving goals and the satisfaction of the youth and family served.

Through the implementation of the CQI Plan, CSOC is able to:

- Collect and analyze data to make improvements as needed

- Identify inconsistencies in service delivery
- Identify needs for changes and enhancements in services
- Identify new service needed
- Ensure effectiveness

The CQI plan is essential to managing data and is an essential part of improving deliverables. This involves collecting, tracking, analyzing, interpreting and action on the data that is collected. The CQI Plan measures specific performance areas such as:

- Eligibility process
- Timeliness of service delivery
- Appropriate level of care determinations
- Utilization management of services
- Populations served
- Provider adequacy
- Youth and family satisfaction
- Clinical and functional outcomes of system care providers
- Assessments of needs of youth referred to CSOC
- Customer service

Quality Improvement (QI) Team

CSOC's CQI plan includes the Quality Improvement Operations Team (QI), Quality Improvement Committee, CSOC's Contracted System Administrator (CSA), system partners and community stakeholders. The QI Operations Team is led by the Quality Coordinator. In collaboration with the CSOC staff and the CSA, the coordinator ensures consistency and compliance throughout the System of Care and is tasked to routinely analyze data and operations throughout the system to ensure the utmost compliance to the goals of CSOC and recommend changes at both program level and system level.

Quality Improvement Committee and Subcommittees

The CQI Plan, in part, is carried out through the Quality Improvement Committee and the Utilization Management Subcommittee.

The QI Committee utilizes a continuous quality improvement philosophy by monitoring and evaluating:

- The appropriateness of care
- Identifying opportunities for improving quality and access

- Establishing initiatives to accomplish agreed upon improvements
- Monitoring resolution of barriers

The QI Committee is responsible for assuring that the needs of CSOC population are addressed. This is accomplished through the development of treatment and performance goals, and monitoring of all entities involved in a youth's care to assess achievement with these established goals. A primary goal of QI Committee is to continuously improve care and services to children and families through monitoring, evaluation data collections, measurement and analysis.
Responsibilities of the QI Committee include:

- Directing and coordinating work for the Quality Improvement sub-committees
- Review reports and data collected at the requested of CSOC
- Recommend changes to policies and procedures
- Review and approve studies and recommendations of the sub-committees
- Assure that corrective action plans are implemented and that performance improves
- Assess the performance relative to goals and objectives of the annual plan as well as performance indicators
- Evaluate appropriateness and outcomes of care
- Review annual evaluations
- Initiate studies, recommend policy changes or take additional steps in response to issues or concerns raised

The Utilization Management Subcommittee is charged with monitoring and evaluating treatment services and the application of clinical criteria for determination for level of care, delivery of services, family participation, and the transitioning of youth from various intensities of service. This subcommittee works to improve the quality of assessments, implementing standard practices, creating models and tools for furthering family education.

The Outcomes Management Subcommittee is responsible for creating a system-wide outcomes program that encompasses outcomes for the individual youth, program and statewide. This committee is charged with delineating actual outcomes, developing protocols for collecting data, oversees outcomes reporting, and to assess the value and benefit of services to youth and families.

Together, these committees' responsibilities include:

- Delineating performance measures, benchmarks, and targets
- Reviewing and analyzing data
- Identifying, implementing measuring and standardizing improvement initiatives
- Creating reports for selected indicators of performance

- Design, implement, measure and evaluate initiatives
- Conduct an annual evaluation of the committees activities and achievements
- Assess existing measures and determine where to refine, standardize and expand
- Determine methodology for administration of instruments as needed

Waiver Specific Reports

In addition to record review, CSOC and its CSA have defined the parameters to collect data in order to assess, monitor and report outcomes required for the 1115 Waiver Quality Strategy reporting.

The following reports are specific to the 1115 Demonstration Waiver/ Quality Strategy Reporting:

- **NJ1218 – Initial Level of Care Assessment**
  - Quarterly report that identifies if the youth has met the initial level of care (Level of Care Assurance)
- **NJ1219 - Plan of Care Follow-Up & Strengths and Needs Assessment (SNA) Attachment**
  - Quarterly report that identifies if the youth had required plan of care updated at least annually (Plan of Care Assurance)
- **NJ1220 – Authorization Activity**
  - Quarterly report that identifies if services are authorized in accordance with the approved plan of care (Plan of Care Assurance)
- **NJ1225 – Child and Adolescent Needs and Strengths (CANS) Assessment Follow-Up Activity**
  - Quarterly report that identifies if the youth received the required CANS (Quality of Life Assurance)

Qualified Providers and Monitoring

CSOC's has developed a network of providers that have been qualified to deliver services as defined by CSOC and the waiver. Each of these providers are required to meet qualifications specified by DCF, and may have either responded to a Request for Proposal or Qualification (RFP/Q). Additionally, any provider that is contracted with CSOC agrees to uphold identified deliverables, including staff trained in the standards set by DCF and CSOC. If the provider is not keeping up to the standards, the QI team can provide training and assistance to the provider to make improvements, or direct the provider to resources. Programs and service providers are monitored by CSOC to assure that each provider is holding to the standards set forth.

If CSOC requires providers to make adjustments within a program, a corrective action plan may be created. Areas that may be addressed include but are not limited to:

- Regulation requirement
- Program deliverables
- Treatment of youth
- Ineffective treatment

The QI team monitors the corrective action plan to ensure provider compliance. In cases of continuous non-compliance, CSOC may terminate relationship with the provider. If this action occurs, CSOC will ensure that a transition plan is implemented for continuation of care.

Unusual Incident Reporting

New Jersey Administrative Order 2:05 (AO 2:05) first established policy for the reporting of unusual incidents affecting the health, safety and welfare of DCF's service recipients. Standard expectations and procedures for the reporting of unusual incidents were further defined by the Administrative Order 2:05 Addendum, in order to promote and improve confidence, reliability, and program integrity throughout the Department's various service entities and programs.

These policies are designed to:

- Standardize the identification of reportable incidents
- Ensure the immediate and appropriate response to reported incidents
- Provide accurate and timely alert to Executive Management Staff
- Ensure timely and appropriate investigative activities
- Facilitate the analysis of trends and the identification of factors associated with the occurrence of unusual incidents
- Enable the integration of intradepartmental service delivery
- Promote the collaboration of effective and efficient management of services

DCF manages incident reports through the Unusual Incident Reporting & Management System (UIRMS), an electronic way of collecting, reporting and analyzing information about incidents that occur in programs. Within UIRMS, incidents are categorized in order to determine the severity of a situation, which parties the incident should be communicated to, and the timeframe in which DCF should be notified of the incident. If the UIR is in reference to a youth receiving services through CSOC, the department notifies the CSOC UIR Coordinator. The UIR Coordinator reviews the report and distributes it to the QI Director and the identified CSOC staff for monitoring as needed.

Division of Developmental Disabilities Quality Activities

The first person was enrolled in the Supports Program in July 2015. As of April 2016 there are 194 individuals receiving services through the Supports Program. This is the first program operated by DDD where every participant directs their services through an individualized budget and agencies delivering waiver services were required to become Medicaid providers who bill Molina directly. Historically, agencies received funding via contracts with DDD. Enrollment in the Supports Program was designed to be staggered to ensure that any issues could be addressed in a timely manner. Quality activities that occurred prior to standing up the Supports program include training for Support Coordination agencies, forums and leadership meetings for provider agencies on how to become a Medicaid provider, and Supports Program informational webinars for individuals, families, providers and advocates on the Supports Program. Transparency and education were of the utmost importance. Ongoing quality activities include mandated Support Coordinator deliverables regarding the completion of the Service Plan and the monthly Monitoring Tools. Both are tracked and monitored by Division staff.

Upcoming quality activities include an audit by the Quality Management Unit (QMU), under the Department of Human Services Division of Medical Assistance and Health Services Office of Preventative Health Services, to ensure compliance with the outcomes and performance measures as indicated in the Comprehensive Medicaid Waiver's Supports Program's Quality Plan. The first audit is scheduled to occur late summer through early fall of 2016. The audit period is Calendar Year (CY) 2015. Because DDD operates both the Supports Program (1115 Demonstration) and the Community Care Waiver (1915 (c) HCBS Waiver) and the quality plans are very similar the QMU will conduct one annual audit that includes a representative sample of persons in both Waivers. In March of 2016, DDD provided training to QMU on how the Supports Program's ensures compliance in the following performance measure areas: service plans, level of care, qualified providers, health and welfare, and financial accountability. QMU provides DDD with a report of their audit findings. All findings with a compliance rate below 86% require a corrective action plan. DDD also intends to implement additional oversight activities by Waiver Monitors in the Fall of 2016. Currently DDD is working on enhancing the monitoring tools so that data can be aggregated and analyzed. Data related to the performance measures will be reviewed by a Waiver Compliance Committee (WCC) quarterly with a formal meeting occurring at least annually. Measures for collecting data and determining compliance are also included or being built into the electronic health record (known as iRecord) utilized by Support Coordinators and DDD.

Quality Monitoring Reports

EQRO Reports: October 2012 – December 2012

Assessment of MCO Operations

- Partial Assessment*:* MCOs achieving a compliance rate at or above 85% in the previous year received a partial review of the 171 elements that scored as "Not Met" or "Not Applicable".
- Amerigroup, Healthfirst, Horizon and United all received a partial assessment.

Performance Measure Validation

- Submitted in June 2012.

Quality Improvement Projects

- Submitted in June and September 2012.

Focused Studies

- In Progress: EPSDT Services for New Jersey Medicaid Managed Care Enrollees
- In Progress: EPSDT and Care Management Services for CSHCN Enrolled in New Jersey Medicaid Managed Care

Care/Case Management Audits

- Onsite reviews done in June and July 2012.

EQRO Technical Reports

- The Quality Technical Report (QTR) for the activities performed by IPRO in contract year 1 included:
  - Summary of Key Findings for CMS Mandatory and Voluntary Activities
  - State Initiatives
  - MCO Strategies to Reduce Disparities in Healthcare Outcomes
  - Follow-up to QTR Recommendations from the Previous Year
  - Conclusions and Recommendations

EQRO Reports: January 2013 – December 2013

Assessment of MCO Operations

- Amerigroup, Healthfirst, Horizon and United all received a full assessment.
- A total of 172 elements were subject to review.
- The Care Management section had significant changes with 3 elements now scored based on the Care Management Audit findings.

Attachment B
Quality and Monitoring Activities

Performance Measure Validation • Amerigroup, Healthfirst, Horizon and United, as required by the NJ FamilyCare Managed Care Contract, submitted 22 HEDIS measures and three (3) NJ Specific Performance Measures. • The 3 NJ Specific Performance Measures included the AAP and CAP HEDIS measures stratified by dual, disabled and other low income; and a Preventive Dental measure.
Quality Improvement Projects • Amerigroup, Healthfirst, Horizon and United submitted progress reports in June and September 2013, for their sustainability year, for the following QIP topics: o Dental Care o Lead Screening o Well Child Care o Prenatal Care and Birth Outcomes • Amerigroup, Healthfirst, Horizon and United, with the guidance of the EQRO, initiated a collaborative QIP on the topic of Identification and Management of Adolescent Overweight and Obesity. Each plan was required to submit a proposal by the end of the year (2013).
Focused Studies • Completed: EPSDT Services for New Jersey Medicaid Managed Care Enrollees • Completed: EPSDT and Care Management Services for CSHCN Enrolled in New Jersey Medicaid Managed Care
Care/Case Management Audits • Amerigroup, Healthfirst, Horizon and United had Care Management audits in June and July. • The audits focused on the following populations: o Enrollees in the Division of Developmental Disabilities (DDD) o Enrollees in the Division of Child Protection and Permanency (DCP&P) o Enrollees in the general population • The following five metrics were evaluated: o Identification o Outreach o Preventive Services o Continuity of Care o Coordination of Services
EQRO Technical Reports • The Quality Technical Report (QTR) for the activities performed by IPRO in

contract year 2 included:
- Summary of Key Findings for CMS Mandatory and Voluntary Activities
- State Initiatives
- MCO Strategies to Reduce Disparities in Healthcare Outcomes
- Follow-up to QTR Recommendations from the Previous Year
- Conclusions and Recommendations

EQRO Reports: January 2014 – December 2014

Assessment of MCO Operations

- Partial Assessment*:* MCOs achieving a compliance rate at or above 85% in the previous year received a partial review of the 175 elements that scored as "Not Met" or "Not Applicable".
- Amerigroup, Horizon, United all received a partial assessment
- Wellcare newly entered the NJ FamilyCare Managed Care Contract and received a full assessment.
- Three (3) new elements were added to the annual assessment to be evaluated and scored to assess healthcare disparities.
- The Quality Management (QM11) element is now scored based on the QIP reviews performed by the EQRO.

Performance Measure Validation

- Amerigroup, Healthfirst, Horizon, United, as required by the NJ FamilyCare Managed Care Contract, submitted 24 HEDIS measures and 3 NJ Specific Performance Measures.
- The 3 NJ Specific Performance Measures included the AAP and CAP HEDIS measures stratified by dual, disabled and other low income; and a Preventive Dental measure.

Quality Improvement Projects

- Amerigroup, Healthfirst, Horizon and United submitted their final reports (with the exception of United for their Prenatal and Birth Outcomes), for the following QIP topics:
  - Dental Care
  - Lead Screening
  - Well Child Care
  - Prenatal Care and Birth Outcomes
- Amerigroup, Horizon and United submitted their progress reports in June and September for the Identification and Management of Adolescent Overweight and Obesity QIP.

- Healthfirst submitted a progress report in June and a final report in September for the Identification and Management of Adolescent Overweight and Obesity QIP, as they exited the NJ FamilyCare Managed Care Contract in 2014.
- WellCare submitted their Identification and Management of Adolescent Overweight and Obesity QIP proposal.
- Amerigroup, Horizon, United and WellCare submitted their proposals for the topic of Preterm Births.

Focused Studies

- Transportation Study: Utilization Analysis of Individual Trips
- Transportation Study: Rider Analysis
- Transportation Study: Member and Facility Perspective

Care/Case Management Audits

- Amerigroup, Horizon and United had Care Management audits in July and August.
- The audits focused on the following populations:
  - Enrollees in the Division of Developmental Disabilities (DDD)
  - Enrollees in the Division of Child Protection and Permanency (DCP&P)
  - Enrollees in the general population
- The following five metrics were evaluated:
  - Identification
  - Outreach
  - Preventive Services
  - Continuity of Care
  - Coordination of Services

EQRO Technical Reports

- The Quality Technical Report (QTR) for the activities performed by IPRO in contract year 3 included:
  - Summary of Key Findings for CMS Mandatory and Voluntary Activities
  - State Initiatives
  - Follow-up to QTR Recommendations from the Previous Year
  - Conclusions and Recommendations

EQRO Reports: January 2015 – December 2015

Assessment of MCO Operations

- Aetna, Amerigroup, Horizon, United and Wellcare all received a full assessment
- A total of 197 elements were subject to review
- Effective July 2014, DMAHS implemented the Managed Long Term Services and

Supports Program (MLTSS). Additional elements were added to evaluate those services specific to MLTSS.

Performance Measure Validation

- Amerigroup, Horizon, United and Wellcare as required by the NJ FamilyCare Managed Care Contract, submitted 24 HEDIS measures and 3 NJ Specific Performance Measures
- The 3 NJ Specific Performance Measures included the AAP and CAP HEDIS measures stratified by dual, disabled and other low income; and a Preventive Dental measure.

Quality Improvement Projects

- United submitted their final report on the Prenatal and Birth Outcomes QIP.
- Amerigroup, Horizon United and Wellcare submitted progress reports in June and September on their Identification and Management of Adolescent Overweight and Obesity and their Preterm Births QIPs.

Focused Studies

- Prenatal and Postpartum Care

Care/Case Management Audits

- Amerigroup, Horizon, United and WellCare had Care Management audits in July.
- The audits focused on the following populations:
  - Enrollees in the Division of Developmental Disabilities (DDD)
  - Enrollees in the Division of Child Protection and Permanency (DCP&P)
  - Enrollees in the general population
- The following five metrics were evaluated:
  - Identification
  - Outreach
  - Preventive Services
  - Continuity of Care
  - Coordination of Services

EQRO Technical Reports

- The Quality Technical Report (QTR) for the activities performed by IPRO in contract year 4 included:
  - Summary of Key Findings for CMS Mandatory and Voluntary Activities
  - State Initiatives
  - Follow-up to QTR Recommendations from the Previous Year
  - Conclusions and Recommendations

Attachment B
Quality and Monitoring Activities

EQRO Reports: January 2016 – December 2016
Assessment of MCO Operations • Scheduled for fall of 2016
Performance Measure Validation • Scheduled for June 2016
Quality Improvement Projects • Progress Reports scheduled for June and September 2016.
Focused Studies • Scheduled for spring/summer 2016.
Care/Case Management Audits • Scheduled for spring 2016.
EQRO Technical Reports • To be completed within 30 days post the completion of the last activity performed by IPRO for the first extension year.
EQRO MLTSS Reports: January 2015 – December 2015
Assessment of MCO Operations conducted, final reports due in 2016 • Aetna, Amerigroup, Horizon, United and WellCare all received a full assessment • A total of 197 elements were subject to review • Effective July 2014, DMAHS implemented the Managed Long Term Services and Supports Program (MLTSS). Additional elements were added to the 2015 assessment to evaluate those services specific to MLTSS. • The Annual Assessment for 2015 is available upon request.
Performance Measure Validation • This activity was added as an amendment to the State's existing EQRO contract. The EQRO was provided with the current performance measure outlines used by the MCOs for self-reporting. In 2016, the EQRO will develop PM specifications based on the State's outline for the MCOs to adhere to an initiate their validation of MCO data.
Quality Improvement Projects • MCOs submitted their project proposal submission on 'Falls Prevention' in September 2015
MLTSS Care Management Focused Studies • EQRO conducted the MLTSS Care Management Audits for year one of MLTSS as focus studies.

EQRO MLTSS Reports: January 2016 – December 2016
Assessment of MCO Operations • Scheduled for fall of 2016
MLTSS Performance Measure Validation • Complete the PM specifications for current measures and work with State to develop new PM specifications for MLTSS beginning 7/1/17. • Initiate validation process for the current measures reported by MCOs.
Quality Improvement Projects • Project Baseline – scheduled for June 2016 • Progress Reports (Year 1) – scheduled for September 2016.
Focused Studies • Obtain data through focus studies and calculate performance measures: o PM #13 – spring 2016
Care/Case Management Audits • Scheduled for late summer 2016.
Performance Measure Calculation • To be completed within 30 days post the completion of the MLTSS Care Management Audit for PM #8, #9, #9a, #10, #11, #12, #16 – early fall 2016

MLTSS Performance Measure Data Report Update

As the MCOs and DoAS have refined their system requirements for PM reporting, they submit corrected reports to the Office of MLTSS/QM. Corrections received as of April 1, 2016 are contained in the following tables in red, bold font.

PM # 7	Members offered a choice between institutional and HCBS settings
Data Source:	DoAS

Measurement Period	**July 2014**	**August 2014**	**Sept 2014**	**Oct. 2014**	**Nov. 2014**	**Dec. 2014**	**Jan. 2015**	**Feb. 2015**	**March 2015**	**April 2015**
Numerator	1372	1916	1923	1518	2266	**975**	**771**	**661**	**738**	**705**
Denominator	1739	2578	2653	1964	2833	1188	973	819	1094	1053
%	79	74	72	77	80	**82**	**79**	**81**	**67**	**67**

Attachment B
Quality and Monitoring Activities

Measurement Period	May 2015	June 2015	July 2015	August 2015	Sept 2015	Oct 2015	Nov 2015
Numerator	937	962	2566	1276	1195	1193	1246
Denominator	1257	1756	2708	2316	2286	2311	2314
%	75	55	95	55	52	52	54

PM # 19	Timelines for investigation of complaints, appeals, grievances (complete within 30 days)
Data Source:	MCO Table 3A and 3B Reports; DMAHS

1/1/15 – 3/31/15	A	B	C	D	E	TOTAL	4/1/15 – 6/30/15	A	B	C	D	E	TOTAL
Numerator	0	1	46	68	5	120	Numerator	0	3	22	36	5	66
Denominator	0	1	46	68	5	120	Denominator	0	3	23	36	5	67
%	0	100	100	100	100	100	*%*	0	100	96	100	100	99

Complaints (Table 3B)

1/1/15 – 3/31/15	A	B	C	D	E	TOTAL	4/1/15 – 6/30/15	A	B	C	D	E	TOTAL
Numerator	0	0	43	10	4	57	Numerator	0	1	97	7	3	108
Denominator	0	0	43	10	4	57	Denominator	0	1	98	7	3	109
%	0	0	100	100	100	100	*%*	0	100	99	100	100	99

PM # 20	Total # of MLTSS members receiving MLTSS services
Data Source:	MCO

7/1/14-9/30/14	A	B	C	D	E	TOTAL	10/1/14 – 12/31/14	A	B	C	D	E	TOTAL
Numerator	0	1466	4946	2817	687	9916	Numerator	0	1575	5160	3066	721	10522
Denominator	0	1813	5364	3073	694	10944	Denominator	0	2227	8451	3314	731	14723
%	0	80.9	92.2	91.7	98.9	90.6	*%*	0	70.7	61	92.5	98.6	71.5

PM # 21	MLTSS members transitioned from NF to Community
Data Source:	MCO – living arrangement file and client tracking system

Attachment B
Quality and Monitoring Activities

7/1/14-9/30/14	A	B	C	D	E	TOTAL	10/1/14 – 12/31/14	A	B	C	D	E	TOTAL
Numerator	0	**6**	0	0	0	**6**	Numerator	0	**17**	**21**	9	0	**47**
Denominator	0	**76**	31	16	2	**125**	Denominator	0	**142**	293	201	11	**647**
%	0	**7.9**	0	0	0	**4.8**	*%*	0	**12**	**7.2**	4.5	0	**7.3**

1/1/15 – 3/31/15	A	B	C	D	E	TOTAL	4/1/15 – 6/30/15	A	B	C	D	E	TOTAL
Numerator	0	**7**	**37**	**55**	2	**101**	Numerator	0	**7**	**45**	**16**	11	**79**
Denominator	0	**222**	1017	**586**	76	**1901**	Denominator	51	**260**	1512	**938**	179	**2940**
%	0	**3.2**	**3.6**	**9.4**	2.6	**5.3**	*%*	0	**2.7**	**3.0**	**1.7**	6.14	**2.7**

7/1/14 – 6/30/15	A	B	C	D	E	TOTAL
Numerator	0	**36**	**103**	**83**	13	**235**
Denominator	81	**603**	523	**1162**	179	**2548**
%	0	**6.0**	**19.7**	**7.1**	7.3	**9.2**

PM # 22	New NF admissions for MLTSS members (excluding previous fee for service residents defined SPC 60 with living arrangement of Nursing Home)
Data Source:	MCO – living arrangement file, prior auth. and/or client tracking system.

7/1/14 -6/30/15	A	B	C	D	E	TOTAL
Numerator	**1**	506	1739	537	262	**3045**
Denominator	113	3165	10297	4329	1419	19323
%	**0.9**	16	17	12.4	18.4	15.8

PM # 23	MLTSS members transitioned from NF to the community at any point during the preceding quarter who returned to the NF within 90 days
Data Source:	MCO – Living arrangement file, CM tracking and prior auth. System (r/o respite/rehab). MCO to identify how the dates were calculated.

7/1/14-9/30/14	A	B	C	D	E	TOTAL	10/1/14 – 12/31/14	A	B	C	D	E	TOTAL
Numerator	0	0	0	0	0	0	Numerator	0	**2**	6	0	0	**8**
Denominator	0	0	0	0	0	0	Denominator	0	**33**	**21**	9	0	**63**
%	0	0	0	0	0	0	*%*	0	**6.1**	**29**	0	0	**12.7**

1/1/15 – 3/31/15	A	B	C	D	E	TOTAL	7/1/2014-6/30/2015 (Year)	A	B	C	D	E	TOTAL
Numerator	0	1	1	2	0	4	Numerator	0.0	3.0	9.0	3.0	0.0	15.0
Denominator	0	7	37	55	2	101	Denominator	0.0	36.0	103.0	83.0	15.0	237.0
%	0	14.3	2.7	3.6	0	4	**%**	0.0	8.33	9.0	3.6	0.0	6.3

PM # 26	# of hospitalizations per MLTSS HCBS members
Data Source:	MCO paid and denied (excluding duplicate claims) claims according to logic for the MCO encounter Categories of Services (separate file)

7/1/14-9/30/14	A	B	C	D	E	TOTAL	10/1/14 – 12/31/14	A	B	C	D	E	TOTAL
Numerator	10	379	341	155	110	985	Numerator	0	212	442	147	147	948
Denominator	0	5000	17078	9234	1893	33205	Denominator	0	5703	18535	9417	1974	35629
%	0	7.6	2	1.7	5.8	3	%	0	3.7	2.4	1.6	7.4	2.7

PM # 27	# of hospitalizations of NF members (not unique members)
Data Source:	MCO paid claims and denied claims (excluding duplicate claims) according to logic for the MCO encounter Categories of Services (separate file)

7/1/14-9/30/14	A	B	C	D	E	TOTAL	10/1/14 – 12/31/14	A	B	C	D	E	TOTAL
Numerator	0	4	0	0	1	5	Numerator	0	14	24	17	3	58
Denominator	0	18	12	19	2	51	Denominator	0	172	664	342	17	1195
%	0	22.2	0	0	50	9.8	%	0	8.1	3.6	5.0	17.6	4.9

PM # 28	# of readmissions of MLTSS HCBS members (not unique members) to the hospital within 30 days
Data Source:	MCO paid and denied claims (exclude denials for duplicate submissions) for numerator and 834 file for denominator.

7/1/14-9/30/14	A	B	C	D	E	TOTAL	10/1/14 – 12/31/14	A	B	C	D	E	TOTAL
Numerator	0	5	15	64	29	113	Numerator	0	9	31	93	26	159
Denominator	0	160	341	155	108	764	Denominator	0	212	442	147	147	948
%	0	3.1	4.4	41	26.8	14.8	%	0	4.3	7	63.2	17.7	16.8

PM # 29	# of readmissions of MLTSS NF members (not unique members) to the hospital within 30 days

Numerator:	# of readmissions of MLTSS NF members (not unique members) to the hospital within 30 days from date of discharge (service through date and new service start date) during the measurement period
Denominator:	# of hospitalizations (unique combination of member-provider-service date) of MLTSS NF members (not unique members) during the measurement period
Data Source:	MCO paid claims and denied claims (exclude denials for duplicate submissions) for numerator and 834 file for denominator.
Measurement Period:	Monthly data reported Quarterly/Annually Lag Report Due: 240 days after quarter and year.

7/1/14-9/30/14	**A**	**B**	**C**	**D**	**E**	**TOTAL**	**10/1/14 – 12/31/14**	**A**	**B**	**C**	**D**	**E**	**TOTAL**
Numerator	0	0	**0**	0	1	**1**	Numerator	0	2	5	7	0	14
Denominator	0	0	**0**	0	1	**1**	Denominator	0	14	25	17	**3**	**59**
%	0	0	**0**	0	100	**100**	%	0	14.3	20	41.2	0	**23.7**

PM # 30	# of ER utilization by MLTSS HCBS members (not unique members)
Data Source:	MCO paid claims and denied claims (exclude denials for duplicate submissions) for numerator and 834 file for denominator.

7/1/14-9/30/14	**A**	**B**	**C**	**D**	**E**	**TOTAL**	**10/1/14 – 12/31/14**	**A**	**B**	**C**	**D**	**E**	**TOTAL**
Numerator	0	302	655	388	116	1461	Numerator	0	**366**	751	306	162	**1585**
Denominator	0	5000	17078	9234	1893	33205	Denominator	0	**5703**	**18535**	9417	1974	**35629**
%	0	6	3.8	4.2	6.1	4.4	%	0	**6.4**	4.1	3.2	8.2	**4.4**

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Center for State Health Policy

A Unit of the Institute for Health, Health Care Policy and Aging Research

Examining the Effect of the NJ Comprehensive Waiver on Access to Care, Quality, and Cost of Care: Draft Interim Evaluation Report

Sujoy Chakravarty, Ph.D.
Kristen Lloyd, M.P.H.
Jennifer Farnham, M.S.
Susan Brownlee, Ph.D.
Katie Zhang, M.S.
Derek DeLia, Ph.D.

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Acknowledgments

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Examining the Effect of the NJ Comprehensive Waiver on Access to Care, Quality, and Cost of Care: Draft Interim Evaluation Report

Sujoy Chakravarty, Ph.D., Kristen Lloyd, M.P.H., Jennifer Farnham, M.S., Susan Brownlee, Ph.D., Katie Zhang, M.S., and Derek DeLia, Ph.D.

Executive Summary

The New Jersey Medicaid Comprehensive Waiver Demonstration was approved for the period October 1, 2012 through June 30, 2017. This §1115 waiver not only consolidated authority for several existing Medicaid waivers, but initiated a variety of health reforms in New Jersey's Medicaid program. The key changes authorized by the Waiver are an expansion in managed care to Long-term Services and Supports (LTSS) and behavioral health (BH) services, targeted home and community-based services (HCBS) for populations of children and in-home community supports for individuals with intellectual and developmental disabilities, administrative simplifications in the Medicaid eligibility process for low-income applicants seeking LTSS, and the establishment of a hospital-based Delivery System Reform Incentive Payment (DSRIP) Program.

The Rutgers Center for State Health Policy (CSHP) was engaged to evaluate New Jersey's Medicaid Comprehensive Waiver Demonstration. In this draft interim evaluation report, we primarily examine the expansions in managed care and targeted home and community-based services occurring under the Waiver.[1] These policy changes motivated the first two of the four evaluation hypotheses and their supporting research questions as outlined in the waiver Special Terms and Conditions document (CMS 2014) and enumerated below.

Hypothesis 1: **"Expanding Medicaid managed care to include long-term care services and supports will result in improved access to care and quality of care and reduced costs, and allow more individuals to live in their communities instead of institutions."**

[1] The administrative simplifications will be evaluated in forthcoming reports, though some basic statistics on Qualified Income Trusts and self-attestations are presented in Chapter 2. The Supports program, which is part of the targeted home and community-based services expansion for individuals with intellectual and developmental disabilities, will be evaluated qualitatively in our final report due in 2017. The DSRIP program is evaluated as a separate component and the midpoint evaluation was submitted to the New Jersey Division of Medical Assistance and Health Services (DMAHS) on September 2015 with the final evaluation due in March 2018.

Research Question 1a: **"What is the impact of the managed care expansion on access to care, the quality, efficiency, and coordination of care, and the cost of care for adults and children?"**
Research Question 1b: **"What is the impact of including long-term care services in the capitated managed care benefit on access to care, quality of care, and mix of care settings employed?"**

Hypothesis 2: **"Providing home and community-based services to Medicaid and CHIP beneficiaries and others with serious emotional disturbance, autism spectrum disorder, or intellectual disabilities/developmental disabilities will lead to better care outcomes."**

Research Question 2a: **"What is the impact of providing additional home and community-based services to Medicaid and CHIP beneficiaries with serious emotional disturbance, autism spectrum disorder, or intellectual disabilities/developmental disabilities?"**
Research Question 2b: **"What is the impact of the program to provide a safe, stable, and therapeutically supportive environment for children from age 5 up to age 21 with serious emotional disturbance who have, or who otherwise would be at risk for, institutionalization?"**

Hypothesis 3: **"Utilizing a projected spend-down provision and eliminating the look back period at time of application for transfer of assets for applicants or beneficiaries seeking long term services and supports whose income is at or below 100% of the FPL will simplify Medicaid eligibility and enrollment processes without compromising program integrity."**

Research Question 3a: **"What is the impact of the projected spend-down provision on the Medicaid eligibility and enrollment process? What economies or efficiencies were achieved, and if so, what were they? Was there a change in the number of individuals or on the mix of individuals qualifying for Medicaid due to this provision?"**
Research Question 3b: **"What is the impact of eliminating the transfer of assets look-back period for long term care and home and community based services for individuals who are at or below 100% of the FPL? Was there a change in the number of individuals or on the mix of individuals qualifying for Medicaid due to this provision?"**

Hypothesis 4: **"The Delivery System Reform Incentive Payment (DSRIP) Program will result in better care for individuals (including access to care, quality of care, health outcomes), better health for the population, and lower costs through improvement."**

This report is comprised of four distinct chapters each covering one analytic component of our evaluation. Organized by chapter, the following table presents a brief description of the contents of this report, the data sources used and time periods covered, the focus of the analyses (i.e.

populations and/or plans), and the corresponding hypothesis(es) and research question(s) addressed to the extent possible given the available data and timing of policy implementation.

Data Sources	Focus of Analysis	Hyp.	RQ
Chapter 1: Managed Care Quality Indicators			
HEDIS® and CAHPS®, 2011-2014	Managed care beneficiaries and MCOs	1	1a
Chapter 2. MLTSS-related Measures			
Reports from MCOs, EQROs, and State Government, 2014-2016	Medicaid beneficiaries in MLTSS and their MCOs	1, 3	1b, 3a, 3b
Chapter 3. Analysis of Medicaid Claims Data to Examine Access, Quality, and Cost of Care			
Medicaid claims and encounter data, 2011-2014	Medicaid beneficiaries and managed care beneficiaries, overall and by eligibility group, and those in long-term care (facility and community-based)	1	1a, 1b
Chapter 4. Analysis of Medicaid Claims Data to Examine Care Outcomes for Populations of Children and Youth			
Medicaid claims and encounter data, 2011-2014	Individuals with ASD, ID-DD/MI, and SED eligible for home and community-based waiver services, and all Medicaid youth	2	2a, 2b

Hyp.=Hypothesis; RQ=Research Question; MCO=Managed Care Organization; EQRO=External Quality Review Organization; ASD=Autism Spectrum Disorder; ID-DD/MI=Co-occurring intellectual/developmental disability and mental illness; SED=Serious Emotional Disturbance.

Chapter 1: Managed Care Quality Indicators Based on HEDIS® and CAHPS®

This section examines the performance of NJ Medicaid managed care organizations (MCOs) comparing changes between the baseline period of the waiver evaluation (2011-2012) and the first two demonstration years (2013-2014). Monitoring these changes sheds light on how preparation for and full implementation of the Managed Long-Term Services and Supports (MLTSS) expansion may have affected quality of care for the overall Medicaid managed care population. The measures in the tables are related to preventive care, behavioral health care, treatment of chronic conditions, and consumer satisfaction with care. These measures are based on the Healthcare Effectiveness Data and Information Set (HEDIS®), a system of standardized performance measures developed by the National Committee for Quality Assurance (NCQA); and the CAHPS® (Consumer Assessment of Healthcare Providers and Systems), an annual independent survey of members' perceptions of the quality of care and services they receive in their Medicaid health plan. For the HEDIS® metrics, in addition to select measures which are publicly reported, we also used data from the annual Performance Measure Validation reports created by the State's EQRO and provided to us by DMAHS.

Preventive Care Quality Measures: These HEDIS® measures are related to immunizations, screenings, and visits to primary care practitioners.

- The rates for childhood vaccine combinations 2 (DTaP, IPV, MMR, HiB, HepB, and VZV) and 3 (DTaP, IPV, MMR, HiB, HepB, VZV, and PCV) did not significantly change from the baseline (2011-2012) to the waiver (2013-2014) period. The rates for adolescent meningococcal vaccination and Tdap or Td improved (1.7 percentage points (pp) and 3.0 pp, respectively).
- Rates significantly improved for wellness visits for both young children (2.5 pp in first 15 months of life and 0.99 pp in ages 3-6), and adolescents (3.7 pp), as did the rate for frequency of ongoing prenatal care (0.9 pp). However, rates declined for timeliness of prenatal (-1.3 pp) and postpartum care (-2.0 pp).
- Rates improved for all the access to primary care measures for children of all ages except for those between 12-24 months (1.6 pp for 25 months-6 years, 0.9 pp for 7-11 years, and 0.3 pp for 12-19 years).
- BMI assessment rates improved for both younger children (3.2 pp) and adolescents (5.5 pp). For adults, the BMI assessment rate also improved (10.2 pp), as did the breast cancer screening rate (1.3 pp). There was no change in the cervical cancer screening rate.
- For the CAHPS® measure for dental care utilization, the pattern of rates suggests a general improvement in dental care utilization among adults and children overall in Medicaid managed care from 2011 to 2014.

Behavioral Health Care Services Quality Measures: These HEDIS® measures are related to follow-up care for individuals with certain behavioral health diagnoses.

- There was no change in follow-up care for children prescribed ADHD medication from 2011-2012 to 2013-2014.
- There was also no change for 7-day follow-up for DDD beneficiaries ages 6 and older who were hospitalized for treatment of certain mental illness conditions, but there was a significant decline in 30-day follow-up for this population (-5.4 pp).

Treatment of Chronic Conditions Quality Measures: These HEDIS® measures are related to high prevalence chronic conditions like diabetes and asthma.

- Results were mixed for the measures for monitoring of patients on persistent medications (rates declined 17.5 pp for digoxin, but showed no significant change for ACE inhibitors, diuretics, or anti-convulsants).
- Results were mixed for measures for diabetes care (rates improved 3.3 pp and 3.9 pp respectively for the percentage of managed care beneficiaries 18-75 years of age with diabetes who received an annual HbA1c test or eye exam, but declined 3.1 pp for HbA1c control).
- The rates for blood pressure control improved (2.8 pp).

- The rates for the percentage of patients who had persistent asthma and were appropriately prescribed medication were mixed for different age groups (no change in those ages 5-11 or 19-50; rates improved 1.6 pp for those ages 12-18 but declined 2.6 pp for those ages 51-64).

Measures of Consumer Satisfaction: These CAHPS® measures relate to perceptions of care quality among adults and children in Medicaid managed care.

- The results were mixed across the different plans for children, but the overall trends for both adults and children showed improvements in all or most of the measures, as did the individual plan rates for adults.

With a few exceptions, the findings presented in this chapter support the conclusion that overall quality of care for Medicaid managed care beneficiaries was at the least maintained, and in many cases improved, during the first two years of the demonstration period.

Chapter 2: MLTSS-related Measures

Overview. This chapter discusses a variety of measures from a number of sources that relate to the MLTSS post-implementation period from July 2014 until the present. Data sources include MCO reports to the Department of Human Services, data reported by divisions within the Department of Human Services--including the Division of Medical Assistance and Health Services (DMAHS), the Division of Aging Services (DoAS) and the Division of Disability Services (DDS)--and reports from the Department of Banking and Insurance. Data were selected to address our evaluation hypotheses and research questions regarding the effect of MLTSS on consumers' access to care, quality of care, and care setting.

Measure Areas. We examined measures in the following topic areas: long-term care population by setting; the setting of former §1915(c) waiver enrollees; age groups of MLTSS and LTC recipients; timeliness of level-of-care assessments; reports on care plan characteristics (timeliness, alignment with member needs, person-centered, presence of back-up plan); critical incident numbers, categories and timeliness of reporting; appeals, grievances, complaints and service reductions; nursing facility admissions, transitions between nursing facilities and community settings; hospital and emergency department use; use of self-directed MLTSS services; network adequacy; and policy/administrative changes (qualified income trusts and self-attestation regarding asset transfer).

Discussion of Findings. This chapter discussed a number of trends or indications regarding New Jersey's Managed Long Term Services and Supports program.

Serving Enrollees in Community Settings

- The percentage of enrollees served in home and community settings has grown since implementation, from 27% in July 2014 to 35% in January of 2016. This may indicate progress in serving consumers in their preferred setting.
- An examination of the current setting of former enrollees shows that the majority who transitioned from the former §1915(c) home and community based services (HCBS) waivers remain in community settings, with only about 8% having transitioned to nursing facilities as of March 2016.

Level-of-Care Assessments and Care Planning

- Timeliness of nursing-facility level of care assessments, which are required for people to enroll into MLTSS, continues to trend upward.
- External quality review organization results from two audits of MCO care plans for individual MLTSS enrollees in the first year of MLTSS showed improvement on two of four items measured. One item showed that a small decline was high initially; the other was contested as to audit file selection.

Critical Incidents, Appeals, Grievances, Complaints, and Service Reductions

- MCO-reported critical incidents (unaudited) appear to affect a small number of members and to be reported in a timely fashion.
- MCO-reported appeals, grievances and complaints (unaudited) appear to affect a small number of members and appear realistic when compared with other indicators of member disputes (i.e., to the limited extent that it is possible to examine, we do not see any evidence that MCOs are underreporting appeals, grievances and complaints).
- MCO-reported appeals, grievances and complaints (unaudited) appear to be investigated within a timely manner. Most appeals appear to be upheld by the MCO, rather than overturned.
- The limited information presented on service reductions (MCO reports, one quarter, unaudited) indicates that such reductions affect a small number of enrollees. Most are not appealed in any way.

Hospital/Emergency Department (ED) Utilization

- MCO-reported hospital and ED use for MLTSS enrollees has been stable or declined over the first three quarters of MLTSS implementation.

Use of Self-Direction

- Close to 5% of MLTSS enrollees are using self-directed services, and enrollment continues to grow.

Network Adequacy

- Network adequacy for 17 acute care services, defined as the percentage of members with access to the service or provider, averages 99% overall and is generally 75% or higher (exceptions are for hospital services in some areas where an MCO does not include a nearby hospital).
- Network adequacy information for MLTSS services has not been provided publically, but MCO-reported grievance information appears to show, at most, 12 cases during 2015 of problems accessing MLTSS providers. We are uncertain of the comprehensiveness of this information.

Other Policy/Administrative Changes with MLTSS

- Policy/administrative changes put into place with MLTSS have allowed members to access services they would not have otherwise (qualified income trusts allow those slightly above Medicaid income limits to spend down for either HCBS or nursing facility services) and reduced the administrative burden for government staff and members (self-attestation).

We will continue to monitor MLTSS-related data for our final evaluation. There are limitations to many of the findings, and some findings raise questions or potential concerns.

Limitations to Current Findings

- The measures we examine in this chapter are not adjusted for member health conditions or levels of social support, making it difficult to know if MCO efforts are driving differences in performance versus underlying effects intrinsic to members that MCOs cannot change.
- We do not know the actual effects on consumers of many of the findings in this chapter. The forthcoming NCI-AD results may shed light on many of these issues.

Ongoing Questions/Concerns

- Timeliness of enrollment—the various timeliness measures do not tell us how long people are waiting from the time an LTSS need is identified until they are actually enrolled in MLTSS. This time is difficult to measure, but it is important to provide HCBS care quickly to stabilize people's health and prevent progression to a higher level of care where possible.
- There is limited information regarding service reductions to MLTSS members. This is a topic about which there is a good deal of stakeholder concern. The limited information presented so far suggests that reductions are not extensive—more regular reports could confirm this.
- External appeal data reported by DOBI may indicate an increase in appeals related to denials of private duty nursing with the implementation of MLTSS. The information so far is not certain, but we will watch for further developments regarding appeals of MLTSS services.
- Regarding network adequacy:

- Network adequacy for MLTSS services has not been reported publically, though MCOs are required to report this information to the state, which reviews it for any coverage gaps. MCOs are required to address gaps by doing single case agreements with nonparticipating providers or providing transportation to a participating provider. We do not know the extent to which this occurs. MCO-reported grievance information appears to show, at most, 12 instances of problems reported with accessing MLTSS providers. We will check on the comprehensiveness of this information.
- There are some acute care provider shortages that may affect the ability of some MLTSS members to access care (hospitals, general dentists, and adult and pediatric primary care physicians). Some of these shortages are due to a lack of providers in certain geographic areas arising from larger industry and economic issues related to provider supply.
- The accuracy of MCO provider directory information has been questioned nationally and in New Jersey. Though New Jersey is among the states with the strictest standards, we will continue to monitor developments in this area.

Chapter 3: Analysis of Medicaid Claims Data to Examine Access, Quality, and Cost of Care

This chapter assesses the impact of the expansion of managed care to Long Term Services and Supports (LTSS) and behavioral health (for selected LTSS-eligible populations) by examining measures related to access to care, quality of care, and health care spending for NJ Medicaid beneficiaries calculated from Medicaid fee-for-service (FFS) claims and managed care encounter data over 2011-2014. These measures include rates of avoidable inpatient hospitalizations and ED visits that arise due to inadequate ambulatory or primary care in the community; hospital readmission rates overall, and for specific diseases that reflect potentially inadequate inpatient care and lack of care coordination; follow-up rate after mental illness hospitalization that examines similar issues specifically for individuals with behavioral health conditions; ambulatory visit rates that reflect the quality of care transitions; and spending-related measures to examine potential changes in distribution of spending over time and across places-of-care.

We present tables with annual estimates of such metrics for Medicaid overall and specific subpopulations based on Medicaid eligibility and the focus of the managed care expansion. This is followed with results of multivariate regression analyses that use statistical techniques such as segmented regression analysis and difference-in-differences modeling to account for individual, geographic and provider characteristics while identifying the impacts of the managed care expansion under the Waiver. Through these models we examine changes over time of specific metrics across all managed care beneficiaries to monitor overall adherence to the Quality Strategy by Medicaid managed care organizations (MCOs) undertaking the MLTSS reforms and provide evidence for answering Research Question 1a. These findings supplement those

presented in Chapter 1. We also examine selected metrics for specific groups of Medicaid beneficiaries that come under the managed care expansion immediately on July 1, 2014. This is primarily the long-term care (LTC) beneficiaries group meeting an institutional level of care and residing in their homes and communities under the former 1915(c) waiver programs or, after July 1, 2014, under MLTSS. We restrict our regression analysis to this population to ensure a six-month post-implementation period. These subpopulation analyses supplement the findings presented in Chapter 2 and provide the evidence needed for answering Research Question 1b. Our final evaluation report extending until December 2015 will include the managed nursing facility population in the regression-based analysis.

Annual Descriptive Estimates: Our focus is on changes in these estimates during 2014, the year when the MLTSS implementation took place compared to the previous years. While these trends may broadly indicate effects of the Waiver on the overall managed care population or the HCBS population, it is important to remember that descriptive estimates are not adjusted for changing beneficiary characteristics (subsequent to the Medicaid expansion) or underlying trends in outcomes unrelated to the policy. Our regression-based analysis adjusts for these effects.
Below we highlight the key findings related to the expansion of managed care and also those that highlight the differences across groups of Medicaid beneficiaries. To review comprehensive findings, Chapter 3 should be reviewed.

Avoidable and Overall Inpatient and Emergency Department Use and Spending:

- In 2014, avoidable inpatient hospitalization rates were the highest among the HCBS population with a BH condition (744 per 10,000 beneficiaries).
- For all managed care beneficiaries and those receiving HCBS, rates of avoidable inpatient hospitalizations in 2014 were the lowest among the four years. However, this may be driven by the decreasing trend in the rates of such utilization that started in 2012.
- In 2014, the ABD group had the highest rates of inpatient utilization among the different eligibility groups (2,025 per 10,000 beneficiaries), slightly lower than that in the long-term care population (2,770 per 10,000 beneficiaries).
- We see a decrease in ED visit rates from 4,942 visits per 10,000 population in 2013 to 4,170 per 10,000 population in 2014 for the HCBS population.
- Among all Medicaid beneficiaries, we find that total spending per beneficiary decreased sharply from $5,744 in 2013 to $5,164 in 2014. This was brought about by an equivalent decrease in non-hospital spending. Hospital-based spending per beneficiary remained at the same level from 2011-2014.
- Around three quarters of avoidable costs among the LTC population was incurred by NF residents. NF residents on average had higher avoidable costs in 2011 than the HCBS

population ($193 vs. $145), but the difference was almost non-existent in 2014 ($130 vs. $129) largely due to a steeper decline in avoidable costs per person for the NF population.

Hospital Readmissions:

- In every category of readmission, and every year, beneficiaries with a BH condition had a higher readmission rate compared to those who were LTC-eligible and also Medicaid beneficiaries overall.
- For the overall managed care population, we find an improvement in quality reflected through a decrease in acute myocardial infarction (AMI) readmission rates. For the HCBS population hospital-wide and HF readmission rates exhibited an improvement, but pneumonia (PN) and AMI readmissions indicated worsening care.

Follow-up after Hospitalization for Mental Illness and Ambulatory Visit after Hospital Discharge:

- For Medicaid beneficiaries, overall, after declines over 2011-2013, rates of follow-up seven days and 30 days after discharge from a mental illness hospitalization start to pick up again in 2014.
- We notice a decrease in rates of ambulatory visits 14 days after discharge, for HCBS population over the period 2011-2014. Specifically, the visit rate for patients discharged to home, decreased from 20% in 2013 to 13% in 2014. A decline over this period is also seen for the managed care population overall.

LTSS, Non-LTSS, and Total Costs:

- Total spending is higher for the NF population compared to the HCBS population and this is largely driven by their high LTSS spending. The share of LTSS spending has shifted slightly more towards the HCBS population over 2011-2014, but the shift predominantly occurs prior to the MLTSS policy implementation.
- A progressive shift in the share of spending towards the HCBS population is not seen for non-LTSS spending over 2011-2014.
- Spending related to avoidable hospitalizations accounted for less than 1% of overall spending. Thus, while a decrease in avoidable inpatient hospitalizations and ED visits may signify better community-level care, it may not necessarily impact total spending in these populations.

MLTSS Impact on the Overall Medicaid Managed Care Population: Using segmented regression analysis, we examine changes in outcomes for the entire managed care population immediately after implementation of MLTSS and identify the impact of the policy on these outcomes during the first six months of the program. We assess immediate changes (changes in the level) as well as changes in time trend. These models adjust for individual and provider characteristics, geography/residence, and time trends unrelated to MLTSS.

Avoidable Inpatient and Emergency Department Use:

- There was a statistically significant drop in avoidable inpatient hospitalizations and avoidable ED visits immediately following the implementation (reflected in a drop in levels), but there was an increase in the trend. Thus, there was no definitive positive or negative impact on avoidable utilization as a result of MLTSS.

Hospital Readmissions:

- We find an immediate decrease in the probability of 30-day readmissions for all types of index admissions (hospital-wide, HF, PN, and AMI), though only the 1.1 percentage point decline in hospital-wide readmissions is significant.
- Among Medicaid managed care beneficiaries with a BH condition, there was also a decline in the probability of hospital-wide readmission. This level effect was significant but there was no significant effect of MLTSS on the trend.

Follow-up after Hospitalization for Mental Illness and *Ambulatory Visit 14 Days after Discharge Home:*

- There are decreases in the level and also the trend in follow-up rates within 30 days of hospitalization. Each of these decreases amount to approximately a 1 percentage point decrease in the rate of follow-up among managed care beneficiaries. This negative association between MLTSS and follow-up rates is statistically significant.
- We observe increases in the level and also the trend of ambulatory visits after discharge home. The changes are less than one percentage point and neither is statistically significant.

Overall there were no negative effects on access to care for the managed care population during the first six months of MLTSS implementation, but nor were there any definitive positive effects. The decrease in avoidable inpatient hospitalizations and avoidable ED visits were of very small magnitude, although significant statistically, and were followed by an increasing and thus offsetting trend. In terms of quality, efficiency, and coordination of care, decreases in readmission rates suggest improvements, further supported by small increases in ambulatory visits after discharge, though only the drop in hospital-wide readmission rates is significant. In terms of behavioral health quality, we see mixed results. Hospital-wide readmissions improved for individuals with behavioral health conditions, as they did for all managed care beneficiaries, as a result of MLTSS, but mental health-specific follow-up care after a hospitalization for mental illness showed a significant decline. This is the only significant negative impact observed for the entire managed care population coincident with MLTSS implementation.

MLTSS Impact on the HCBS Population: Using a difference-in-differences estimation strategy, we are able to examine average changes in outcomes for HCBS beneficiaries whose long-term

services and supports were integrated with their physical and behavioral health care after implementation of MLTSS. These models use the non-LTC ABD population as a comparison group to account for outcome trends unrelated to the MLTSS policy and further adjust for individual and provider characteristics, geography/residence to isolate the impact of MLTSS on these outcomes.

Avoidable Inpatient and Emergency Department Use and Associated Costs:

- MLTSS implementation decreased the probability of an avoidable inpatient hospitalization over a quarter by 8%, but increased the rate of avoidable ED visits per person by 10%. Both effects are statistically significant.
- We find that the MLTSS policy increases avoidable inpatient costs but decreases avoidable ED costs in the HCBS population. This implies that the avoidable inpatient stays became less likely, but more expensive, and the avoidable ED visits became more likely, but less expensive.

Hospital Readmissions:

- There was an 11.3 percentage point increase in pneumonia readmission rates among the HCBS population due to the MLTSS implementation. This effect is statistically significant at the 10% significance level.
- Heart failure and AMI readmissions increased by 5.6 and 5.1 percentage points, respectively, but these effects were not statistically significant.
- Hospital-wide readmission rates among the HCBS population decreased by less than 1 percentage point as a result of the policy, but this was not statistically significant.
- MLTSS implementation decreased the hospital-wide readmission rate among the HCBS population with a BH condition by 0.2 percentage points. The effect was not statistically significant.

Ambulatory Visit 14 Days after Discharge Home:

- MLTSS implementation decreased the probability of an ambulatory visit 14 days following discharge from a medical hospitalization by 5.5 percentage points and this effect is statistically significant.

Access to care and quality of care for the HCBS population showed no definitive positive impacts during the first six months of MLTSS implementation. The probability of avoidable inpatient hospitalizations declined in magnitude by less than two-tenths of a percentage point but these hospitalizations also became more expensive. In terms of the managed care carve-in of behavioral health for the HCBS population under MLTSS, hospital-wide readmissions among those with a behavioral health condition also declined by two-tenths of a percentage point and follow-up after mental illness hospitalizations did show improvements, but neither of these were

statistically significant (We do not report the follow-up metric since it was based on a sample size lower than our minimum threshold, but we will have sufficient sample in the final evaluation with a larger follow-up period). On the other hand, some negative trends were apparent. Avoidable ED visits increased. Consistently, metrics relating to post-discharge care following hospitalizations for medical conditions worsened, though most of these results also did not reach conventional levels of statistical significance. It is important to remember that all of these findings are based on the six month period of July-December 2014 when some transitional issues relating to MLTSS were still being resolved. Additional data extending beyond the first six months of the post-MLTSS period will help us determine in our final report whether any of these findings persist or change.

Chapter 4: Analysis of Medicaid Claims Data to Examine Care Outcomes for Populations of Children and Youth

This chapter presents Medicaid claims-based metrics related to specific types of hospital utilization for several populations of children targeted for additional home and community-based services (HCBS) under the Waiver. Specifically, the Waiver authorizes the NJ Division of Children and Families' Children's System of Care (DCF's CSOC)[2] to coordinate new supportive services for children with Autism Spectrum Disorder (ASD), co-occurring intellectual/developmental disabilities and mental illness (ID-DD/MI), and Serious Emotional Disturbance (SED). The Waiver also expands Medicaid eligibility for children with SED.

All of the services authorized under the Waiver for the DCF populations started being offered during calendar year 2014 or later, limiting the data on the post-implementation period available for this interim report. Because of this, and due to small sample sizes in the ASD cohort, we present only descriptive results with no adjustment for patient or provider characteristics. Estimates based on small samples should be interpreted with the caveat that observed variation for the metrics between years might be the result of outliers in the data or random events unrelated to the policy change.

Avoidable Hospital Utilization, Overall Hospital Utilization, and Per Capita Hospital Costs

- Rates of avoidable hospital use were very low in the baseline and early demonstration period. Compared to 0.2 avoidable hospitalizations per 100 Medicaid youth in each year of the study period, the rate was higher in the ID-DD/MI cohort, reaching 1.8 per 100 ID-DD/MI youth in 2013. There were nearly no avoidable hospitalizations among the SED cohort in any year.
- We observe a slight downward trend in inpatient utilization for Medicaid youth overall over 2011-2014 which is mirrored in the ID-DD/MI cohort.

[2] By January of 2013, DCF assumed responsibility for all children previously managed by the Division of Developmental Disabilities (DDD).

- There is a decrease in inpatient utilization in the ASD population from 2013 to 2014, along with a decline in ED visits between these two years. This potentially reflects the impact of the new waiver services starting in spring 2014.
- A decline in inpatient utilization and ED visits between 2011 and 2014 is also seen in the SED cohort, but this may be in part due to hospitalizations not captured in the claims data for the SED at-risk portion of this cohort who, though Medicaid enrolled, are not eligible for State Plan services.
- Per-capita costs associated with hospital use are generally greater for the ID-DD/MI cohort in all years compared to the other cohorts, reflecting their higher rates of inpatient stays and ED visits.

Inpatient Hospital Use for Mental Health Conditions

- We observed net declines in mental illness hospitalizations for children with ID-DD/MI and SED from 2011-2014 and slight increases within the SED cohort (which is potentially underestimated due to the limitations in measurement mentioned above) in hospitalizations at psychiatric hospitals. The different trends between inpatient facility types (general acute care vs. psychiatric) is relevant to consider given the goal of expanded home and community-based services in reducing institutionalization.
- Hospitalizations for severe mental illness were infrequent in general, with rates of 1 or less per 100 for all cohorts in all years.

Post-acute Care Following Hospitalization

- We could not reach the minimum sample size for assessing utilization (hospital readmission or ED visits) subsequent to mental or severe mental illness hospitalizations in the ASD, ID-DD/MI, and SED cohorts.
- For all-cause hospitalizations, we found that the combined populations of youth eligible for the HCBS waiver programs started in 2012 with lower rates of readmissions and ED visits within 30 days of discharge than Medicaid youth overall, but had higher rates by 2014.

The rates of specific types of utilization calculated in this chapter inform the applicability of the proposed metrics to the various subpopulations of interest. As a key example, hospital use metrics do not reflect quality for the SED at-risk population since this utilization is not on the menu of services available to them under the Waiver. In order to address this limitation, we will investigate rates of residential treatment facility use and out-of-home placement in this cohort in our final evaluation report due in 2017. Statistical testing, where feasible, will also be conducted. Additionally, we will consider the practicability of combining years of data in order to achieve minimum sample sizes for examining the impacts of waiver services on the pilot-enrolled

ASD cohort and separately, ED and readmission outcomes following hospitalization for mental and severe mental illness for all populations of youth receiving targeted HCBS.

Discussion

This interim report examines various sources of information to address the first three demonstration hypotheses and corresponding research questions set forth in the Special Terms and Conditions (CMS 2014) of the New Jersey Medicaid Comprehensive Waiver. Using a diverse range of data sources, this interim report primarily addresses the very early impacts of the policy changes occurring under the Waiver. Quality metrics included in this report extend through the end of calendar year 2014, capturing only the first six months of MLTSS implementation and preceding initiation of two out of the three targeted home and community-based waiver services programs for Medicaid children/youth with autism spectrum disorder, co-occurring intellectual and developmental disabilities and mental illness, and severe emotional disturbance. However, some of the MCO performance and process measures from secondary data sources presented in Chapter 2 cover more of the post-MLTSS period and extend as far as the first quarter of calendar year 2016. We discuss below findings related to the separate hypotheses, limitation and caveats, and some common crosscutting themes.

Hypothesis 1

Measures of quality of care and consumer satisfaction for the entire Medicaid managed care population indicate there were no substantial negative impacts evident during the first six months of the MLTSS program. The evidence for this conclusion is strongest in the preventive care domain captured by the HEDIS® metrics. These findings are concordant with rates of avoidable inpatient and avoidable ED visits which declined over 2011-2014 for the managed care population in our descriptive analyses and showed no net positive or negative effect as a result of MLTSS in the regression analyses. This is one of the more robust findings, although there may be several other areas such as hospital readmissions where there was potential improvement in terms of quality, efficiency, and coordination of care.

The one area with negative findings for the managed care population relates to ambulatory care for beneficiaries with behavioral health conditions. There were declines in the rate of 30-day follow-up with a mental health practitioner after discharge from a hospitalization for mental illness.

A broad goal of the managed care expansion under the Waiver was to serve more long-term care beneficiaries in their homes and communities, rebalancing spending away from nursing facilities. Based on DMAHS presentations to stakeholders and our own calculations, there is initial evidence

that the intended rebalancing is underway, and our final evaluation report spanning a longer follow up period will indicate whether these trends persist.

When we examine the impact of MLTSS specifically on beneficiaries meeting an institutional level of care and residing in their homes and communities under the former 1915(c) waiver programs or, after July 1, 2014, under MLTSS, both health outcomes and process measures paint a more complicated picture of quality, especially in the very early months of MLTSS implementation. Both claims-based annual estimates calculated by us and data in MLTSS performance measure reports from MCOs show declines for the HCBS population in overall inpatient and emergency department use rates. Further, overall rates of avoidable inpatient and avoidable ED visits declined from 2013 to 2014 for the HCBS population in annual claims-based estimates. However, when we undertake regression analysis that accounts for other factors and isolates trends in hospital use directly attributable to MLTSS, we find mixed effects. The likelihood of avoidable inpatient hospitalizations for a HCBS beneficiary declined significantly in the first six months of MLTSS, but the number of avoidable ED visits significantly increased. Additional metrics related to readmissions or ambulatory visits after hospitalizations worsened for HCBS individuals as a result of MLTSS, but were not statistically significant. It is important to note that quality measures calculated using claims data cover only the first six months of MLTSS in this interim report, which was a period of transition and coordination of all services under managed care was still underway. While this may have driven some of the negative findings, it also underscores the importance of uninterrupted HCBS care for maintaining or stabilizing people's health and preventing progression to a higher level of care where possible. Additional claims data analysis extending beyond the first six months of the post-MLTSS period will help us determine whether any of these findings persist or strengthen to a level of statistical significance thereby giving a comprehensive picture of the MLTSS policy impact.

Our assessment of Information provided by the Division of Aging Services and by MCOs yields several positive findings related to the implementation process Timeliness of clinical assessments continues to improve, MCO-reports of potentially negative events, show that such events affect a small number of members and are generally reported in a timely fashion. The Division of Banking and Insurance did not show an increase in appeals of managed care decisions in 2014.

Limitations/Caveats: Our analysis of Medicaid claims and encounter data presents specific challenges related to capturing acute care utilization by the dual eligible population, identification of residents in nursing facilities, and measuring rates of follow up care for institutionalized beneficiaries. We have discussed in detail these data limitations and strategies to mitigate their impact in the main report. We believe that none of these issues create a bias in our findings.

Hypothesis 2

As observed in analyses related to Hypothesis 1, we also see declines in rates of inpatient utilization and ED visits between 2013 and 2014 for children enrolled in the ASD pilot program under the Waiver which started in the spring of 2014. The other two waiver policies under Hypothesis 2 were not in effect during the study period of this interim report precluding any assessment of policy impacts on health outcomes for the targeted populations. Our final evaluation report spanning a longer time period and additional measures will shed greater light on these effects.

Limitations: Small sample sizes limit our ability to evaluate the impact of waiver policies on populations of children and youth eligible for home and community-based services and the hospital use metrics proposed in our evaluation plan will not reflect quality for the SED at-risk population since this utilization is not on the menu of services available to them under the Waiver. In order to address these limitations, we will investigate rates of residential treatment facility use and out-of-home placement in this cohort in our final evaluation report due in 2017. Additionally, we will consider the feasibility of combining years of data in order to achieve minimum sample sizes.

Hypothesis 3

Information provided by the state indicates that as of the end of 2015, nearly 900 individuals had set up Qualified Income Trusts (QITs), which allow people whose income is above the level normally eligible for Medicaid but is not sufficient to pay the cost of long-term care services, to spend down their excess income and become eligible for Medicaid. Information provided by the state indicates that as of the end of 2015, about 627 individuals who were under the federal poverty level were able to self-attest that they had not transferred assets during the past five years, meaning that the county welfare agencies and the beneficiary were able to skip a comprehensive financial examination. Audits of the effectiveness of this process are not yet available.

The existence of these new avenues into the Medicaid long-term care system, particularly the establishment of QITs, has the potential to impact the number and mix of individuals in the MLTSS program. We will examine the direct effects of these administrative simplifications in a future report, but these changes also have implications for our evaluation of Hypothesis 1. They underscore the importance of adjusting for differing patient characteristics in determining the impact of the MLTSS policy on health outcomes.

Future Work

Our final evaluation report due in 2017 will build off the analyses presented here. We will have a longer post-MLTSS implementation for claims-based metrics which will increase our ability to

detect policy effects and will reflect the impacts of the program after the early transitionary period. As more nursing facility residents come under MLTSS, we will explore the impact of MLTSS on this population as well, subject to a sufficient sample size. If data for the post-MLTSS period are sufficient to achieve minimum sample sizes, we will also explore stratification of metrics by demographic characteristics, such as race/ethnicity, and examine whether there are any differential impacts of MLTSS on outcomes by race/ethnicity in statistical models. Uniform billing hospital discharge data, if publically available, will be prepared for selected metrics to compare trends between Medicaid and other payers over the period of the demonstration. We will have data from the 2015 CAHPS® survey available which will reflect consumer perceptions of care for a time period when MLTSS was in effect and lend itself to potentially meaningful comparisons of trends within eligibility groups, in particular for the ABD population. HEDIS®, CAHPS®, and MCO performance reports will also include data for Aetna, a Medicaid MCO that entered the market in December of 2014. We will have conducted a second round of stakeholder interviews to gauge ongoing experiences with and perceptions of the MLTSS program, and will have qualitative interview data from stakeholders, state officials, and provider organizations regarding the Supports program, which began in the summer of 2015. Finally, data on the implementation and quality of the administrative simplifications process being collected by the State will be shared with us for the final report.

Examining the Effect of the NJ Comprehensive Waiver on Access to Care, Quality, and Cost of Care: Draft Interim Evaluation Report

Sujoy Chakravarty, Ph.D., Kristen Lloyd, M.P.H., Jennifer Farnham, M.S., Susan Brownlee, Ph.D., Katie Zhang, M.S., and Derek DeLia, Ph.D.

Introduction

The New Jersey Medicaid Comprehensive Waiver Demonstration was approved for the period October 1, 2012 through June 30, 2017. This §1115 waiver not only consolidated authority for several existing Medicaid waivers, but initiated a variety of health reforms in New Jersey's Medicaid program. The key changes authorized by the Waiver are an expansion in managed care to Long-term Services and Supports (LTSS) and behavioral health (BH) services, targeted home and community-based services (HCBS) for populations of children and in-home community supports for individuals with intellectual and developmental disabilities, administrative simplifications in the Medicaid eligibility process for low-income applicants seeking LTSS, and the establishment of a hospital-based Delivery System Reform Incentive Payment (DSRIP) Program.

The Rutgers Center for State Health Policy (CSHP) was engaged to evaluate New Jersey's Medicaid Comprehensive Waiver Demonstration. In this draft interim evaluation report, we primarily examine the expansions in managed care and targeted home and community-based services occurring under the Waiver.[3] In brief, the Waiver authorized shifting the delivery of LTSS and behavioral health (BH) services for certain aged or physically disabled beneficiaries from a fee-for-service to managed care reimbursement system (referred to as MLTSS – Managed Long-term Services and Supports), a phase out of fee-for-service delivery of behavioral health services for Medicaid beneficiaries through the establishment of an Administrative Services Organization (ASO) that will manage behavioral health services,[4] and the provision of new supportive services

[3] The administrative simplifications will be evaluated in forthcoming reports, though some basic statistics on Qualified Income Trusts and self-attestations are presented in Chapter 2. The Supports program, which is part of the targeted home and community-based services expansion for individuals with intellectual and developmental disabilities, will be evaluated qualitatively in our final report due in 2017. The DSRIP program is evaluated as a separate component and the midpoint evaluation was submitted to the New Jersey Division of Medical Assistance and Health Services (DMAHS) on September 2015 with the final evaluation due in March 2018.

[4] This reform was not implemented during the study period covered in this interim evaluation. As of July 2015, Rutgers University Behavioral Health Care will be the Interim Managing Entity for addiction services.

for children with Autism Spectrum Disorder (ASD), co-occurring intellectual/developmental disabilities and mental illness (ID-DD/MI), and Serious Emotional Disturbance (SED). The Waiver also expanded Medicaid eligibility for children with SED.[5] These abovementioned policy changes motivate the first two of the four evaluation hypotheses and their supporting research questions as outlined in the waiver Special Terms and Conditions document (CMS 2014) and enumerated below.

Hypothesis 1: **"Expanding Medicaid managed care to include long-term care services and supports will result in improved access to care and quality of care and reduced costs, and allow more individuals to live in their communities instead of institutions."**

Research Question 1a: **"What is the impact of the managed care expansion on access to care, the quality, efficiency, and coordination of care, and the cost of care for adults and children?"**
Research Question 1b: **"What is the impact of including long-term care services in the capitated managed care benefit on access to care, quality of care, and mix of care settings employed?"**

Hypothesis 2: **"Providing home and community-based services to Medicaid and CHIP beneficiaries and others with serious emotional disturbance, autism spectrum disorder, or intellectual disabilities/developmental disabilities will lead to better care outcomes."**

Research Question 2a: **"What is the impact of providing additional home and community-based services to Medicaid and CHIP beneficiaries with serious emotional disturbance, autism spectrum disorder, or intellectual disabilities/developmental disabilities?"**
Research Question 2b: **"What is the impact of the program to provide a safe, stable, and therapeutically supportive environment for children from age 5 up to age 21 with serious emotional disturbance who have, or who otherwise would be at risk for, institutionalization?"**

Hypothesis 3: **"Utilizing a projected spend-down provision and eliminating the look back period at time of application for transfer of assets for applicants or beneficiaries seeking long term services and supports whose income is at or below 100% of the FPL will simplify Medicaid eligibility and enrollment processes without compromising program integrity."**

Research Question 3a: **"What is the impact of the projected spend-down provision on the Medicaid eligibility and enrollment process? What economies or efficiencies were achieved,**

[5] The eligibility expansion for children with SED at-risk for hospitalization became effective on the Waiver approval date, October 1, 2012. The first roll-out of new services occurred in the spring of 2014 for the ASD population. All of the other services for the targeted populations of children did not begin until after the study period covered in this interim evaluation.

and if so, what were they? Was there a change in the number of individuals or on the mix of individuals qualifying for Medicaid due to this provision?"
Research Question 3b: **"What is the impact of eliminating the transfer of assets look-back period for long term care and home and community based services for individuals who are at or below 100% of the FPL? Was there a change in the number of individuals or on the mix of individuals qualifying for Medicaid due to this provision?"**

Hypothesis 4: **"The Delivery System Reform Incentive Payment (DSRIP) Program will result in better care for individuals (including access to care, quality of care, health outcomes), better health for the population, and lower costs through improvement."**

These hypotheses were tested utilizing a mix of quantitative and qualitative methods. Hypothesis 3 will be examined primarily in the final evaluation report, and Hypothesis 4 relating to the DSRIP program is covered in a separate set of reports. This report is comprised of four distinct chapters each covering one analytic component of our interim evaluation and supplements an earlier report with qualitative findings from key informant interviews of providers, consumer advocates, managed care organizations (MCOs) and state officials on MLTSS implementation.[6]

Organized by chapter, the following table presents a brief description of the contents of this report, the data sources used and time periods covered, the focus of the analyses (i.e. populations and/or plans), and the corresponding hypothesis(es) and research question(s) addressed to the extent possible given the available data and timing of policy implementation.

[6] Farnham J, S Chakravarty, and K Lloyd. 2015. *Initial Stakeholder Feedback on Implementation of the Managed Care Expansion in Long-Term Services and Supports*. New Brunswick, NJ: Rutgers Center for State Health Policy. http://www.cshp.rutgers.edu/Downloads/10740.pdf.

Data Sources	Focus of Analysis	Hyp.	RQ
Chapter 1: Managed Care Quality Indicators			
HEDIS® and CAHPS®, 2011-2014	Managed care beneficiaries and MCOs	1	1a
Chapter 2. MLTSS-related Measures			
Reports from MCOs, EQROs, and State Government, 2014-2016	Medicaid beneficiaries in MLTSS and their MCOs	1, 3	1b, 3a, 3b
Chapter 3. Analysis of Medicaid Claims Data to Examine Access, Quality, and Cost of Care			
Medicaid claims and encounter data, 2011-2014	Medicaid beneficiaries and managed care beneficiaries, overall and by eligibility group, and those in long-term care (facility and community-based)	1	1a, 1b
Chapter 4. Analysis of Medicaid Claims Data to Examine Care Outcomes for Populations of Children and Youth			
Medicaid claims and encounter data, 2011-2014	Individuals with ASD, ID-DD/MI, and SED eligible for home and community-based waiver services, and all Medicaid youth	2	2a, 2b

Hyp.=Hypothesis; RQ=Research Question; MCO=Managed Care Organization; EQRO=External Quality Review Organization; ASD=Autism Spectrum Disorder; ID-DD/MI=Co-occurring intellectual/developmental disability and mental illness; SED=Serious Emotional Disturbance.

References

CMS (Centers for Medicare & Medicaid Services). 2014. *Technical Corrections to the New Jersey Comprehensive Waiver Section 1115 of the Social Security Act (the Act) Demonstration (Project No. 11-W-00279/2)*. Baltimore: CMS. https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/nj/nj-1115-request-ca.pdf.

Chapter 1: Medicaid Managed Care HEDIS® and CAHPS® Quality Indicators

Introduction

This section compares the performance of NJ Medicaid[7] managed care organizations (MCOs) during calendar years 2011-2012, the baseline period of the waiver evaluation, and calendar years 2013-2014, the first two years of the waiver implementation period. It presents quality and utilization-based metrics from two sources: first, the Healthcare Effectiveness Data and Information Set (HEDIS®), a system of standardized performance measures developed by the National Committee for Quality Assurance (NCQA) in conjunction with a variety of public and private partners; second, the CAHPS® (Consumer Assessment of Healthcare Providers and Systems) survey that on an annual basis assesses members' perceptions of the quality of care and services they receive in their Medicaid health plan. The specific Research Question and the overarching evaluation hypothesis outlined in the waiver Special Terms and Conditions document (CMS 2014) which guide our selection and assessment of metrics from the data sources in this chapter are:

Hypothesis 1: **"Expanding Medicaid managed care to include long-term care services and supports will result in improved access to care and quality of care and reduced costs, and allow more individuals to live in their communities instead of institutions."**;

Research Question 1a: **"What is the impact of the managed care expansion on access to care, the quality, efficiency, and coordination of care, and the cost of care for adults and children?"**

The measures presented are related to preventive care, behavioral health care, treatment of chronic conditions, and consumer satisfaction.[8] These outcome domains broadly reflect the goals of the Division of Medical Assistance and Health Services (DMAHS) Quality Strategy (DMAHS 2014). This strategy guides the State's healthcare monitoring, assessment, and improvement efforts for all Medicaid managed care services. Monitoring changes in these metrics sheds light

[7] The term Medicaid will be used in this report to refer to NJ FamilyCare beneficiaries who are insured under the State's Medicaid or CHIP programs, including those covered by MCOs.

[8] Evaluation of the impact of the managed care expansion on cost of care, which is part of Research Question 1a, will be assessed in Chapter 3 using claims-based analyses. HEDIS® and CAHPS® metrics do not address this domain.

on how preparation for and full implementation of the Managed Long-Term Services and Supports (MLTSS) expansion may have affected quality of care for the overall Medicaid managed care population.

Methods

Data Sources

The health plans covering Medicaid enrollees in New Jersey regularly collect and report quality indicators assessing care and service delivered to members that are consistent with the DMAHS Quality Strategy. These measures are based on the Healthcare Effectiveness Data and Information Set (HEDIS®), a system of standardized performance measures developed by the National Committee for Quality Assurance (NCQA) in conjunction with a variety of public and private partners. These measures have specific definitions governing data preparation and reporting to accurately measure members' care and service across several health domains. NJ Medicaid plans also have their HEDIS® results verified by an external quality review organization (EQRO).

On an annual basis, an independent survey organization also assesses members' perceptions of the quality of care and services they receive in their Medicaid health plan. The CAHPS® (Consumer Assessment of Healthcare Providers and Systems) survey, a part of the HEDIS® measurement set developed by the NCQA, is the instrument used for this survey. A sample of health plan members in three main Medicaid eligibility categories (FamilyCare recipients; Temporary Assistance for Needy Families recipients; and aged, blind, or disabled recipients) are interviewed using child and adult versions of the CAHPS® instrument.

Both types of quality measures, those from plan records (referred to in this report as HEDIS® measures) and those from member surveys (referred to in this report as CAHPS® measures) are presented in this chapter for the years 2011, 2012, 2013, and 2014[9]. For the HEDIS® metrics, in addition to select measures which are publicly reported, we also used data from the annual Performance Measure Validation reports created by the State's EQRO and provided to us by DMAHS. The 2011 and 2012 CAHPS® Health Plan Survey 4.0 reports prepared by ACS Government Healthcare Solutions and the 2013 and 2014 CAHPS® Health Plan Survey 5.0 reports prepared by

[9] Further information about HEDIS® and CAHPS® measures, such as measure development processes and details on measure specifications, can be found at www.ncqa.org. Additionally, information on methods specific to collection of these measures for NJ Medicaid MCOs can be found in the DMAHS's Annual Reports at http://www.state.nj.us/humanservices/dmahs/news/.

Xerox State Healthcare LLC and also provided to us by DMAHS were the source of the CAHPS® metrics reported for the years 2011-2014.[10]

Statistical Testing

In this chapter we present methods to examine whether there were any differences in quality between the two baseline years and the first two implementation years of the evaluation period.

Comparison of HEDIS® Measures: For HEDIS® measures, a weighted average of individual plan results based on the entire Medicaid managed care population is available for each year. To compare estimates between the baseline (2011-2012) and waiver periods (2013-2014), 95% confidence intervals (CI) of the difference between the 2011-2012 and 2013-2014 pooled estimates were calculated using the following formula:

$$(plan\ rate_{2011\text{-}2012} - plan\ rate_{2013\text{-}2014}) \pm 1.96 \times SEDiff$$

The formula for the standard error of the difference (*SEDiff*) is as follows:

$$SEDiff = \sqrt{\frac{p_1 q_1}{n_1} + \frac{p_2 q_2}{n_2}}$$

where

n_1 is the population denominator for years 2011-2012
n_2 is the population denominator for years 2013-2014
p_1 is the weighted pooled rate for years 2011-2012
p_2 is the weighted pooled rate for years 2013-2014
q_1 is (1-p_1)
q_2 is (1-p_2)

If the 95% CI was a range of only negative numbers, then the 2013-2014 pooled rate was considered below the 2011-2012 pooled rate indicating that performance based on that HEDIS® measure declined for the Medicaid managed care population. If the CI contained zero, the performance between the two years were not considered to be statistically different, and if the CI was a range of only positive numbers then performance based on that HEDIS® metric improved from 2011-2012 to 2013-2014. Due to very large sample sizes, small changes in rates may be significant.

[10] The baseline period for the evaluation of the Medicaid Comprehensive Waiver (exclusive of the DSRIP) is 1/1/2011-9/30/2012. HEDIS® and CAHPS® measures are collected annually using a calendar year performance period that, while not exactly matching our proposed baseline, tracks with and is representative of care and services delivered during that period.

Certain HEDIS® measures were not required to be reported by plans in 2011. For these, estimates are available for year 2012 only, and this single year served as the baseline.

Comparison of CAHPS® Measures: CAHPS® data-based metrics are available from samples that are representative of individual plans.[11] However, the reported overall average across plans does not reflect the differences in enrollment across plans and this precludes statistical tests of differences across the years for the entire managed care population. Accordingly, we adopted a descriptive approach where we examined estimates separately for each plan and also the overall average across plans, examining changes from 2011-2012 to 2013-2014.[12] Differences of 1% or less were ignored since these could be due to rounding. Changes were color coded to indicate whether the point estimates improved, stayed the same/showed a mixed trend, or declined.

Results

Results are organized by the following domains – preventive health, behavioral health services, treatment of chronic conditions, and consumer satisfaction. Below, a brief discussion of findings is presented.

Preventive Care Quality Measures: Tables 1.1 and 1.2 show quality measures related to preventive care for adults and children in Medicaid managed care during the baseline and waiver periods spanning years 2011-2014. The HEDIS® measures in Table 1.1 are predominantly National Quality Forum (NQF) endorsed measures related to immunizations, screenings, and visits to primary care practitioners. For 2011-2012, 82.23% of adolescents in managed care received both their meningococcal vaccination and their Tdap or Td (tetanus, diphtheria toxoids and acellular pertussis vaccine or tetanus, diphtheria toxoids) vaccine by their 13th birthday. For 2013-2014, the pooled rate was 85.30% and this represented a statistically significant improvement in the vaccination rate for this population. The rates for vaccine combinations 2 and 3 did not significantly change. Rates significantly improved from 2011-2012 to 2013-2014 for wellness visits for both young children and adolescents, as did the rate for frequency of ongoing prenatal care. However, rates declined for the prenatal and postpartum care metric which assesses visit timeliness surrounding delivery. Rates improved for all the access to primary care measures for children of all ages except for those ages 12-24 months. BMI assessment rates for both younger

[11] Effective July 1, 2014, Healthfirst's Medicaid beneficiaries were migrated to WellCare. The field period for the 2014 CAHPS began in April 2014 and respondents were required to have been enrolled with their health plan for at least the prior 6 months to be eligible for the survey. Therefore, the 2014 estimates relate to beneficiaries enrolled in Healthfirst, and are thus comparable to previous years.

[12] Other limitations relating to CAHPS® survey include low response rates making sample sizes small for some questions for some plans. Differential non-response, particularly in small samples, can create unquantifiable bias in estimates.

children and adolescents improved. For adults, the BMI assessment rate also improved, as did the breast cancer screening rate. There was no change in the cervical cancer screening rate.

Table 1.2 shows the CAHPS® measure for dental care utilization. In each plan and separately for adults and children, the percentage of respondents who self-report that they have received care from a dental office or clinic in the past six months is shown for 2011, 2012, 2013, and 2014. The pattern of rates suggests a general improvement in dental care utilization among both adults and children in Medicaid managed care. For example, the overall rates for adults who received care from a dental office or clinic in the past six months were 28% and 31% for 2011 and 2012, respectively, while the rates were 32% and 43% for 2013 and 2014, respectively. The rates improved from 2011-2012 to 2013-2014 for adults in all four Medicaid managed care plans and in two of the four plans for children.

Behavioral Health Care Services Quality Measures: Table 1.3 shows quality measures related to behavioral health care services for adults in Medicaid managed care. The HEDIS® measures in Table 1.3 are also National Quality Forum (NQF) endorsed measures related to follow-up care for individuals with certain behavioral health diagnoses. The rates shown for *Initiation Phase* under *Follow-up Care for Children Prescribed ADHD Medication* refer to the percentage of 6-12 year old children newly prescribed attention-deficit/hyperactivity disorder (ADHD) medication who had at least one face-to-face follow-up care visit within 30 days of when ADHD medication was first dispensed. In 2011-2012, the pooled rate was 31.81% among the eligible population. In 2013-2014, the pooled rate was 32.50%. There was no statistically significant difference in rates between these two periods. The measure, *Follow-Up After Hospitalization for Mental Illness,* applies only to the DDD Medicaid managed care beneficiaries ages 6 and older who were hospitalized for treatment of certain mental illness diagnoses. In 2011-2012, 38.28% of this population had a qualifying follow-up visit within 30 days after discharge. In 2013-2014, the rate was 32.87% representing a significant decline in this quality measure. There was no change in the 7-day follow-up rates between the two periods.

Treatment of Chronic Conditions Quality Measures: Table 1.4 shows quality measures related to treatment of chronic conditions for adults and children in Medicaid managed care. These HEDIS® measures are all National Quality Forum (NQF) endorsed measures related to high prevalence chronic conditions like diabetes and asthma. Results were mixed for the measures under *Annual Monitoring for Patients on Persistent Medications* (rates declined for digoxin[13], but showed no significant change for ACE inhibitors, diuretics, or anti-convulsants) and for measures under *Comprehensive Diabetes Care* (rates improved for the percentage of adult managed care

[13] The NCQA specification was changed to no longer allow a blood urea nitrogen therapeutic monitoring test to count as evidence of annual monitoring of kidney function.

beneficiaries with diabetes who received a Hemoglobin A1c (HbA1c) test or an eye exam during the year, but declined for HbA1c control). The rates for blood pressure control improved. The rates for the percentage of patients who had persistent asthma and were appropriately prescribed medication were mixed for different age groups (no change in those ages 5-11 or 19-50; rates improved for those ages 12-18 but declined for those ages 51-64).

Measures of Consumer Satisfaction: Tables 1.5 and 1.6 show a variety of CAHPS® measures related to perceptions of care quality among adults and children in Medicaid managed care. The first three measures in the tables are composite measures which group together questions on similar topics to simplify interpretation of the data and to enhance the reliability of results (ACS Government Healthcare Solutions 2011). For example, the *Getting Needed Care* composite is a combination of beneficiaries' responses to questions on the ease of getting appointments and the ease of getting the care, tests, and treatment needed under their health plan. In Table 1.5 for adults, all measures with data for all four years showed improved rates from 2011-2012 to 2013-2014 both overall and for all four Medicaid managed care plans. This includes these measures: *Getting Needed Care* composite, *Getting Care Quickly* composite, *How Well Doctors Communicate* composite, *Overall Rating of Personal Doctor*, and *Ease of Getting Appointments with Specialists*. For children in Medicaid managed care plans in Table 1.6, the rates improved overall from 2011-2012 to 2013-2014 for four of the five measures with data for all four years (*Getting Needed Care* composite, *Getting Care Quickly* composite, *Overall Rating of Personal Doctor*, and *Ease of Getting Appointments with Specialists*). There was no change in the *How Well Doctors Communicate* composite. Three of the four individual plans showed improvement in at least four of the measures.

Table 1.1: HEDIS® measures of preventive care quality, 2011–2014

New Jersey Medicaid Managed Care Population

	2011		2012		2013		2014		2011-2012 Pooled Rate	2013-2014 Pooled Rate	2013/2014-2011/2012 Difference	SE	95% Confidence Interval		Performance 2013/2014-2011/2012
	Population	Rate	Population	Rate	Population	Rate	Population	Rate					LCI	UCI	
Childhood Immunization Status															
Vaccine Combination 2[a]	31,174	70.61%	30,025	70.49%	29,515	69.86%	28,725	70.94%	70.55%	70.40%	-0.00154	0.00264	-0.00672	0.00363	Same
Vaccine Combination 3[b]	31,174	65.74%	30,025	64.97%	29,515	64.63%	28,725	65.16%	65.36%	64.89%	-0.00472	0.00276	-0.01013	0.00068	Same
Immunizations for Adolescents															
Meningococcal	24,258	82.94%	26,133	86.16%	28,328	86.36%	27,900	86.28%	84.61%	86.32%	0.01711	0.00216	0.01287	0.02135	Improved
Tdap/Td	24,258	90.00%	26,133	88.50%	27,328	90.72%	27,900	93.79%	89.22%	92.27%	0.03044	0.00179	0.02693	0.03394	Improved
Vaccine Combination 1[c]	24,258	81.05%	26,133	83.33%	27,328	84.92%	27,900	85.68%	82.23%	85.30%	0.03073	0.00227	0.02628	0.03519	Improved
Well-Child Visits in First 15 Months of Life	20,818	66.83%	21,036	66.74%	20,798	68.71%	19,654	69.98%	66.78%	69.33%	0.02545	0.00325	0.01909	0.03182	Improved
Well-Child Visits in the 3rd, 4th, 5th, and 6th Years of Life	138,289	78.97%	142,930	78.48%	133,964	81.36%	137,429	78.10%	78.72%	79.71%	0.00988	0.00109	0.00774	0.01202	Improved
Adolescent Well-Care Visits	179,870	57.76%	195,050	62.33%	190,350	64.00%	205,676	63.72%	60.14%	63.86%	0.03719	0.00111	0.03502	0.03935	Improved
Frequency of Ongoing Prenatal Care[d]	17,815	56.22%	18,387	62.20%	21,979	59.14%	21,945	61.18%	59.26%	60.16%	0.00903	0.00348	0.00221	0.01586	Improved
Prenatal and Postpartum Care															
Timeliness of Prenatal Care	20,457	83.44%	21,631	83.95%	21,975	79.42%	21,945	85.42%	83.71%	82.42%	-0.01284	0.00256	-0.01786	-0.00783	Declined
Postpartum Care	20,457	58.16%	21,631	61.16%	21,975	57.86%	21,945	57.61%	59.70%	57.74%	-0.01968	0.00336	-0.02626	-0.01310	Declined
Children and Adolescents' Access to Primary Care Practitioners															
12-24 months	--[e]	--[e]	31,332	97.42%	30,468	97.73%	28,222	96.57%	97.42%	97.17%	-0.00255	0.00113	-0.00476	-0.00035	Declined
25 months - 6 years	--[e]	--[e]	173,075	91.20%	162,659	92.95%	167,569	92.61%	91.20%	92.78%	0.01578	0.00082	0.01418	0.01738	Improved
7-11 years	--[e]	--[e]	124,755	93.24%	124,466	93.68%	130,909	94.60%	93.24%	94.15%	0.00908	0.00085	0.00741	0.01074	Improved
12-19 years	--[e]	--[e]	145,363	91.55%	147,962	91.59%	154,598	92.15%	91.55%	91.88%	0.00332	0.00088	0.00159	0.00505	Improved
BMI Assessment for Children/Adolescents[d]															
3 - 11 years	214,846	51.10%	255,415	51.60%	250,689	49.01%	262,524	59.84%	51.37%	54.55%	0.03179	0.00101	0.02982	0.03377	Improved
12 - 17 years	98,731	53.49%	121,820	47.80%	122,091	53.22%	130,029	58.36%	50.35%	55.87%	0.05522	0.00145	0.05237	0.05807	Improved
Total	313,577	51.87%	377,235	50.40%	372,780	50.43%	392,533	59.18%	51.07%	54.92%	0.03847	0.00083	0.03685	0.04009	Improved
Adult BMI Asssessment	--[e]	--[e]	145,123	65.41%	149,284	74.73%	148,786	76.58%	65.41%	75.66%	0.10246	0.00148	0.09957	0.10536	Improved
Breast Cancer Screening	36,948	52.80%	40,684	52.73%	17,811	53.58%	16,237	54.67%	52.76%	54.10%	0.01342	0.00324	0.00707	0.01977	Improved
Cervical Cancer Screening	139,926	64.82%	145,436	64.23%	136,535	67.12%	163,017	62.16%	64.52%	64.42%	-0.00103	0.00125	-0.00348	0.00143	Same

Notes: Data shown indicate performance during year indicated; SE=standard error; LCI=lower bound of 95% confidence interval; UCI=upper bound of 95% confidence interval.

[a]Combination 2 includes DTaP, IPV, MMR, HiB, HepB, and VZV vaccinations.

[b]Combination 3 includes DTaP, IPV, MMR, HiB, HepB, VZV, and PCV vaccinations.

[c]Combination 1 indicates receipt of both component vaccinations (Meningococcal and Tdap/Td).

[d]Excludes members in one health plan due to differing methodology in the calculation of this measure.

[e]This metric was not reported in 2011.

Difference is weighted, pooled 2013-2014 estimate minus weighted, pooled 2011-2012 estimate.

Table 1.2: CAHPS® measures of preventive care quality, 2011–2014

New Jersey Medicaid Managed Care Population

		Amerigroup				Healthfirst				Horizon				United Healthcare				**Overall Plan Average**			
		2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	**2011**	**2012**	2013	2014
Received Care from Dental Office or Clinic in Past 6 Months	Adults	*n=684*	*n=474*	*n=528*	n=277	*n=543*	*n=238*	*n=464*	*n=286*	*n=723*	*n=580*	*n=572*	*n=486*	*n=766*	*n=556*	*n=560*	*n=369*	*n=2716*	*n=1848*	*n=2124*	n=1418
		26%	33%	30%	42%	28%	24%	32%	37%	30%	33%	36%	45%	28%	32%	29%	48%	28%	31%	32%	43%
	Children	*n=733*	*n=558*	*n=499*	n=516	*n=750*	*n=290*	*n=474*	*n=587*	*n=810*	*n-676*	*n=613*	*n=505*	*n=834*	*n=701*	*n=610*	*n=428*	*n=3127*	*n=2225*	*n=2196*	n=2036
		60%	68%	69%	69%	60%	63%	56%	56%	59%	67%	64%	64%	58%	63%	65%	65%	59%	65%	64%	64%

Note: Shading scheme does not indicate statistically significant differences, only the direction of change (>1%) in point estimates from 2011 to 2012 to 2013 to 2014 as follows:

Improved

No Change or Mixed Trend

Declined

Table 1.3: HEDIS® measures of behavioral health care services quality, 2011–2014

New Jersey Medicaid Managed Care Population

	2011		2012		2013		2014		2011-2012	2013-2014	2013/2014-2011/2012	SE	95% Confidence Interval		Performance 2013/2014-
	Population	Rate	Population	Rate	Population	Rate	Population	Rate	Pooled	Pooled			LCI	UCI	
Follow-up Care for Children Prescribed ADHD Medication															
Initiation Phase	4,806	31.25%	5,805	32.27%	5,755	32.49%	5,638	32.51%	31.81%	32.50%	0.00693	0.00630	-0.00542	0.01927	Same
Continuation and Maintenance Phase	--[a]	--[a]	1,364	34.61%	1,147	35.92%	1,088	37.32%	34.61%	36.60%	0.01994	0.01642	-0.01225	0.05213	Same
Follow-Up After Hospitalization for Mental Illness (DDD only)															
7 Day Follow-up	300	14.66%	421	22.80%	453	14.35%	262	28.25%	19.42%	19.44%	0.00025	0.02088	-0.04068	0.04118	Same
30 Day Follow-up	300	31.00%	421	43.47%	453	28.70%	262	40.08%	38.28%	32.87%	-0.05413	0.02522	-0.10357	-0.00469	Declined

Notes: Data shown indicate performance during year indicated; SE=standard error; LCI=lower bound of 95% confidence interval; UCI=upper bound of 95% confidence interval.

[a]This metric was not reported in 2011.

Table 1.4: HEDIS® measures of chronic condition treatment quality, 2011–2014

New Jersey Medicaid Managed Care Population

	2011		2012		2013		2014		2011-2012 Pooled Rate	2013-2014 Pooled Rate	2013/2014-2011/2012 Difference	SE	95% Confidence Interval		Performance 2013/2014-2011/2012
	Population	Rate	Population	Rate	Population	Rate	Population	Rate					LCI	UCI	
Annual Monitoring for Patients on Persistent Medications															
ACE Inhibitors or ARBs	--[a]	--[a]	25,145	86.03%	25,518	86.52%	28,275	85.78%	86.03%	86.13%	0.00104	0.00265	-0.00415	0.00623	Same
Digoxin	--[a]	--[a]	537	90.13%	532	91.92%	392	46.42%	90.13%	72.62%	-0.17510	0.01952	-0.21335	-0.13685	Declined
Diuretics	--[a]	--[a]	17,477	85.72%	17,326	86.18%	19,416	84.91%	85.72%	85.51%	-0.00208	0.00322	-0.00839	0.00423	Same
Anti-convulsants	--[a]	--[a]	4,848	63.41%	4,683	62.55%	--[b]	--[b]	63.41%	62.55%	-0.00858	0.00989	-0.02797	0.01081	Same
Total	--[a]	--[a]	48,007	83.68%	48,059	84.12%	48,083	85.11%	83.68%	84.62%	0.00938	0.00205	0.00536	0.01339	Improved
Comprehensive Diabetes Care															
HbA1c Testing	23,821	79.38%	27,585	78.12%	27,582	80.68%	28,699	82.95%	78.70%	81.84%	0.03136	0.00243	0.02660	0.03612	Improved
HbA1c Poor Control (>9.0%)	23,821	45.25%	27,585	45.68%	27,582	45.40%	28,699	39.40%	45.48%	42.34%	-0.03143	0.00303	-0.03737	-0.02550	Declined
Eye Exam	23,821	54.41%	27,585	54.09%	27,582	56.97%	28,699	59.21%	54.24%	58.11%	0.03869	0.00303	0.03276	0.04462	Improved
Controlling High Blood pressure	--[a]	--[a]	41,599	51.70%	42,231	50.53%	45,525	58.25%	51.70%	54.54%	0.02832	0.00297	0.02250	0.03415	Improved
Use of Appropriate Medications for People with Asthma															
5-11 Years	5,646	87.58%	7,335	83.50%	4,658	85.34%	4,515	85.03%	85.28%	85.18%	-0.00091	0.00484	-0.01040	0.00858	Same
12-18 Years	3,010	82.46%	3,993	78.64%	3,675	82.15%	3,690	81.65%	80.28%	81.90%	0.01622	0.00654	0.00341	0.02904	Improved
19-50 Years	2,963	75.63%	3,507	74.25%	3,627	74.86%	3,654	75.67%	74.89%	75.26%	0.00377	0.00739	-0.01072	0.01826	Same
51-64 Years	748	79.01%	1,019	77.43%	1,266	75.75%	1,279	75.21%	78.10%	75.48%	-0.02616	0.01302	-0.05168	-0.00064	Declined
Total	12,367	82.95%	15,854	79.84%	13,226	80.66%	13,109	80.53%	81.21%	80.60%	-0.00610	0.00337	-0.01271	0.00050	Same

Notes: Data shown indicate performance during year indicated; SE=standard error; LCI=lower bound of 95% confidence interval; UCI=upper bound of 95% confidence interval.

[a]This metric was not reported in 2011.

[b]This metric was not reported in 2014.

Table 1.5: CAHPS® measures of consumer satisfaction with adult health care services, 2011–2014

New Jersey Medicaid Managed Care Population

Adult Survey	Amerigroup				Healthfirst				Horizon				United Healthcare				**Overall Plan Average**			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	**2011**	**2012**	**2013**	**2014**
Getting Needed Care composite	*n=355*	*n=255*	*n=436*	*n=436*	*n=306*	*n=109*	*n=472*	*n=472*	*n=406*	*n=330*	*n=493*	*n=493*	*n=430*	*n=335*	*n=492*	*n=492*	*n=1497*	*n=1029*	*n=1893*	*n=1893*
Always	40%	42%	57%	53%	46%	46%	50%	56%	41%	47%	52%	56%	45%	43%	51%	53%	43%	45%	53%	54%
Usually	32%	32%	27%	28%	27%	23%	28%	29%	34%	29%	32%	28%	32%	30%	29%	29%	31%	28%	29%	28%
Never/Sometimes	27%	26%	16%	19%	27%	31%	21%	15%	25%	24%	16%	16%	22%	27%	20%	19%	25%	27%	18%	17%
Getting Care Quickly composite	*n=513*	*n=363*	*n=435*	*n=230*	*n=433*	*n=178*	*n=386*	*n=259*	*n=583*	*n=474*	*n=491*	*n=393*	*n=607*	*n=453*	*n=476*	*n=290*	*n=2136*	*n=1468*	*n=1788*	*n=1172*
Always	50%	52%	60%	58%	50%	47%	55%	60%	55%	57%	60%	62%	54%	56%	60%	61%	52%	53%	59%	60%
Usually	28%	26%	22%	25%	23%	28%	22%	24%	26%	23%	24%	22%	25%	25%	24%	25%	26%	26%	23%	24%
Never/Sometimes	22%	21%	18%	17%	27%	24%	22%	16%	19%	20%	16%	16%	22%	19%	17%	14%	22%	21%	18%	16%
How Well Doctors Communicate composite	*n=476*	*n=344*	*n=416*	*n=225*	*n=407*	*n=185*	*n=366*	*n=252*	*n=531*	*n=442*	*n=470*	*n=386*	*n=574*	*n=432*	*n=466*	*n=285*	*n=1988*	*n=1402*	*n=1718*	*n=1148*
Always	68%	64%	75%	74%	68%	70%	73%	73%	65%	68%	71%	77%	67%	65%	72%	75%	67%	67%	73%	75%
Usually	22%	25%	18%	17%	21%	22%	19%	21%	21%	21%	20%	18%	22%	25%	19%	19%	21%	23%	19%	19%
Never/Sometimes	10%	10%	7%	9%	12%	8%	8%	6%	14%	12%	9%	5%	11%	10%	8%	6%	11%	10%	8%	6%
Overall Rating of Personal Doctor	*n=576*	*n=412*	*n=485*	*n=241*	*n=460*	*n=209*	*n=411*	*n=266*	*n=622*	*n=494*	*n=547*	*n=441*	*n=653*	*n=494*	*n=525*	*n=329*	*n=2311*	*n=1609*	*n=1968*	*n=1148*
Best Doctor (9-10 Rating)	56%	53%	68%	71%	63%	61%	69%	73%	54%	59%	66%	73%	61%	55%	67%	73%	58%	57%	67%	72%
7-8 Rating	25%	29%	23%	16%	23%	27%	22%	20%	29%	22%	21%	22%	24%	31%	22%	18%	25%	27%	22%	19%
Worst Doctor (0-6 Rating)	19%	18%	9%	13%	14%	12%	9%	7%	17%	19%	13%	6%	15%	15%	12%	9%	16%	16%	11%	9%
Ease of Getting Appointments with Specialists	*n=258*	*n=204*	*n=238*	*n=137*	*n=238*	*n=86*	*n=230*	*n=165*	*n=328*	*n=262*	*n=309*	*n=231*	*n=331*	*n=235*	*n=286*	*n=174*	*n=1155*	*n=787*	*n=1063*	*n=707*
Always	41%	42%	56%	50%	42%	47%	45%	50%	39%	45%	51%	55%	44%	40%	47%	51%	42%	43%	50%	52%
Usually	32%	30%	26%	26%	26%	23%	29%	32%	34%	29%	29%	25%	31%	29%	28%	28%	31%	28%	28%	28%
Never/Sometimes	27%	28%	18%	23%	32%	30%	26%	18%	27%	27%	20%	20%	24%	31%	24%	21%	28%	29%	22%	21%
Personal Doctor Informed about Other Providers	*n=210*	*n=163*	*n/a*	*n/a*	*n=184*	*n=77*	*n/a*	*n/a*	*n=285*	*n=242*	*n/a*	*n/a*	*n=293*	*n=209*	*n/a*	*n/a*	*n=972*	*n=691*	*n/a*	*n/a*
Always	48%	44%			48%	52%			50%	47%			49%	46%			49%	47%		
Usually	30%	29%			27%	26%			24%	27%			29%	31%			27%	28%		
Never/Sometimes	23%	26%			24%	22%			26%	26%			22%	23%			24%	24%		

Note: Shading scheme does not indicate statistically significant differences, only the direction of change (>1%) in point estimates from 2011 to 2012 to 2013 to 2014 as follows:

Improved

No Change or Mixed Trend

Declined

Table 1.6: CAHPS® measures of consumer satisfaction with child health care services, 2011–2014

New Jersey Medicaid Managed Care Population

Child Survey	Amerigroup				Healthfirst				Horizon				United Healthcare				**Overall Plan Average**			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	**2011**	**2012**	**2013**	**2014**
Getting Needed Care composite	*n=242*	*n=195*	*n=195*	*n=429*	*n=248*	*n=101*	*n=101*	*n=474*	*n=276*	*n=288*	*n=288*	*n=417*	*n=298*	*n=242*	*n=242*	*n=348*	*n=1064*	*n=826*	*n=826*	*n=1668*
Always	51%	50%	55%	59%	44%	55%	48%	54%	48%	49%	55%	59%	49%	50%	59%	56%	48%	51%	54%	57%
Usually	25%	32%	27%	23%	29%	25%	25%	21%	31%	31%	30%	21%	29%	24%	26%	25%	28%	28%	27%	22%
Never/Sometimes	24%	18%	19%	18%	26%	20%	27%	25%	22%	21%	15%	20%	22%	25%	15%	20%	24%	21%	19%	21%
Getting Care Quickly composite	*n=765*	*n=603*	*n=546*	*n=423*	*n=771*	*n=317*	*n=562*	*n=473*	*n=874*	*n=751*	*n=742*	*n=402*	*n=884*	*n=773*	*n=711*	*n=342*	*n=3294*	*n=2244*	*n=2561*	*n=1640*
Always	67%	62%	67%	65%	57%	57%	54%	60%	66%	64%	65%	70%	65%	62%	68%	65%	64%	61%	63%	65%
Usually	16%	16%	17%	16%	17%	19%	23%	18%	15%	15%	18%	14%	19%	17%	18%	13%	17%	17%	19%	15%
Never/Sometimes	17%	22%	16%	19%	27%	25%	23%	22%	19%	21%	17%	17%	16%	21%	15%	23%	20%	22%	18%	20%
How Well Doctors Communicate composite	*n=573*	*n=450*	*n=450*	*n=423*	*n=591*	*n=232*	*n=232*	*n=475*	*n=641*	*n=542*	*n=542*	*n=421*	*n=655*	*n=557*	*n=557*	*n=348*	*n=2640*	*n=1781*	*n=1781*	*n=1667*
Always	74%	74%	75%	80%	76%	79%	74%	76%	73%	72%	73%	75%	74%	78%	75%	76%	74%	76%	74%	77%
Usually	18%	20%	20%	17%	18%	16%	20%	20%	20%	21%	20%	19%	19%	16%	19%	16%	19%	18%	20%	18%
Never/Sometimes	8%	5%	5%	4%	6%	5%	6%	5%	8%	7%	7%	6%	7%	6%	6%	8%	7%	6%	6%	6%
Overall Rating of Personal Doctor	*n=663*	*n=494*	*n=476*	*n=461*	*n=654*	*n=257*	*n=437*	*n=532*	*n=718*	*n=608*	*n=570*	*n=466*	*n=737*	*n=637*	*n=581*	*n=387*	*n=2772*	*n=1996*	*n=2064*	*n=2064*
Best Doctor (9-10 Rating)	70%	70%	73%	82%	74%	74%	70%	74%	67%	69%	72%	74%	70%	73%	75%	73%	70%	72%	72%	76%
7-8 Rating	21%	22%	21%	14%	21%	23%	22%	21%	22%	22%	22%	18%	21%	20%	19%	20%	21%	22%	21%	18%
Worst Doctor (0-6 Rating)	8%	8%	7%	4%	5%	3%	8%	5%	11%	9%	6%	7%	9%	6%	6%	7%	8%	6%	7%	6%
Ease of Getting Appointments with Specialists	*n=199*	*n=185*	*n=153*	*n=153*	*n=175*	*n=82*	*n=121*	*n=121*	*n=227*	*n=250*	*n=193*	*n=193*	*n=288*	*n=237*	*n=241*	*n=241*	*n=889*	*n=754*	*n=708*	*n=708*
Always	46%	44%	45%	45%	38%	44%	38%	38%	44%	47%	51%	51%	49%	47%	56%	56%	44%	45%	48%	48%
Usually	27%	36%	27%	27%	29%	30%	23%	23%	30%	30%	30%	30%	26%	26%	23%	23%	28%	31%	26%	26%
Never/Sometimes	28%	20%	28%	28%	34%	26%	39%	39%	25%	23%	19%	19%	25%	27%	20%	20%	28%	24%	26%	26%
Personal Doctor Informed about Other Providers	*n=218*	*n=190*	*n/a*	*n/a*	*n=196*	*n=83*	*n/a*	*n/a*	*n=235*	*n=236*	*n/a*	*n/a*	*n=267*	*n=207*	*n/a*	*n/a*	*n=916*	*n=716*	*n/a*	*n/a*
Always	57%	52%			47%	47%			51%	47%			52%	49%			52%	49%		
Usually	25%	33%			29%	37%			29%	34%			26%	29%			27%	34%		
Never/Sometimes	18%	15%			24%	16%			20%	18%			21%	21%			21%	18%		

Note: Shading scheme does not indicate statistically significant differences, only the direction of change (>1%) in point estimates from 2011 to 2012 to 2013 to 2014 as follows:

Improved

No Change or Mixed Trend

Declined

Discussion

In this chapter, we presented HEDIS® and CAHPS® managed care performance data for the baseline (2011-2012) and first two implementation years (2013-2014) of the Comprehensive Medicaid Waiver Demonstration. We assessed differences between these two time periods to evaluate the broad impact of the managed care expansion in long-term services and supports on access to care, and the quality, efficiency, and coordination of care for Medicaid managed care beneficiaries overall.[14] With a few exceptions, the findings presented in this chapter support the conclusion that overall quality of care for Medicaid managed care beneficiaries was at the least maintained, and in many cases improved, during the first two years of the demonstration period.

The evidence for this conclusion is strongest in the preventive care domain. Here, most metrics demonstrate improvement and the few declines are, on average, of a smaller magnitude than the improvements. For most of the quality metrics for chronic conditions, we observed unchanged or improved quality. There were some declines but the magnitudes were smaller than those related to improvements.[15] It is important to note that the availability of data pertaining to behavioral health care quality was limited to only two HEDIS® metrics calculated for individuals with developmental disabilities and children prescribed ADHD medication. CAHPS® metrics in this domain were from a standalone survey module which was not administered in 2013 or 2014 and consequently not reported here.[16] Metrics pertaining to behavioral health care quality were conceived in our evaluation plan to capture the impact of the behavioral health-related policy changes, namely the establishment of an ASO/MBHO, as part of the waiver demonstration. However, this change was not implemented during the study period presented in this report. Claims-based analyses presented in Chapter 3 will include additional findings in the behavioral health domain for Medicaid overall, as a way to gauge overall adherence to quality standards during the waiver demonstration period, and for recipients of MLTSS whose behavioral health was integrated under their MCOs.

Consumer satisfaction with care showed improvement across health plans during the first two years of waiver implementation (compared to the baseline period), especially for adults. Among children, improvements in satisfaction are also evident, most consistently among the health plans covering the largest number of lives.

[14] Evaluation of the impact of the managed care expansion on cost of care, which is part of Research Question 1a, will be assessed in Chapter 3 using claims-based analyses. HEDIS® and CAHPS® metrics do not address this domain.
[15] Excluding the digoxin component of the *Annual Monitoring for Patients on Persistent Medications* metric, which was re-specified in 2014.
[16] Please see our baseline report for the 2011-2012 estimates.

While examining the findings presented in this chapter it is important to remember that they are descriptive and do not adjust for beneficiary characteristics. Some of the observed differences may reflect changes in beneficiary characteristics given the change in Medicaid coverage from fee-for-service to managed care during 2011-2012 for certain eligibility groups and the statewide Medicaid expansion in 2014. CAHPS® metrics are not reported for the population of Medicaid managed care beneficiaries as a whole and the statistical significance of changes seen over the interim time period in the overall plan average or within plans could not be assessed. Nevertheless, examining unadjusted trends in the metrics presented in this chapter is an essential part of monitoring progress toward the goals of the Division of Medical Assistance and Health Services (DMAHS) Quality Strategy (DMAHS 2014) during the waiver demonstration period. While our final report will include an additional year of data fully after the July 2014 implementation of MLTSS, the interim evidence from the metrics we examined in this chapter suggests that quality of care has not been compromised for most managed care beneficiaries during the demonstration period.

References

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DMAHS (Division of Medical Assistance and Health Services). 2014. *Quality Strategy*. Trenton: New Jersey Department of Human Services. http://www.state.nj.us/humanservices/dmahs/home/MLTSS_Quality_Strategy-CMS.pdf.

Chapter 2: An Examination of MLTSS-related Measures Reported by Managed Care Organizations, External Quality Review, and State Government

Introduction and Background

To prepare for the transition in July 2014, when New Jersey brought four §1915(c) home and community based services (HCBS) waivers into managed care with its comprehensive §1115 waiver,[17] the state updated its Quality Strategy[18] to include 40 measures addressing several aspects of managed long-term services and supports (MLTSS). This chapter will discuss these measures, in addition to other data that has been presented in a variety of reports and settings. An earlier report we authored, completed in July of 2015, provides more details about MLTSS implementation in New Jersey—in it we discuss stakeholder feedback from providers, consumer advocates, managed care organizations (MCOs) and state officials on MLTSS implementation.[19] We have considered suggestions from stakeholders with respect to the data we draw upon in our evaluation. This chapter focuses on describing data and performance measures collected and reported by MCOs, external quality review organizations and state government offices relating to a post-implementation period spanning SFY 2015-16.

Note on Chapter Structure

The main text of this chapter is quite detailed and lengthy. A summary section at the end of the chapter provides a summary of findings from each section of the chapter. It differs from a conventional format in that it also contains some policy background and metric definition/conceptualization to give a greater context to those findings. The chapter ends with a discussion of these findings and implications for the MLTSS implementation.

[17] See NJ Department of Human Services, Division of Medical Assistance and Health Services, "Comprehensive Medicaid Waiver" web page with links to descriptive documents at http://www.nj.gov/humanservices/dmahs/home/waiver.html.

[18] See a copy of the Quality Strategy as updated June 12, 2014 at http://www.nj.gov/humanservices/dmahs/home/MLTSS_Quality_Strategy-CMS.pdf.

[19] Farnham J, Chakravarty S and K Lloyd. 2015. "Initial Stakeholder Feedback on Implementation of the Managed Care Expansion in Long-Term Services and Supports." New Brunswick, NJ: Rutgers Center for State Health Policy. http://www.cshp.rutgers.edu/Downloads/10740.pdf.

Description of MLTSS Quality Oversight and Member Appeal Mechanisms

MCOs are required to report regularly on a number of measures, and to report all claims and encounter data to the state. There are monthly meetings of an MLTSS—MCO Quality Workgroup with membership from each MCO as well as the Division of Medical Assistance and Health Services (DMAHS) and the Division of Aging Services (DoAS) to discuss details around reporting and ensure comparability. In addition to these measurement-focused meetings, MCOs and state divisions have more frequent standing meetings to discuss general operational issues. DMAHS and DoAS maintain hotlines for consumers and providers to report quality issues. An external quality review organization (EQRO) does annual audits of MCO case files. New Jersey participates in the NCI-AD Survey, which involves face-to-face surveys of long-term care consumers.[20] On a quarterly basis, the state reports quality measure data to CMS.[21] It also reports regularly to the MLTSS Steering Committee and the Medical Assistance Advisory Committee.[22] Finally, as discussed in Chapter 1 of this report, New Jersey MCOs participate in the Healthcare Effectiveness Data and Information Set (HEDIS®), a system of standardized performance measures developed by the National Committee for Quality Assurance (NCQA) in conjunction with a variety of public and private partners and the CAHPS® (Consumer Assessment of Healthcare Providers and Systems) survey that, on an annual basis, assesses members' perceptions of the quality of care and services they receive in their Medicaid health plan. These measure sets apply to all MCO enrollees, not just those receiving MLTSS services.

MLTSS members looking to appeal an MCO decision may appeal directly to the MCO, call the state quality hotlines, request an independent review in some cases through New Jersey's Division of Banking and Insurance,[23] or file a Medicaid fair hearing request.[24]

MLTSS Measure Domains

The measures in the state's Quality Strategy span six areas of focus: *participant access* (timeliness of assessments and evidence of options counseling), *participant-centered service planning and delivery* (examination of care plans along several dimensions), *provider capacity* (network adequacy and credentialing timeliness), *participant safeguards* (critical incident reporting), *participant rights and responsibilities* (complaints, grievances and appeals), and *effectiveness of*

[20] See http://www.nasuad.org/initiatives/national-core-indicators-aging-and-disabilities; results were collected through the summer and fall of 2015 should be available sometime in 2016.
[21] Most of these reports are posted here: https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/Waivers_faceted.html?filterBy=New%20Jersey.
[22] Agendas, Presentations and Meeting Minutes are posted here: http://www.state.nj.us/humanservices/dmahs/boards/maac/.
[23] See http://www.state.nj.us/dobi/division_insurance/managedcare/ihcap.htm.
[24] See http://www.state.nj.us/humanservices/dmahs/info/fads.html.

MLTSS activities (hospital use, transitions between facilities and community settings, and followup after hospitalization for mental illness).

MLTSS Measure Frequency

The frequency of measure calculation and reporting varies from monthly to annually. There is also variation in the lag time needed to calculate measures due to claim filing windows that apply to some measures.

MLTSS Measure Sources

Data to calculate the measures in the Quality Strategy comes from three sources: Managed Care Organization (MCO) reports to the state, External Quality Review Organization (EQRO) review of MCO files, and state government departments, based on the data that they collect.

In addition to measures included in the Quality Strategy, the state has calculated a variety of other measures to describe LTSS-related programs and populations and included them in presentations to the MLTSS Steering Committee[25] or the Medical Assistance Advisory Council (MAAC).[26] These additional measures were calculated in response to stakeholder inquiries or as part of state efforts to describe the program and affected populations.

Analytic Objective

This chapter will examine selected measures reported in the state's reports to CMS, the MLTSS Steering Committee, or the Medical Assistance Advisory Council (MAAC), and draw implications where possible on what they reflect regarding the MLTSS implementation process. Based on a review of all available data, we have selected those that seem to have the most bearing on our evaluation hypotheses and research questions, listed below.

Hypothesis 1: **"Expanding Medicaid managed care to include long-term care services and supports will result in improved access to care and quality of care and reduced costs, and allow more individuals to live in their communities instead of institutions."**

Research Question 1a: **"What is the impact of the managed care expansion on access to care, the quality, efficiency, and coordination of care, and the cost of care for adults and children?"**

[25] See http://www.nj.gov/humanservices/dmahs/home/mltss_committee.html for more information about the MLTSS Steering Committee, including a description of members and recommendations made prior to MLTSS implementation.

[26] See http://www.state.nj.us/humanservices/dmahs/boards/maac/ for more information about the MAAC, including agendas, minutes, and presentations.

Research Question 1b: **"What is the impact of including long-term care services in the capitated managed care benefit on access to care, quality of care, and mix of care settings employed?"**

Hypothesis 3: **"Utilizing a projected spend-down provision and eliminating the look back period at time of application for transfer of assets for applicants or beneficiaries seeking long term services and supports whose income is at or below 100% of the FPL will simplify Medicaid eligibility and enrollment processes without compromising program integrity."**

Research Question 3a: **"What is the impact of the projected spend-down provision on the Medicaid eligibility and enrollment process? What economies or efficiencies were achieved, and if so, what were they? Was there a change in the number of individuals or on the mix of individuals qualifying for Medicaid due to this provision?"**
Research Question 3b: **"What is the impact of eliminating the transfer of assets look-back period for long term care and home and community based services for individuals who are at or below 100% of the FPL? Was there a change in the number of individuals or on the mix of individuals qualifying for Medicaid due to this provision?"**

Table 1 describes the measures we examine and their sources.

Table 1: Secondary metric list

	Metric	Metric Source	CSHP's Source	Description
1	Long-term care population by setting	NJ DMAHS	MLTSS Steering Committee Presentations	Based on the available numbers of HCBS, PACE, and Nursing Facility Residents, we have calculated the percent of the LTC population every 3 months from July 2014 to January 2016 in each setting.
2	Setting, former waiver enrollees	NJ DMAHS	MAAC/MLTSS Steering Committee Presentations	Tracks the current status of waiver enrollees who transitioned in July 2014 as of November 2015, February 2016, and March 2016
3	MLTSS Demographics	NJ DMAHS	MAAC Presentation	Shows the ages of participants in MLTSS and long-term care generally, in October 2015
4	Assessment Timeliness	NJ OCCO,[27] MCOs	DMAHS reports to CMS	• Number and timeliness of level of care assessments (required to receive

[27] Division of Aging Services, Office of Community Choice Options.

	Metric	Metric Source	CSHP's Source	Description
				MLTSS services), monthly from July 2014 to October 2015 • Number of assessments by MCO in the period July 2014 to October 2015 and % authorized by OCCO (OCCO must approve)
5	Care plan characteristics	EQRO	DMAHS reports to CMS	For the annual period July 2014 to June 2015, the extent to which care plans were completed within 30 days of enrollment, were aligned with member needs as per assessment data, were developed using person-centered care principles, and had a back-up plan to ensure safety
6	Critical incidents	DoAS	DMAHS reports to CMS	Number, timeliness (monthly July 2014 to November 2015) and categories of reporting (Year 1 and Q1 of Year 2) of incidents that had or could have adverse effects on members
7	Appeals, Grievances Complaints and Service Reductions	MCOs, DMAHS, DOBI	DMAHS reports to CMS, MLTSS Steering Committee presentations, DMAHS final agency decisions, DOBI IHCAP reports	• Quarterly MCO appeals, grievances and complaints from January 2015 to September 2015, including outcomes of home health and private duty nursing appeals. • MCO service reduction reports in Q3, 2015 • Fair Hearing Outcomes 2014, 2015, and Q1 of 2016, based on all Medicaid enrollees, by plan • NJ DOBI, Independent Health Care Appeals Program (IHCAP), Jan 16, 2010 to July 15, 2015 (semiannual)
8	Nursing Facility admissions	MCOs	DMAHS reports to CMS	The percentage of members in a NF living arrangement at any time, out of unique members with an eligibility start date during the measurement year (excludes previous FFS NF residents), for July 2014 to June 2015

	Metric	Metric Source	CSHP's Source	Description
9	Transitions between nursing facility and community	MCOs	DMAHS reports to CMS	• Transitions from NF to community and back to NF within 90 days • Transitions from community to NF, short-term and long-term Quarterly, July 2014 to September 2015, continuously enrolled members
10	Hospital and ED Use	MCOs	DMAHS reports to CMS	Any hospitalization or ED visit by continuously enrolled MLTSS members: quarterly, HCBS (July 2014-March 2015) and NF (October 2014-March 2015)
11	Use of self-directed MLTSS services	Division of Disability Services	DMAHS reports to CMS	Use of MLTSS self-directed services, by plan, as of August 2015
12	Network adequacy	MCOs	DMAHS reports to CMS	GeoAccess reports of the percent of members with access to 17 acute care services as of June 30, 2015.
13	Policy/Administrative changes	DMAHS	DMAHS reports to CMS	Take-up of Qualified Income Trusts; self-attestations regarding asset transfer. Both from July 2014 to December 31, 2015.

Results

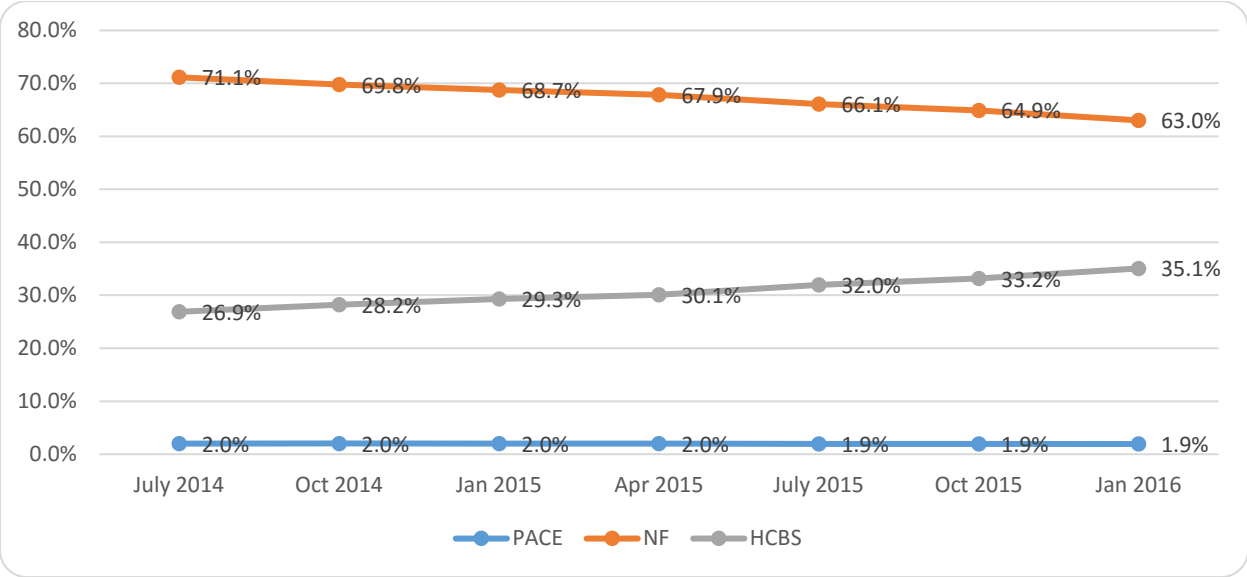
Setting, All LTC Enrollees

As shown in Figure 1, the share of the population receiving long-term care services in home and community-based settings (not including PACE) increased from 27% in July 2014 to 35% in January 2016. The share of the same population in nursing facilities has dropped from 71% in July 2014 to 63% in January 2016. This appears to indicate that the state is moving toward providing more services in home and community settings. PACE has remained steady at about 2% of the long-term care population.[28] Among the HCBS population, about 20% are in assisted living facilities and the remaining 80% are in other types of community settings.[29]

[28] The Program of All-inclusive Care for the Elderly (PACE) enrolls people initially in community settings, but will provide nursing facility care if it becomes necessary. For more information, see http://www.state.nj.us/humanservices/doas/services/pace/.

[29] Calculated from data in MLTSS Steering Committee Slides – Feb 2016 (slide 5), which is based on "DMAHS Shared Data Warehouse Monthly Eligibility Universe, accessed 2/9/2016."

Figure 1: NJ Medicaid LTC population by setting, July 2014–January 2016



Source: Calculated from MLTSS Steering Committee Slides - Feb 2016 (slide 3), which is based on "Monthly Eligibility Universe (MMX) in Shared Data Warehouse (SDW), accessed on 2/9/2016."

Setting, Former Waiver Enrollees

Among the group of people enrolled in the former §1915(c) waiver programs who transitioned to managed care in July 2014, 65% were still receiving HCBS services through MLTSS as of March 2016. About 8% are now in nursing facilities, and the remaining 28% are no longer enrolled in MLTSS or no longer enrolled in Medicaid. Many of the latter category have likely passed away. This appears to indicate that people who begin receiving services in community settings are largely able to remain there. Table 2 shows the change from November 2015 to March 2016 in the status of former waiver enrollees (on June 30, 2014 all of these enrollees were receiving HCBS waiver services).

Table 2: Current status of former waiver enrollees

Current Service Status	Percent, July 2014	Percent, November 2015	Percent, February 2016	Percent, March 2016
MLTSS HCBS	100%	69%	67%	65%
MLTSS Nursing Facility	n/a	7%	7%	8%
No Longer Enrolled	n/a	20%	23%	25%

Current Service Status	Percent, July 2014	Percent, November 2015	Percent, February 2016	Percent, March 2016
Other (Non MLTSS Medicaid)	n/a	4%	3%	3%

Sources: MAAC Meeting Presentation 4/20/16, based on "DMAHS Shared Data Warehouse Monthly Eligibility Universe, accessed 3/11/16."; MLTSS Steering Committee Slides - Feb 2016 (slide 8), based on "DMAHS Shared Data Warehouse Monthly Eligibility Universe, accessed 2/9/16"; MLTSS Presentation for Steering Committee December 2015 (slide 12), based on "DMAHS Shared Data Warehouse Monthly Eligibility Universe, accessed 11/16/15."

Demographics

Table 3 shows the distribution across age groups for individuals in the New Jersey Medicaid long-term care (LTC) population and those enrolled in MLTSS. The long-term care population includes those "grandfathered" consumers residing in nursing facilities under a fee-for-service arrangement—about 61% of nursing facility residents in October 2015.[30] The largest share of the population in both general long-term care and MLTSS is comprised of people ages 65 and over (a breakdown of the long-term care population shows that the largest share here is people ages 85 and over). MLTSS has a slightly larger share of consumers under age 65 than the general long-term care population. In December 2015, about 89% of the long-term care population was dually eligible for both Medicare and Medicaid (people under age 65 with disabilities may be eligible for Medicare).[31]

Table 3: Ages of NJ long-term care[32] and MLTSS populations, October 2015

Age Group	Percent of Population		% of LTC population in MLTSS
	LTC	MLTSS	
0-21	1.1%	1.4%	61.1%
22-64	22.4%	24.5%	51.9%
65+	76.5%	74.1%	46.0%
65-74	17.1%	n/a	n/a
75-84	23.1%	n/a	n/a

[30] Calculated from data from MAAC_Meeting_Presentations_1_20_16 (slide 23), which is based on "Monthly Eligibility Universe (MMX) in Shared Data Warehouse (SDW), accessed on 12/8/2015."
[31] MLTSS Presentation for Steering Committee– December 2015 (slide 4).
[32] Including fee-for-service nursing home residents as well as those served by MLTSS.

Age Group	Percent of Population		% of LTC population in MLTSS
	LTC	MLTSS	
85+	34.0%	n/a	n/a

Sources: Calculated from MAAC_Meeting_Presentations_1_20_16 (slide 23), which is based on "NJ DMAHS Shared Data Warehouse Regular MMX Eligibility Summary Universe, accessed 12/8/15" and slide 25, which is based on "DMAHS Shared Data Warehouse Monthly Eligibility Universe, accessed 12/8/15."

Assessment Timeliness

Two of the Quality Strategy measures examine the timeliness of the assessment to determine whether or not the consumer meets a nursing facility level of care. In order to enroll into MLTSS, consumers must meet this level of care. This assessment is done by the Department of Human Services, Division of Aging Services, Office of Community Choice Options (OCCO) for consumers who are not already both on Medicaid and enrolled in managed care and by MCOs for consumers who are enrolled with them through Medicaid.

The metric measures whether or not the assessment is completed within 30 days of the referral date (there is no measure of duration to assess the magnitude of delay beyond 30 days). Figure 2 shows the results for OCCO, the MCO average, and the individual MCO results (dashed lines). The MCOs with the most variability also have the lowest enrollment. OCCO began reporting this metric upon implementation in July 2014; MCOs began reporting this data in January 2015 due to the need for system development.[33]

The OCCO average climbed from 49% in July 2014 to 76% in October 2015. There is some regional variability in this, though specific numbers are not available. It has been historically more difficult to recruit and retain staff in Northern New Jersey because of more alternative employment opportunities and a higher cost of living. Working conditions for staff making numerous home visits are frequently more onerous in the North because of greater difficulty with transportation and parking. Where possible, OCCO has shifted work to the Southern office (e.g., electronic approvals). OCCO staffing resources were strained during the initial implementation of MLTSS because they had to conduct re-assessments for after MCO assessment submissions could not be authorized (discussed in more detail in Table 4 and surrounding text).[34] OCCO has hired new staff and conducted training for MCO assessors to address the issue.[35]

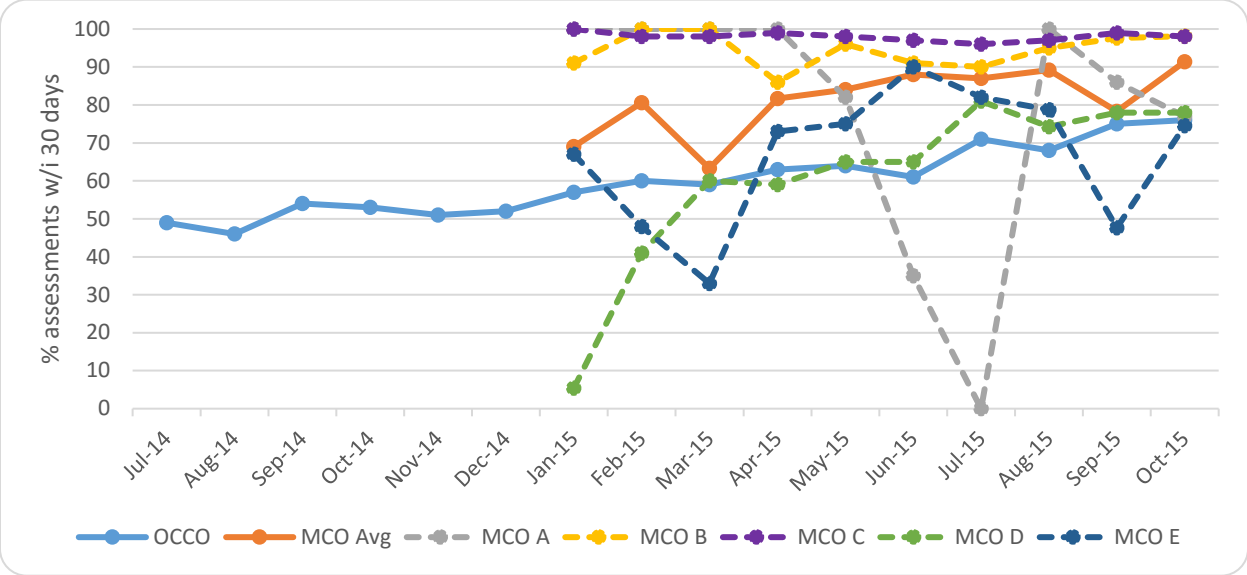
[33] DMAHS, MLTSS Performance Measure Report, 1/1/2015 – 3/31/2015, p. 1.

[34] OCCO is responsible for authorizing all MCO level of care assessments. If it looks from the MCO-submitted documents as if the client does not qualify, OCCO does its own face-to-face assessment of the client before ruling them ineligible.

[35] DMAHS, MLTSS Performance Measure Report, 7/1/14-6/30/15, p. 4.

The MCO overall monthly average for this metric increased from 69% in January 2015 to 91% in October 2015. Individual averages showed considerable range. For the period January 2015 to October 2015, individual MCO averages ranged from 61% to 94% per average month, with an 81% average for all MCOs together. During the same period, OCCO's monthly average was 65%.

Figure 2: Timeliness of nursing facility level of care assessment, by month

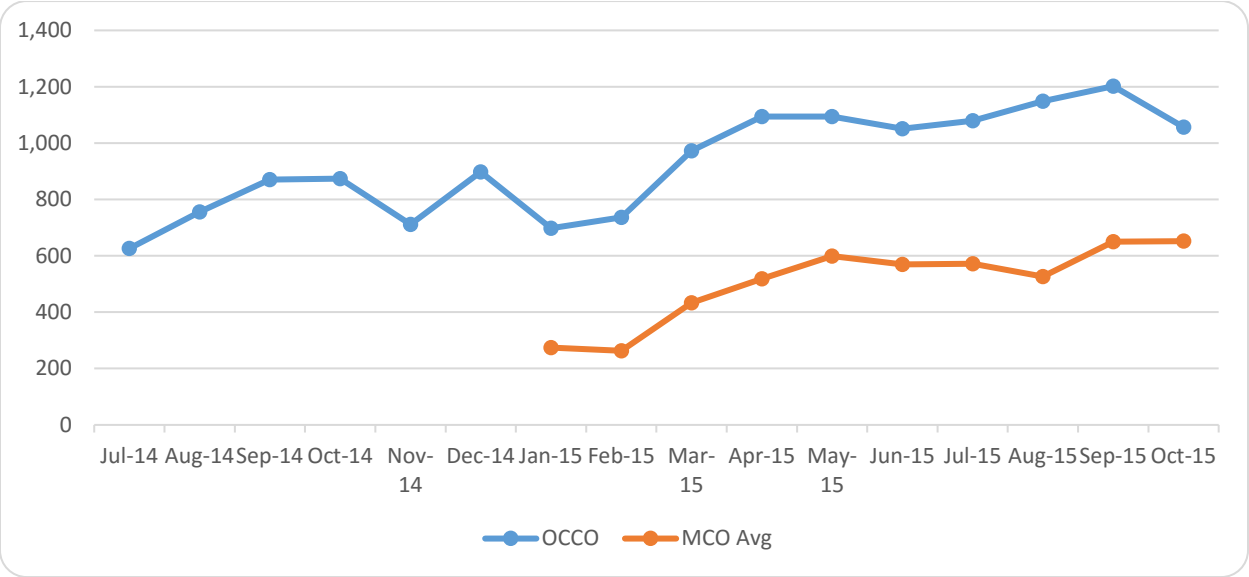


Source: DMAHS, MLTSS Performance Measure Reports, 7/1/14–6/30/15, 7/1/15–9/30/15 and 10/1/15–12/31/15.

OCCO conducts a larger volume of assessments (about double) compared with all MCOs combined, as shown in Figure 3. For the period of January 2015 to October 2015, OCCO conducted an average of 1,013 assessments per month, as compared with 506 for all MCOs combined. OCCO staff report that referrals have increased since the implementation of MLTSS. OCCO receives referrals for anyone applying for long-term care services through Medicaid as well as anyone entering a nursing home for any reason (including rehab) who may become eligible for Medicaid within 180 days. As of April 2016, OCCO was receiving an average of 5,800 referrals a month—many of these referrals do not result in an assessment because the consumer is discharged quickly or passes away before an assessment can be done.[36] This means that OCCO is able to triage referrals when they are aware of people who need to be assessed quickly.

[36] This information as well as some other facts in this section were gathered by a telephone conversation with staff from the Division of Aging Services in April of 2016.

Figure 3: Number of level of care assessments conducted, by month

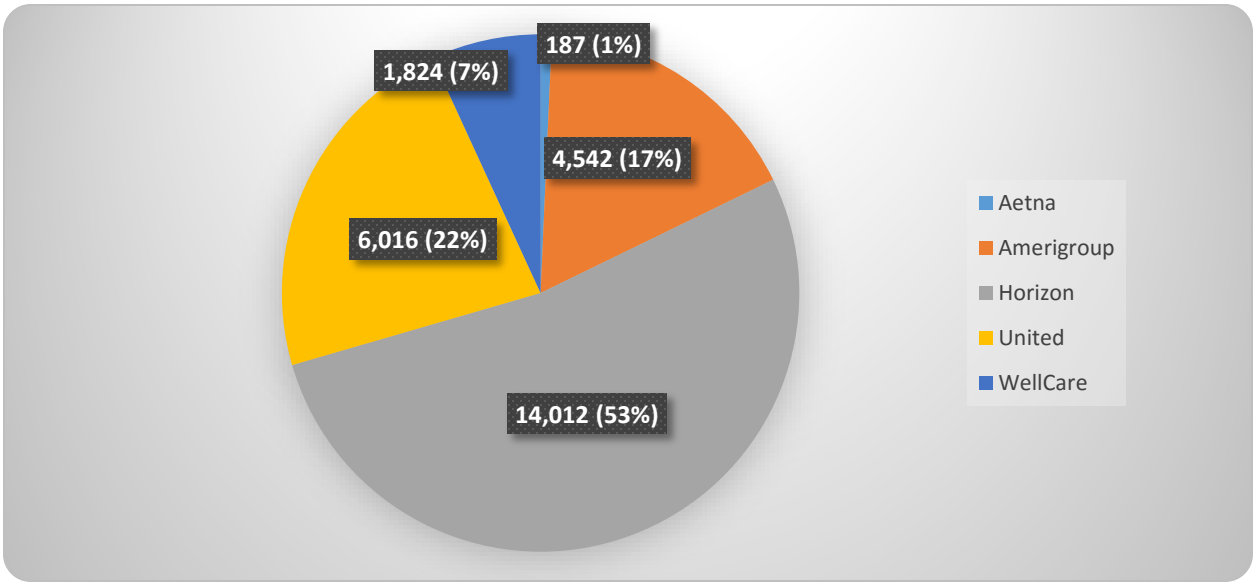


Source: DMAHS, MLTSS Performance Measure Reports, 7/1/14–6/30/15, 7/1/15–9/30/15 and 10/1/15–12/31/15.

MLTSS Level of Care Assessments by Plan

Figure 4 shows the number of MLTSS assessments done by each plan from January 2014 to June 2015. More than half of the assessments are done by Horizon, meaning that their results are very influential in the overall MCO average.

Figure 4: Number of MLTSS level of care assessments conducted July 2014–June 2015, by plan



Source: New Jersey Comprehensive Waiver Demonstration Section 1115 Annual Report, Demonstration Year 3: July 1, 2014–June 30, 2015, Attachment C.2.

Table 4 shows the number of assessments, the percentage share of assessments for each plan, the percentage of each plan's assessments that were authorized by OCCO (this means that OCCO was able to certify that the client met nursing facility level of care requirements based on the information provided by the MCO) and the percentage of not authorized assessments that were ultimately approved for each plan. Most clients (95%) are ultimately approved. Across all plans for the first year of MLTSS, 5% of the not authorized assessments were ultimately denied[37] (this represented 209 individuals). There were only minor variations by plan in the extent to which assessments were authorized and ultimately approved, as shown in Table 4.[38] The extent to which assessments are not authorized by OCCO depends upon the completeness of the assessment information provided by the MCO as well as the acuity level or extent of care needs of the client being assessed. OCCO has provided and continues to provide training to MCOs to ensure that assessors provide all necessary information. They have seen improvements in the authorized rate, and future contracts will require it to be at or above 93%, which four of five MCOs were meeting as of October 2015.[39] When plans submit assessments to OCCO that cannot be authorized, this means that OCCO has to do its own face-to-face assessment, which is required before any denial of eligibility. Higher than expected rates of not authorized submissions early in MLTSS implementation resulted in an unexpected level of workload for OCCO, straining staff resources.

Table 4: MLTSS level of care assessments and assessment outcomes July 2014–June 2015, by plan

	Number of Assessments, July 2014-June 2015	% of Total Assessments	% of Assessments Authorized by OCCO	% of Not Authorized Assessments Ultimately Approved
Aetna	187	0.7%	40.0%	88.9%
Amerigroup	4,542	17.1%	70.0%	97.6%
Horizon	14,012	52.7%	70.0%	93.8%
United	6,016	22.6%	65.0%	93.9%
WellCare	1,824	6.9%	73.0%	96.4%
Total	*26,581*	*100.0%*	*68.4%*	*94.5%*

Source: New Jersey Comprehensive Waiver Demonstration Section 1115 Annual Report, Demonstration Year 3: July 1, 2014–June 30, 2015, Attachment C.2.

[37] Shown in Table 4 as 95% ultimately approved.

[38] We include Aetna's numbers for the sake of completeness, but they only began operations in January 2015 and had a small number of assessments, so they should not be compared with the others.

[39] Trainings held during the first year are documented in New Jersey Comprehensive Waiver Demonstration Section 1115 Annual Report, Demonstration Year 3: July 1, 2014–June 30, 2015, Section VI and Attachment C.1.

Care Plan Characteristics

An external quality review organization audited MCO records (100 from each of the four MCOs that were operating upon implementation) and calculated metrics based on several aspects of consumers' care plans for the first year of MLTSS, as shown in Figure 5 and discussed in more detail below. For the first year of implementation, there were two audits done—one for each six month period. The first audit had few cases involving individuals new to MLTSS (12 to 17 per MCO), so comparisons between the first and second audits should be made with caution.[40] The audit results were combined to give an annual average. Going forward, audits will be done annually. Because the reported metrics are seen as important to ensure quality, MCOs are required to submit a work plan to improve rates less than 85%.

1. Timeliness—Care plans established within 30 days of enrollment into MLTSS/HCBS are considered timely. Examining the percent of care plans that were timely (out of all care plans audited) reveals that the average for all MCOs was 51.7%, with the values for individual MCOs ranging from 25% to 72%. All MCOs were below the 85% threshold where a corrective action plan is required. The EQRO reported improvement in the second half of the year. We do not know how services to consumers were affected by this.
2. Aligned with Needs—This measure looks at the percentage of plans of care that were aligned with assessment results of the NJ Choice[41] in type, scope, amount, frequency and duration. MCOs were higher on this measure, ranging from 87% to 97% (93% overall). However, all MCOs showed a decline in this measure from the first to the second review period. For individuals new to MLTSS, the rate declined from 96% to 91% from the first period to the second. We do not have any further information about the ways in which care plans were aligned or not, or what this meant for consumers.
3. Person-Centered Principles—This measure examines whether plans of care were developed using person-centered principles.[42] This measure showed a large range for individual MCOs--from 10% to 97%-- with a 61% average across all MCOs. The overall rate for individuals new to MLTSS showed an increase from the first to the second periods. MCO E's results are low due to the lack of documented member goals in the service plan.
4. Back-up Plan—This measure documents the presence of a back-up plan (i.e., what happens if a home care aide is out sick for services delivered in a private home where

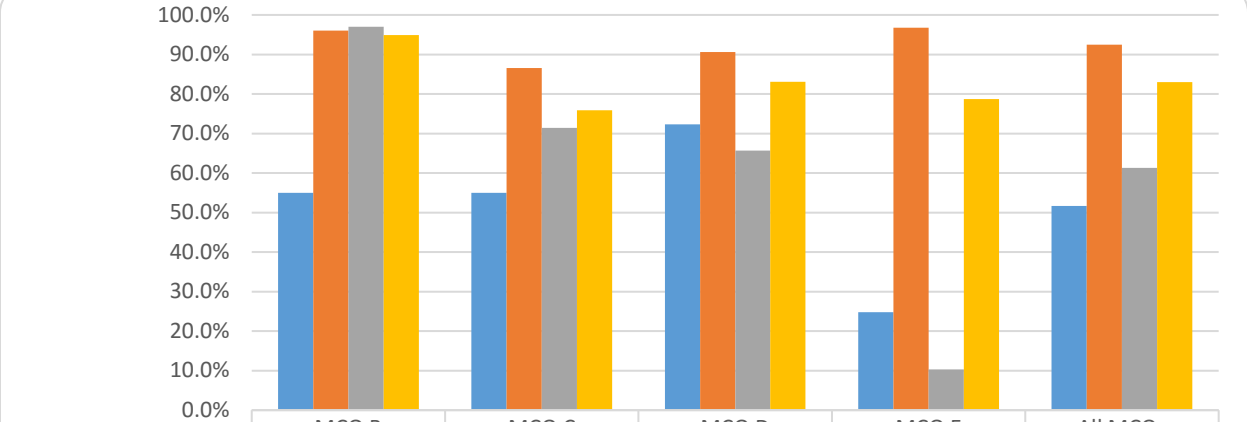
[40] "Methodology of MLTSS-CM Focus Study," extract from EQRO report provided to authors by DMAHS.

[41] NJ Choice is an assessment tool used by OCCO and MCOs to determine whether a consumer meets a nursing facility level of care. See http://www.state.nj.us/humanservices/dmahs/home/NJ_Level_of_Care_and_Assessment_Training.pdf for more details.

[42] Reports do not specify how person-centered principles were measured by the EQRO. A report that discusses person-centered planning in the context of MLTSS and New Jersey is Orlowski, G and J Carter. 2015. *A Right to Person-Centered Care Planning.* Washington, DC: Justice in Aging http://justiceinaging.org/wp-content/uploads/2015/04/FINAL_Person-Centered_Apr2015.pdf.

there is no regularly scheduled staff). As implemented in the initial audit, this was calculated for all files selected, rather than just those in an HCBS setting without regular staffing, and the results are still under discussion for that reason. The overall results for individuals new to MLTSS decreased from 88% in the first review to 81% in the second, with an overall average for all cases of 83% (range 76%-95%).

Figure 5: Care plan characteristics, July 2014–June 2015



	MCO B	MCO C	MCO D	MCO E	All MCOs
In 30days	55.0%	55.0%	72.3%	24.8%	51.7%
Aligned w/ Needs	96.0%	86.6%	90.6%	96.8%	92.5%
Person-Centered	97.0%	71.4%	65.7%	10.3%	61.3%
Has B/U plan*	94.9%	75.9%	83.1%	78.7%	83.0%

*Results still under discussion.
Source: DMAHS, MLTSS Performance Measure Report, 10/1/15–12/31/15.

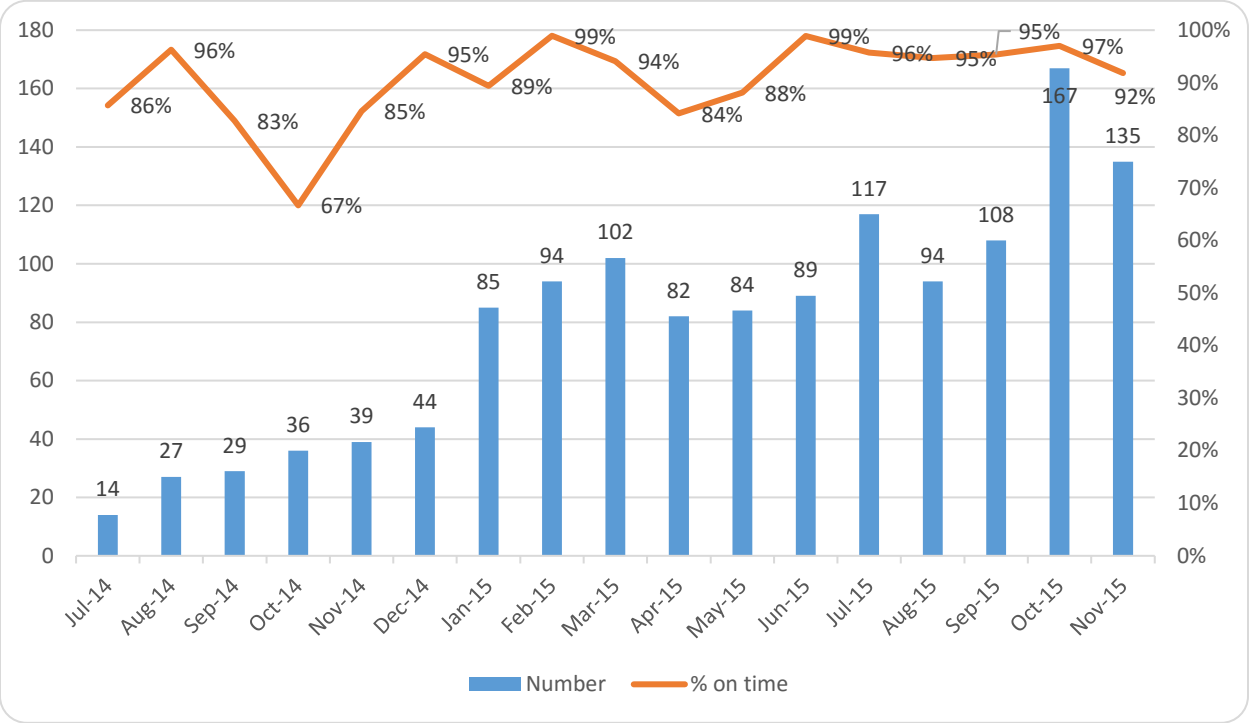
Critical Incidents

Critical incidents are defined in the managed care contract as "an occurrence involving the care, supervision, or actions involving a Member that is adverse in nature or has the potential to have an adverse impact on the health, safety, and welfare of the Member or others. Critical incidents also include situations occurring with staff or individuals or affecting the operations of a facility/institution/school."[43] Figure 6 shows the number and timeliness[44] of reporting for critical incidents from July 2014 to November 2015. The monthly average for timeliness ranged from 67% in October 2014 to 99% in February and June of 2015. The overall average for timeliness is 93% and the average number of reports per month is 79 for July 2014 to November 2015. The smallest number of incidents (14) were reported in July 2014 and the largest number in October

[43] Quote from Article 1, Page 8 of the Managed Care Contract, 01/2015 Accepted, accessed March 31, 2016 from http://www.state.nj.us/humanservices/dmahs/info/resources/care/hmo-contract.pdf.
MLTSS-related critical incidents are detailed in Article 9, Pages 55-56.
[44] Timeliness is defined as within one business day for unexpected deaths or media/potential media involvement and two business days otherwise.

2015 (167). The October number translates into about 0.8% of 20,321 MLTSS enrollees reported in October.[45]

Figure 6: Critical incident numbers and timeliness, July 2014–November 2015



Sources: DMAHS, MLTSS Performance Measure Reports, 7/1/14–6/30/15, 7/1/15–9/30/15 and 10/1/15–12/31/15, combined measures 17 and 17a.

Table 5 details the categories of incidents in Year 1 and the first quarter of Year 2. The most common incidents are injuries or falls and medical or psychiatric emergencies. Together, these account for more than half of incidents.

Table 5: Critical incident categories

Critical Incident Categories	Year 1 (July 2014-June 2015)	Percent	Year 2, Q1 (July 2015-Sep 2015)	Percent
Severe injury/fall requiring treatment	262	36.7%	115	37.5%
Medical/psychiatric emergency	122	17.1%	64	20.8%
Missing/unable to contact or wandering from home/facility	70	9.8%	34	11.1%
Other/media involvement/medication error with serious consequences	59	8.3%	25	8.1%
Inappropriate conduct by provider	37	5.2%	9	2.9%

[45] Slide 3, MLTSS Presentation for Steering Committee December 2015.

Critical Incident Categories	Year 1 (July 2014-June 2015)	Percent	Year 2, Q1 (July 2015-Sep 2015)	Percent
Theft/exploitation	35	4.9%	12	3.9%
Neglect/mistreatment, including self, caregiver overwhelmed, environmental	35	4.9%	15	4.9%
Abuse-suspected or evidenced	34	4.8%	12	3.9%
Backup plan failure	30	4.2%	6	2.0%
Eviction/utility cutoff	17	2.4%	9	2.9%
Unexpected death	13	1.8%	6	2.0%
Total	714		307	

Sources: DMAHS, MLTSS Performance Measure Reports, 7/1/14–6/30/15, 7/1/15–9/30/15 and 10/1/15–12/31/15, combined measures 17 and 17a.

There aren't many differences by MCO. Overall rates of reporting by MCO enrollment seemed to suggest that one MCO was quite a bit lower than the others for the first year, but this seemed to equalize in the first quarter of the second year.[46] There were two differences that we found notable, but we were not able to determine whether or how these differences impacted services to members. These differences may reflect reporting differences by these MCOs, differences in the populations they are serving, or different procedures in dealing with members:

1. One MCO stood out for the share of incidents involving missing persons or unable to contact (this MCO accounts for 74% of the reports in this category for the combined periods, and the specific incident category accounts for 27% of the MCO's incidents in year 1 versus 0%-3% for others; and 36% of the MCO's incidents in quarter 1 of year 2 versus 0%-7% for others). This could be due to any (or a combination) of the following: 1) a higher likelihood to report clients missing relative to other MCOs (regardless of whether they are actually missing), 2) a true higher percentage of clients who the MCO is unable to contact, or 3) a reduced likelihood relative to other MCOs of updating the critical incident reporting when a missing client is found. State staff were not sure why this MCO stood out, but said that most unable-to-contact cases occurred in the context of the initial meeting with the client, where care managers may have minimal contact information. This MCO performed better than average with respect to timeliness of care planning, so it wasn't clear whether or how this difference affects member service.
2. Another MCO stood out for the share of incidents in an undefined "other" category, accounting for 74% of reports in this category for the combined periods, with "other" being 40% of this MCO's incidents in year 1 versus 0%-6% for others and 38% of incidents in quarter 1 of year 2 versus 0%-2% of others. State staff did not believe that this MCO

[46] Calculations not shown because we are not completely sure about the appropriate denominator.

was significantly different in the types of incidents it reported, but believed that it tended to report incidents as "other" whenever the situation crossed multiple categories, instead of choosing just one.

Appeals, Grievances and Complaints

MCOs are required to report Appeals, Grievances and Complaints for MLTSS members.[47] An appeal is a request for review of an action. A complaint is a protest regarding the MCO or contractor that could be resolved within five business days. A grievance is a complaint that could not be resolved within five business days.

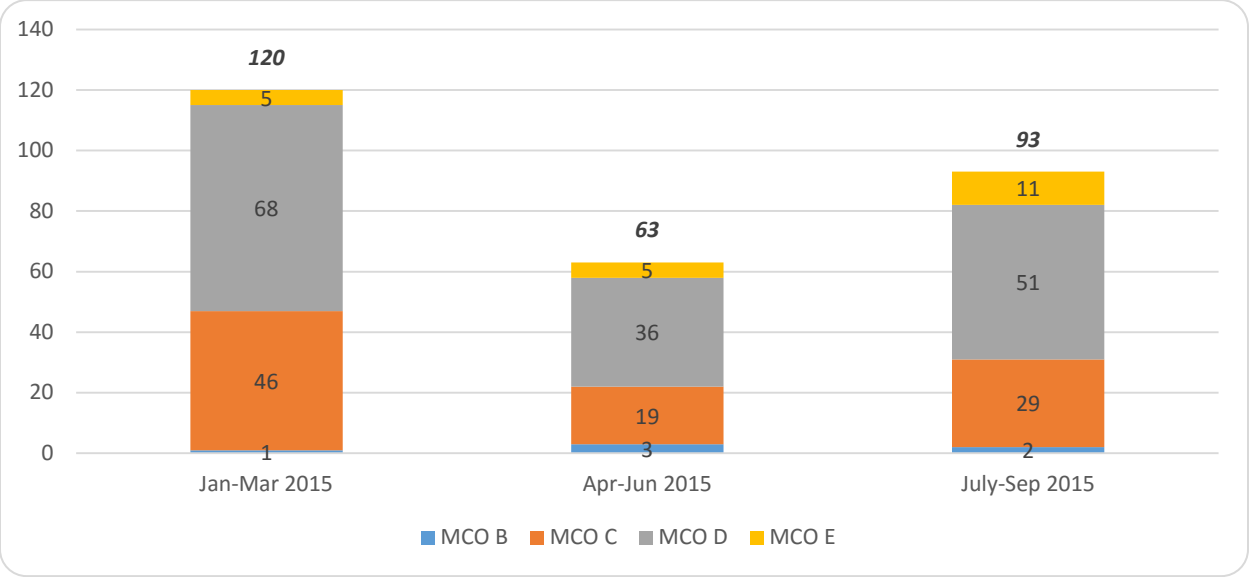
It is important to note that there are nuances with this type of measure such that lower numbers or rates do not necessarily reflect positive member experiences relative to other organizations and higher numbers or rates may not always reflect relatively negative experiences. With respect to MCO reporting of appeals/grievances/complaints they receive, members must be able to reach the MCO, make the MCO understand that the member has an issue, and the MCO must then document and report the issue (and hopefully, address it). An MCO with fewer reported issues may actually have fewer issues, or there may be communication barriers within their organization such that they are not recognizing the issues that they have. In addition, some members are more likely to complain or to be able to complain, and this kind of reporting does not adjust for these factors.

Until January 2015, MCOs reported all Medicaid members together. As of January 2015, MLTSS members are reported as a separate category. Appeals and grievances are reported separately from complaints. Despite the five day language above, investigation is considered timely when complete within 30 days. A completed investigation does not mean that the matter has been resolved to the member's satisfaction, but rather that the MCO has considered the issue and rendered an opinion as to its merit. Timeliness for appeals, grievances and complaints is very high, with only two complaints going slightly beyond 30 days to resolve.[48] Figure 7 shows the number of appeals and grievances in the first three quarters of 2015 by MCO and overall. Figure 8 shows the number of complaints in the first three quarters of 2015 by MCO and overall. There is no clear trend in the data over time. MCO A did not have any appeals, grievances or complaints during this period.

[47] See detailed definitions in Article 1 of the Managed Care Contract, 01/2015 Accepted, accessed March 31, 2016 from http://www.state.nj.us/humanservices/dmahs/info/resources/care/hmo-contract.pdf. Appeals in Article 1, p.2; Complaints in Article 1, p.6 and Grievances in Article 1, p.13.

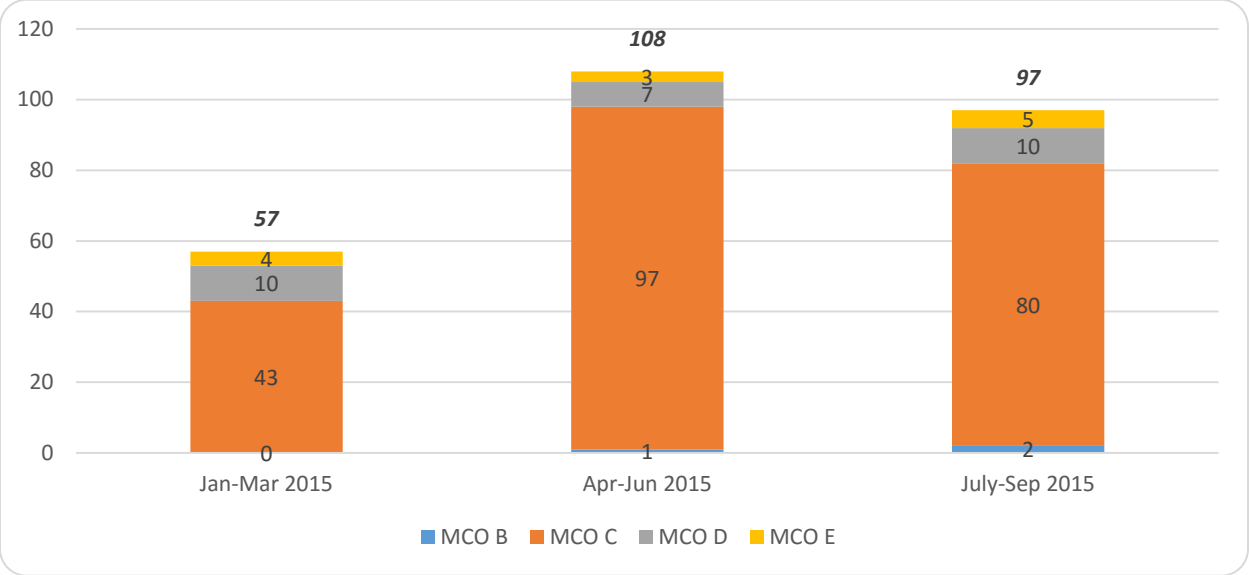
[48] One complaint took 33 days (DMAHS, MLTSS Performance Measure Reports, 7/1/14–6/30/15); another 42 days (DMAHS, MLTSS Performance Measure Reports, 10/1/15–12/31/15).

Figure 7: Quarterly number of MLTSS member appeals and grievances by MCO (total at top), 2015



Sources: DMAHS, MLTSS Performance Measure Reports, 7/1/14–6/30/15 and 10/1/15–12/31/15 Note: MCO A did not have any appeals/grievances in this time.

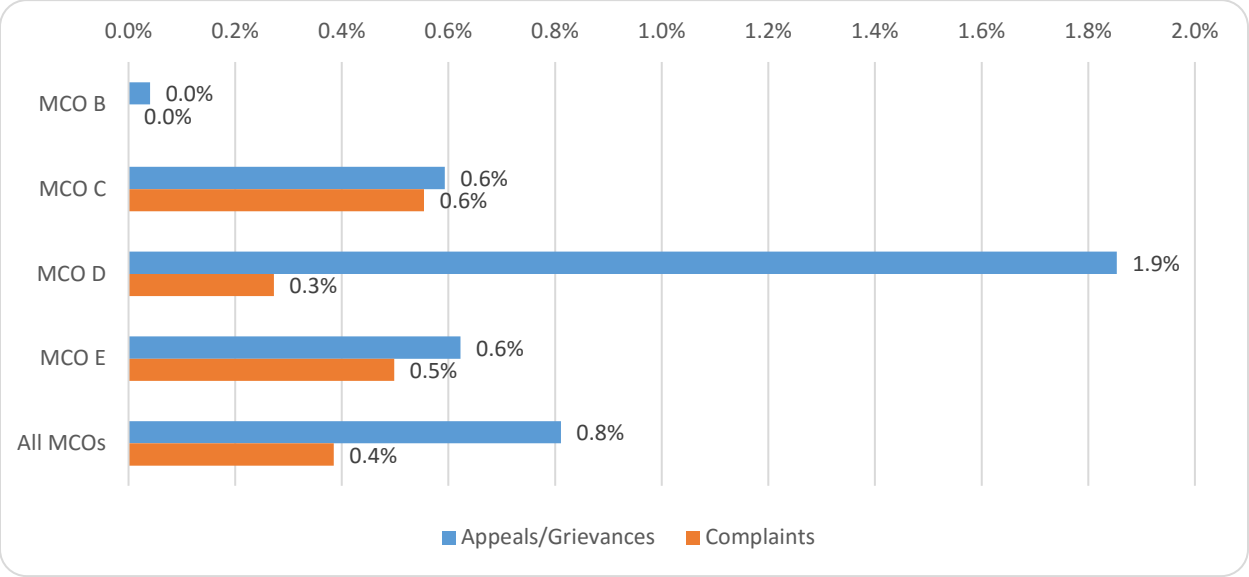
Figure 8: Quarterly number of MLTSS member complaints by MCO (total at top), 2015



Sources: DMAHS, MLTSS Performance Measure Reports, 7/1/14–6/30/15 and 10/1/15–12/31/15 Note: MCO A did not have any complaints in this time.

Because the different MCOs have different enrollment totals, the raw numbers shown in the previous figures do not give a sense of the rate of appeals/grievances and complaints among the MCO's members. Figure 9 presents our calculation of the appeals and grievances for the first quarter of 2015 per each 1,000 enrolled MLTSS members for each MCO. Enrollment totals were not available for subsequent quarters.

Figure 9: Estimated percentage of MLTSS members eligible for services with appeals/grievances and complaints, January–March 2015



Sources: DMAHS, MLTSS Performance Measure Reports, 7/1/14–6/30/15 and 10/1/15–12/31/15 Note: MCO A did not have any appeals, grievances or complaints in this time.

Figure 9 shows that the rate of appeals and grievances for MCO D appears higher than for other MCOs (by about 3 times), and its rate of complaints appears somewhat lower (by about half). Assuming these are unique (they may not be—that is, some people may register multiple issues) and adding appeals/grievances and complaints together, as many as 1.9% of MCO D's MLTSS members registered an issue, compared with less than 1% of the other two MCOs' members. It is important to consider a few caveats while interpreting these numbers. First, these complaints and the number of enrolled members are reported by the MCOs and have not been verified. It may be that MCO D is more likely to encourage appeals by members, and/or more likely to classify a complaint as an appeal or grievance. It may be that MCO D has understated its enrollment relative to other MCOs, which could make the rates look higher. Finally, these rates are for one quarter only—appeal data collected by the Department of Banking and Insurance (discussed later) show substantial variability over semiannual periods. As Figure 7 shows, MCO D's appeals and grievances were smaller over the next two quarters.

Outcome of Appeals

DMAHS examined not only the MCO-reported timeliness of appeal resolution (i.e., those investigated within 30 days) but also the MCO-reported outcome of appeals regarding denials of home health (215 appeals) and private duty nursing services (40 appeals) for 2015. With home

health services, the MCO upheld 197 of the denials (92%) and overturned 18 (8%) in full or part. With private duty nursing, all but one of the denials were upheld.[49]

Relation of Appeals and Fair Hearings to Service Reductions

Service reductions and the extent to which they are associated with appeals or fair hearings has been reported publicly for one quarter, to our knowledge (Q2 of 2015).[50] MCOs reported one full reduction in physical therapy, one partial reduction in private duty nursing, 7 reductions in adult medical day (4 full; 3 partial) and 41 reductions in personal care assistance (9 full; 32 partial). There is no indication of the number or percentage of hours involved. The presentation noted that none of the 14 full reductions were appealed. Of the 36 partial reductions, 4 (11%) went to a first level appeal, 1 (3%) went to a second level appeal and 1 (3%) went to a fair hearing. It is not clear whether service reductions have an effect on client outcomes. A lack of appeals and fair hearings cannot be assumed to indicate client satisfaction. Another presentation from this time period notes that there were a total of 10,866 MLTSS HCBS members in August of 2015, plus another 3,027 in Assisted Living.[51] This is the population to which reductions would apply. While these results are not audited, it would appear that reductions affected a small proportion of members in this quarter. Without information on other time periods, it is impossible to know how typical this quarter was.

Fair Hearings

Another potential measure of member complaints is the extent to which members file Medicaid fair hearing requests with the Department of Human Services. The outcomes of fair hearing requests that proceed through to a final decision are posted on the Department of Human Services web site. It is not possible to determine the extent to which these decisions relate to members enrolled in MLTSS and often it is not possible to tell the ultimate outcome—i.e., often, the result is that the MCO is told to do a new assessment, and the reader cannot tell whether they ultimately approved the desired service. Table 6 shows the number of final agency decisions by MCO along with information on the number of total Medicaid enrollees as well as MLTSS enrollees.[52] It is possible that some individuals are represented more than once in the fair hearing data. In addition, this table does not adjust for member factors that could affect the probability of filing a fair hearing request—that is, a larger number of final agency decisions could mean that an MCO is more likely to serve members that are more likely to file a fair hearing request as well as the more straightforward interpretation that larger numbers mean more members with

[49] Calculated from data from MAAC_Meeting_Presentations_4_20_16 (slides 28-30), which notes that the data is pending state and IPRO validation.
[50] Slide 8 in 9.24.15 Quality Slides for MLTSS Steering Committee.
[51] Slide 3 in MLTSS Presentation Steering Committee 9.24.15.
[52] See Department of Human Services, DMAHS Final Agency Decisions, accessed April 1, 2016 from http://www.state.nj.us/humanservices/dmahs/info/fads.html.

disputes. In addition, MCOs inform their members of the right to file a request—while efforts are made by the state to ensure standard minimum language used in disclosures, it is possible that better efforts by an MCO to inform members could result in more requests.

All MCOs have small numbers of fair hearing outcomes posted given the size of their enrollment. United appears to have higher numbers than might be expected given their enrollment, but it is difficult to establish patterns with certainty given the short amount of time, potential for duplicate cases in the data, and other issues mentioned that could affect the number of cases filed. In the MAAC meeting on April 20, an advocate who files fair hearing requests on behalf of members noted that she had felt pressure at times from MCOs to withdraw cases before a final outcome would be posted—if there are differential efforts in this regard, that could affect the numbers as well.

Though the names of MCOs are not included in the data on MCO-reported appeals, grievances and complaints, precluding us from directly comparing MCO-reported results with fair hearing outcomes, these results appear to match reasonably well with the pattern of MCO-reported incidents discussed earlier, which reflects positively on the validity of the MCO reports. In general, and subject to all the caveats discussed above, an MCO reporting low numbers of member disputes but showing up with a high number of fair hearing requests could be discouraging or undercounting member disputes in some way, calling their reporting into question. Alternatively, an MCO with high levels of reported member disputes (particularly if they are not resolved to members' satisfaction) but no fair hearing requests may not be adequately informing members of their right to a fair hearing.

Table 6: Fair hearing outcomes and enrollment by MCO

MCO	# of DMAHS Final Agency Decisions, 2014*	# of DMAHS Final Agency Decisions, 2015**	# of DMAHS Final Agency Decisions, 2016 (Jan-Mar)**	Average Total Medicaid Enrollees, 2015***	Enrollees eligible to receive MLTSS Services, Jan-Mar 2015****
Aetna	0	0	0	8,512	84
Amerigroup	1	2	1	210,303	2,486
Horizon	1	11	3	833,872	7,758
United	4	27	3	492,951	3,669

MCO	# of DMAHS Final Agency Decisions, 2014*	# of DMAHS Final Agency Decisions, 2015**	# of DMAHS Final Agency Decisions, 2016 (Jan-Mar)**	Average Total Medicaid Enrollees, 2015***	Enrollees eligible to receive MLTSS Services, Jan-Mar 2015****
WellCare	0	0	0	58,748	803

Sources: * DMAHS Final Agency Decisions 2014, accessed April 18, 2016 from http://www.state.nj.us/humanservices/providers/rulefees/decisions/dmahs2014.html.
** DMAHS Final Agency Decisions, accessed April 27, 2016 from http://www.state.nj.us/humanservices/dmahs/info/fads.html.
***NJ Department of Banking and Insurance, Carrier Enrollment Reports (Calculated from 2015 quarters), accessed April 18, 2016 from http://www.state.nj.us/dobi/division_insurance/lhactuar.htm#HMOReports.
****MLTSS Performance Measure Report, 10/1/25–12/31/2015.

Independent Health Care Appeals Program (IHCAP)

IHCAP[53] begin in 1997 and is an external review program administered by the NJ Department of Banking and Insurance (DOBI) to review adverse determinations made by insurance carriers for any health benefit. DOBI contracts with multiple Independent Utilization Review Organizations (IURO) to perform reviews. Insurance carriers bear the costs even if they reverse their decision prior to the IURO rendering a decision, or the individual or health care provider withdraws the appeal. Since 1997, DOBI has issued semi-annual reports tracking appeals and their resolution. Reports do not break out results by type of product—thus, these data contain all lines of business for each carrier (Medicaid and commercial). Self-insured and Medicare Advantage plans are not included, nor is Medicare.

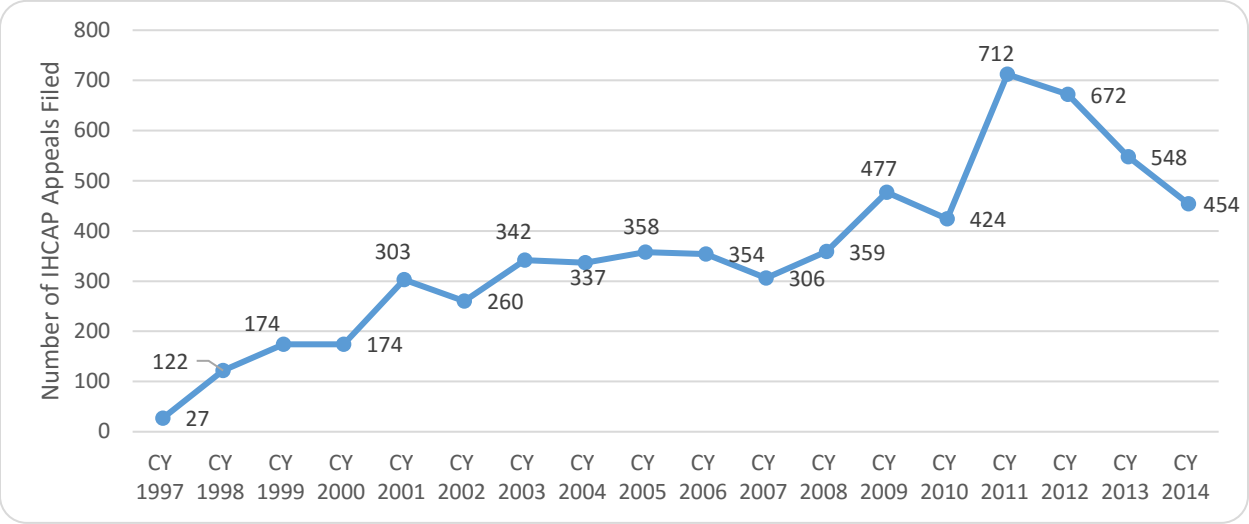
Figure 10 shows the number of appeals filed by calendar year since the program begin in 1997. There was a spike in appeals filed in 2011, which coincides with a period in which many health services under Medicaid, including personal care assistance (PCA) and adult day health services, were moved into managed care. Appeals have declined since that time. It is probably too early to see the effects of MLTSS implementation in these data, though it is clear that there was no immediate spike in the number of cases upon implementation in 2014 (changes in the time period of 2014 and forward could also be due to increases in insured people due to the Affordable Care Act).

One potentially notable change, however, is the kinds of determinations that are appealed, though we are not sure how significant this is. It is only in the past year that DOBI has broken out the issues appealed with specific frequency numbers. The report for the first half of 2014 has a list of issues by declining frequency and notes that the first category, inpatient hospital, accounts

[53] See http://www.state.nj.us/dobi/division_insurance/managedcare/ihcap.htm.

for "substantially more denials than any other category."[54] Similar language is used in prior reports. In the second half of 2014 the report lists a frequency table for the issues involved. Inpatient hospital has 40 appeals (18% of the total), followed by dental issues (21, 9%), behavioral services (21, 9%), prescription drugs (19, 8.5%), reduction in acuity level (19, 8.5%), and home health services (17, 7.6%).[55] In the following report for the first half of 2015, denial of home health care is the top category (32 appeals, 12% of the total). The report says "These denials involved the reduction of private duty nursing services by Medicaid HMOs." It goes on to note that hospital-appealed filings for several categories total 78 (29%) and behavioral health/substance abuse appeals were at 38.[56] So, there does appear to be an increase in the number and share of appeals filed involving home health services, but it is difficult to tell how significant it is because the categories are not broken over time. A near doubling of cases in a semi-annual period seems high, but the percentage increase from 7.6% of the total to 12% isn't as alarming, and we don't know what the normal period-to-period variation for this or other categories is.

Figure 10: Number of IHCAP appeals filed, 1997–2014



Source: Semi-Annual Legislative Report, Independent Health Care Appeals Program, Department of Banking and Insurance, January 16, 2015–July 15, 2015, accessed April 26, 2016 from http://www.state.nj.us/dobi/division_insurance/managedcare/omc/34thihcaprpt.pdf.

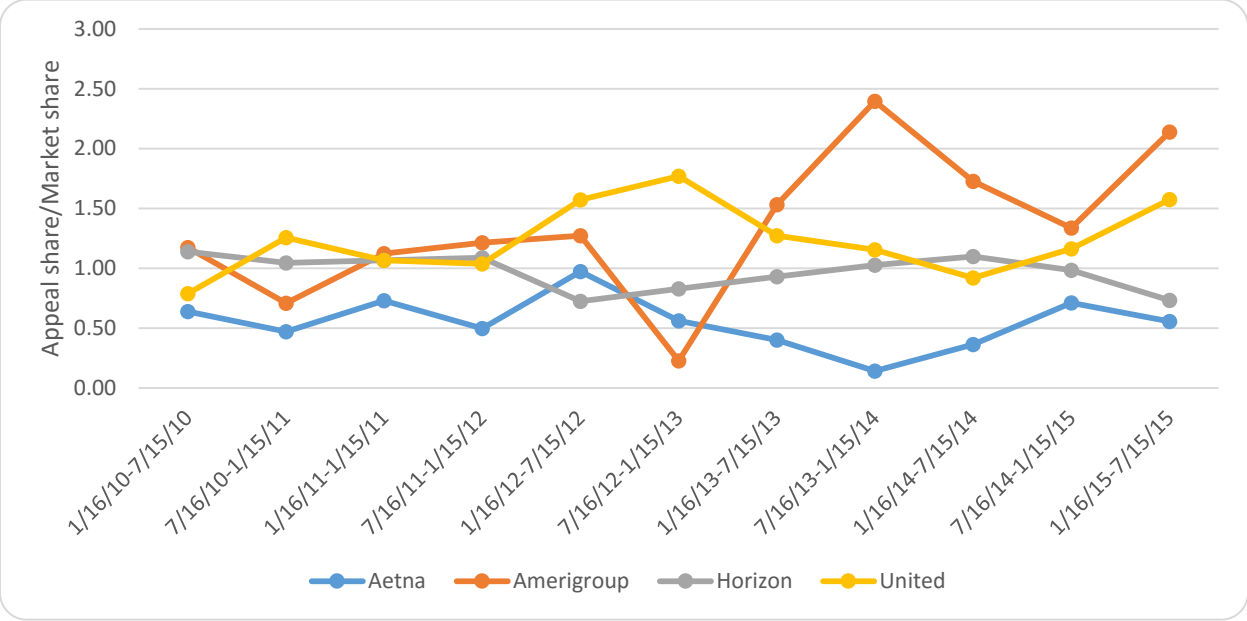
To provide a longer historical context for the complaints data presented earlier, Figure 11 presents, for four of the carriers discussed above, a comparison between their semi-annual share of appeals compared with their market share from 2010 through mid-July of 2015. A result above 1 means that the carrier's appeals exceeded their market share. A result of 1 means that the

[54] See http://www.state.nj.us/dobi/division_insurance/managedcare/omc/32ndihcaprpt.pdf.
[55] See http://www.state.nj.us/dobi/division_insurance/managedcare/omc/33rdihcaprpt_tbl3.pdf.
[56] See http://www.state.nj.us/dobi/division_insurance/managedcare/omc/34thihcaprpt.pdf.

carrier had an appeal rate equivalent to its market share. A result below 1 means that the carrier had an appeal rate below the level of its market share.

We are interested in the amount of variation across periods to assess the variation we might expect to see in other measures assessing MLTSS appeals (MCO reports and fair hearings). Figure 11 shows that there is a fairly large amount of year-to-year variability in appeals, particularly for the carrier with the smallest market share. Horizon has the steadiest rate—its average share of appeals filed for the period of 2010 through the first half of 2015 is slightly below its average market share in the same period. Aetna's share of appeals is generally well below its market share. Amerigroup and United (includes AmeriChoice and Oxford) generally have shares of appeals that are greater than their market share. In addition to being a measure of the extent to which carrier policyholders disagree with their decisions, the share of appeals may reflect the kinds of business lines that carriers are in as well as their propensity to inform their members of the right to pursue an independent review. Thus, interpretation of this measure is not straightforward as it has potentially neutral (business lines), positive (carrier efforts to inform members of rights) and negative (aggrieved member) interpretations regarding members' experiences with the carrier. Average results for the period shown for all carriers as well as their market shares at the beginning and end of the period are shown in Table 7.

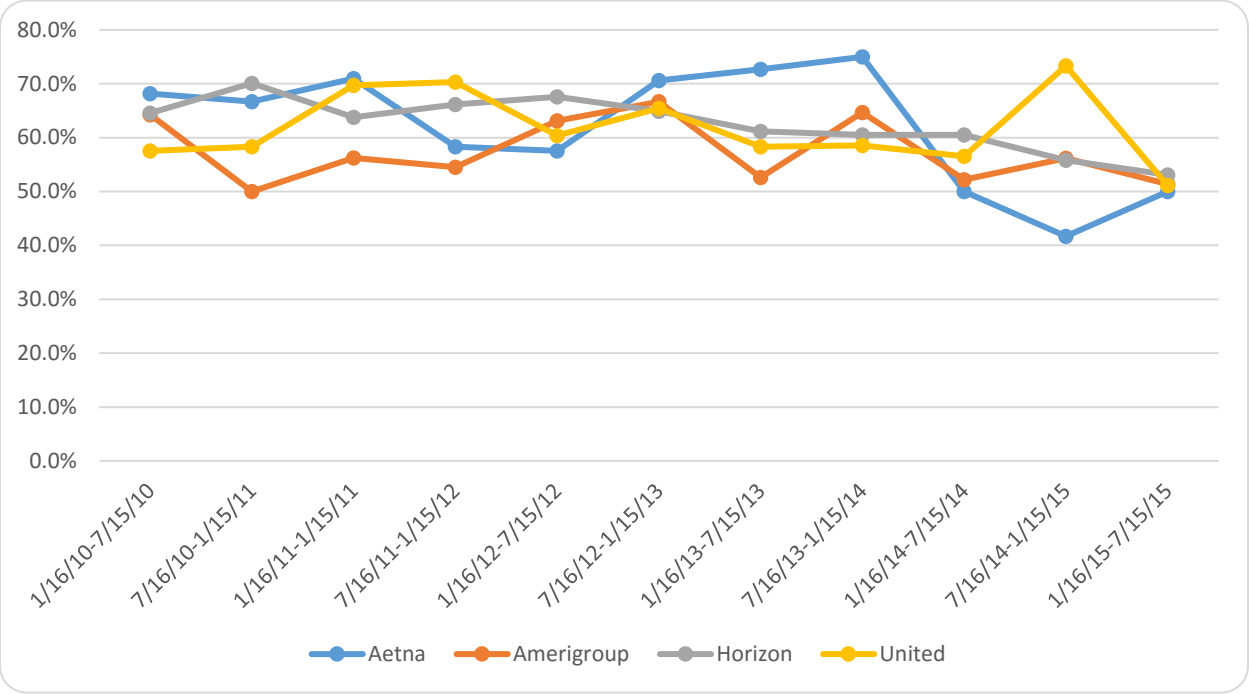
Figure 11: Carrier share of IHCAP appeals compared with market share, 2010–2015 (semiannual periods)



Source: Semi-Annual Legislative Reports, Independent Health Care Appeals Program, Department of Banking and Insurance, accessed April 26, 2016 from http://www.state.nj.us/dobi/division_insurance/managedcare/ihcapreports.htm (the latest report covering the period in question was always used—generally Table 2).
Note: We have added together the appeals for United member organizations AmeriChoice, Oxford and United because market share is reported jointly.

Figure 12 denotes the extent to which the Independent Utilization Review Organization (IURO) agrees with the carrier once the review is complete (that is, the denial is upheld), and averages over the period are presented in Table X. Average rates of agreement between the IURO and carriers over the period range from 57.5% (Amerigroup) to 62.6% (Horizon), but there is a lot of year-to-year variability in this measure, so we would not call this a significant difference.

Figure 12: IURO agreement with carrier (denial upheld), 2010–2015 (semiannual periods)



Source: Semi-Annual Legislative Reports, Independent Health Care Appeals Program, Department of Banking and Insurance, accessed April 26, 2016 from http://www.state.nj.us/dobi/division_insurance/managedcare/ihcapreports.htm (the latest report covering the period in question was always used—generally Table 2).
Note: We have added together the appeals for United member organizations AmeriChoice, Oxford and United because market share is reported jointly.

Table 7: Independent health care appeals averages 2010–2015 (semiannual periods), by market share and IURO agreement with carrier (denial upheld)

	Market Share		Appeal share/Market Share	IURO Agreement
Carrier	2015	2010	Average of semiannual periods, 2010-2015 (1st half)	
Aetna	9.6%	14.7%	0.55	62.0%
Amerigroup	6.6%	5.1%	1.35	57.5%
Horizon	51.0%	47.7%	0.97	62.6%
United	21.8%	17.9%	1.23	61.8%

Source: Semi-Annual Legislative Reports, Independent Health Care Appeals Program, Department of Banking and Insurance, accessed April 26, 2016 from http://www.state.nj.us/dobi/division_insurance/managedcare/ihcapreports.htm (the latest report covering the period in question was always used—generally Table 2).
Note: We have added together the appeals for United member organizations AmeriChoice, Oxford and United because market share is reported jointly.

Other State Hotlines

We are aware that DMAHS has hotlines for Medicaid members and providers and have heard positive feedback from stakeholders about the responsiveness of staff there. At times, presentations to the MAAC or MLTSS Steering Committee appear to contain some data collected from these hotlines. We know that there are other state points of contact for consumers and aren't sure to what degree data may be collected there. We will inquire about these as potential sources of data for the final evaluation report.

CAHPS® Survey

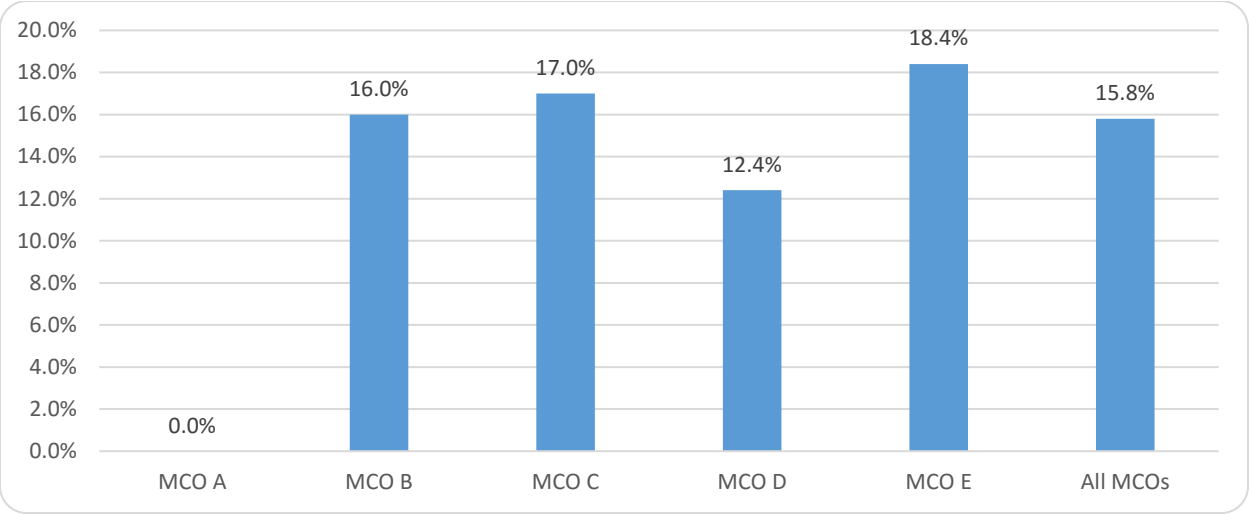
The CAHPS® (Consumer Assessment of Healthcare Providers and Systems) survey mentioned in Chapter 1 was mailed out in April 2014, before MLTSS was initiated, so the results would not reflect on member's experiences with MLTSS. The 2014 CAHPS Survey of general Medicaid enrollees showed no significant differences in member satisfaction with plans.[57]

Nursing Facility Admissions

Figure 13 shows the percent of new MLTSS members during the measurement year who had a nursing facility admission (it appears that all former HCBS waiver enrollees are counted as new in the first year, while any individuals transitioning from fee-for-service nursing facility care to MLTSS nursing facility care are not included). There is some variance by MCO, which may reflect differences in the health conditions or social supports of the underlying population, the ways people may enroll into MLTSS and select or be auto-enrolled into an MCO, and the care provided by MCO care managers and providers, which can prevent or shorten facility admissions.

[57] Laster-Bradley M. September 2014. 2014 NJ CAHPS® Survey 5.0 Analysis & Health Plan Comparison Report. Xerox State Healthcare for The New Jersey Division of Medical Assistance and Health Services.

Figure 13: New MLTSS members with a nursing facility admission, July 1, 2014–June 30, 2015



Source: DMAHS, MLTSS Performance Measure Report, 7/1/14–6/30/15.

Transitions between Nursing Facility and Community[58]

The reporting of member transitions between nursing facility and community settings is complicated by members who may pass away or switch between MCOs. It appears that some MCOs may interpret a requirement to report only continuously enrolled members somewhat differently, so we have not presented tables or figures for this section. The state is implementing a nursing facility transition incentive payment initiative that will require a minimum of 120 calendar days of residence in the community after the transition.

1. Transitions from Nursing Facility to Community and Back within 90 Days: MCOs report to the department the number of MLTSS members per quarter who have transitioned from a nursing facility to a community setting. There were 227 transitions out of nursing facilities in the first year of MLTSS and another 122 from July 2015 to September of 2015 for a total of 349 transitioned. Fifteen of those transitioned in the first year of MLTSS returned to a nursing facility for more than 90 days. There do not appear to be large differences among the MCOs on these measures.
2. Transitions from Community to Nursing Facility, Short-Term (less than or equal to 180 days) and Long-Term (greater than 180 days): In the first quarter after MLTSS implementation, about 90 individuals transitioned from the community to a nursing facility, the majority (about 74%) for a long-term stay of greater than 180 days. This pattern held for all of the MCOs. For each of the following two quarters, nearly 420 MLTSS-enrolled individuals transitioned from the community to a nursing facility. In these

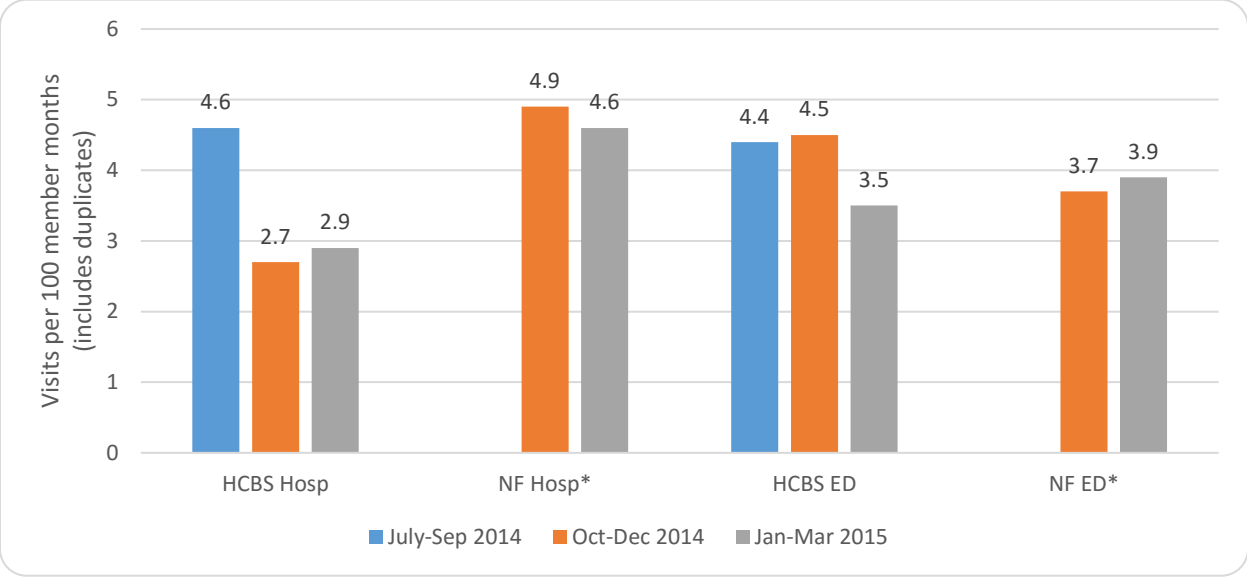
[58] Sources for this section are DMAHS, MLTSS Performance Measure Reports, 7/1/14–6/30/15 and 10/1/15–12/31/15, plus communication with DMAHS about updates MCOs have made to these reports.

quarters, the majority (54% and 59%) were only there for a short-term stay. However, this pattern was only seen in one MCO (because it has the largest number of enrollees, it affects the total more than the others). For the other MCOs, more than 60 percent of their nursing facility admissions were long-term. Without knowing the health and social support status of the MLTSS members involved, it is impossible to know whether these differences are due to underlying differences in members in these MCOs or differences in the way that MCOs are assisting members.

Hospital and Emergency Department Use

As shown in Figure 14, hospital and ED use has been stable or declined over the first three quarters of MLTSS implementation. Hospitalizations are somewhat higher for the nursing facility population, which is expected given the often more fragile health of these MLTSS enrollees. Hospitalizations for the HCBS MLTSS population declined from 4.6% of enrollees in the first quarter after implementation to slightly below 3% in the next two quarters. ED use among HCBS enrollees appeared to decline in the third quarter of implementation. We do not include data on nursing facility enrollees for the first quarter because there were only around 50 of them reported by the MCOs as continuously enrolled during that period.

Figure 14: Rate of hospital and ED use among continuously enrolled MLTSS members, quarterly, by setting (nursing facility or HCBS)



*Too few enrollees in the July–Sep 2014 period to include.
Note: Percent is calculated as the number of events (hospital/ED visits) divided by the number of continuously enrolled members. Individuals are counted for each event they had.
Sources: DMAHS, MLTSS Performance Measure Reports, 7/1/14–6/30/15 and 10/1/15–12/31/15.

Use of Self-Directed MLTSS Services

Self-directed services are those where consumers receive a cash budget based on assessed needs which they can use to purchase goods and services or hire workers. MCO case managers may suggest items they believe will enhance members' quality of life, as did one NJ MCO who determined that its members were having health problems due to excessive heat. The MCO purchased window air conditioning units to assist clients using the self-direction option. Where there is a worker providing services to the member, the member is the employer of the worker and directs their own care (or a representative may do this for them). For MLTSS, services available for self-direction include personal care assistance (PCA), chore services, non-medical transportation (e.g., shopping, religious services, etc.) and home-based supportive care (e.g., grocery shopping, money management, housekeeping).

The opportunity to self-direct PCA services has been available since 1999 for all those receiving state plan services, though enrollment grew with the movement of PCA to managed care in 2011 and continues to grow. MCOs are required to inform members of the option to self-direct.

With the inception of MLTSS in July 2014, the PCA rate was reduced from $15.50 per hour to $15.00 per hour, leading to a reduction in purchases of goods and services and an increase in the proportion of the budget going toward worker pay. Table 8 shows the number and percent of MLTSS members using self-directed services for each MCO as of August 2015, as well as the percentage of MLTSS members eligible to receive services during January-March of 2015.[59] Figure 15 shows a graphic depiction of the number of self-directed service users per 1,000 members. Horizon's members constitute 61% of self-directed service users. An estimated 5.3% of Horizon's MLTSS members use self-directed services. This is the largest percentage of all MCOs, though the three other MCOs who were active at implementation are close behind.

Table 8: MLTSS self-directed services by MCO as of August 2015

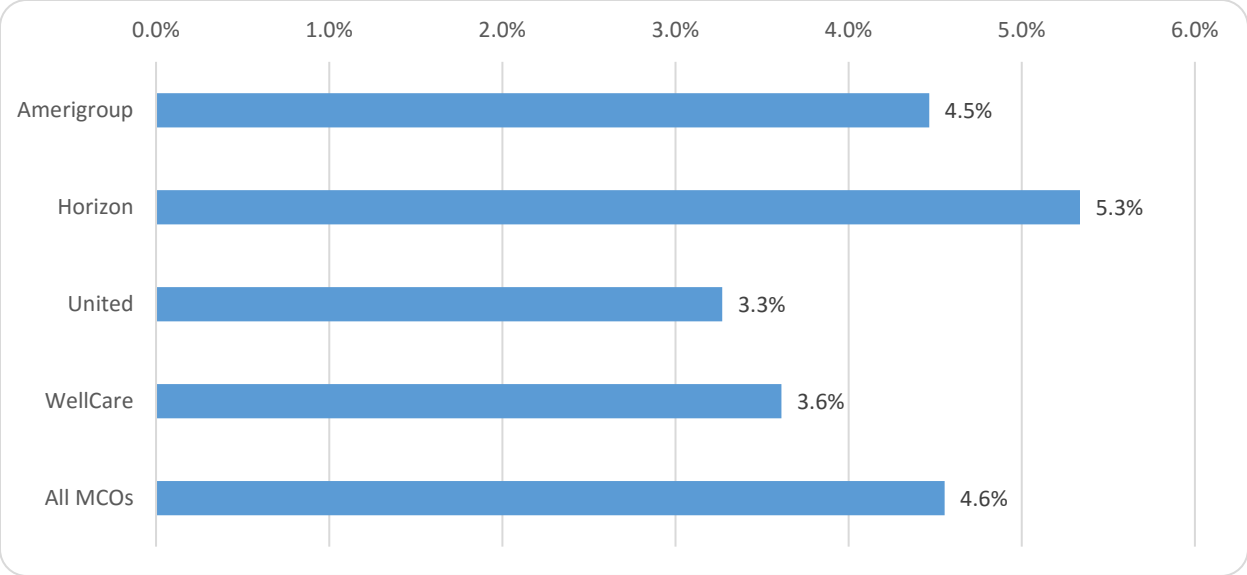
MCO	Number of members using MLTSS self-directed services	Share of total self-directed service use	Estimated percent of enrollees eligible for MLTSS services Jan-Mar 2015 using MLTSS self-directed services*
Aetna	0	0%	0%
Amerigroup	111	16%	4.5%

[59] We would like to have used a later time period for the number of eligible members, but this was the latest available to us. A slide presented in the MLTSS Steering Committee on June 9, 2016 shows the percentages in the first year (July 2014-June 2015) by those eligible to self direct but does not show the MCO names. The patterns look similar to our Figure 15, but the overall estimate would be about 10% of enrollees self-directing when the denominator is those in services that allow self-direction.

MCO	Number of members using MLTSS self-directed services	Share of total self-directed service use	Estimated percent of enrollees eligible for MLTSS services Jan-Mar 2015 using MLTSS self-directed services*
Horizon	414	61%	5.3%
United	120	18%	3.3%
WellCare	29	4%	3.6%
Total	674	100%	4.6%

*Note: This includes all MLTSS enrollees, even those in settings where they are unable to self-direct
Source: New Jersey Comprehensive Waiver Demonstration Section 1115 Annual Report, Demonstration Year 3: July 1, 2014–June 30, 2015, Section IV.

Figure 15: Percent of enrollees eligible for MLTSS services Jan–Mar 2015 using MLTSS self-directed services



Source: New Jersey Comprehensive Waiver Demonstration Section 1115 Annual Report, Demonstration Year 3: July 1, 2014–June 30, 2015, Section IV and Attachment E (for enrollee numbers).

Network Adequacy

The New Jersey Comprehensive Waiver Demonstration Section 1115 Annual Report for Demonstration Year 3 (covering the period of July 1, 2014 to June 30, 2015) contains GeoAccess reports for 17 acute care services as of June 30, 2015.[60] For MLTSS services, MCOs are required to have at least two providers for each home and community-based service (other than community-based residential alternatives)—for services provided in members' residences, the provider does not need to be located in the member's county but must we willing and able to

[60] See Section VII and Attachment D https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/nj/Comprehensive-Waiver/nj-1115-request-Annl-rpt-demo-yr3-11102015.pdf.

serve residents of that county.[61] Presumably for this reason, GeoAccess reports are not available for MLTSS services. However, the annual report notes that MCOs submit network files (including MLTSS providers) on a quarterly basis to DMAHS, which reviews them for potential gaps in coverage. In addition, MCOs report any potential gaps in coverage and the action they are taking to mitigate impacts on members during regular conference calls with the State. According to the annual report, should there be a gap in services for a member, MCOs will complete a single case agreement with a nonparticipating provider and/or arrange for transportation to a participating provider in a contiguous county.[62] We do not know how often this occurs. A summary of detailed grievance information reported by the MCOs covering the period of January to December 2015 shows 12 instances of difficulty obtaining access to MLTSS providers.[63] We are uncertain about the comprehensiveness of this number.

For the 17 acute care services shown in the report, there are only very slight differences among the MCOs, with all reporting 99% or higher levels of access overall. Services with less than 99.9% coverage (averaged among all MCOs in all counties served by the MCO) include hospitals (94% overall, 15 counties), general dentists (95% overall, 19 counties), and both adult and pediatric primary care physicians (97% overall, 13 counties for adults and 15 for pediatrics). Table 9 shows the counties in order of access coverage. Rates are generally 75% or higher, with only 10 instances in 7 counties of a rate for any provider below 80%.

Table 9: Average rate of GeoAccess coverage for 17 acute care services as of June 30, 2015

Rate	Counties
Less than 97%	Cumberland
97% - 98.49%	Sussex, Hunterdon, Atlantic, Morris, Warren
98.5%-99.49%	Ocean, Gloucester, Burlington, Somerset, Mercer
99.5% and higher	Cape May, Monmouth, Passaic, Middlesex, Camden, Bergen, Salem, Union, Essex, Hudson

Source: New Jersey Comprehensive Waiver Demonstration Section 1115 Annual Report, Demonstration Year 3: July 1, 2014–June 30, 2015, Attachment D.

The accuracy of provider directories, on which these data are based, has been questioned nationally and in New Jersey. One recent examination notes that New Jersey is among the most strict group of states with respect to provider directory requirements.[64] It is unclear whether

[61] See Section 4.8.10 MLTSS Network Requirements (Article 4, p.101 of the 01/2015 Accepted contract), http://www.state.nj.us/humanservices/dmahs/info/resources/care/hmo-contract.pdf.
[62] See Attachment E, PM#14 on p.8 https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/nj/Comprehensive-Waiver/nj-1115-request-Annl-rpt-demo-yr3-11102015.pdf.
[63] MAAC Meeting Presentations 4 20 16, slide 28.
[64] Hoyt B. 2015. Provider Directories: Litigation, Regulatory, And Operational Challenges. Washington, DC: Berkeley Research Group. http://www.thinkbrg.com/media/publication/579_Hoyt_DirectoryWhitePaper_032015_WEB.pdf.

recent changes to requirements will be sufficient to overcome the problems found by the Mental Health Association in New Jersey in 2013 where researchers found that 33% of 525 psychiatrists had incorrect listings and that only 61% were able to provide information on their ability to accept new patients, many after multiple contact attempts.[65]

Policy and Administrative Changes

Qualified Income Trusts. As part of the comprehensive waiver, New Jersey now allows individuals whose monthly income exceeds 300% of the SSI rate (recently $2,199) but who are clinically and otherwise eligible for Medicaid, to set up a Qualified Income Trust with a separate bank account for income above the threshold, which is used for cost-sharing expenses. This replaces the medically needy category, which was only available to individuals entering nursing facilities. As of the end of 2015 almost 900 beneficiaries had set up QITs.[66] We are not sure how many are in community settings. In October of 2015, there were 89 people receiving MLTSS HCBS services who had QITs (about 17% of the total—43% were in nursing facilities and the remaining 40% were classified in other ways where we cannot determine their setting).[67]

Self-attestation of Asset Transfer. Another policy/administrative change with the comprehensive waiver involved allowing individuals under 100% of the federal poverty level who are applying for long-term care to self-attest as to whether or not they have transferred assets in the past five years, rather than undergoing a detailed examination of all of their assets over this time period—a process that is burdensome for government staff as well as individuals who are applying. As of the end of 2015 approximately 627 individuals had utilized the self-attestation process.[68]

Summary

Overview. This chapter examines MLTSS-related measures reported by managed care organizations (MCOs), External Quality Review Organizations (EQRO) and New Jersey state government offices across a variety of domains affecting members. None of these measures represent a direct survey of member satisfaction or quality of life. There will be separate sources for measures like this for MLTSS members and other consumers of long-term care services when the NCI-AD results from data collected in the summer and fall of 2015 are released in 2016.

[65] Mental Health Association in New Jersey. July 2013. Managed Care Network Adequacy Report. http://www.mhanj.org/wp-content/uploads/2014/09/Network-Adequacy-Report-Final.pdf.
[66] NJ Department of Human Services, Renewal 1115 Waiver Concept Paper.
[67] MLTSS Presentation for Steering Committee December 2015, listing a source of NJ DMAHS Shared Data Warehouse Regular MMX Eligibility Summary Universe & Recipient Universe, accessed 11/13/15.
[68] NJ Department of Human Services, Renewal 1115 Waiver Concept Paper.

Quality Oversight Efforts/Member Appeal Mechanisms. There are a variety of quality oversight efforts and member appeal mechanisms that were described in this section. Member appeal mechanisms include direct appeals with MCOs, complaints to state quality hotlines, independent review requests through the Division of Banking and Insurance, and Medicaid fair hearing requests.

Long-Term Care Population by Setting. Data showed an increase in the share of the population receiving services in home and community-based settings from 27% in July 2014 to 35% in January 2016. Given the general preference of consumers for HCBS over facility services, this is a positive development. The share of the same population in nursing facilities dropped from 71% in July 2014 to 65% in January 2016. PACE (which always starts in a community setting but can progress to nursing facility care) remained constant at about 2% of the long-term care population. Among the HCBS population, about 20% are in assisted living facilities and the remaining 80% are in other types of community settings.

Setting of Former Waiver Enrollees. Among the group of people enrolled in the former §1915(c) home and community based services (HCBS) waivers that were combined in the §1115 comprehensive waiver, 65% were still receiving HCBS services through MLTSS in March 2016. About 8% were in nursing facilities and the remaining 28% are no longer enrolled in either MLTSS or Medicaid (most have passed away). This seems to suggest that people who begin receiving services in community settings are largely able to remain there.

Age Groups in MLTSS and LTC. MLTSS has a slightly larger share of consumers under age 65 than the general long-term care population, which includes those individuals receiving fee-for-service nursing facility services. This trend will likely continue as MLTSS has new enrollees and the fee-for-service population does not.

Assessment Timeliness. There are positive trends in the timeliness (defined as completion within 30 days of referral) of level-of care assessments. These are conducted by the Department of Human Services, Division of Aging Services, Office of Community Choice Options (OCCO) for consumers who are not already both on Medicaid and enrolled in managed care and by MCOs for consumers who are enrolled with them through Medicaid. OCCO's timeliness suffered early on in MLTSS implementation when they had to do a large number of face-to-face reassessments for MCO enrollees after the MCO assessments could not be authorized (OCCO authorizes all level of care assessments done by MCOs and must do its own face-to-face assessment before anyone is denied a nursing facility level of care designation). Additional training of MCO assessors seems to have addressed the issue. As of October 2015, 76% of OCCO assessments and 91% of MCO assessments were completed within 30 days of referral. Individual MCO values ranged from 75%

to 98% in October 2015. Horizon conducts more than half of the assessments for all five MCOs combined, so their results influence the MCO average most heavily. In terms of assessment volume, OCCO conducts about double the assessments of all MCOs combined. As of April 2016, OCCO was receiving an average of 5,800 referrals a month—many of these referrals do not result in an assessment because the consumer is discharged quickly or passes away before an assessment can be done. This means that OCCO is able to triage referrals when they are aware of people who need to be assessed quickly.

Care Plan Characteristics. An external quality review organization audited MCO records (100 from each of the four MCOs that were operating upon implementation) and calculated metrics based on several aspects of consumers' care plans for the first year of MLTSS. For this first year, there were two audits done—one for each six month period. The results were combined to give an annual average. The first audit had few cases involving individuals new to MLTSS (12 to 17 per MCO), so comparisons between the first and second audits should be made with caution. Going forward, audits will be done annually. Four aspects of care planning were evaluated, as shown below. MCOs were required to submit a work plan to address any rates below 85% on any of these measures. We do not know how results on these measures affected consumers.

1. *Timeliness (established within 30 days of enrollment)*—MCO values ranged from 25% to 72%, with an average of 52%. Corrective action plans for improvement were required for all MCOs on this measure. The EQRO reported improvement in the second half of the year. We do not know how services to consumers were affected by this.
2. *Aligned with Needs (as assessed with NJ Choice in type, scope, amount, frequency and duration)*—MCOs were higher on this measure, ranging from 87% to 97% (93% average, all MCOs). However, all MCOs showed a decline in this measure from the first to the second review period. For individuals new to MLTSS, the rate declined from 96% to 91% from the first period to the second. We do not have any further information about the ways in which care plans were aligned or not, or what this meant for consumers.
3. *Person-Centered Principles*—We do not know exactly how this measure was defined or how these results affected consumers. It showed a large range for individual MCOs--from 10% to 97%-- with a 61% average across all MCOs. Based on the 85% threshold, 3 plans would have been required to provide corrective action plans. The overall rate for individuals new to MLTSS showed an increase from the first to the second periods. One MCO's results are low due to the lack of documented member goals in the service plan.
4. *Percent of Consumers with a Back-up Plan*—As implemented in the initial audit, this was calculated for all files selected, rather than just those in an HCBS setting without regular staffing, and the results are still under discussion for that reason. The overall results for individuals new to MLTSS decreased from 88% in the first review to 81% in the second,

with an overall average for all cases of 83% (range 76%-95%). Based on the 85% threshold, 3 plans would have been required to provide corrective action plans. As with the other care plan measures, we do not know how these results affected consumers.

Critical Incidents. Critical incidents are defined in the managed care contract as "an occurrence involving the care, supervision, or actions involving a Member that is adverse in nature or has the potential to have an adverse impact on the health, safety, and welfare of the Member or others. Critical incidents also include situations occurring with staff or individuals or affecting the operations of a facility/institution/school."[69] The number of critical incidents has grown as enrollment has increased, but the percentage of enrollees affected is small. Timeliness of reporting (1-2 business days, depending on the nature of the event) has generally been very good, with an overall average of 93% from July 2014 to November 2015. Falls and medical or psychiatric emergencies accounted for more than half of incidents. Table 5 provided a detailed list of categories.

We found only two persistent differences by MCO—one in the share of incidents involving missing or unable to contact members and the other with respect to the share of reports classified as "other." We were not able to determine whether or how these differences impacted services to members. Differences may reflect reporting differences by these MCOs, differences in the populations they are serving, or different procedures in dealing with members.

Appeals, Grievances and Complaints. It is important to note that there are nuances with this type of measure such that lower numbers or rates do not necessarily reflect good member experiences relative to other organizations and higher numbers or rates may not always reflect relatively bad experiences. With respect to MCO reporting of appeals/grievances/complaints they receive, members must be able to reach the MCO, make the MCO understand that the member has an issue, and the MCO must then document and report the issue (and hopefully, address it). An MCO with fewer reported issues may actually have fewer issues, or there may be communication barriers within their organization such that they are not recognizing the issues that they have. With respect to external appeals/grievances/complaints, in many cases it is the MCO informing members of their rights to such appeals. Despite state efforts to require minimal standard disclosures, there may be differences in the effectiveness with which MCOs inform their members of their rights. In addition to these considerations, some members are more likely to

[69] Quote from Article 1, Page 8 of the Managed Care Contract, 01/2015 Accepted, accessed March 31, 2016 from http://www.state.nj.us/humanservices/dmahs/info/resources/care/hmo-contract.pdf.
MLTSS-related critical incidents are detailed in Article 9, Pages 55-56.

complain or to be able to complain, and this kind of reporting does not adjust for these factors. With these caveats in mind, we attempted to look at a number of indicators.

MCO Reports. MCOs report appeals and grievances separately from complaints, all on a quarterly basis. Until January 2015, MCOs reported all Medicaid members together. In January 2015, they began reporting MLTSS members separately.

Timeliness. They report the number of incidents and the timeliness of their investigations of the incidents (within 30 days is considered timely). As of September 2015, only two incidents (both complaints) took longer than 30 days to investigate (33 and 42 days).

Outcome of Investigations. It is important to note that a completed investigation does not mean that the member is satisfied—the MCO may deny the appeal request or decide that the complaint or grievance is without merit. DMAHS requests for the outcome of appeals regarding home health and private duty nursing services showed that 92% of denials were upheld (197 of 215) for home health and that all but one of the 40 private duty nursing-related appeals were upheld.

Volume and Rate of Investigations by MCO. Appeals and grievances were at their largest in the January-March 2015 quarter (120), declining to 63 and 93 in the following two quarters. Complaints peaked in April-June 2015 (108), from 57 the previous quarter and declining to 97 the following. These numbers are not adjusted for the number of enrollees in MLTSS. However, we can roughly estimate that appeals/grievances and complaints affected a small percentage of enrollees—around 1-2% at the most. We were only able to calculate MCO rates adjusted for the member population for one quarter—January-March 2015, shown in Figure 9. One MCO had rates of appeals/grievances that was about 3 times higher than the other MCOs, along with rates of complaints that were about half as high—assuming these are unique (they may not be) and adding appeals/grievances and complaints together, as many as 2% of this MCO's MLTSS members registered an issue, compared with about 1% in the two other MCOs that had significant numbers to report. With only one quarter, this may be an outlier or affected by reporting error in some way.

Service Reductions and Relation to Appeals. DMAHS also asked MCOs to report service reductions and the extent to which they were associated with appeals or fair hearings, and data are available for the third quarter of 2015. Across physical therapy, private duty nursing, adult medical day and personal care assistance, there were 14 full reductions and 36 partial reductions. None of the full reductions were appealed. Of the partial reductions, 4 (11%) went to a first level appeal, 1 (3%) went to a second level appeal and 1 (3%) went to a fair hearing.

It is not clear whether these service reductions have an effect on client outcomes. A lack of appeals and fair hearings cannot be assumed to indicate client satisfaction. There were a total of 10,866 MLTSS HCBS members in August of 2015, plus another 3,027 in Assisted Living. This is the population to which reductions would apply. While these results are not audited, it would appear that reductions affected a small proportion of members in this quarter. Without information on other time periods, it is impossible to know how typical this quarter was.

Fair Hearings. All Medicaid members can request fair hearings through the Department of Human Services. Outcomes that proceed to a final decision are posted on the Department's web site. It is not possible to determine the extent to which these decisions relate to members enrolled in MLTSS; however, the MCO name appears and we used that to count the number of cases in 2014, 2015 and the first quarter of 2016. These counts are not adjusted for duplicate filings, MCO efforts to inform members of fair hearing rights, or MCO efforts to get cases withdrawn before a final decision so that it does not appear. All MCOs have small numbers of fair hearing outcomes posted given the size of their total Medicaid enrollment. We cannot match MCO names since the MLTSS Performance Report identifies them only by letter. However, the patterns in the fair hearing data seem to match up with the pattern of appeals/grievances and complaints reported by MCOs, which reflects positively on the validity of those reports. The MCO with the highest number of fair hearing outcomes relative to its membership in 2014 and 2015 is much closer to other MCOs in the first quarter of 2016. Data examined from the Independent Health Care Appeals Program (IHCAP) suggests that there is period-to-period variation in this kind of data.

Independent Health Care Appeals Program (IHCAP). Another source of appeal data is IHCAP, an external review program administered by the NJ Department of Banking and Insurance (DOBI) to review adverse determinations made by insurance carriers for any health benefit (self-insured plans and Medicare plans are not eligible, but Medicaid and many commercial insurance lines are). We examined the total appeals filed by year from 1997-2014. There is a large spike in 2011 when many Medicaid services, including adult day health and personal care assistance (PCA) were moved into managed care. However, 2014 did not show an increase in filings, despite the implementation of the MLTSS and expanded eligibility for insurance generally under the Affordable Care Act. While effects in these data probably would not show until 2015, the lack of immediate increase in filings would appear to be a positive sign.

We also examined appeal data by carrier from 2010 to 2015 (11 semiannual periods) to provide additional context for the findings above—we were interested in the period to period

variation as well as the extent to which there may be patterns by carrier in the data. Specifically, we looked at the level of appeals for each carrier compared with their market share as well as the extent to which the independent reviews upheld their findings. It was not possible to restrict this analysis to Medicaid only, so this is across all business lines. In addition to being a measure of the extent to which carrier policyholders disagree with their decisions, the share of appeals may reflect the kinds of business lines that carriers are in as well as their propensity to inform their members of the right to pursue an independent review. Thus, interpretation of this measure is not straightforward.

We find that there is a good deal of period-to-period variation in the level of appeals filed relative to market share. A couple of the carriers appear to have higher levels of appeals than would be expected given their market share, but that could be due to different lines of business they may be in. With respect to the level of agreement, the external review organization generally agrees at least half the time with the carrier. We did not feel there were significant differences among the carriers for the time periods examined.

There is a potentially notable change in the types of issues appealed that could relate to MLTSS. The report for the first half of 2015 lists denials of home health care as the top issue in their frequency table of filings and notes that "These denials involved the reduction of private duty nursing services by Medicaid HMOs." While there were 17 of these cases in the latter half of 2014 (numbers were not given before then), there were 32 such cases in the first half of 2015 (this represented an increase from 7.6% of the total filings to 12%). However, because there isn't historical detail in the reports, it is impossible to know how typical this kind of change is. It does appear that the first half of 2015 is the first time that any category has been higher than inpatient admissions. However, it also appears that there are potentially different ways to group the appeal categories, some of which could make the growth in home health care seem less significant.

Other Potential Data Sources: State Hotlines, CAHPS® Surveys. We are aware that there are different state offices that interact with members and providers and sometimes discuss data they have collected in MAAC and MLTSS Steering Committee meetings. We have heard positive feedback from stakeholders about the responsiveness of state staff to inquiries made to various offices. We will inquire about these as potential sources of data for the final evaluation report. The CAHPS® (Consumer Assessment of Healthcare Providers and Systems) survey mentioned in Chapter 1 was mailed out in April 2014, before MLTSS was initiated, so the results would not reflect on member's experiences with MLTSS (reported results of the

survey showed no significant differences in overall Medicaid member satisfaction with plans).[70]

Nursing Facility Admissions. About 16% of new MLTSS members (including waiver transitionees) had a nursing facility admission in the first year of MLTSS. Individual MCO rates varied from 12.4% to 18.4%. There may be different factors driving that variation including differences in the health conditions or social supports of the underlying population, the ways people may enroll into MLTSS and select or be auto-enrolled into an MCO, and the care provided by MCO care managers and providers, which can prevent or shorten facility admissions.

Transitions between Nursing Facility and Community. The state is implementing a nursing facility transition incentive payment initiative that will require a minimum of 120 calendar days of residence in the community after the transition. Performance measures ask MCOs to report about a 90 day residence.

Transitions from Nursing Facility to Community and Back within 90 Days. There were 227 transitions out of nursing facilities in the first year of MLTSS and another 122 from July 2015 to September of 2015 for a total of 349 people transitioned. Fifteen of those transitioned in the first year of MLTSS returned to a nursing facility for more than 90 days. There do not appear to be large differences among the MCOs on these measures.

Transitions from Community to Nursing Facility, Short-Term (less than or equal to 180 days) and Long-Term (greater than 180 days). In the first quarter after MLTSS implementation, about 90 individuals transitioned from the community to a nursing facility, the majority (about 74%) for a long-term stay of greater than 180 days. This pattern held for all of the MCOs. For the following two quarters, nearly 420 MLTSS-enrolled individuals transitioned from the community to a nursing facility. In these quarters, the majority (54% and 59%) were only there for a short-term stay. However, this pattern was only seen in one MCO (because it has the largest number of enrollees, it affects the total more than the others). For the other MCOs, more than 60 percent of their nursing facility admissions were long-term. Without knowing the health and social support status of the MLTSS members involved, it is impossible to know whether these differences are due to underlying differences in members in these MCOs or differences in the way that MCOs are assisting members.

Hospital and Emergency Department Use. MCO-reported hospital and ED use has been stable or declined over the first three quarters of MLTSS implementation. Hospitalizations are somewhat

[70] Laster-Bradley M. September 2014. 2014 NJ CAHPS® Survey 5.0 Analysis & Health Plan Comparison Report. Xerox State Healthcare for The New Jersey Division of Medical Assistance and Health Services.

higher for the nursing facility population, which is expected given the often more fragile health of these MLTSS enrollees. Hospitalizations for the HCBS MLTSS population declined from 4.6% of enrollees in the first quarter after implementation to slightly below 3% in the next two quarters. ED use among HCBS enrollees appeared to decline in the third quarter of implementation.

Use of Self-Directed MLTSS Services. Self-directed services are those where consumers receive a cash budget based on assessed needs which they can use to purchase goods and services or hire workers. For MLTSS, services available for self-direction include personal care assistance (PCA), chore services, non-medical transportation (e.g., shopping, religious services, etc.) and home-based supportive care (e.g., grocery shopping, money management, housekeeping). The opportunity to self-direct PCA services has been available since 1999 for all those receiving state plan services, though enrollment grew with the movement of PCA to managed care in 2011. MCOs are required to inform members of the option to self-direct. With the inception of MLTSS in July 2014, the PCA rate was reduced from $15.50 per hour to $15.00 per hour, leading to a reduction in purchases of goods and services and an increase in the proportion of the budget going toward worker pay. Horizon's members constitute 61% of self-directed service users. An estimated 5.3% of Horizon's MLTSS members use self-directed services. This is the largest percentage of all MCOs, though the three other MCOs who were active at implementation are close behind.

Network Adequacy. For MLTSS services, MCOs are required to have at least two providers for each home and community-based service (other than community-based residential alternatives). For services provided in members' residences, the provider does not need to be located in the member's county but must be willing and able to serve residents of that county. MCOs submit network files (including MLTSS providers) on a quarterly basis to DMAHS, which reviews them for potential gaps in coverage. In addition, MCOs report any potential gaps in coverage and the action they are taking to mitigate impacts on members during regular conference calls with the State. Should there be a gap in services for a member, MCOs will complete a single case agreement with a nonparticipating provider and/or arrange for transportation to a participating provider in a contiguous county. GeoAccess reports were not provided by DMAHS for MLTSS services. MCO-reported grievance information covering all of 2015 shows 12 instances of difficulty obtaining access to MLTSS providers. We are not sure of the comprehensiveness of this information.

For the 17 acute care services shown in the GeoAccess report, there are only very slight differences among the MCOs, with all reporting 99% or higher levels of access overall. Services with less than 99.9% coverage (averaged among all MCOs in all counties served by the MCO) include hospitals, general dentists, and both adult and pediatric primary care physicians. Rates

are generally 75% or higher, with only 10 instances in 7 counties of a rate for any provider below 80%.

The accuracy of provider directories, on which these data are based, has been questioned nationally and in New Jersey. A recent examination notes that New Jersey is among the most stringent group of states with respect to provider directory requirements.

Policy and Administrative Changes. As of the end of 2015, almost 900 beneficiaries had set up *qualified income trusts* (QIT), which allow clinically eligible individuals whose monthly income is above 300% of the SSI rate (recently $2,199) to spend down their resources on long-term supports and services (HCBS or nursing facility) to become eligible for Medicaid. Prior to the comprehensive waiver, this was only available for nursing facility residents (a medically needy designation), which may have led people who could not afford to pay the full cost of HCBS care themselves into nursing facilities at a higher cost to the state.

Self-Attestation of Asset Transfer. Another policy/administrative change with the comprehensive waiver involved allowing individuals under 100% of the federal poverty level who are applying for long-term care to self-attest as to whether or not they have transferred assets in the past five years, rather than undergoing a detailed examination of all of their assets over this time period—a process that is burdensome for government staff as well as individuals who are applying. As of the end of 2015 approximately 627 individuals had utilized the self-attestation process.

Discussion

This chapter discussed a number of positive trends or indications regarding New Jersey's Managed Long Term Services and Supports program.

- The percentage of enrollees served in home and community settings has grown since implementation, from 27% in July 2014 to 35% in January of 2016. This may indicate progress in serving consumers in their preferred setting.
- An examination of the current setting of former enrollees shows that the majority who transitioned from the former §1915(c) home and community based services (HCBS) waivers remain in community settings, with only about 8% having transitioned to nursing facilities as of March 2016.
- Timeliness of nursing-facility level of care assessments, which are required for people to enroll into MLTSS, continues to trend upward. The state has taken a proactive approach in training MCO assessors to prevent state assessors from having to do a second assessment to facilitate enrollment, and has placed a requirement into the managed care contract that a target percentage of MCO assessments must meet approvable standards.

- External quality review organization results from two audits of MCO care plans for individual MLTSS enrollees in the first year of MLTSS showed improvement on two of four items measured. One item that showed a small decline was high initially; the other was contested as to audit file selection.
- MCO-reported critical incidents (unaudited) appear to affect a small number of members and to be reported in a timely fashion.
- MCO-reported appeals, grievances and complaints (unaudited) appear to affect a small number of members and appear realistic when compared with other indicators of member disputes (i.e., to the limited extent that it is possible to examine, we do not see any evidence that MCOs are underreporting appeals, grievances and complaints).
- MCO-reported appeals, grievances and complaints (unaudited) appear to be investigated within a timely manner. Most appeals appear to be upheld by the MCO, rather than overturned.
- The limited information presented on service reductions (unaudited MCO reports, one quarter) indicates that such reductions affect a small number of enrollees. Most are not appealed in any way.
- One MCO that had a high number of Fair Hearing Outcomes posted 2015 relative to other MCOs appears to be trending downward in 2016 (though this is difficult to say with certainty as the numbers are small and subject to variation, and cases may be withdrawn before an outcome is posted).
- MCO-reported hospital and ED use for MLTSS enrollees has been stable or declined over the first three quarters of MLTSS implementation.
- Close to 5% of MLTSS enrollees are using self-directed services, and enrollment continues to grow.
- Network adequacy for 17 acute care services, defined as the percentage of members with access to the service or provider, averages 99% overall and is generally 75% or higher (exceptions are for hospital services in some areas where an MCO does not contract with a nearby hospital).
- Network adequacy information for MLTSS services has not been provided publically, but MCO-reported grievance information appears to show, at most, 12 cases during 2015 of problems accessing MLTSS providers. We are uncertain of the comprehensiveness of this information.
- Policy/administrative changes put into place with MLTSS have allowed members to access services they would not have otherwise (qualified income trusts allow those slightly above Medicaid income limits to spend down for either HCBS or nursing facility services) and reduced the administrative burden for government staff and members (self-attestation).

Other findings we present are neutral:

- The percent of MLTSS members with a nursing facility admission during the first year provides a baseline against which other years can be compared.

We will continue to monitor MLTSS-related data for our final evaluation. There are limitations to many of the findings, and some findings raise questions or potential concerns:

- The measures we examine in this chapter are not adjusted for member health conditions or levels of social support, making it difficult to know if MCO efforts are driving differences in performance versus underlying effects intrinsic to members that MCOs cannot change.
- We do not know the actual effects on consumers of many of the findings in this chapter. The forthcoming NCI-AD results may shed light on many of these issues.
- Timeliness of enrollment—the various timeliness measures do not tell us how long people are waiting from the time an LTSS need is identified until they are actually enrolled in MLTSS. This time is difficult to measure, but it is important to establish HCBS care quickly to stabilize people's health and prevent progression to a higher level of care where possible.
- There is limited information regarding service reductions to MLTSS members. This is a topic about which there is a good deal of stakeholder concern. The limited information presented so far suggests that reductions are not extensive—more regular reports could confirm this.
- External appeal data reported by DOBI may indicate an increase in appeals related to denials of private duty nursing with the implementation of MLTSS. The information so far is not certain, but we will watch for further developments regarding appeals of MLTSS services.
- State hotline data on consumer/provider complaints—we have heard about other potential sources of consumer or provider complaints beyond those we have explored in this chapter. We will continue to monitor for additional sources of data we should be considering.
- Regarding network adequacy:
    - Network adequacy for MLTSS services has not been reported publically, though MCOs are required to report this information to the state, which reviews it for any coverage gaps. MCOs are required to address gaps by doing single case agreements with nonparticipating providers or providing transportation to a participating provider. We do not know the extent to which this occurs. MCO-reported grievance information appears to show, at most, 12 instances of problems reported with accessing MLTSS providers. We will check on the comprehensiveness of this information.
    - There are some acute care provider shortages that may affect the ability of some MLTSS members to access care (hospitals, general dentists, and adult and pediatric primary care physicians). Some of these shortages are due to a lack of providers in certain geographic areas related to larger industry and economic issues.

- The accuracy of MCO provider directory information has been questioned nationally and in New Jersey. Though New Jersey is among the states with the strictest standards, we will continue to monitor developments in this area.

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Chapter 3: Analysis of Medicaid Claims Data to Examine Access to Care, Quality, and Cost of Care for the Baseline and Early Demonstration Period

Introduction

In this chapter, we assess the impact of the expansion of managed care to Long Term Services and Supports (LTSS) and behavioral health (for selected LTSS-eligible populations) by examining measures of access to care, quality of care, and cost of health care for NJ Medicaid beneficiaries calculated from Medicaid fee-for-service (FFS) claims and managed care encounter data over 2011-2014. We examine the effects of the policy change on the targeted LTSS-eligible population, and we also examine potential changes in the quality of care for the entire managed care population as a result of this expansion in the services. All effects are identified by examining changes in selected quality metrics from the pre- to the post-implementation period of the MLTSS program.

Our research strategy is guided by the Division of Medical Assistance and Health Services (DMAHS) Quality Strategy (DMAHS 2014b) which includes quality issues relevant to the expansion in managed care and more generally, guides the State's healthcare monitoring, assessment, and improvement efforts for all Medicaid managed care services. The following goals are put forth in the Quality Strategy:

- To improve timely, appropriate access to primary, preventive, and long term services and supports for adults and children;
- To improve the quality of care and services;
- To promote person-centered health care and social services and supports;
- To assure member satisfaction with services and improve quality of life.

These goals align with the specific evaluation hypothesis and research questions enumerated in the waiver Special Terms and Conditions document (CMS 2014) relating to the managed care

expansion. These evaluation aims guide our selection, analysis, and presentation of metrics in this chapter[71]:

Hypothesis 1: **"Expanding Medicaid managed care to include long-term care services and supports will result in improved access to care and quality of care and reduced costs, and allow more individuals to live in their communities instead of institutions.";**

Research Question 1a: **"What is the impact of the managed care expansion on access to care, the quality, efficiency, and coordination of care, and the cost of care for adults and children?"**
Research Question 1b: **"What is the impact of including long-term care services in the capitated managed care benefit on access to care, quality of care, and mix of care settings employed?"**

To answer and address these research questions, we examine changes over time of specific metrics for the overall Medicaid and Medicaid managed care populations. Examining potential changes across all managed care beneficiaries examines overall adherence to the Quality Strategy by Medicaid managed care organizations (MCOs) undertaking the MLTSS reforms and provide the evidence needed for answering Research Question 1a. These findings also supplement those presented in Chapter 1. We also examine selected metrics for specific groups of Medicaid beneficiaries targeted by the managed care expansion. These are groups of long-term care (LTC) beneficiaries meeting an institutional level of care and residing either in a nursing facility or in their homes and communities under the former §1915(c) waiver programs or, after July 1, 2014, under MLTSS. These subpopulation analyses supplement the findings presented in Chapter 2 and provide the evidence needed for answering Research Question 1b.

In contrast to Chapters 1 and 2 where the data come from secondary sources, here we calculate selected metrics using Medicaid claims data for populations of Medicaid beneficiaries, including the LTC population, and additionally those who had a behavioral health (BH) diagnosis. Stratification of quality metrics to these specific subpopulations contributes to answering Research Questions 1a and 1b and more generally, Hypothesis 1. These results thus examine any indirect effects of MLTSS implementation on the quality of care for the overall Medicaid managed care population, and additionally, the direct effects of the MLTSS policy on the LTSS-eligible population that includes effects from integration of physical, behavioral, and long-term care services under MCOs. Further, the findings establish a pre-implementation[72] baseline period for

[71] Separate from this report we have also presented findings from stakeholder interviews that sheds light on member satisfaction and potential provider and payer issues that may not be captured in some of the claims-based metrics. Member satisfaction related to the overall managed care population is also analyzed in Chapters 1.
[72] It was not until July 2015 when an Interim Managing Entity for addiction services was operationalized.

the reforms in behavioral health care delivery (for populations outside MLTSS) authorized under the Waiver and falling under the purview of Hypothesis 1.

Broadly, this chapter is divided into two sections. Section A contains tables with annual estimates of selected quality metrics. Section B contains multivariate regression analyses that use statistical techniques such as Segmented Regression Analysis and Difference-in-Differences Modeling (see Methods section for details) to account for individual, geographic and provider characteristics while identifying the impacts of the managed care expansion under the Waiver.

Methods

Data Sources

The analyses in this chapter were generated using Medicaid FFS claims and managed care encounter data for January 1, 2011 through January 31, 2015. We used recipient and claims-level information to allow for stratification of quality metrics to relevant subpopulations. All utilization and spending estimates reflect claims adjustments and updates through 6 months from the date of service.

Metrics

The metrics in this chapter are monthly, quarterly or annual estimates over the period 2011–2014[73] and can be broadly organized into several categories of outcomes: avoidable hospital use reflecting inadequate quality of ambulatory care; hospital readmissions that may reflect inadequate inpatient and outpatient care as well as gaps in care coordination; and rates of follow-up care in the post-acute phase that may reveal gaps in care coordination or care transition. We also examine spending relating to hospital use overall, avoidable hospital use, and total spending by the LTSS-eligible population. We examine whether the share of this last category of spending between community-living beneficiaries and those staying in nursing facility changes over time focusing on specific components of spending such as those relating LTSS services and avoidable/preventable hospitalizations. These cost trends illustrate savings potentially realized from increased efficiencies in care delivery and assess progress in rebalancing spending from institutions to the community under MLTSS. Appendix A contains additional details on each of these measures.

Table A outlines the broad categories of metrics calculated using the Medicaid FFS claims and managed care encounter data. Metrics 1-4 are population-based and rates are assessed per unit

[73] While the waiver demonstration period starts on October 2012, our analytic findings here are based on full calendar years so that our estimates are not driven by seasonality differences.

population. Metrics 5-7, on the other hand, are based on index events that arise in a hospital setting. Metrics 8-11 measure costs and are assessed overall and per unit population.

Table A: Metrics related to quantitative evaluation of Hypothesis 1

	Metrics	Description/Motivation
	Utilization	
1	Prevention Quality Indicators (ages 18+)	Ambulatory care sensitive hospitalizations by adults that reflect inadequate community-level care.
2	Pediatric Quality Indicators (children 6-17)	Ambulatory care sensitive hospitalizations by children that reflect inadequate community-level care.
3	Avoidable emergency department (ED) visits (all ages)	ED visits that occur due to inadequate access to primary care.
4	Hospital utilization (all ages)	Inpatient and hospital emergency department utilization.
5	30-day readmissions (ages 18+)	All-cause unplanned readmissions following all hospital admissions and following hospital admissions specifically for heart failure, pneumonia, and acute myocardial infarction. All of these may reflect gaps in inpatient care and/or care coordination following discharge.
6	Follow-up after hospitalization for mental illness (ages 6+)	Follow-up with a mental health practitioner within 7 days and 30 days of an acute care hospitalization for mental illness.
7	Ambulatory visit 14 days after discharge (all ages)	Follow-up with a health practitioner after a hospital stay for medical reasons.
	Cost/Spending	
8	Cost related to avoidable hospitalizations and ED visits	Assesses potential savings by avoiding preventable hospital utilization.
9	Costs related to all inpatient hospitalizations and ED visits	Assess the effects of the managed care expansion on acute care spending overall.
10	Long-term care spending in community and nursing facilities	Spending ratio assesses whether there is rebalancing of resources from the institutional setting to the community.
11	Total spending	Assess any effects on spending including long-term care, non-long-term care, avoidable and non-avoidable.

Table B enumerates the populations for which the above metrics are calculated. It also provides a brief description of the purpose of each population stratification with additional details on definitions and motivations for the stratifications in the narrative below.

Table B: Medicaid populations related to evaluation of Hypothesis 1

Populations	Purpose/Motivation for Inclusion
All beneficiaries	Examine overall trends in quality and costs for the entire Medicaid population.
All managed care (MC) beneficiaries	Examine trends in quality and costs for all beneficiaries in managed care.
Specific Eligibility Categories - Aged/Blind/Disabled (ABD), - NJ FamilyCare, - General Assistance (GA), - Children's Services, - All Other Eligibility Categories	Eligibility categories offer a natural stratification for metrics based on age (e.g., Children's Services), disability-impacted health (e.g., ABD), or age and income (ABD, GA) for determining how trends vary based on these beneficiary characteristics.
Beneficiaries with behavioral health conditions	Examine quality of care for these beneficiaries since behavioral health care is carved into MCOs under MLTSS. Additionally, the demonstration plans to transition behavioral health services for all Medicaid beneficiaries out of FFS to management under an ASO.
Long-term care (LTC) beneficiaries	Examine quality and costs of care for beneficiaries directly impacted by the MLTSS demonstration program.
LTC beneficiaries residing in a nursing facility	Examine quality and costs of care for institutionalized long-term care beneficiaries undergoing a modified transition to MLTSS and remaining FFS until the transition is triggered.
LTC beneficiaries receiving home and community-based services (HCBS)	Examine quality and costs of care for community-residing beneficiaries transitioning to MLTSS under the Comprehensive Waiver. This population is comprised of the original §1915(c) waiver populations who had their acute care transitioned to MCOs in 2011 and any individuals joining MLTSS on or after July 1, 2014 and residing in their homes or in the community (assisted living).

Population Definitions

Medicaid Eligibility: Beneficiaries with any period of active enrollment in a particular year, as indicated by the effective dates of their Program Status Codes, made up the beneficiary cohort for that year. If there was any period during the year when the beneficiary had a managed care plan code, the beneficiary was considered part of the managed care population for that year. Assignment to eligibility categories was based on the protocol used for Medicaid's monthly public reporting. Using the first program status code in the calendar year along with age and any concurrent special program codes, each beneficiary was assigned to one of the following categories: Aged/Blind/Disabled, NJ FamilyCare, Children's Services, General Assistance,[74] and Other. Classification into these eligibility groups will allow us to consider differing beneficiary

[74] In 2014, adult beneficiaries enrolling as part of the statewide Medicaid expansion under the Affordable Care Act are classified in the General Assistance eligibility category.

characteristics while assessing the impact of the Waiver on Medicaid beneficiaries overall during the demonstration period.

Long-Term Care Population: The Waiver combined several §1915(c) waivers serving people in the community with care needs at an institutional level into MLTSS. The largest historical §1915(c) waiver, Global Options (GO), had served older adults, and three smaller waivers included or targeted younger individuals. The Traumatic Brain Injury (TBI) waiver included people diagnosed with acquired brain injury after age 21 but before age 65. Community Resources for People with Disabilities (CRPD) served individuals of any age, including children, and the AIDS Community Care Alternatives Program (ACCAP) waiver served individuals of any age with AIDS and children under the age of 13 who were HIV positive. In addition to bringing these populations under the MLTSS umbrella, the Waiver also required new entrants to nursing facilities to enroll in MLTSS (residents of nursing facilities at the time of MLTSS implementation remain in a fee-for-service arrangement unless they have a change in the status of their level of care).

We developed an algorithm for defining the LTC population and designating each LTC beneficiary as either part of the nursing facility or home and community-based LTC population.[75] This was done on both an annual and monthly basis. The annual assignment results in a more stably defined cohort[76] and is used in descriptive tables of metrics by year. The monthly assignment is more refined, capturing transitions between different statuses within a year and allowing a more granular categorizing of claims and associated spending for a beneficiary at the time of service delivery. The monthly assignment is used in statistical models. The algorithm for these assignments is detailed in Appendix D.

In both enrollment volume and beneficiary characteristics (e.g. age, health), the original §1915(c) waiver programs (CRPD, ACCAP, TBI, or GO) were distinct. While the original waiver under which HCBS beneficiaries were entitled to services could be identified in 2011-2013, these distinct categories ceased to exist when MLTSS went into effect on July 1, 2014. In order to examine whether there were different trajectories of quality or spending for these four original populations across the interim study period, we isolated a cohort of §1915(c) waiver enrollees by their status in January 2014 and present some metrics for all years for this cohort (as allowed by sample size).

[75] The LTC population evaluated in this report does not include PACE enrollees or individuals with developmental disabilities residing in developmental centers or receiving services under the Community Care Waiver, which was carved out of MLTSS. It includes only the MLTSS-eligible populations.

[76] This implies that a LTC-eligible beneficiary who received HCBS services for a small period during the year but was a NF resident for the most of the year would be designated NF resident for that year.

Behavioral Health Conditions: In order to assess coordination of behavioral and physical health services occurring as part of the managed care expansion under the Waiver, we defined the cohort of beneficiaries in each year with a BH condition. Using the 2014 AHRQ clinical classifications software (CCS), we scanned all claims for a diagnosis of mental health condition or substance use disorder (see Appendix A and Appendix E for additional details). Beneficiaries with any claim flagged using this methodology were considered part of the BH population in the year of the diagnosis.

Metric Definitions: Inclusion and Exclusion Criteria

Each metric has inclusion and exclusion criteria specified by the measure steward. If not already part of the metric specification, we imposed on all metrics (except for total and LTSS/non-LTSS spending) the requirement that a claim was only counted if the beneficiary had been continuously enrolled in Medicaid for at least 30 days preceding the claim date. As stated in our evaluation plan, this criteria eliminates events which might precipitate Medicaid enrollment and confound the effect of the demonstration.

Costs

Data on costs come from the payment fields in the Medicaid claims data. We only tabulated costs to Medicaid and Medicaid HMOs incurred via direct payment for services. Payments made by Medicare or from any other source are not included. Capitation payments, which include costs for the organization and procurement of services, are also excluded from totals. Costs for hospital use only reflect facility charges and do not include any physician or lab charges associated with hospitalization or outpatient visits. All costs were inflation adjusted and expressed in year 2012 purchasing power using the Consumer Price Index for medical care from Table 1A (Crawford, Church, and Rippy 2013, 164; Crawford and Church 2014, 165; Crawford, Church, and Akin 2015, 165).

Costs for LTSS were collected from both FFS and encounter claims for beneficiaries included in the LTC population (as defined above) for the time of their LTC assignment (which may be monthly or annual depending on analysis). Facility costs were counted from NF FFS claims across the entire study period, and NF encounter claims with a specific custodial revenue code were counted after July 1, 2014. Costs for community-based LTSS were counted on claims having LTSS

service codes as described in the MLTSS Service Dictionary (DMAHS 2014a) and enumerated in the spreadsheet of uniform billing codes shared with us by DMAHS.[77,78]

Reporting Criteria

For Metrics 1-4 and 8-11, which are population-based rates, denominators and estimates are not shown when the denominator for IP hospitalizations or ED visits is less than 50. For the remaining metrics (5-7), denominators and estimates are suppressed when denominators are less than 30.

Analytic Approach

In Section A we calculated and present mostly annual estimates to examine time trends in utilization and spending-related metrics over the period 2011-2014. Specific metrics include annual rates of inpatient hospitalizations and ED visits, rates of avoidable/preventable hospitalizations and ED visits, readmission rates, rates of follow up and ambulatory visits after hospitalization. We also examine categories of spending including that associated with hospital encounters, avoidable/preventable hospitalizations and LTSS-related spending among the nursing facility residents, and community based long term care individuals receiving home and community-based services.

In addition to annual estimates, for examining changes in the share of spending by the LTSS-eligible population between HCBS and NF, we examined monthly estimates of overall spending, LTSS spending, and non-LTSS spending identifying the component related to avoidable/preventable hospital use.

In our discussion of descriptive findings we will focus on the 2014 annual estimates to examine the effect of the MLTSS program on LTSS-eligible beneficiaries or the overall managed care population. The subgroups of interest in regard to Research Questions 1 and 2 will be the overall group of managed care beneficiaries and the HCBS population that shifted to managed care on July 2014.

It is important to note that for descriptive analyses, observed variation for the metrics between two points in time might sometimes be the result of outliers in the data, small sample sizes within certain subpopulations, or changes in characteristics of the beneficiary population.

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[77] An earlier version of this spreadsheet is included on the DMAHS website among its MLTSS Resources for Consumers, Providers, and Stakeholders.
http://www.nj.gov/humanservices/dmahs/home/MLTSS_Code_Crosswalk_Old_to_New.pdf.

[78] Medical day care and personal care assistance were both State plan long-term care services that remained unchanged under MLTSS and so were not included in the service code crosswalk spreadsheet. However, we did include costs for these services in our LTSS spending tabulations across the study period.

In Section B, we report findings from multivariate regression analysis conducted to isolate and identify the effect of the managed care expansion policy on the stated outcomes (after adjusting for patient, provider and area-level characteristics). We primarily utilize two statistical techniques, namely Segmented Regression Analysis (SRA) (Wagner et al. 2002) and Difference-in-Differences (DD) estimation (Chakravarty et al. 2015; Ashenfelter and Card 1985) to determine any statistically significant effect of these policies on outcomes. Each statistical technique is distinctively suited to answer one of the two research questions under Hypothesis 1. The SRA is utilized to examine Research Question 1a and the DD is utilized to examine Research Question 1b.

For examining the effect of the MLTSS program on the overall managed care population we utilize the SRA. Such a model assumes that the policy effect leads to a change in level, and also a change in the existing time trend of the metric measuring quality or any other relevant outcome of interest. For our analysis examining the effect of the MLTSS policy on the overall managed care population, we utilize the model described in equation (1)

$$Y_{it} = \beta_0 + \beta_1(time)_t + \beta_2(waiver\ post)_t + \beta_3(waiver\ time)_t + \beta_4(expansion\ post)_t) + +\beta_5(expansion\ time)_t + \beta_6(MLTSS\ post)_t + \beta_7(MLTSS\ time)_t + \gamma X_{\ it} + \varepsilon_{it} \quad (1)$$

Here, Y_{it} reflects the outcome related to the i^{th} managed care enrollee at time *t*. On the right hand side of the equation, time is a continuous variable indicating time in months (or in some cases calendar quarters) from the start of the study period. The variables *waiver*, *expansion* and *MLTSS* are indicator (0/1) variables for the period subsequent to these policy changes. The variables *waiver time*, *expansion time* and *MLTSS time*, are continuous variables equaling the number of months (or quarters) after the corresponding policy change. Coefficient β_0 estimates the baseline level of the outcome at the first time period, and coefficient β_1 indicates the baseline trend, i.e., the change in the outcome that occurs prior to the first policy change. Coefficients β_2, β_4 and β_6 estimate the level changes after each of the policy changes i.e., start of the waiver, the Medicaid expansion, and the MLTSS implementation in October 2012, January 2014 and July 2014 respectively. Similarly β_3, β_5, and β_7 estimate the change in trend in the outcome after each of these changes. The specification detailed above, while examining the change in outcome due to the MLTSS program, is able to identify changes in outcomes that may have occurred due to the waiver implementation or the Medicaid expansion and isolate those effects from that of MLTSS implementation.

In this model, the specific effect of the MLTSS program on the overall managed care population is given by the magnitude of β_6 that gives the change in level and β_7 that gives the change in trend after the MLTSS implementation and we further test whether these values are statistically significant. Accordingly in our results section, we report the magnitudes of these two coefficients and their joint statistical significance. Lack of significance will indicate that the effect of the MLTSS implementation while not necessarily zero in magnitude is not statistically credible. For interpretability purposes, we further compare predicted values of outcomes post-MLTSS with counterfactual values (that simulate a scenario where the MLTSS implementation did not occur by setting the MLTSS variables to zero in our regression analysis). The line graphs are reported for each of outcomes in the results section. We will see that each line graph bifurcates into two after June 2014 one providing the values with MLTSS implementation and the other for the counterfactual scenario without MLTSS implementation.

While examining these effects we adjust for patient characteristics that are represented by the variable X_{it}. We incorporate hospital fixed effects (to account for time-invariant differences across hospitals) for inpatient quality-based measures and zip code fixed effects (to account for time-invariant measures across geographic locations) for measures reflecting ambulatory care. ε_{it} is the random error term utilized in such regression analysis and that governs the statistical distribution of the outcome variable.

For examining the effect of the MLTSS implementation on the community-based population receiving HCBS services, which was also the population primarily impacted by the change in the short run,[79] we utilize the DD regression model. We define a comparison group to this population comprised of individuals who are not NF residents and are categorically eligible for Medicaid (i.e. Aged, Blind, or Disabled). The DD estimation process examines changes in outcome for the HCBS population from the pre- to the post-MLTSS implementation period and compares this change to the comparison group. Such an estimation strategy is able to identify changes in outcomes that are due to program impact and distinct from secular trends. It accounts for the effect of unobserved factors, as long as their impact on one of the groups relative to the other do not change over time. Equation (2) illustrates the general DD specification.

$$Y_{it} = \beta_0 + \beta_1(HCBS)_i + \beta_2(post\ MLTSS)_t + \beta_3(HCBS_i * post\ MLTSS_t) + \gamma X_{\ it} + \varepsilon_{it} \qquad (2)$$

The variable Y_{it} represents the utilization or cost-based outcomes enumerated in Table A for the i^{th} patient at time t. Post MLTSS is an indicator (0/1) variable that identifies the period starting July 2014. HCBS indicates if the individual was LTSS-eligible (due to requiring a NF level of care)

[79] Existing NF residents continue to have their services covered by the FFS system until they experience specific triggers related to acute care events. New NF residents will be under MLTSS.

and living in the community receiving HCBS services. In this model, β_3 is the DD estimate measuring the program impact. X_{it} is a vector of other control variables relating to the patient, and ε_{it} represents the random error term.

THE DD approach assumes that there are no unmeasured factors due to which the outcomes would change relatively between the intervention and comparison groups. If this assumption is not fulfilled and the two groups have differential trends, the effect size includes this difference over time. Accordingly, we test to see whether there existed significant differences in trends between the HCBS and comparison group prior to MLTSS implementation. If this difference is in the same direction of the DD estimate, and of comparable magnitude, that would imply that the DD model may be overestimating the effect.

As before, we incorporate hospital fixed effects for inpatient quality-based measures and zip code fixed effects for measures reflecting ambulatory care. We also include indicator variables to distinguish the pre-implementation period into pre-waiver, post-waiver, and post Medicaid expansion periods.

In our findings section we first report the unadjusted DD estimate. This is based on the difference between the pre-post change in the HCBS population and the pre-post change in the comparison group. We follow this with the adjusted difference that estimates the policy effect after accounting for patient and provider or geographical characteristics. This corresponds to the coefficient of the regression interaction term between HCBS and post-MLTSS. The magnitude of this interaction term is reported along with its statistical significance. In the footnote to the table, we note if the pre-trends between the HCBS and comparison group are significantly different.

For index-event based metrics, (Metrics 5-7) the vector of patient characteristics includes individual-level control variables such as beneficiary elderly status (age 65 and older), sex, and health status. For the non-readmission metrics in this group (*Follow-up after Hospitalization for Mental Illness* and *Ambulatory Visit 14 Days after Discharge*), the measure of health status used was a categorization of the diagnosis-based Chronic Illness and Disability Payment System (CDPS) risk score that measures disease diagnoses and burden of illness with higher values indicating greater disease burden. For readmission metrics we used the full set of risk-adjustment variables that are defined by the 2014 CMS methodology related to Risk Standardized Readmission Rates (QualityNet 2016). Appendix F lists all the risk-adjustment variables for each of the readmission outcomes.

When modeling population-based metrics (Metrics 1-4, and 8) at the person-quarter level, the vector of patient control variables includes beneficiary sex, elderly status (age 65 and older), and

number of days enrolled in Medicaid during the quarter. We also account for any change in disease diagnoses and burden of illness over time within the analytic population by adjusting for the CDPS risk score category for each individual.

Our estimation procedures were conducted using STATA MP 14 or SAS Enterprise Guide 7.11 software.

Results

Section A

In this descriptive analysis section, we examine our quality measures for the overall group of Medicaid beneficiaries and specific subgroups related to eligibility or place of service.

These findings will document differences across subgroups, and also differences across time. We will highlight notable differences in estimates over the years. Our primary focus would be on any substantive changes in these estimates during 2014, the year when the MLTSS implementation took place compared to the previous years. We will also highlight specific subgroups of beneficiaries where these estimates are disproportionately high. While that does not directly relate to our first order objective of examining changes in outcomes over time to identify the policy effect, documenting specific populations where spending is high or quality of care is low informs policy formulation and identifies follow up areas for our final evaluation report, an year after this interim report.

Table 3A.1 reports the percentage of NJ Medicaid beneficiaries who were MC enrollees at some point during the calendar year. While the NF residents remained FFS until the implementation of MLTSS in July 2014, mandatory enrollment into an MCO for acute care services became effective for the HCBS population (existing and new entrants) in late 2011. This is reflected in the higher percentage of managed care enrollment in this population in 2012 (95%) compared to the previous year. Among NJ beneficiaries overall and among managed care enrollees those enrolled in NJ Family care accounted for the greatest share. This was followed by those in the ABD category for 2011-2013. In 2014 there is an increase in the share of the General Assistance (GA) category that included the Medicaid expansion population from that year.

It is also important to note that the residual 'other' category comprising all other eligibility categories accounted for less than half percentage point of the overall Medicaid population. Because of its small base, we will not consider this category while making comparisons in metrics between different eligibility categories.

Table 3A.2-3A.9 report rates of avoidable inpatient hospitalizations and primary care avoidable/preventable ED visits per 10,000 population. Rates of hospitalizations per 10,000 population are reported for all Medicaid beneficiaries, the managed care population, for the LTC population, and beneficiaries with a behavioral health condition.

In 2014, avoidable inpatient hospitalization rates were the highest among the long-term care population with a behavioral health (BH) condition, especially those with a BH condition receiving HCBS (744 per 10,000 beneficiaries; Table 3A.3). However, this rate decreased from 2013 to 2014. High rates are also observed in the ABD population (367; Table 3A.2), the long term care population especially those receiving HCBS services in the community (581) and among all beneficiaries with BH conditions (352; Table 3A.2).

The GA and the ABD population in managed care had the highest rates of avoidable ED utilization. Avoidable ED rates among the LTC population were much lower, roughly half the overall Medicaid rate (Tables 3A.4 and 3A.5).

Figure 3A.1 examines the trend in avoidable hospitalizations for the overall population of Medicaid managed care beneficiaries and the HCBS population. We see that rates in 2014 were the lowest among the four years. However, this may be driven by the decreasing trend in the rates of such utilization that started in 2012 and thus, may not be attributable to the 2014 MLTSS policy effect.

Tables 3A.6-3A.7 document rates of specific types of preventable hospitalizations including those relating to diabetes, COPD/asthma, hypertension, heart failure, dehydration, bacterial pneumonia and urinary tract infection.

Tables 3A.8-3A.9 report rates of pediatric avoidable hospitalizations. These are substantially lower than the rates among adults, with the pediatric rate equaling one-eighth of the adult rate for all Medicaid beneficiaries and Medicaid managed care beneficiaries. For the LTC population, the pediatric rate of avoidable inpatient hospitalizations was one-seventh the rate among adults.

Tables 3A.10-3A.11 report inpatient and ED utilization rates per 10,000 beneficiaries. In 2014, the ABD group had the highest rates of inpatient and ED utilization among the different eligibility groups (except for the 'other' category). The long term care population had a substantially higher rate of inpatient utilization compared to the overall Medicaid rate (2,770 versus 797 per 10,000 beneficiaries), but had a slightly lower rate of ED utilization compared to Medicaid beneficiaries overall (3,381 versus 4,961 per 10,000 beneficiaries).

Figure 3A.2 exhibits the trends in these rates for the overall managed care population and separately, the HCBS population. We see a sharp decrease in ED visit rates from 4,942 visits per 10,000 population in 2013 to 4,170 per 10,000 population in 2014 for the HCBS population.

Tables 3A.12-3A.14 report annual levels of total spending per person, and also avoidable and overall hospital spending per person for the years 2011-2014. The ABD eligibility group enrolled in managed care has the highest per-person avoidable spending ($238) and also overall hospital spending ($1481) in 2014. Also among managed care enrollees, the ABD category also has the highest overall per-person spending, $16,246 per beneficiary in 2014.

Figure 3A.3 examines trends in different categories of hospital and overall spending over 2011-2014 among all Medicaid beneficiaries. We find that total spending per beneficiary decreased sharply from $5,744 in 2013 to $5,164 in 2014. This was brought about by an equivalent decrease in non-hospital spending. Hospital-based spending per beneficiary remained at the same level from 2011-2014.

Table 3A.15 examines avoidable hospital costs by LTC beneficiaries in NF and in the community receiving HCBS services. Avoidable inpatient costs were higher than avoidable ED costs, per person. Around three quarters of total avoidable costs among the LTC population was incurred by NF residents. NF residents on average had higher avoidable costs per person in 2011 than the HCBS population ($193 vs. $145), but the difference was almost non-existent in 2014 ($130 vs. $129) largely due to a steeper decline in avoidable costs per person for the NF population.

Tables 3A.16 reports 30-day hospital-wide all-cause readmission rates as well as 30-day all-cause readmission rates after an index hospitalization for heart failure (HF), pneumonia (PN), and acute myocardial infarction (AMI) for Medicaid beneficiaries overall, for long term care eligible beneficiaries, and those with a behavioral health condition. Heart failure readmission rates were the highest among all readmission rates for every category and year except for the LTC population in 2014. In every category of readmission, and every year, beneficiaries with a BH condition had a higher readmission rate compared to those who were LTC-eligible and also Medicaid beneficiaries overall.

Tables 3A.17-3A.24 report these readmission rates for the different Medicaid eligibility groups and separately for NF residents and the beneficiaries receiving HCBS services among the LTC population. Figures 3A.4-3A.7 report trends in each type of readmission for the overall managed care population and the LTC HCBS population. We compare the change in readmission rates from 2013 to 2014 to the underlying trend between 2012 and 2013. For the overall managed care population, we find an improvement in quality reflected through AMI readmission rates. For the

HCBS population hospital-wide and HF readmission rates exhibited an improvement, but PN and AMI readmissions indicated worsening care.

Tables 3A.25-26 report rates of follow-up visit during the seven and thirty-day period following a mental illness hospitalization for beneficiaries in different Medicaid eligibility categories and LTC beneficiaries. Separate estimates for this metric were not generated for beneficiaries in nursing facilities since these beneficiaries may have follow-up care provided within the facility itself. For Medicaid beneficiaries overall, after declines over 2011-2013, rates of follow-up seven days and thirty days after discharge from a mental illness hospitalization start to pick up again in 2014. Tables 3A.27-28 report rates of ambulatory visit within 14 days of hospital discharge for these same beneficiary categories. Recognizing that ambulatory visit rates may vary depending on where the patient was discharged, rates of ambulatory visits are distinguished based on whether the patient was discharged to home, to a rehabilitation facility, or to another facility.

Figure 3A.8 exhibits rates of these two types of follow-up for all managed care beneficiaries, overall, and additionally for the LTC HCBS population. The noticeable trend is a decrease in ambulatory rate visits for HCBS population over the period 2011-2014. Specifically, the visit rate for patients discharged to home, decreased from 20% in 2013 to 13% in 2014. A decline over this period is also seen for the managed care population overall.

Table 3A.29 examines three quality metrics for a cohort of beneficiaries enrolled under one of the §1915(c) HCBS waivers in January 2014. Improvements in hospital-wide 30-day readmission rates are seen for CRPD waiver enrollees between 2013 and 2014, but not for those in the TBI or GO waivers. While declines in the rate of avoidable inpatient hospitalizations is evident between 2013 and 2014 for those in CRPD and GO, those in the TBI waiver again demonstrate a worsening of quality between 2013 and 2014, as do those in the ACCAP waiver. Qualifying index hospitalizations for mental illness are rare in these small cohorts, so trends in follow-up care cannot be examined through 2014.

Tables 3A.30 shows the total and per person LTSS, non-LTSS, and total spending for the LTC population. Total spending is higher for the NF population compared to the HCBS population and this is largely driven by their high LTSS spending. The share of LTSS spending has shifted slightly more towards the HCBS population over 2011-2014, but that same shift is not seen for non-LTSS spending.

Figure 3A.9 shows the proportion of total Medicaid spending on the LTC population attributable to the HCBS and NF populations on a monthly basis over the study period. Here we observe a slight increase in the proportion of HCBS spending from January 2011 to December 2014, but

that shift predominantly occurs prior to the MLTSS policy initiation in July 2014. A temporary increase in the NF share of spending is seen at the point of MLTSS implementation which subsequently erodes again to an increasing HCBS proportion.

Figure 3A.10 shows the amount (in millions of dollars) of total spending for the NF and HCBS populations. While spending on the NF population clearly makes up the largest proportion of total spending, overall spending has declined over the study period mostly as a result of declines in the magnitude of spending for the NF population, but again that decline is evident prior to the MLTSS policy initiation.

Figure 3A.11 shows the components of total spending by month over the study period for the NF and HCBS populations. Most of this spending is accounted for by NF LTSS (77.6% in December 2014). HCBS LTSS spending accounted for 11.1%. We see a slight decrease in the NF LTSS share and a slight increase in the HCBS LTSS share over the period 2011-2014. Spending related to avoidable hospitalizations accounted for less than1% of overall spending.

Table 3A.1: New Jersey Medicaid population total enrollment and percentage in managed care, 2011–2014

	2011		2012		2013		2014	
	Total	**% MC**	**Total**	**% MC**	**Total**	**% MC**	**Total**	**% MC**
All Medicaid Beneficiaries	1,569,730	86%	1,581,262	88%	1,592,727	89%	1,954,216	90%
Aged/Blind/Disabled	319,150	80%	327,344	86%	332,339	89%	331,784	91%
NJ FamilyCare	1,120,576	95%	1,138,332	95%	1,153,344	95%	1,246,307	94%
General Assistance	88,495	8%	76,637	6%	67,955	6%	335,282	78%
Children's Service	34,519	66%	31,709	71%	31,959	71%	33,672	68%
Other	6,990	3%	7,240	3%	7,130	2%	7,171	21%
Long-Term Care Beneficiaries	49,912	37%	49,534	53%	49,337	63%	47,721	69%
Nursing Facility	37,009	20%	36,011	38%	35,384	50%	34,373	58%
HCBS	12,903	85%	13,523	95%	13,953	95%	13,348	99%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Notes: MC=Managed Care; HCBS=Home and Community-Based Services.

Table 3A.2: Rates of avoidable inpatient hospitalizations per 10,000 adults by Medicaid eligibility category and among adults with a behavioral health condition

	2011		2012	2013	2014	
	Population (N)	Rate	Rate	Rate	Population (N)	Rate
Medicaid Overall	786,549	229	228	196	1,111,300	145
Aged/Blind/Disabled	293,507	530	521	439	304,909	367
NJ FamilyCare	391,159	53	46	41	459,258	42
General Assistance	88,489	41	32	25	335,274	89
Children's Services	6,424	23	19	63	4,705	26
Other	6,970	10	22	17	7,154	38
Managed Care	602,394	256	264	225	958,785	160
Aged/Blind/Disabled	231,027	566	565	471	276,360	387
NJ FamilyCare	360,855	57	50	44	416,400	45
General Assistance	6,861	363	339	296	261,384	104
Children's Services	3,446	38	27	92	3,157	38
Other	205	195	369	679	1,484	162

	2011		2012	2013	2014	
Medicaid Overall	Population (N)	Rate	Rate	Rate	Population (N)	Rate
Behavioral Health Condition	237,715	553	510	440	321,604	352

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Notes: Rates are calculated per 10,000 adults age 18 and above.

Table 3A.3: Rates of avoidable inpatient hospitalizations per 10,000 adults among LTC-eligible populations overall and with a behavioral health condition

	2011		2012	2013	2014	
	Population (N)	Rate	Rate	Rate	Population (N)	Rate
Long-Term Care Population	49,654	625	591	495	47,435	422
Nursing Facility	36,850	535	461	388	34,217	361
HCBS	12,804	886	938	767	13,218	581

	2011		2012	2013	2014	
With a Behavioral Health Condition	Population (N)	Rate	Rate	Rate	Population (N)	Rate
Long-Term Care Population	33,923	800	730	594	32,013	518
Nursing Facility	26,510	696	594	484	25,173	456
HCBS	7,413	1,170	1,174	966	6,840	744

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Notes: Rates are calculated per 10,000 adults age 18 and above.

Table 3A.4: Rates of avoidable emergency department visits per 10,000 population by Medicaid eligibility category

	2011		2012	2013	2014	
	Population (N)	Rate	Rate	Rate	Population (N)	Rate
Medicaid Overall	1,569,730	2,643	2,717	2,659	1,954,216	2,637
Aged/Blind/Disabled	319,150	3,308	3,334	3,146	331,784	2,973
NJ FamilyCare	1,120,576	2,677	2,745	2,703	1,246,307	2,658
General Assistance	88,495	458	387	313	335,282	2,388
Children's Services	34,519	1,482	1,544	1,527	33,672	1,436
Other	6,990	180	172	170	7,171	850
Managed Care	1,347,033	2,995	3,032	2,936	1,759,459	2,869
Aged/Blind/Disabled	255,504	3,819	3,691	3,418	302,743	3,178
NJ FamilyCare	1,061,569	2,803	2,871	2,818	1,170,882	2,801
General Assistance	6,863	4,838	4,702	4,344	261,391	2,878
Children's Services	22,889	2,144	2,127	2,143	22,955	2,076
Other	208	4,603	3,841	6,439	1,488	3,817

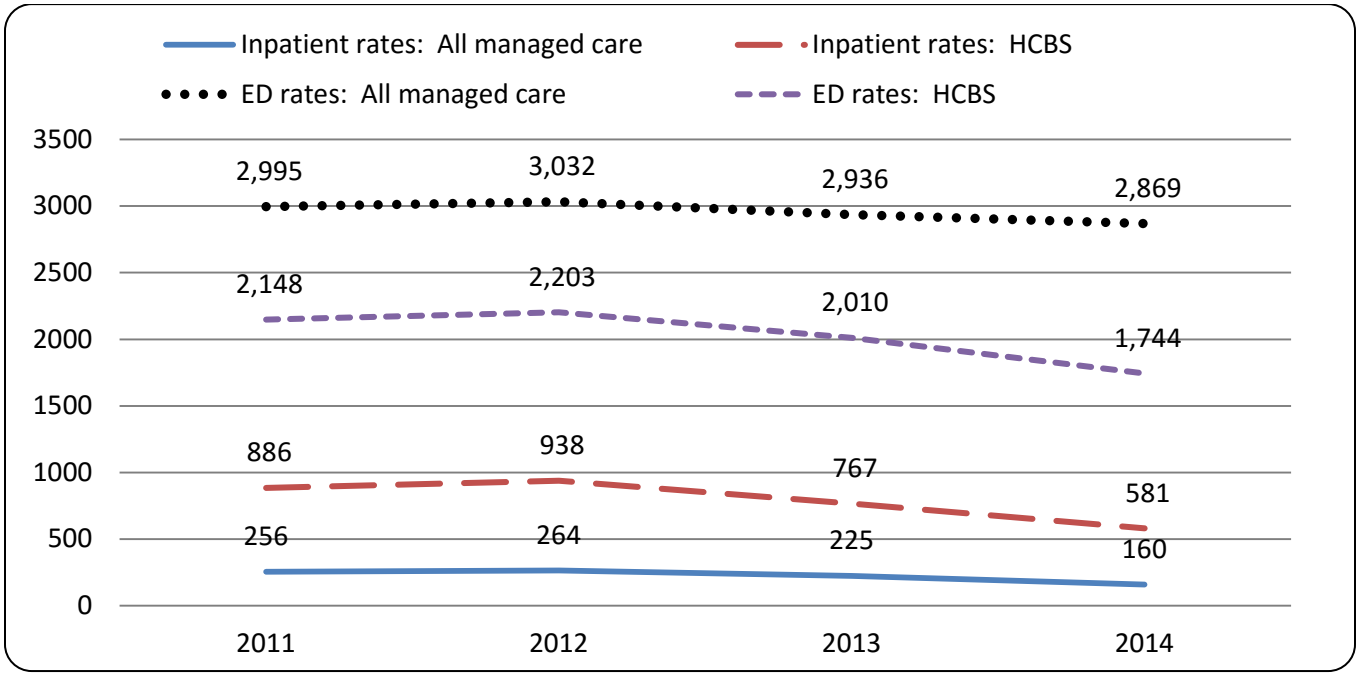
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Table 3A.5: Rates of avoidable emergency department visits per 10,000 population among LTC-eligible populations

	2011		2012	2013	2014	
	Population (N)	Rate	Rate	Rate	Population (N)	Rate
Long-Term Care Population	49,912	1,395	1,319	1,245	47,721	1,134
Nursing Facility	37,009	1,133	987	943	34,373	898
HCBS	12,903	2,148	2,203	2,010	13,348	1,744

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services.

Figure 3A.1: Rates of avoidable hospital utilization per 10,000 beneficiaries for the Medicaid managed care and HCBS populations



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services.

Table 3A.6: Rates of avoidable inpatient hospitalization components per 10,000 adults for Medicaid overall, Medicaid managed care overall, and adults with a behavioral health condition

	PQI 90: Overall				PQI 91: Acute				PQI 92: Chronic			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Medicaid Overall	229	228	196	145	73	71	59	42	156	157	136	103
Behavioral Health Condition	553	510	440	352	180	163	133	102	373	347	308	250
Managed Care Overall	256	264	225	160	77	79	66	45	179	186	159	115

	Diabetes Composite[a]				COPD/Asthma Composite[b]				PQI 07: Hypertension			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Medicaid Overall	35	37	32	27	68	66	59	42	8	8	7	6
Behavioral Health Condition	84	84	75	67	177	159	143	114	17	16	14	14
Managed Care Overall	40	43	37	30	79	78	70	47	9	9	8	7

	PQI 08: Heart Failure				PQI 10: Dehydration				PQI 11: Bacterial Pneumonia			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Medicaid Overall	42	44	36	26	16	13	10	7	32	31	27	18
Behavioral Health Condition	89	82	70	51	38	30	23	18	77	72	61	45
Managed Care Overall	47	51	42	29	16	14	11	8	34	35	31	20

	PQI 12: UT Infection				PQI 13: Angina			
	2011	2012	2013	2014	2011	2012	2013	2014
Medicaid Overall	26	27	22	16	3	3	2	2
Behavioral Health Condition	64	61	49	38	6	5	5	4
Managed Care Overall	27	30	24	17	3	4	2	2

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Notes: PQI=Prevention Quality Indicator; UT=Urinary Tract.
Rates are calculated per 10,000 adults age 18 and above.
[a]PQI 01, 03, 14, or 16.
[b]PQI 05 or 15.

Table 3A.7: Rates of avoidable inpatient hospitalization components per 10,000 adults among LTC-eligible populations overall and with a behavioral health condition

	PQI 90: Overall				PQI 91: Acute				PQI 92: Chronic			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Long-Term Care Population	625	591	495	422	296	277	226	199	329	314	269	223
Nursing Facility	535	461	388	361	281	249	202	189	254	212	187	172
HCBS Population	886	938	767	581	341	350	289	225	544	589	477	356

	Diabetes Composite[a]				COPD/Asthma Composite[b]				PQI 07: Hypertension			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Long-Term Care Population	78	77	65	54	127	113	103	85	10	11	10	7
Nursing Facility	71	65	55	55	91	69	57	53	3	5	7	5
HCBS Population	96	110	90	49	230	231	219	166	30	25	19	11

	PQI 08: Heart Failure				PQI 10: Dehydration				PQI 11: Bacterial Pneumonia			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Long-Term Care Population	111	111	89	77	65	43	35	33	102	105	87	72
Nursing Facility	87	72	66	58	58	40	32	31	96	98	76	69
HCBS Population	180	215	146	126	84	53	44	38	119	121	114	79

	PQI 12: UT Infection				PQI 13: Angina			
	2011	2012	2013	2014	2011	2012	2013	2014
Long Term Care Population	130	128	105	94	4	3	2	1
Nursing Facility	127	111	94	88	2	1	2	0
HCBS Population	138	175	132	109	9	7	3	4

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Notes: PQI=Prevention Quality Indicator; UT=Urinary Tract.
Rates are calculated per 10,000 adults age 18 and above.
[a]PQI 01, 03, 14, or 16.
[b]PQI 05 or 15.

Table 3A.7: Rates of avoidable inpatient hospitalization components per 10,000 adults among LTC-eligible populations overall and with a behavioral health condition (continued)

With a Behavioral Health Condition	PQI 90: Overall				PQI 91: Acute				PQI 92: Chronic			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Long-Term Care Population	800	730	594	518	394	357	284	255	406	372	310	263
Nursing Facility	696	594	484	456	370	321	257	244	327	273	230	212
HCBS Population	1,170	1,174	966	744	479	477	384	295	691	697	582	449

With a Behavioral Health Condition	Diabetes Composite[a]				COPD/Asthma Composite[b]				PQI 07: Hypertension			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Long-Term Care Population	97	94	79	64	166	142	123	104	12	11	11	6
Nursing Facility	92	84	68	67	120	88	72	69	4	7	9	4
HCBS Population	113	126	115	56	329	317	295	234	39	25	20	13

With a Behavioral Health Condition	PQI 08: Heart Failure				PQI 10: Dehydration				PQI 11: Bacterial Pneumonia			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Long-Term Care Population	127	123	94	87	87	57	44	43	133	135	106	88
Nursing Facility	108	92	79	72	76	51	42	41	126	126	95	89
HCBS Population	196	222	147	142	124	75	54	54	161	165	142	83

With a Behavioral Health Condition	PQI 12: UT Infection				PQI 13: Angina			
	2011	2012	2013	2014	2011	2012	2013	2014
Long Term Care Population	174	165	134	124	5	3	3	1
Nursing Facility	168	143	118	114	3	2	2	0
HCBS Population	194	237	189	158	13	8	5	4

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Notes: PQI=Prevention Quality Indicator; UT=Urinary Tract.
Rates are calculated per 10,000 adults age 18 and above.
[a]PQI 01, 03, 14, or 16.
[b]PQI 05 or 15.

Table 3A.8: Rates of avoidable pediatric hospitalizations per 10,000 children by Medicaid eligibility category

	2011		2012	2013	2014	
	Population (N)	Rate	Rate	Rate	Population (N)	Rate
Medicaid Overall	479,503	24	24	23	539,136	19
Aged/Blind/Disabled	20,985	73	79	78	22,178	76
NJ FamilyCare	435,687	22	22	21	493,307	17
General Assistance	*	*	*	*	*	*
Children's Services	22,809	16	35	33	23,630	20
Other	*	*	*	*	*	*
Managed Care	456,961	25	25	24	514,326	20
Aged/Blind/Disabled	20,289	75	79	79	21,929	76
NJ FamilyCare	422,039	23	22	21	477,398	18
General Assistance	*	*	--	*	*	*
Children's Services	14,629	25	34	33	14,991	13
Other	*	*	*	*	*	*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Notes: Rates calculated per 10,000 children ages 6 to 17.
*Estimate suppressed due to insufficient sample size.
--population denominator equals 0.

Table 3A.9: Rates of avoidable pediatric hospitalizations per 10,000 children among LTC-eligible populations

	2011		2012	2013	2014	
	Population (N)	Rate	Rate	Rate	Population (N)	Rate
Long-Term Care Population	152	329	190	179	173	58
Nursing Facility	102	294	288	92	99	101
HCBS	50	400	0	339	74	0

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS= Home and Community-Based Services.
Rates calculated per 10,000 children ages 6 to 17.

Table 3A.10: Rates of inpatient and emergency department use per 10,000 population by Medicaid eligibility category

	Inpatient Utilization Rate				Emergency Department Visit Rate			
	2011	2012	2013	2014	2011	2012	2013	2014
Medicaid Overall	1,028	1,018	898	797	4,931	5,070	4,950	4,961
Aged/Blind/Disabled	2,742	2,741	2,339	2,025	7,050	7,058	6,715	6,412
NJ FamilyCare	620	594	542	501	4,719	4,858	4,762	4,688
General Assistance	348	287	224	746	892	777	619	4,760
Children's Services	340	363	322	270	3,502	3,637	3,643	3,487
Other	259	280	175	349	402	337	290	1,526
Managed Care	1,032	1,051	930	827	5,537	5,627	5,442	5,377
Aged/Blind/Disabled	2,797	2,857	2,429	2,077	7,947	7,690	7,207	6,782
NJ FamilyCare	604	578	529	498	4,942	5,082	4,963	4,942
General Assistance	3,287	3,243	2,868	887	9,308	9,419	8,417	5,722
Children's Services	484	496	450	388	5,062	5,010	5,094	5,029
Other	4,760	5,023	5,122	1,405	10,096	7,149	11,159	6,808

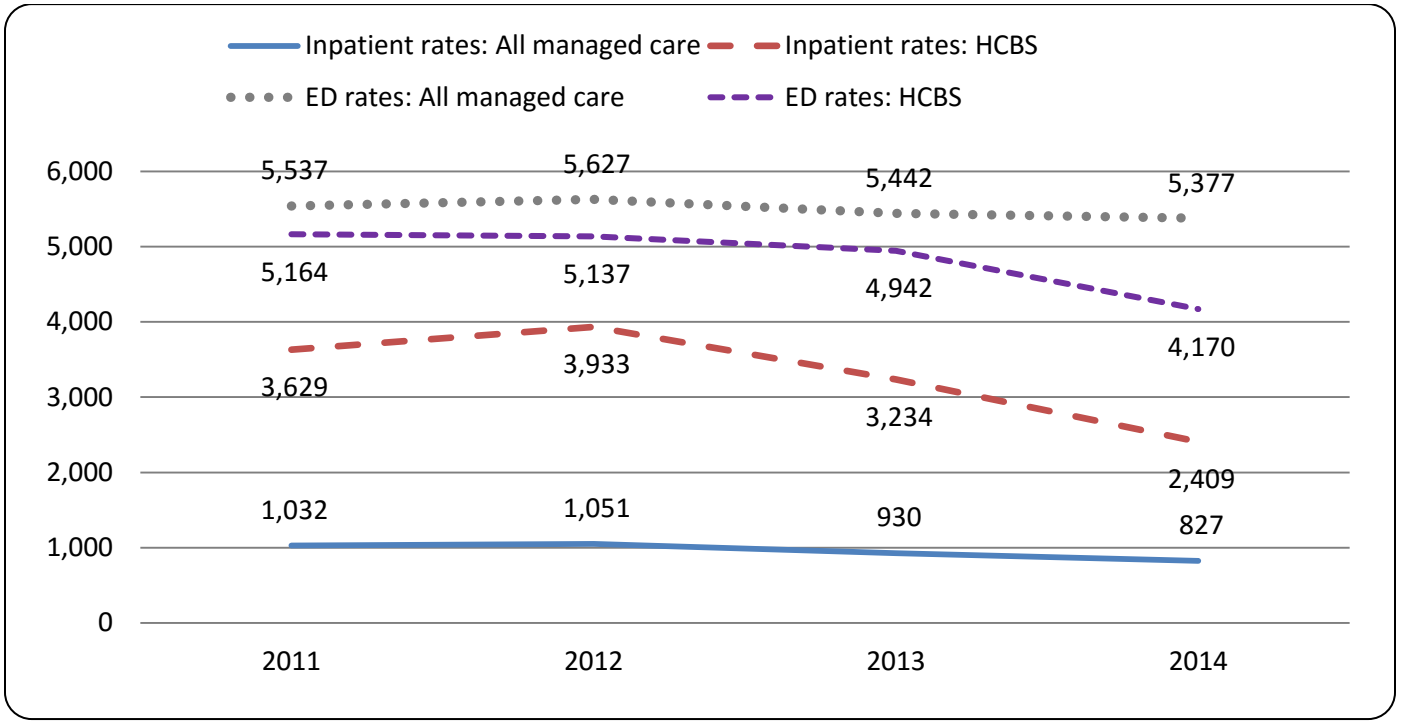
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Table 3A.11: Rates of inpatient and emergency department use per 10,000 population among LTC-eligible populations

	Inpatient Utilization Rate				Emergency Department Visit Rate			
	2011	**2012**	**2013**	**2014**	**2011**	**2012**	**2013**	**2014**
Long-Term Care Population	3,703	3,555	3,126	2,770	3,915	3,696	3,548	3,381
Nursing Facility	3,729	3,413	3,084	2,911	3,480	3,155	2,998	3,075
HCBS	3,629	3,933	3,234	2,409	5,164	5,137	4,942	4,170

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services.

Figure 3A.2: Rates of inpatient and emergency department use per 10,000 beneficiaries for the Medicaid managed care and HCBS populations



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; ED=Emergency Department.

Table 3A.12: Costs per person associated with avoidable hospital use by Medicaid eligibility category

	Per Person Avoidable Inpatient Costs				Per Person Avoidable ED Costs				Per Person All Avoidable Costs (IP+ED)			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Medicaid Overall	$ 47	$ 46	$ 41	$ 42	$ 65	$ 69	$ 72	$ 81	$ 112	$ 115	$ 113	$ 123
Aged/Blind/Disabled	$ 178	$ 176	$ 154	$ 147	$ 68	$ 65	$ 66	$ 77	$ 245	$ 241	$ 220	$ 223
NJ FamilyCare	$ 12	$ 11	$ 11	$ 11	$ 69	$ 75	$ 78	$ 85	$ 82	$ 87	$ 89	$ 96
General Assistance	$ 29	$ 26	$ 20	$ 57	$ 14	$ 12	$ 10	$ 77	$ 43	$ 38	$ 31	$ 134
Children's Services	$ 6	$ 5	$ 12	$ 4	$ 38	$ 43	$ 44	$ 46	$ 44	$ 47	$ 56	$ 50
Other	$ 11	$ 14	$ 10	$ 24	$ 6	$ 6	$ 6	$ 27	$ 17	$ 21	$ 16	$ 51
Managed Care	$ 49	$ 49	$ 44	$ 45	$ 74	$ 77	$ 79	$ 88	$ 122	$ 126	$ 123	$ 133
Aged/Blind/Disabled	$ 194	$ 189	$ 164	$ 155	$ 79	$ 72	$ 72	$ 82	$ 273	$ 261	$ 236	$ 238
NJ FamilyCare	$ 13	$ 12	$ 11	$ 12	$ 73	$ 79	$ 81	$ 89	$ 86	$ 91	$ 92	$ 101
General Assistance	$ 239	$ 263	$ 241	$ 66	$ 146	$ 145	$ 139	$ 94	$ 385	$ 407	$ 380	$ 160
Children's Services	$ 9	$ 7	$ 17	$ 7	$ 55	$ 59	$ 62	$ 67	$ 64	$ 65	$ 79	$ 73
Other	$ 127	$ 127	$ 404	$ 100	$ 145	$ 122	$ 228	$ 122	$ 271	$ 249	$ 632	$ 222

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Notes: IP=Inpatient; ED=Emergency Department.
Avoidable hospital costs are tabulated for all ages.
All costs are in 2012 dollars.

Table 3A.13: Costs per person associated with overall hospital use by Medicaid eligibility category

	Per Person Inpatient Costs				Per Person ED Costs				Per Person All Hospital Costs			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Medicaid Overall	$ 547	$ 549	$ 513	$ 515	$ 121	$ 127	$ 132	$ 152	$ 668	$ 676	$ 645	$ 668
Aged/Blind/Disabled	$1,342	$1,349	$1,261	$1,247	$ 145	$ 138	$ 141	$ 163	$1,488	$1,486	$1,402	$1,410
NJ FamilyCare	$ 349	$ 346	$ 323	$ 312	$ 122	$ 133	$ 138	$ 150	$ 472	$ 478	$ 461	$ 462
General Assistance	$ 316	$ 270	$ 229	$ 581	$ 28	$ 25	$ 20	$ 157	$ 344	$ 295	$ 249	$ 737
Children's Services	$ 260	$ 308	$ 251	$ 215	$ 91	$ 98	$ 105	$ 111	$ 351	$ 406	$ 355	$ 326
Other	$ 364	$ 286	$ 198	$ 367	$ 15	$ 13	$ 10	$ 48	$ 379	$ 299	$ 208	$ 415
Managed Care	$ 568	$ 577	$ 539	$ 544	$ 136	$ 141	$ 146	$ 166	$ 704	$ 718	$ 684	$ 710
Aged/Blind/Disabled	$1,438	$1,426	$1,323	$1,307	$ 165	$ 149	$ 151	$ 174	$1,603	$1,574	$1,474	$1,481
NJ FamilyCare	$ 349	$ 347	$ 324	$ 319	$ 128	$ 139	$ 144	$ 158	$ 478	$ 485	$ 467	$ 477
General Assistance	$2,538	$2,933	$2,675	$ 688	$ 283	$ 292	$ 272	$ 189	$2,820	$3,225	$2,947	$ 877
Children's Services	$ 349	$ 424	$ 347	$ 313	$ 130	$ 135	$ 146	$ 160	$ 479	$ 559	$ 493	$ 473
Other	$6,438	$4,679	$4,943	$ 1,435	$ 334	$ 236	$ 393	$ 214	$6,772	$4,915	$5,336	$1,649

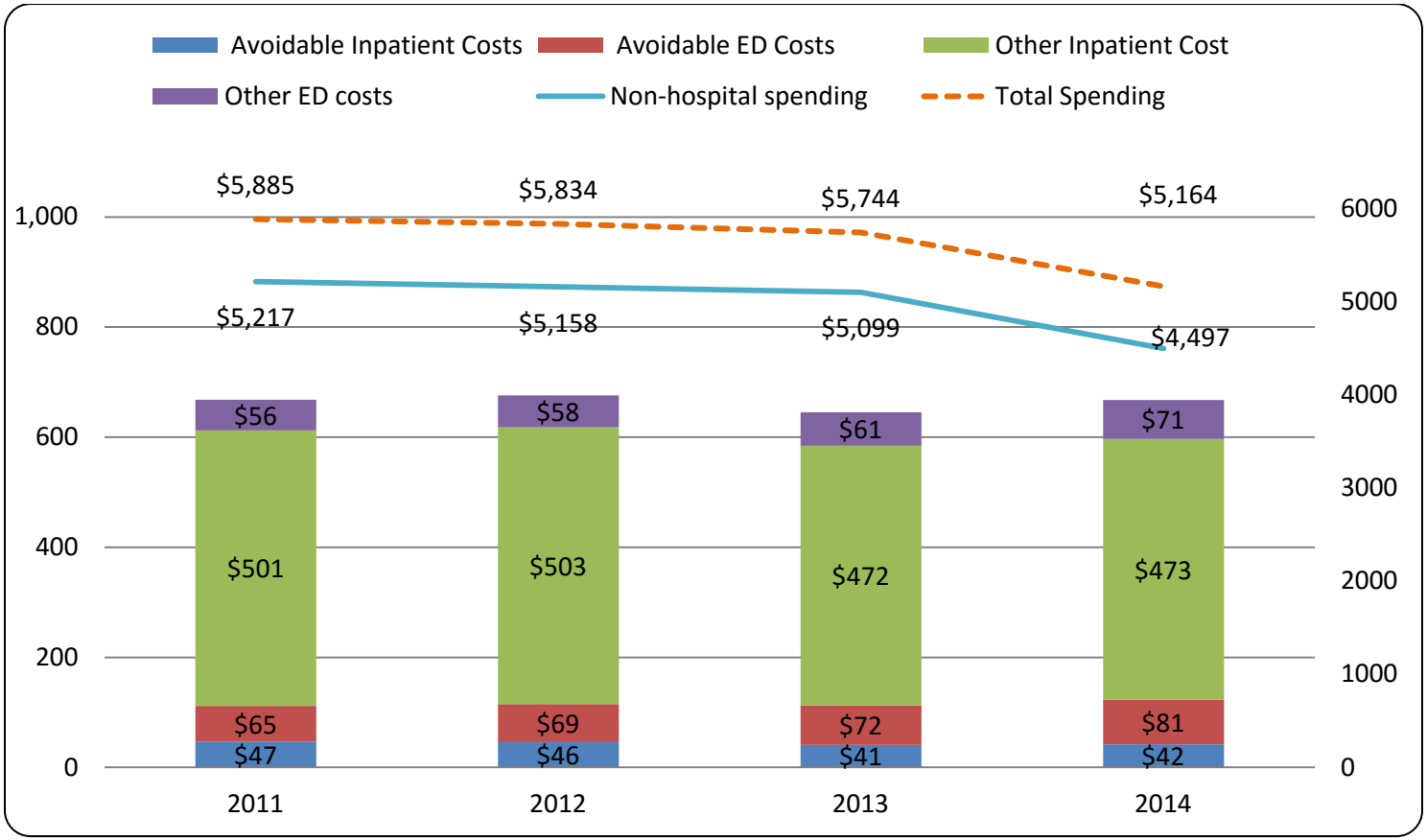
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Notes: ED=Emergency Department.
Costs are tabulated for all ages.
All costs are in 2012 dollars.

Table 3A:14: Total costs per person by Medicaid eligibility category

	2011	2012	2013	2014
Medicaid Overall	$ 5,885	$ 5,834	$ 5,744	$ 5,164
Aged/Blind/Disabled	$ 19,503	$ 19,007	$ 18,637	$ 18,213
NJ FamilyCare	$ 2,253	$ 2,272	$ 2,224	$ 2,241
General Assistance	$ 2,680	$ 2,560	$ 2,601	$ 3,050
Children's Services	$ 7,039	$ 6,660	$ 6,450	$ 6,124
Other	$ 1,254	$ 1,322	$ 960	$ 3,872
Managed Care	$ 5,048	$ 5,260	$ 5,300	$ 5,007
Aged/Blind/Disabled	$ 15,865	$ 16,038	$ 16,207	$ 16,246
NJ FamilyCare	$ 2,300	$ 2,326	$ 2,273	$ 2,323
General Assistance	$ 10,341	$ 11,292	$ 10,754	$ 3,607
Children's Services	$ 9,985	$ 9,065	$ 8,952	$ 8,800
Other	$ 23,677	$ 25,940	$ 21,681	$ 17,565

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Costs are tabulated for all ages.
All costs are in 2012 dollars.

Figure 3A.3: Trends in avoidable and overall hospital costs and total spending for the Medicaid population overall



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Notes: ED=Emergency Department.
Costs are tabulated for all ages.
All costs are in 2012 dollars.

Table 3A.15: Total and per person costs associated with avoidable hospital use among LTC-eligible populations

	Total Avoidable Inpatient (IP) Costs								Per Person Avoidable Inpatient Costs			
	2011		2012		2013		2014		2011	2012	2013	2014
Long-Term Care Pop.	$7,879,992	100%	$6,534,098	100%	$5,781,438	100%	$5,290,153	100%	$158	$132	$117	$111
Nursing Facility	$6,382,956	81%	$4,836,681	74%	$4,078,996	71%	$3,862,378	73%	$172	$134	$115	$112
HCBS	$1,497,036	19%	$1,697,418	26%	$1,702,442	29%	$1,427,775	27%	$116	$126	$122	$107

	Total Avoidable Emergency Department (ED) Costs								Per Person Avoidable ED Costs			
	2011		2012		2013		2014		2011	2012	2013	2014
Long-Term Care Pop.	$1,118,722	100%	$ 925,985	100%	$ 893,851	100%	$ 923,407	100%	$ 22	$ 19	$ 18	$ 19
Nursing Facility	$ 750,243	67%	$ 683,925	74%	$ 639,611	72%	$ 622,896	67%	$ 20	$ 19	$ 18	$ 18
HCBS	$ 368,479	33%	$ 242,061	26%	$ 254,240	28%	$ 300,510	33%	$ 29	$ 18	$ 18	$ 23

	Total Avoidable Hospital Costs (Inpatient + ED)								Per Person Total Avoidable Hospital Costs			
	2011		2012		2013		2014		2011	2012	2013	2014
Long-Term Care Pop.	$8,998,714	100%	$7,460,084	100%	$6,675,289	100%	$6,213,559	100%	$180	$151	$135	$130
Nursing Facility	$7,133,200	79%	$5,520,605	74%	$4,718,607	71%	$4,485,274	72%	$193	$153	$133	$130
HCBS	$1,865,515	21%	$1,939,478	74%	$1,956,682	29%	$1,728,285	28%	$145	$143	$140	$129

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; ED=Emergency Department.
All costs are in 2012 dollars.

Table 3A.16: Thirty-day readmission rates among groups of Medicaid beneficiaries

	2012			2013			2014		
	Medicaid Overall	Long-Term Care	Behavioral Health	Medicaid Overall	Long-Term Care	Behavioral Health	Medicaid Overall	Long-Term Care	Behavioral Health
Hospital-Wide	12.7%	10.9%	15.9%	11.7%	9.6%	14.9%	11.4%	11.8%	14.5%
Heart Failure	18.7%	11.0%	23.5%	15.6%	11.7%	19.7%	15.3%	6.1%	18.7%
AMI	11.4%	10.2%	12.0%	11.7%	6.8%	14.1%	9.4%	5.8%	11.4%
Pneumonia	11.3%	8.8%	12.3%	10.2%	6.9%	11.5%	10.4%	9.9%	11.9%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Notes: AMI=Acute Myocardial Infarction.

Table 3A.17: Hospital-wide 30-day readmission rates by Medicaid eligibility category

	2012	2013	2014
Medicaid Overall	12.7%	11.7%	11.4%
Aged/Blind/Disabled	15.0%	13.7%	13.8%
NJ FamilyCare	6.0%	6.3%	5.6%
General Assistance	17.3%	17.5%	14.0%
Children's Services	9.6%	13.4%	13.9%
Other	27.8%	18.0%	10.2%
Managed Care	12.9%	11.9%	11.6%
Aged/Blind/Disabled	15.6%	14.2%	14.2%
NJ FamilyCare	6.0%	6.2%	5.6%
General Assistance	15.0%	17.1%	14.0%
Children's Services	9.8%	13.5%	14.2%
Other	24.6%	19.0%	8.3%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: Readmission rates are calculated for adults ages 18 and above.

Table 3A.18: Hospital-wide 30-day readmission rates among LTC-eligible populations

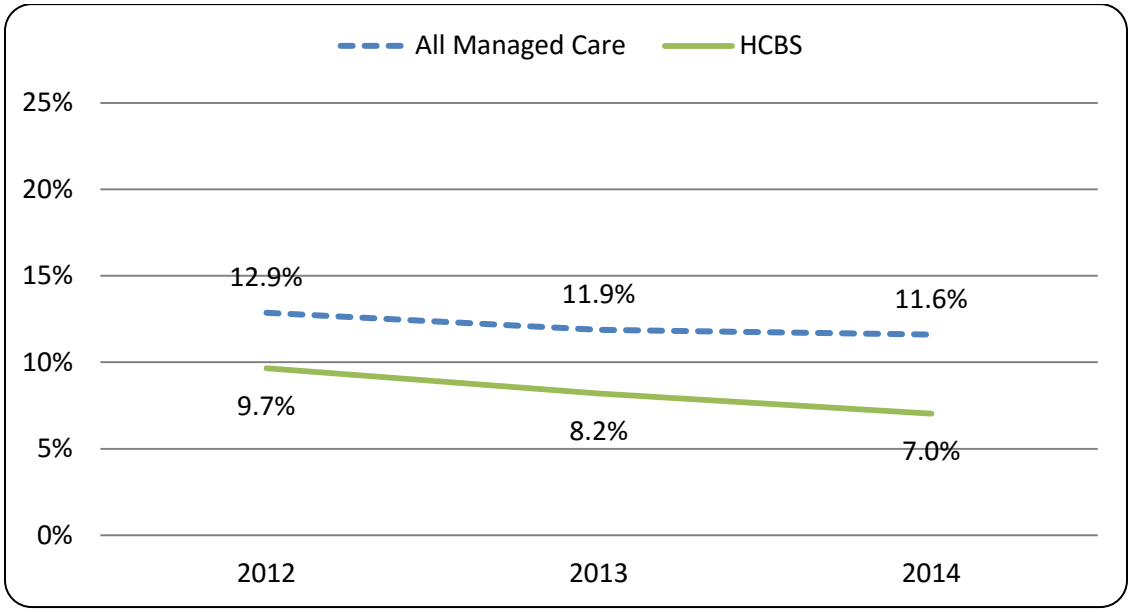
	2012	2013	2014
Long-Term Care Population	10.9%	9.6%	8.6%
Nursing Facility	11.4%	10.2%	9.0%
HCBS	9.7%	8.2%	7.0%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

Readmission rates are calculated for adults ages 18 and above.

Figure 3A.4: Trends in hospital-wide readmission rates among the Medicaid managed care and HCBS populations



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

Readmission rates are calculated for adults ages 18 and above.

Table 3A.19: Heart failure 30-day readmission rates by Medicaid eligibility category

	2012	2013	2014
Medicaid Overall	18.7%	15.6%	15.3%
Aged/Blind/Disabled	18.8%	15.3%	15.0%
NJ FamilyCare	15.2%	21.8%	16.2%
General Assistance	*	*	21.6%
Children's Services	--	--	--
Other	*	--	*
Managed Care	19.2%	15.8%	15.7%
Aged/Blind/Disabled	19.4%	15.7%	15.4%
NJ FamilyCare	15.2%	20.4%	16.2%
General Assistance	*	*	21.6%
Children's Services	--	--	--
Other	*	--	*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: Readmission rates are calculated for adults ages 18 and above.

*Estimate suppressed due to insufficient sample size.

--No qualifying index admissions in this category.

Table 3A.20: Heart failure 30-day readmission rates among LTC-eligible populations

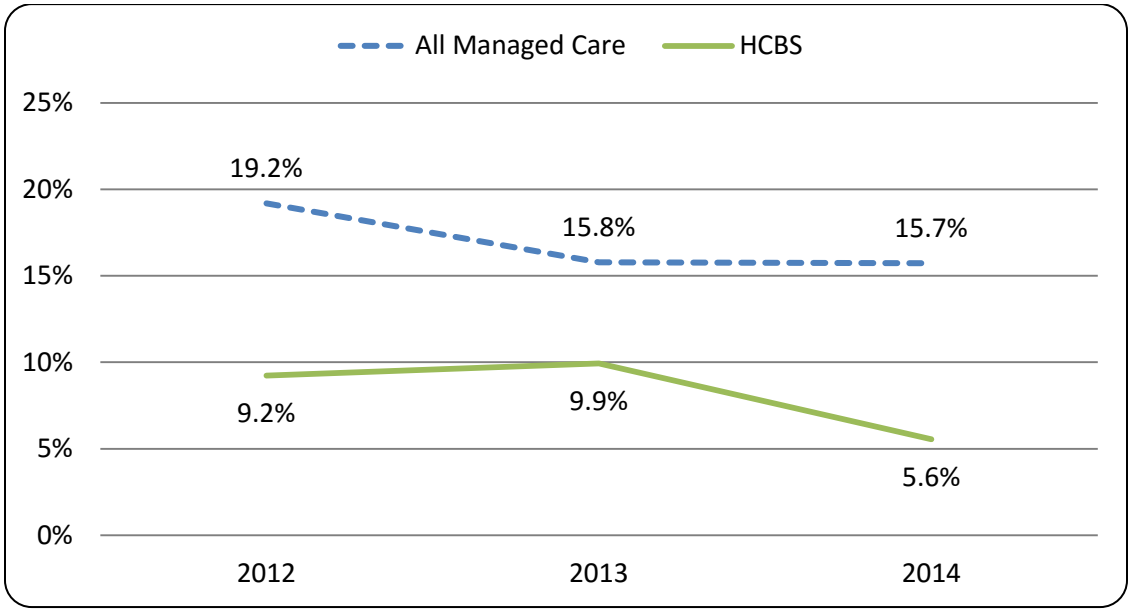
	2012	2013	2014
Long-Term Care Population	11.0%	11.7%	6.1%
Nursing Facility	12.2%	12.6%	6.3%
HCBS	9.2%	9.9%	5.6%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

Readmission rates are calculated for adults ages 18 and above.

Figure 3A.5: Trends in heart failure readmission rates among the Medicaid managed care and HCBS populations



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

Readmission rates are calculated for adults ages 18 and above.

Table 3A.21: Acute myocardial infarction 30-day readmission rates by Medicaid eligibility category

	2012	2013	2014
Medicaid Overall	11.4%	11.7%	9.4%
Aged/Blind/Disabled	11.5%	11.0%	10.8%
NJ FamilyCare	9.9%	16.3%	3.9%
General Assistance	*	*	3.4%
Children's Services	--	--	--
Other	--	--	*
Managed Care	11.3%	12.0%	9.5%
Aged/Blind/Disabled	11.5%	11.3%	11.1%
NJ FamilyCare	9.9%	16.3%	3.9%
General Assistance	*	*	3.4%
Children's Services	--	--	--
Other	--	--	*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: Readmission rates are calculated for adults ages 18 and above.

*Estimate suppressed due to insufficient sample size.

--No qualifying index admissions in this category.

Table 3A.22: Acute myocardial infarction 30-day readmission rates among LTC-eligible populations

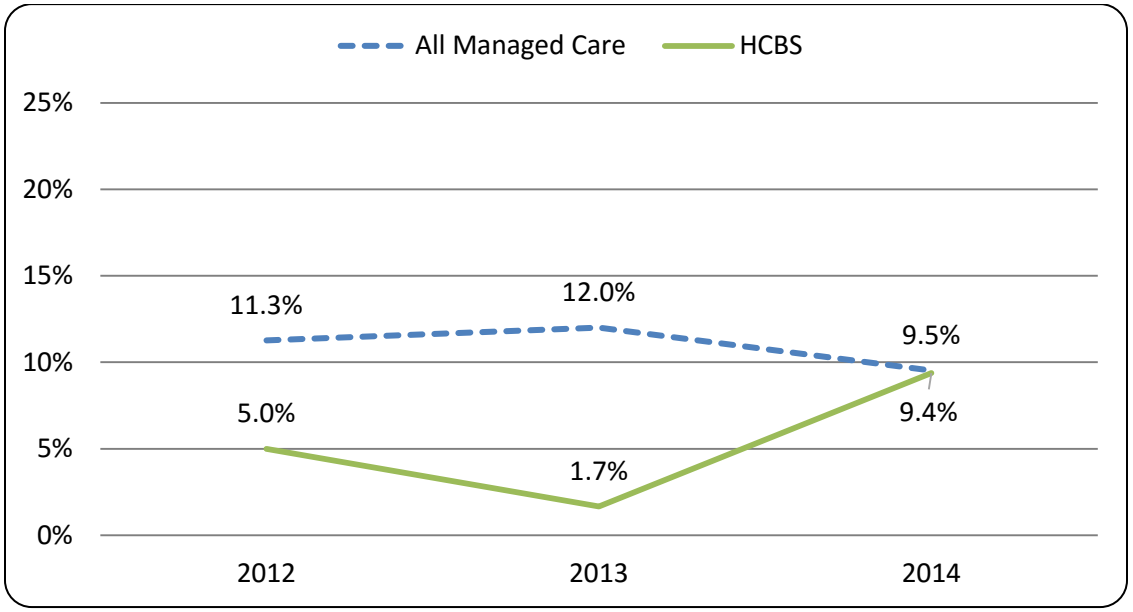
	2012	2013	2014
Long-Term Care Population	10.2%	6.8%	5.8%
Nursing Facility	12.8%	10.2%	4.5%
HCBS	5.0%	1.7%	9.4%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

Readmission rates are calculated for adults ages 18 and above.

Figure 3A.6: Trends in acute myocardial infarction readmission rates among the Medicaid managed care and HCBS populations



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

Readmission rates are calculated for adults ages 18 and above.

Table 3A.23: Pneumonia 30-day readmission rates by Medicaid eligibility category

	2012	2013	2014
Medicaid Overall	11.3%	10.2%	10.4%
Aged/Blind/Disabled	11.8%	10.4%	10.4%
NJ FamilyCare	5.1%	7.1%	8.2%
General Assistance	*	*	14.9%
Children's Services	*	--	*
Other	*	*	*
Managed Care	11.9%	10.5%	10.7%
Aged/Blind/Disabled	12.6%	10.8%	10.8%
NJ FamilyCare	5.1%	7.1%	8.2%
General Assistance	*	*	14.9%
Children's Services	*	--	*
Other	*	*	*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: Readmission rates are calculated for adults ages 18 and above.

*Estimate suppressed due to insufficient sample size.

--No qualifying index admissions in this category.

Table 3A.24: Pneumonia 30-day readmission rates among LTC-eligible populations

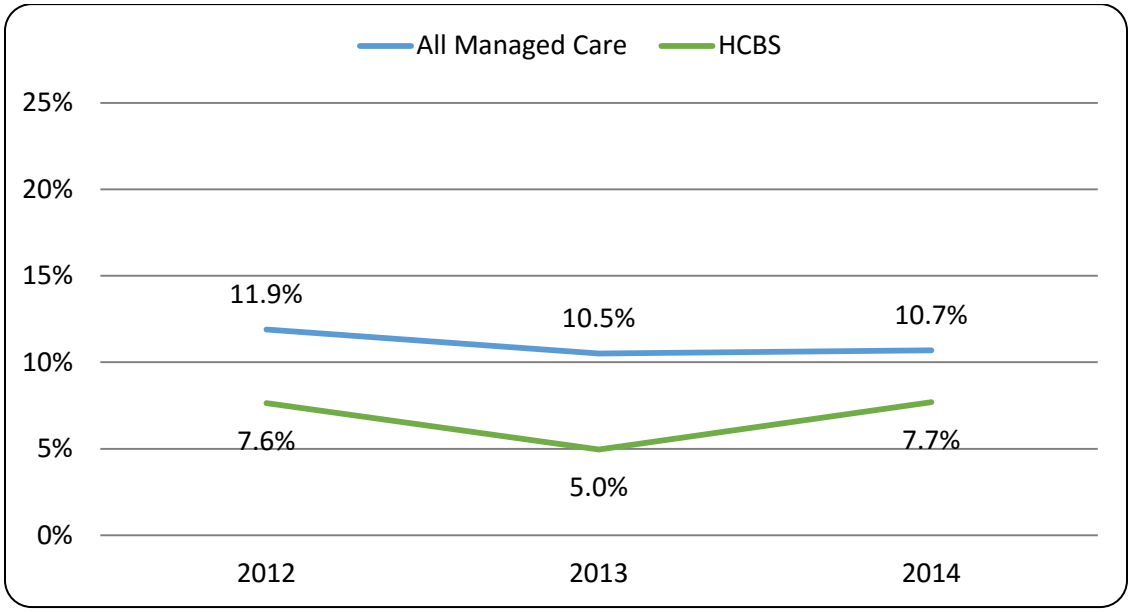
	2012	2013	2014
Long-Term Care Population	8.8%	6.9%	9.9%
Nursing Facility	9.1%	7.5%	10.5%
HCBS	7.6%	5.0%	7.7%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

Readmission rates are calculated for adults ages 18 and above.

Figure 3A.7: Trends in pneumonia readmission rates among the Medicaid managed care and HCBS populations



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services.
Readmission rates are calculated for adults ages 18 and above.

Table 3A.25: Follow-up after hospitalization for mental illness by Medicaid eligibility category

	7-Day Follow-up				30-Day Follow-up			
	2011	**2012**	**2013**	**2014**	**2011**	**2012**	**2013**	**2014**
Medicaid Overall	16.7%	15.8%	15.0%	16.3%	28.2%	27.5%	26.1%	27.8%
Aged/Blind/Disabled	15.8%	14.7%	14.0%	14.7%	27.5%	26.4%	24.9%	26.7%
NJ FamilyCare	19.1%	18.8%	17.5%	20.5%	30.8%	30.6%	29.4%	34.1%
General Assistance	11.6%	16.1%	6.0%	14.7%	19.7%	24.1%	14.7%	23.1%
Children's Services	15.7%	12.5%	12.8%	15.7%	26.2%	25.3%	22.9%	26.5%
Other	*	*	*	*	*	*	*	*
Managed Care	15.3%	16.1%	15.0%	16.5%	28.6%	27.9%	26.2%	28.1%
Aged/Blind/Disabled	15.7%	15.0%	14.0%	14.8%	27.6%	26.7%	24.8%	26.7%
NJ FamilyCare	19.2%	18.9%	17.5%	20.5%	30.9%	30.8%	29.4%	34.3%
General Assistance	15.7%	18.2%	8.1%	15.2%	25.6%	27.3%	17.6%	23.7%
Children's Services	15.3%	12.7%	12.5%	15.8%	25.8%	25.5%	22.7%	26.2%
Other	*	*	*	*	*	*	*	*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Notes: Follow-up after hospitalization for mental illness is calculated for the population ages 6 and older.
*Estimate suppressed due to insufficient sample size.

Table 3A.26: Follow-up after hospitalization for mental illness among LTC-eligible populations

	7-Day Follow-up				30-Day Follow-up			
	2011	**2012**	**2013**	**2014**	**2011**	**2012**	**2013**	**2014**
Long-Term Care Population								
HCBS	18.8%	8.7%	6.4%	*	21.9%	21.7%	12.8%	*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Notes: Follow-up after hospitalization for mental illness is calculated for the population ages 6 and older.
Estimates not calculated for the nursing facility population since follow-up visits must occur in the community to meet metric specifications.
*Estimate suppressed due to insufficient sample size.

Table 3A.27: Ambulatory visit within 14 days of discharge by Medicaid eligibility category

	All Discharges				Discharged Home			
	2011	**2012**	**2013**	**2014**	**2011**	**2012**	**2013**	**2014**
Medicaid Overall	33.0%	34.2%	33.1%	30.1%	38.5%	39.5%	38.2%	33.7%
Aged/Blind/Disabled	25.0%	26.4%	24.7%	22.0%	31.5%	32.8%	30.7%	27.3%
NJ FamilyCare	50.2%	49.9%	49.3%	46.5%	50.6%	50.3%	49.7%	47.0%
General Assistance	23.5%	23.2%	21.7%	26.1%	24.5%	24.8%	24.3%	26.6%
Children's Services	27.8%	35.6%	37.4%	33.7%	28.7%	36.5%	37.7%	34.2%
Other	12.3%	12.2%	27.0%	7.9%	14.3%	13.8%	29.4%	25.9%
Managed Care	36.6%	36.7%	34.8%	31.5%	40.0%	40.6%	39.0%	34.7%
Aged/Blind/Disabled	28.8%	29.2%	26.5%	23.3%	33.0%	33.9%	31.5%	27.9%
NJ FamilyCare	50.6%	50.3%	49.6%	47.0%	51.0%	50.7%	50.0%	47.5%
General Assistance	27.8%	29.9%	25.5%	27.8%	29.2%	32.3%	28.7%	28.4%
Children's Services	28.1%	35.6%	37.7%	34.2%	29.0%	36.5%	38.1%	34.7%
Other	17.6%	20.0%	34.6%	25.3%	20.0%	24.2%	*	25.6%

	Discharged to Facility-based Rehabilitation				Discharged to Other Facility			
	2011	**2012**	**2013**	**2014**	**2011**	**2012**	**2013**	**2014**
Medicaid Overall	5.2%	5.1%	5.4%	5.0%	11.7%	16.8%	14.2%	15.5%
Aged/Blind/Disabled	5.1%	5.0%	5.4%	4.6%	8.0%	14.6%	11.1%	11.9%
NJ FamilyCare	12.5%	16.7%	16.1%	9.8%	34.9%	33.8%	32.2%	28.9%
General Assistance	11.5%	8.5%	0.0%	12.1%	*	*	*	20.6%
Children's Services	*	--	*	*	*	*	*	0.0%
Other	*	*	*	*	*	*	*	33.3%
Managed Care	6.1%	5.8%	5.9%	5.0%	17.1%	20.4%	15.9%	17.1%
Aged/Blind/Disabled	5.9%	5.6%	5.8%	4.6%	12.2%	18.1%	12.5%	13.5%
NJ FamilyCare	12.8%	16.9%	16.7%	9.1%	35.1%	33.8%	32.4%	29.1%
General Assistance	13.3%	11.5%	0.0%	12.7%	*	*	*	20.8%
Children's Services	0.0%	--	*	*	*	*	*	*
Other	0.0%	*	*	*	*	--	*	*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Notes: Only one hospitalization per person is randomly chosen in each year to be an index hospitalization.
*Estimate suppressed due to insufficient sample size.
--No qualifying index admissions in this category.

Table 3A.28: Ambulatory visit within 14 days of discharge among LTC-eligible populations

	All Discharges				Discharged Home			
	2011	**2012**	**2013**	**2014**	**2011**	**2012**	**2013**	**2014**
Long-Term Care Population								
HCBS	17.9%	19.4%	15.7%	9.7%	23.6%	24.2%	19.8%	12.9%

	Discharged to Facility-based Rehabilitation				Discharged to Other Facility			
	2011	**2012**	**2013**	**2014**	**2011**	**2012**	**2013**	**2014**
Long-Term Care Population								
HCBS	4.9%	4.9%	4.5%	2.2%	9.6%	14.4%	6.5%	1.0%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Notes: Only one hospitalization per person is randomly chosen in each year to be an index hospitalization.
Estimates not calculated for the nursing facility population since follow-up visits must occur in the community to meet metric specifications.

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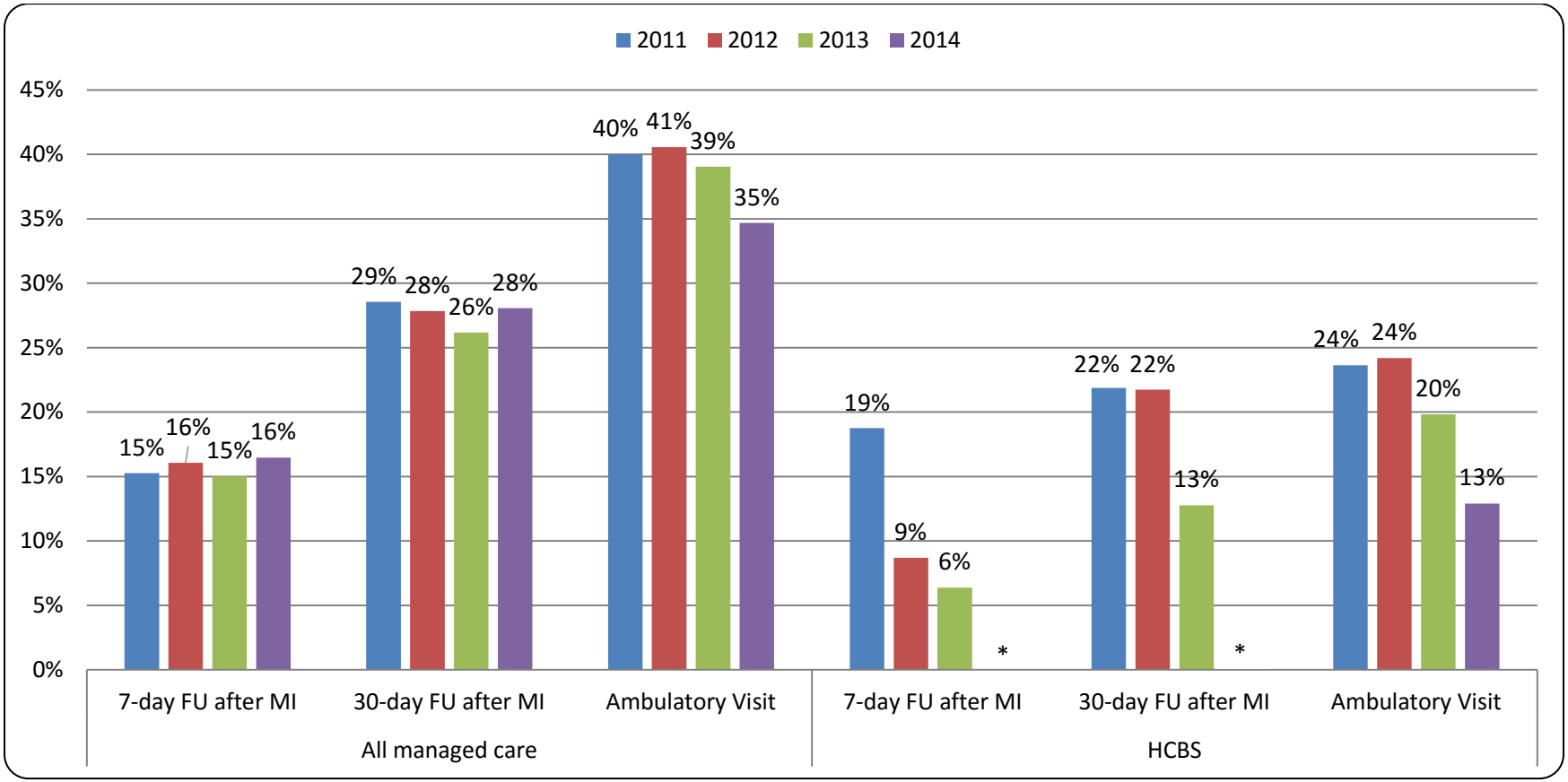
Figure 3A.8: Rates of follow-up and ambulatory visits after hospitalization among the Medicaid managed care and HCBS populations



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; FU=Follow-up; MI=Mental Illness.
*Estimate suppressed due to insufficient sample size.

Table 3A.29: Selected quality metrics for a cohort of HCBS beneficiaries by pre-MLTSS §1915(c) waiver program

	Hospital-Wide 30-Day Readmission Rate			Avoidable Hospitalizations (per 10,000 beneficiaries)				Follow-up After Hospitalization for Mental Illness							
								7-day				30-Day			
	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
1915(c) Enrollees	9.1%	6.9%	7.4%	738	788	686	609	18.4%	11.1%	4.4%	*	26.3%	27.8%	11.1%	*
CRPD	15.9%	15.9%	2.4%	526	358	479	208	--	--	--	--	--	--	--	--
ACCAP	13.3%	6.7%	*	387	449	179	298	--	*	*	--	--	*	*	--
TBI	4.9%	8.1%	16.0%	135	132	225	257	*	*	*	--	*	*	*	--
GO	8.9%	6.6%	7.3%	777	830	713	636	16.7%	10.0%	4.9%	*	25.0%	23.3%	12.2%	*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services.
*Estimate suppressed due to insufficient sample size.
-- No qualifying index admissions in this category.

Table 3A.30: Total and per person costs of LTSS and non-LTSS services among LTC-eligible populations

LTSS Costs (in millions of dollars)									LTSS Costs Per LTC Person			
	2011		2012		2013		2014		2011	2012	2013	2014
Long-Term Care Pop.	$2,011.7	100%	$1,927.1	100%	$1,899.7	100%	$1,839.4	100%	$ 54,356	$ 53,514	$ 53,688	$ 53,512
Nursing Facility	$1,805.0	90%	$1,707.4	89%	$1,672.3	88%	$1,627.7	88%	$139,894	$126,257	$119,854	$121,940
HCBS	$ 206.6	10%	$ 219.7	11%	$ 227.4	12%	$ 211.7	12%	$ 16,012	$ 16,247	$ 16,296	$ 15,860

Non-LTSS Costs (in millions of dollars)									Non-LTSS Costs Per LTC Person			
	2011		2012		2013		2014		2011	2012	2013	2014
Long-Term Care Pop.	$ 253.1	100%	$ 253.1	100%	$ 249.4	100%	$ 244.2	100%	$ 6,839	$ 6,956	$ 7,048	$ 7,105
Nursing Facility	$ 171.5	68%	$ 171.5	68%	$ 159.0	64%	$ 167.8	69%	$ 13,290	$ 11,948	$ 11,394	$ 12,571
HCBS	$ 81.6	32%	$ 81.6	32%	$ 90.4	36%	$ 76.4	31%	$ 6,327	$ 6,574	$ 6,479	$ 5,726

Total Costs (in millions of dollars)									Total Costs per LTC Person			
	2011		2012		2013		2014		2011	2012	2013	2014
Long-Term Care Pop.	$2,264.8	100%	$2,177.6	100%	$2,149.1	100%	$2,083.6	100%	$ 61,195	$ 60,469	$ 60,736	$ 60,617
Nursing Facility	$1,976.5	87%	$1,869.0	86%	$1,831.3	85%	$1,795.4	86%	$153,184	$138,205	$131,249	$134,511
HCBS	$ 288.2	13%	$ 308.6	14%	$ 317.8	15%	$ 288.1	14%	$ 22,339	$ 22,821	$ 22,775	$ 21,587

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Notes: LTSS=Long-term services and supports; LTC=Long-term care; HCBS=Home and Community-Based Services.
All costs are in 2012 dollars.

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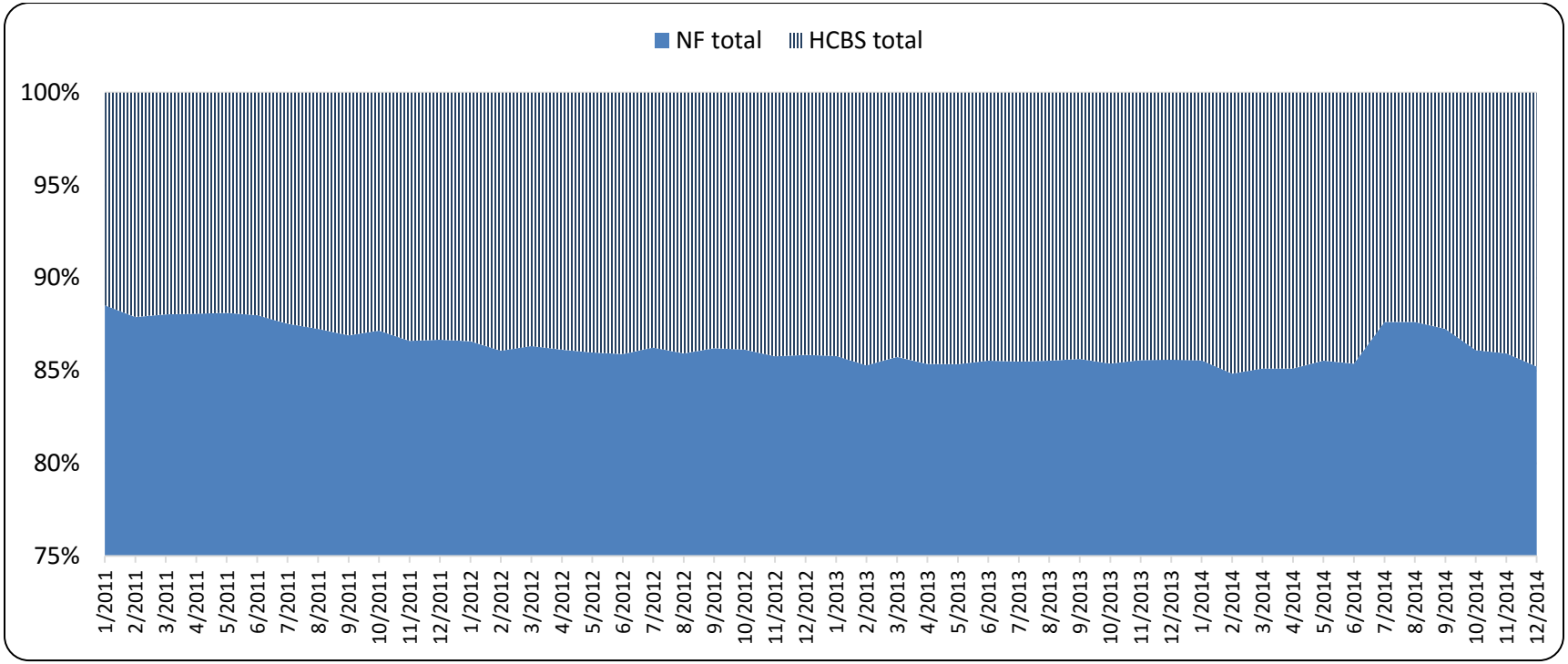
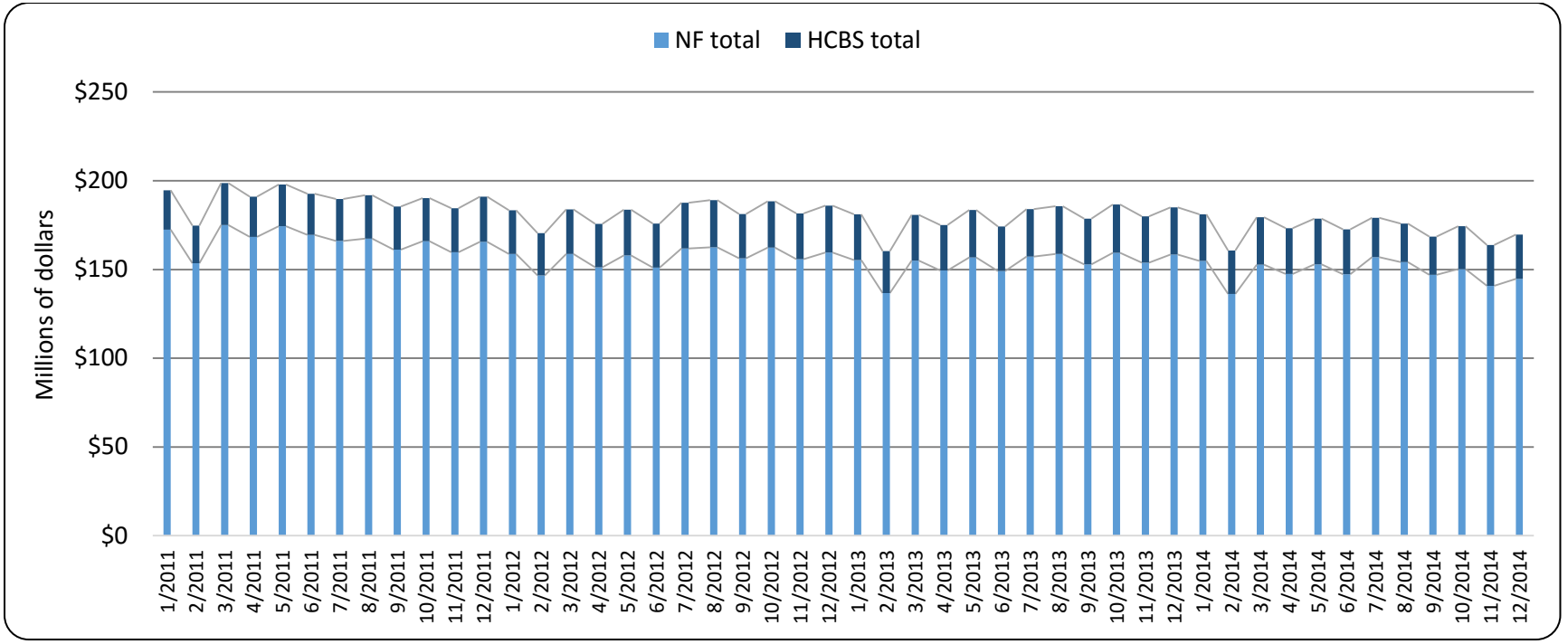
Figure 3A.9: Share of total LTC costs for the nursing facility and HCBS populations



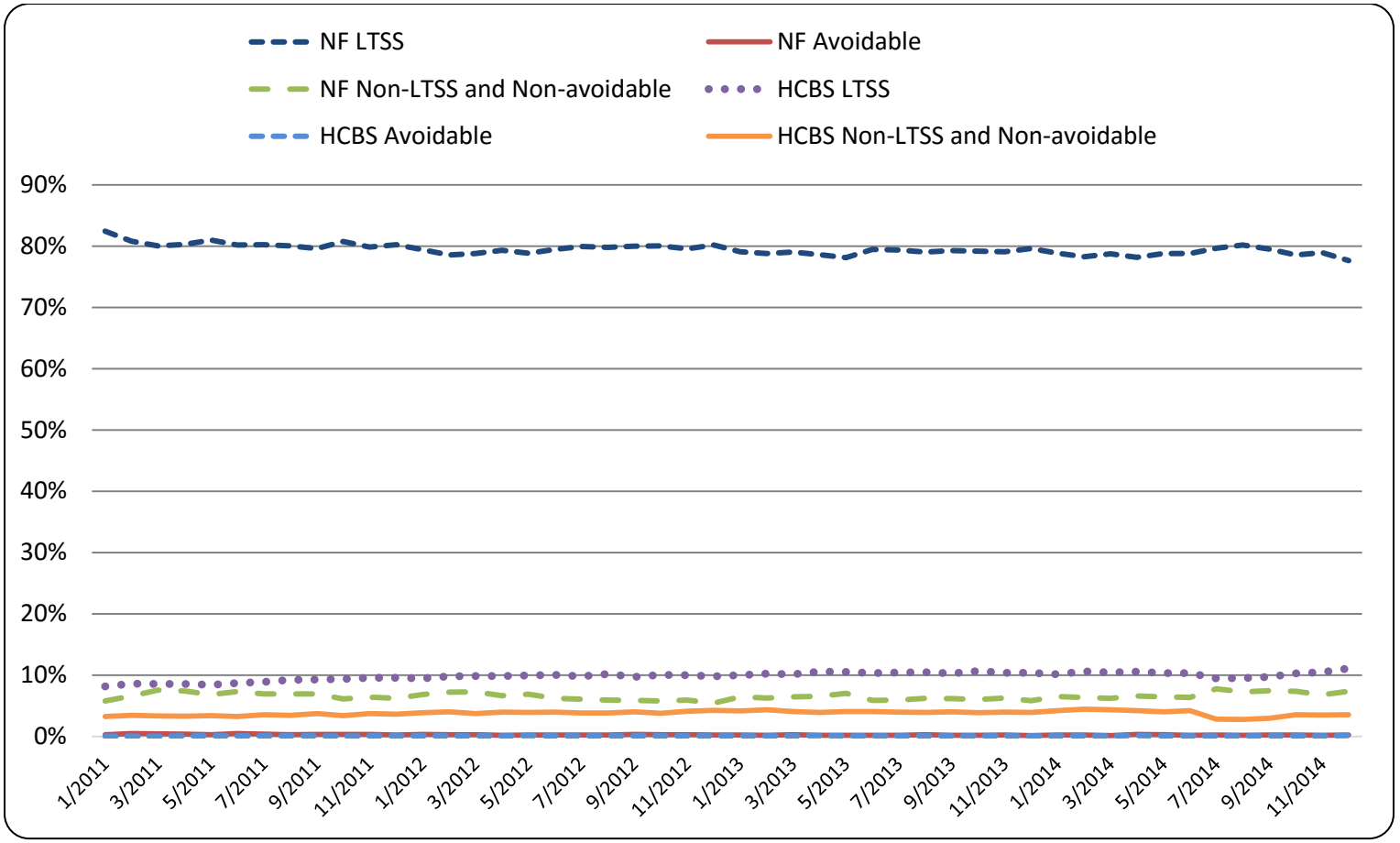
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Notes: NF=Nursing Facility; HCBS=Home and Community-Based Services.
Vertical axis begins at 75%.

Figure 3A.10: Total costs for the nursing facility and HCBS populations



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Notes: NF=Nursing Facility; HCBS=Home and Community-Based Services.
All costs are in 2012 dollars.

Figure 3A.11: Shares of different components of costs for the NF and HCBS populations



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
Notes: NF=Nursing Facility; HCBS=Home and Community-Based Services; LTSS=Long-Term Services and Supports.
All costs are in 2012 dollars.

Section B

Avoidable Inpatient Hospitalizations, ED Visit Rates, and Associated Costs: Table 3B.1 reports the Segmented Regression Analysis-based effect of the MLTSS program on the overall managed care population reflected in potential changes in rates of avoidable inpatient hospitalizations and ED visits among the universe of managed care enrollees. While there is a statistically significant drop in such avoidable events immediately following the implementation (reflected in a drop in levels), there is an increase in the trend. The magnitude of all these changes are less than one-tenth of a percentage point, but the percentage change over baseline differs for avoidable inpatient and avoidable ED visits. The average probability of a managed care beneficiary having any avoidable inpatient visit in any one quarter of 2012 was 0.0031 (0.31%). The change in this probability due to MLTSS is -0.00028 (-0.028 percentage point), as shown by the *MLTSS post* coefficient in Table 3B.1. Thus, the change from baseline in this probability due to MLTSS is the quotient of these: -0.00028/0.0031 which yields a decline of 9% in the per beneficiary per quarter probability of avoidable IP hospitalization. The analogous calculation for avoidable ED visits indicates a 15% decline in the number of avoidable ED visits per beneficiary per quarter from baseline.

Figures 3B.1 and 3B.2 provide graphical interpretations of the effects reported in Table 3B.1 by line graphs denoting probability of avoidable hospitalization based on the regression modeling. In the post-implementation period spanning July-December 2014, the solid line graph gives the values taking into account the MLTSS implementation, and the dotted line graph gives counterfactual values without MLTSS implementation. The difference between the two line graphs gives the effect of the MLTSS program. Specifically, if at any point of time the dotted line is above the solid line (implying that the counterfactual value is higher than the MLTSS-based value) this reflects a decrease in avoidable utilizations signifying a positive effect on ambulatory/primary care-related quality. It is important to note that this difference may change over the post-implementation period.

Table 3B.2 provides the unadjusted DD estimate based on the observed rates of avoidable events for the HCBS population and the comparison group in the pre- and post-MLTSS period which are also reported in Figures 3B.3 and 3B.4. Table 3B.3 reports the adjusted effects based on the DD estimation comparing changes over time in the HCBS population compared to the comparison group. Based on this estimate, the MLTSS implementation decreased the probability of an avoidable inpatient hospitalization over a quarter by 0.2 percentage point, but increased the number of avoidable ED visits per person over a quarter by 0.6 percentage point. Both effects are statistically significant. There was a statistically significant difference in avoidable ED visit trends between HCBS and the comparison group prior to MLTSS, but this was around one-tenth the magnitude of the DD-estimated effect size and does not necessitate modification of our inference of the policy effect.

Translating the estimated effect size into percentage changes over baseline, we divide the regression coefficient reflecting the change in the probability of an avoidable inpatient admission (-0.0019) by the baseline probability (0.0245) to arrive at an 8% decline from baseline in the probability of an HCBS beneficiary having any avoidable inpatient visit in a quarter due to MLTSS. For ED visits, a baseline number of visit per beneficiary per quarter of 0.063 in the HCBS population means the MLTSS impact was a nearly 10% increase (0.006/0.063) in the number of avoidable ED visit per HCBS beneficiary per quarter.

Table 3B.4, and Figures 3B.5 and 3B.6 report per person, per quarter costs associated with avoidable inpatient hospitalizations or ED visits for the HCBS and comparison groups for the pre- and post-MLTSS periods. Table 3B.4 further reports the ratio of ratios (ROR) of these costs where a magnitude greater than one reflects a positive association between the policy and avoidable costs. Table 3B.5 reports a similar ROR estimate that is calculated using a gamma regression with a log link that adjusts for patient and area level characteristics. We find that the MLTSS policy increases avoidable IP costs but decreases avoidable ED costs in the HCBS population.

Hospital Readmissions: Table 3B.6 reports the SRA-based effect of the MLTSS program on the overall managed care population reflected in potential changes in readmission rates among the universe of managed care enrollees. The coefficients corresponding to the variable *MLTSS post* give the change in the *level* of readmission likelihood immediately after the MLTSS implementation, and we find a decrease in this for all types of readmissions. The change in trend given by the coefficients corresponding to *MLTSS time* are less than 1 percentage point in absolute magnitude and may be positive or negative. We assess the joint statistical significant of these effects and find that there is a significant negative effect ($p<0.1$) on hospital-wide readmissions. This can be interpreted as an improvement in readmission related quality for the Medicaid managed care population as a whole.

As explained above, Figures 3B.7-3B.10 compare the MLTSS rates to the counterfactual rate.

Table 3B.7 provides the unadjusted DD estimate capturing the effect of the MLTSS implementation on the HCBS population that is based on the observed readmission rates for the HCBS and comparison population in the pre- and post-MLTSS implementation period (See Figures 3B.11-3B.14). While these estimates do not take into account the differing beneficiary and provider characteristics that are important to account for while examining the policy effect, they are informative since in addition to providing a starting estimate, they further demonstrate the way DD estimates are computed. Taking the case of pneumonia readmissions, the unadjusted DD estimate is the change in readmission rate for the HCBS population from pre to post-MLTSS

implementation period less the change for the comparison group over the same period. The difference in these two differences reflects the unadjusted policy effect, in this case a 10.7 percentage point increase in readmissions following hospitalization for pneumonia among the HCBS population. Table 3B.8 reports the adjusted effects that take into account differences in patient and provider characteristics. These may be different from the unadjusted estimates and are relevant for estimating the true policy effect. For pneumonia readmissions, the effect size increases slightly (compared to the unadjusted estimate) to 0.113. This should be interpreted as an 11.3 percentage point increase in pneumonia readmission rates among the HCBS population due to the MLTSS implementation. This effect is statistically significant at the 10% significance level. Heart failure and AMI readmissions increased by 5.6 and 5.1 percentage points, respectively, but these effects were not statistically significant. Hospital-wide readmission rates among the HCBS population decreased by less than 1 percentage point as a result of the policy, but this was not statistically significant.

Table 3B.9 shows the SRA-based effect of the MLTSS policy on hospital-wide readmissions among Medicaid managed care beneficiaries with a behavioral health condition. The 1.3% decline in the probability of readmission for this population is statistically significant at the 10% level. There was no significant effect of MLTSS on the trend. The combined effect of both the level and trend changes was also not significant. Figure 3B.15 depicts the probability of readmission for a managed care beneficiary with a behavioral health condition with the MLTSS effect and alongside, the calculated counterfactual.

Table 3B.10 provides the unadjusted DD estimate based on the observed rates of hospital-wide readmission for the HCBS population with a behavioral health condition and the comparison group in the pre- and post-MLTSS periods. Figure 3B.16 shows these rates graphically. The unadjusted difference in the differences is a 1.3 percentage point decline in the readmission rate among the HCBS population with a BH condition in the post-MLTSS period. Table 3B.11 reports the adjusted effects based on the DD estimation comparing changes over time of hospital-wide readmissions for the HCBS population with a BH condition compared to that in the comparison group. Based on these estimates, the MLTSS implementation decreased the hospital-wide readmission rate among the HCBS population with a BH condition by 0.2 percentage points. The effect is not statistically significant.

Follow-up after Hospitalization for Mental Illness: Table 3B.12 reports the SRA-based effect of the MLTSS program on the overall managed care population reflected in potential changes in follow-up after hospitalizations for mental illness among the universe of managed care enrollees. Residents of nursing facilities or intermediate care facilities were excluded in the regression model since follow-up care provided in the facility might not be captured in claims data. There

are decreases in level and also the trend in follow up rates within 30 days of hospitalization as indicated by the coefficients of *MLTSS post* and *MLTSS time*. Each of these decreases amount to approximately a 1 percentage point decrease in the rate of follow up among managed care beneficiaries. This is also reflected in Figure 3B.17 where the rates after MLTSS are lower than the calculated counterfactual rates.

Table 3B.13 provides the unadjusted DD estimate based on the observed rates of follow up for the HCBS population and the comparison group in the pre- and post-MLTSS period which are also reported in Figures 3B.18 and 3B.19. Table 3B.14 reports the adjusted effects based on the DD estimation comparing changes over time in the HCBS population compared to that in the comparison group. Residents of intermediate care facilities were excluded from the comparison population in the regression model since follow-up care provided in the facility might not be captured in claims data. Based on these estimates, the MLTSS implementation increased the follow up rate within 7 and 30 days of a mental illness hospitalization by 17 and 9 percentage points respectively. Neither effect is statistically significant and due to small numbers of HCBS beneficiaries with a qualifying mental illness index hospitalization in the post-MLTSS period, there are statistical issues with the reliability of these results.

Ambulatory Visit after Hospitalization: Table 3B.15 reports the SRA-based effect of the MLTSS program on the overall managed care population reflected in potential changes in ambulatory visit rates after discharge home from hospitalization among the universe of managed care enrollees. The increases in the level and also the trend of such visits as indicated by the coefficients of *MLTSS post* and *MLTSS time* respectively are positive, less than one percentage point, and neither is statistically significant. Figure 3B.20 demonstrates that the rates based on MLTSS are higher than the calculated counterfactual rates.

Table 3B.16 provides the unadjusted DD estimate based on the observed rates of post-discharge ambulatory visits for the HCBS population and the comparison group in the pre- and post-MLTSS period which are also reported in Figure 3B.21. Table 3B.17 reports the adjusted effects based on the DD estimation comparing changes over time in the HCBS population compared to the comparison group. Residents of intermediate care facilities were excluded from the comparison population in the regression model since follow-up care provided in the facility might not be captured in claims data. Based on this estimate, the MLTSS implementation decreased the probability of an ambulatory visit 14 days following discharge from a medical hospitalization by 5.5 percentage points and this effect is statistically significant. There was a statistically significant difference in visit trends between HCBS and the comparison group prior to MLTSS, but this was around one-fiftieth the magnitude of the DD-estimated effect size and does not modify the policy effect.

Table 3B.1: MLTSS impact on avoidable hospitalizations and ED visits among the Medicaid managed care population

MLTSS Impact Estimates *(n=21,802,509)*	**Avoidable Inpatient Utilization**	**Avoidable ED Utilization**
mltss_post	-0.00028***	-0.01197***
	(0.00008)	(0.001)
mltss_quarter	0.00013*	0.00542***
	(0.00007)	(0.001)
mltss_post and mltss_quarter	***	***

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Notes: ED=Emergency Department.

Person-quarter level segmented regression analysis with zip code fixed effects.

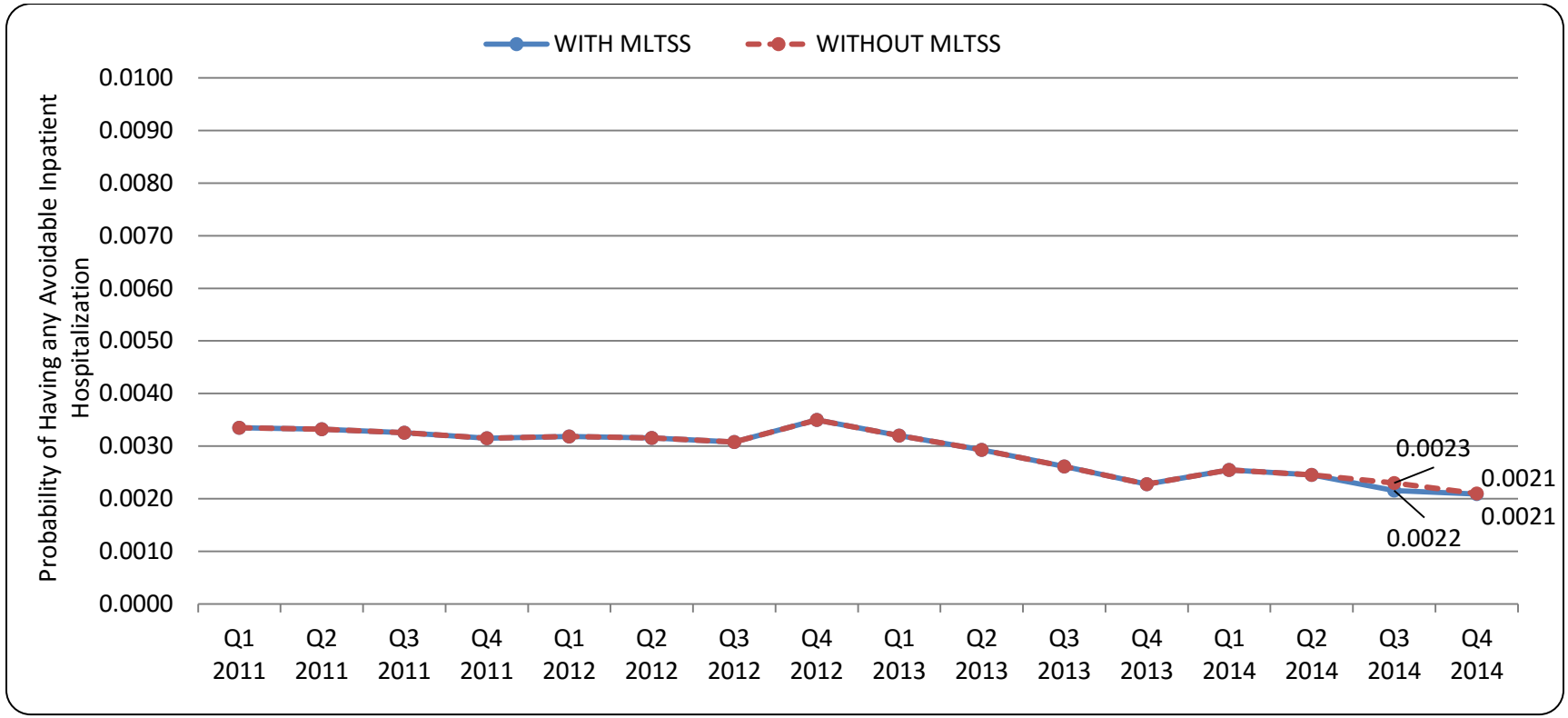
Avoidable inpatient utilization rate denotes the likelihood of at least one avoidable hospitalization by a Medicaid beneficiary during the quarter. Avoidable ED utilization rate denotes the sum total of ED visits by a person during a quarter.

Models adjusted for sex, elderly status, quarterly time trends, waiver initiation, Medicaid expansion, CDPS risk category, and enrollment days per quarter.

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

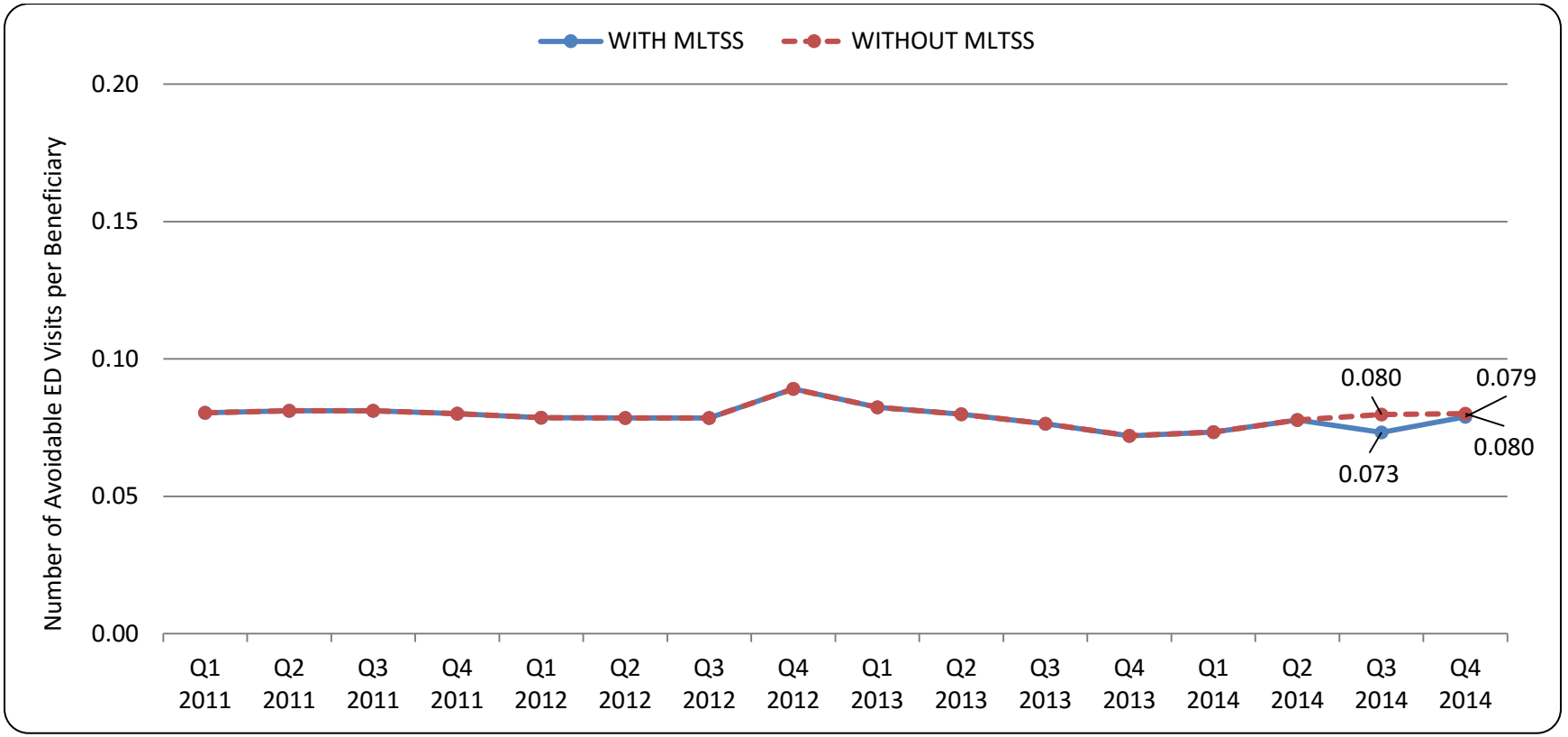
Figure 3B.1: Regression-based rates of avoidable inpatient hospitalizations with and without MLTSS effect among the Medicaid managed care population



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Notes: The vertical axis denotes the numerical probability of hospitalization. This ranges from zero to a maximum of 1 denoting 100% probability. Here, the probability of an avoidable inpatient hospitalization is <1% in every quarter.

Figure 3B.2: Regression-based rates of avoidable ED visits with and without MLTSS effect among the Medicaid managed care population



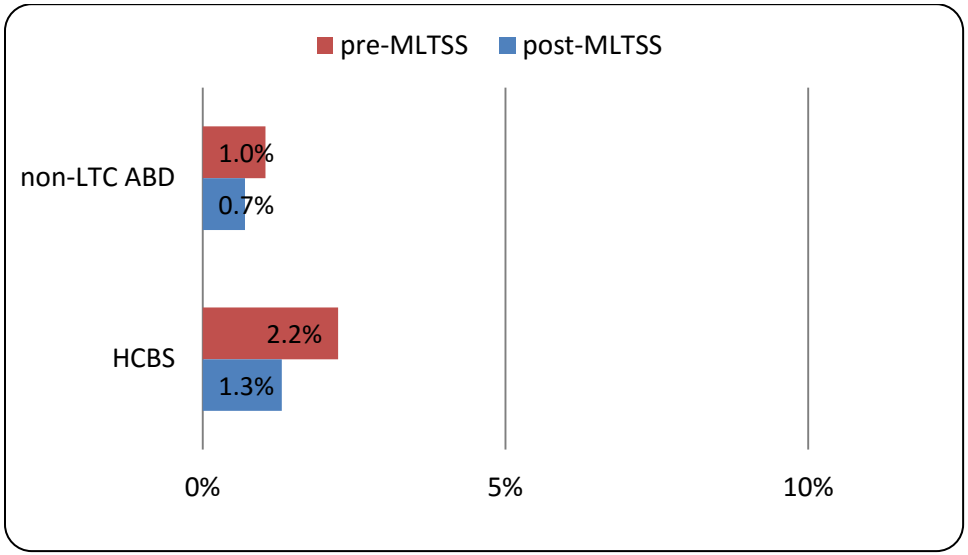
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Notes: ED=Emergency Department.

Table 3B.2: Unadjusted MLTSS impact on avoidable hospitalizations and ED visit rates among the HCBS population

	non-LTC ABD		HCBS		Unadjusted Difference in Differences*
	pre-MLTSS *(a)*	post-MLTSS *(b)*	pre-MLTSS *(c)*	post-MLTSS *(d)*	
Average rate of avoidable inpatient hospitalizations per quarter	1.0%	0.7%	2.2%	1.3%	-0.6
Average number of avoidable ED visits per quarter	0.10	0.08	0.06	0.05	-0.0004

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled; ED=Emergency Department.
Avoidable inpatient utilization rate denotes the average likelihood of at least one avoidable hospitalization by a Medicaid beneficiary during the quarter.
Avoidable ED utilization rate denotes the sum total of ED visits by a person during a quarter.
Not adjusted for beneficiary or area characteristics.
*Calculated as [*d*-*c*]-[*b*-*a*]; For avoidable inpatient hospitalizations the unadjusted difference in differences is a percentage point change.

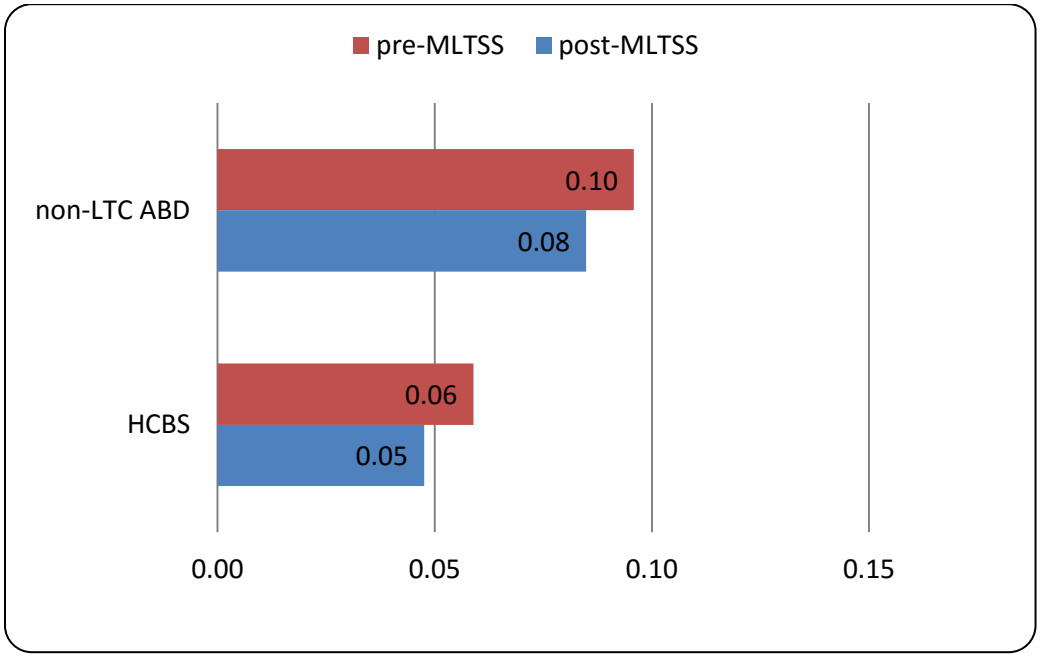
Figure 3B.3: Percentage experiencing avoidable inpatient hospitalizations over a quarter among HCBS beneficiaries and a comparison population during the pre- and post-MLTSS periods



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled.

Figure 3B.4: Avoidable ED visits per beneficiary over a quarter among HCBS beneficiaries and a comparison population during the pre- and post-MLTSS periods



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled; ED=Emergency Department.

Table 3B.3: Adjusted MLTSS impact on avoidable inpatient hospitalizations and ED visit rates among the HCBS population

MLTSS Impact Estimates *(n=4,357,861)*	**Avoidable Inpatient Utilization**	**Avoidable ED Utilization**
HCBS * Post-MLTSS	-0.00187**	0.00601***
	(0.00082)	(0.002)

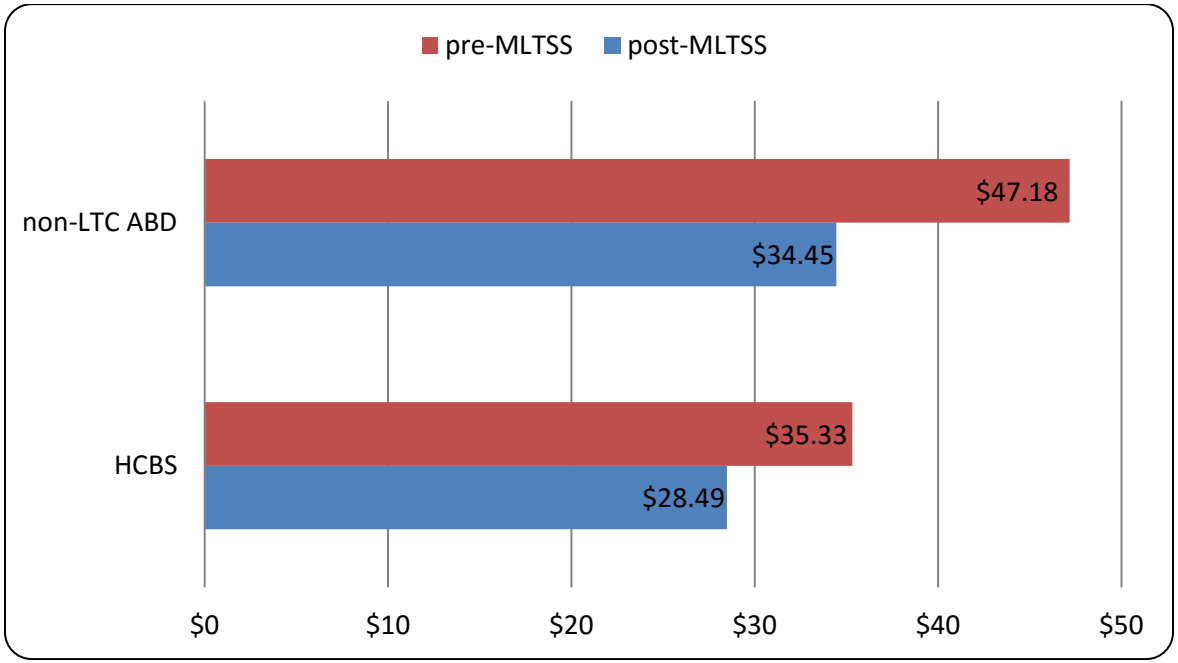
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Notes: ED=Emergency Department; HCBS=Home and Community-Based Services.
Person-quarter level difference-in-differences regression analysis with zip code fixed effects.
Models adjusted for sex, elderly status, quarterly time trends, waiver initiation, Medicaid expansion, CDPS risk category, and enrollment days per quarter.
Significant difference in pre-trends between HCBS and comparison group equaling 0.0006
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table 3B.4: Unadjusted MLTSS impact on average per person, per quarter costs related to avoidable inpatient hospitalizations and ED visits among the HCBS population

	non-LTC ABD		HCBS		Unadjusted Ratio of Ratios*
	pre-MLTSS *(a)*	post-MLTSS *(b)*	pre-MLTSS *(c)*	post-MLTSS *(d)*	
Avoidable inpatient cost	$ 47.18	$ 34.45	$ 35.33	$ 28.49	1.10
Avoidable ED cost	$ 20.60	$ 22.16	$ 6.32	$ 5.65	0.83

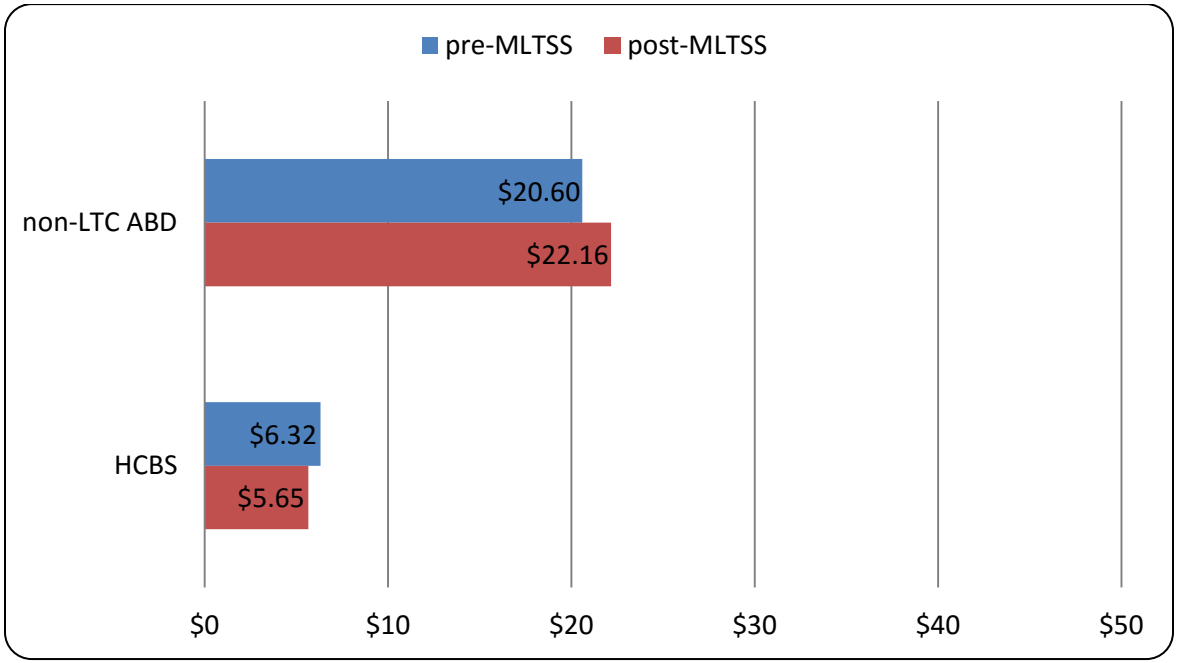
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Notes: ED=Emergency Department; HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled.
Unadjusted observed costs calculated by dividing total costs relating to a group by the number of person-quarters in the period.
Not adjusted for beneficiary or area characteristics.
*Calculated as [*d/c*]/[*b/a*].

Figure 3B.5: Per person, per quarter costs due to avoidable inpatient hospitalizations among HCBS beneficiaries and a comparison population during the pre- and post-MLTSS periods



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled.

Figure 3B.6: Per person, per quarter costs due to avoidable ED visits among HCBS beneficiaries and a comparison population during the pre- and post-MLTSS periods



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled; ED=Emergency Department.

Table 3B.5: Adjusted MLTSS impact on avoidable inpatient and avoidable ED costs among the HCBS population

MLTSS Impact Estimates *(n=4,357,861)*	**Avoidable Inpatient Costs**	**Avoidable ED Costs**
HCBS * Post-MLTSS	2.9648***	0.79673**
	(1.02600)	(0.07048)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Notes: ED=Emergency Department; HCBS=Home and Community-Based Services.

Person-quarter level gamma regression analysis with log link and zip code fixed effects. Table reports the exponentiated coefficient of the interaction term giving the ratio of the two ratios as described in Table 3B.4, but after adjusting for patient and geographic factors.

Models adjusted for sex, elderly status, CDPS risk category, and enrollment days per quarter.

Robust standard errors in parentheses.

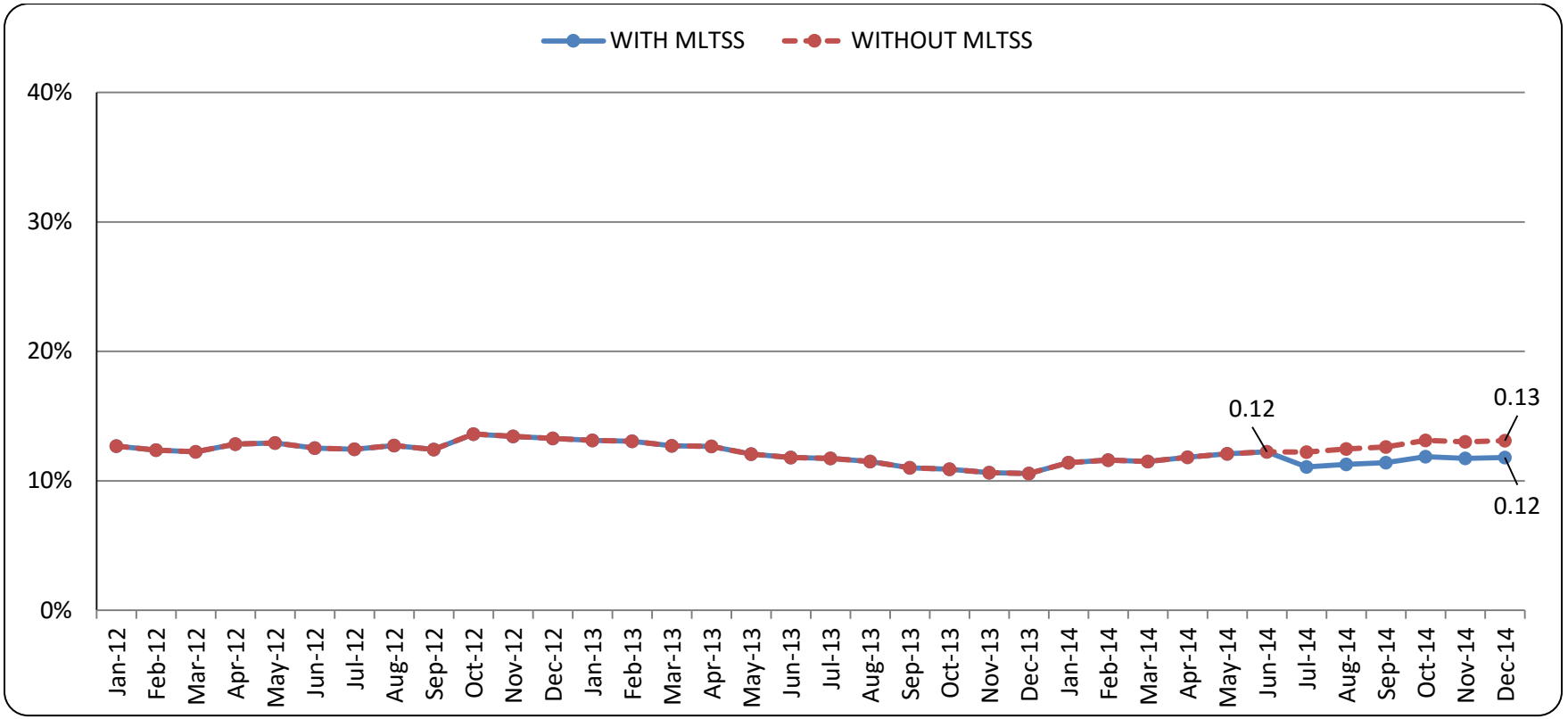
*** p<0.01, ** p<0.05, * p<0.1

Table 3B.6: MLTSS impact on hospital readmissions among the Medicaid managed care population

MLTSS Impact Estimates	Hospital-Wide *(n=212,525)*	Heart Failure *(n=6,691)*	AMI *(n=2,533)*	Pneumonia *(n=6,072)*
mltss_post	-0.01125**	-0.04435	-0.05700	-0.02689
	(0.005)	(0.031)	(0.048)	(0.041)
mltss_time	-0.00029	0.00801	-0.00589	0.00427
	(0.001)	(0.009)	(0.011)	(0.008)
mltss_post and mltss_time	*			

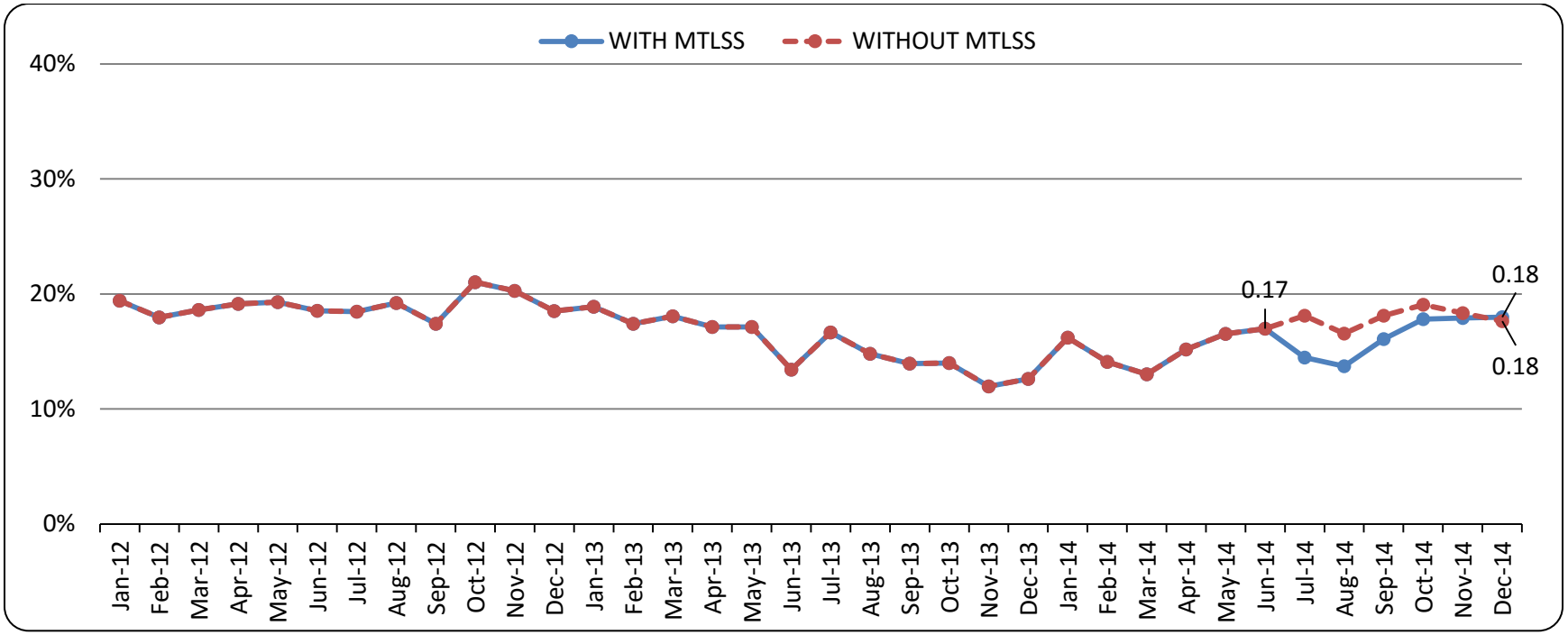
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Notes: AMI=Acute Myocardial Infarction.
Hospital readmissions for initial index hospitalizations that may be all-cause or related to heart failure, AMI, or pneumonia.
Discharge-level segmented regression analysis with hospital fixed effects.
Models adjusted for sex, elderly status, monthly time trends, waiver initiation, Medicaid expansion, and all condition-specific risk factors listed in Appendix F.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Figure 3B.7: Regression-based probability of 30-day readmission following all-cause hospitalizations with and without MLTSS effect among the Medicaid managed care population



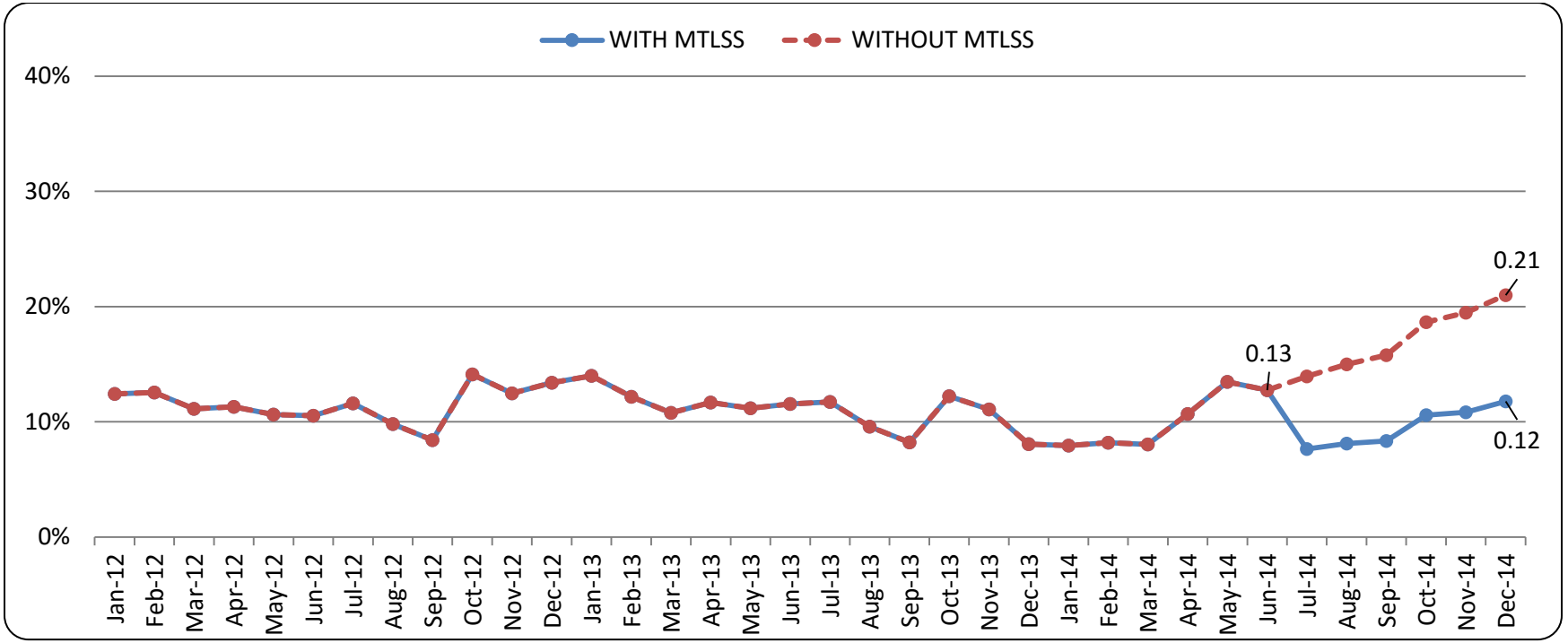
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Figure 3B.8: Regression-based probability of 30-day readmission following heart failure hospitalizations with and without MLTSS effect among the Medicaid managed care population



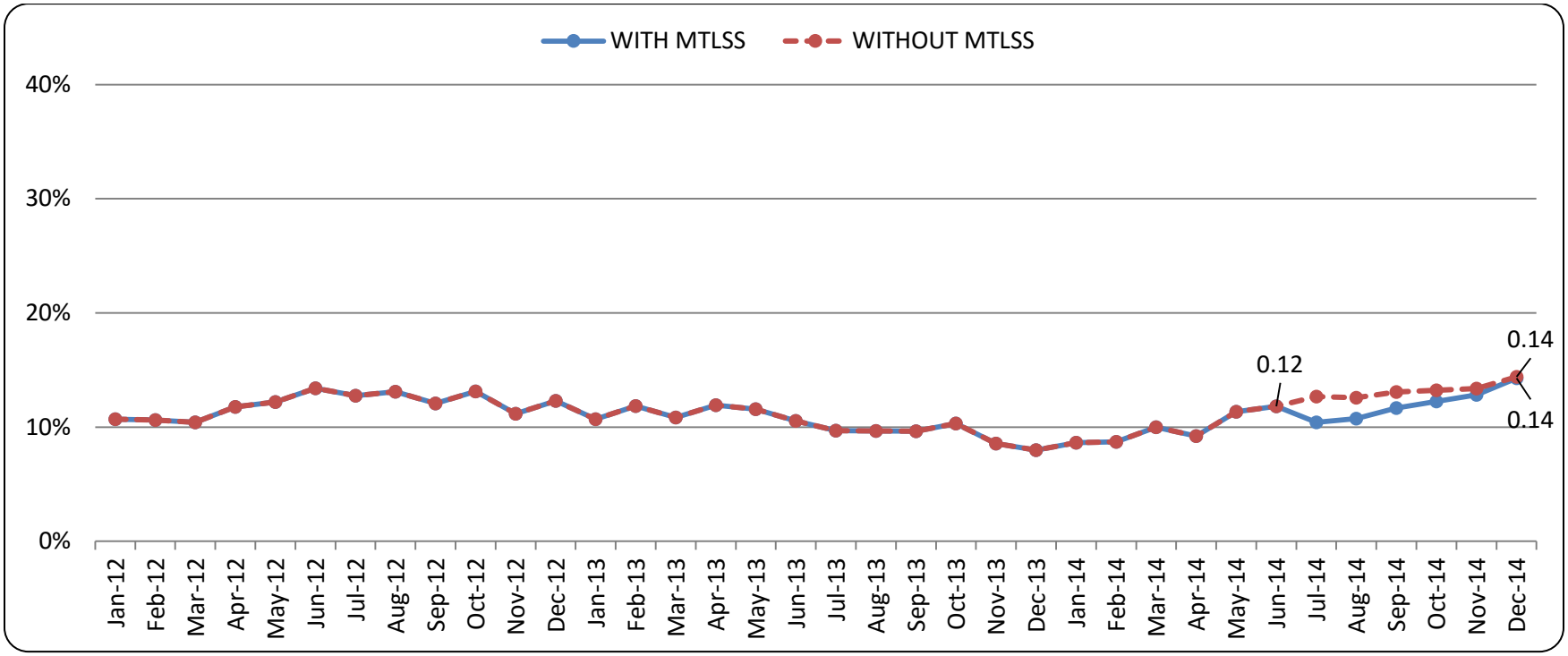
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Figure 3B.9: Regression-based probability of 30-day readmission following acute myocardial infarction hospitalizations with and without MLTSS effect among the Medicaid managed care population



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Figure 3B.10: Regression-based probability of 30-day readmission following pneumonia hospitalizations with and without MLTSS effect among the Medicaid managed care population



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Table 3B.7: Unadjusted MLTSS impact on 30-day hospital readmission rates among the HCBS population

	non-LTC ABD		HCBS		Unadjusted Difference in Differences*
	pre-MLTSS	post-MLTSS	pre-MLTSS	post-MLTSS	
Readmission Type	*(a)*	*(b)*	*(c)*	*(d)*	
Hospital-wide	15.4%	15.2%	8.8%	7.1%	-1.4
Heart failure	18.3%	16.9%	8.7%	9.5%	2.2
Acute myocardial infarction	12.4%	11.1%	4.5%	**	
Pneumonia	12.0%	11.5%	5.9%	16.1%	10.7

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

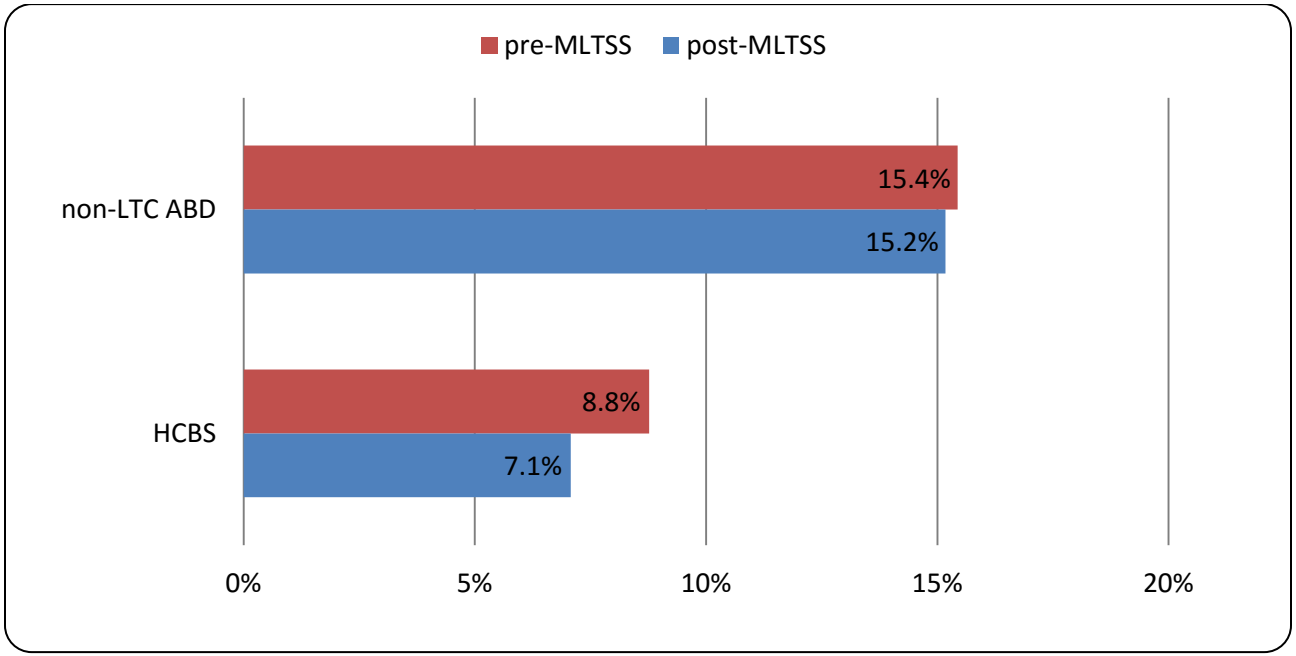
Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled.

Not adjusted for beneficiary or provider characteristics.

*Calculated as [*d*-*c*]-[*b*-*a*]; Units of unadjusted difference in differences is a percentage point change.

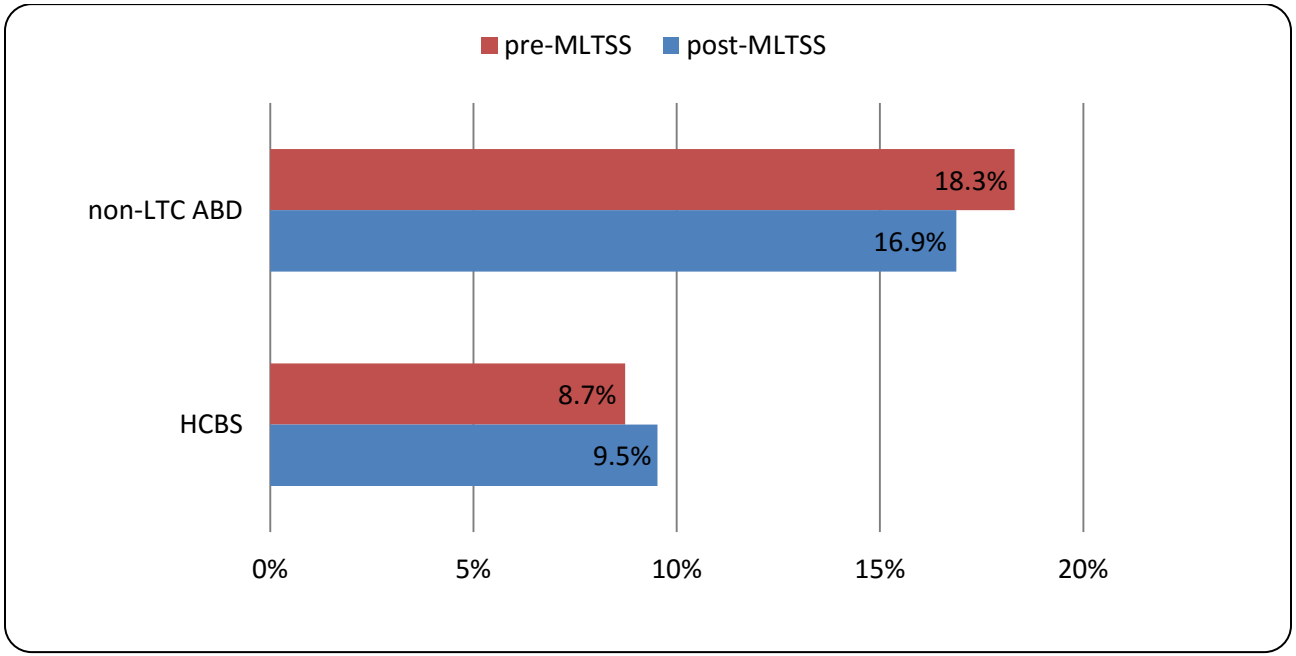
**Estimate suppressed due to insufficient sample size.

Figure 3B.11: Thirty-day hospital-wide readmission rates among HCBS beneficiaries and a comparison population during the pre- and post-MLTSS periods



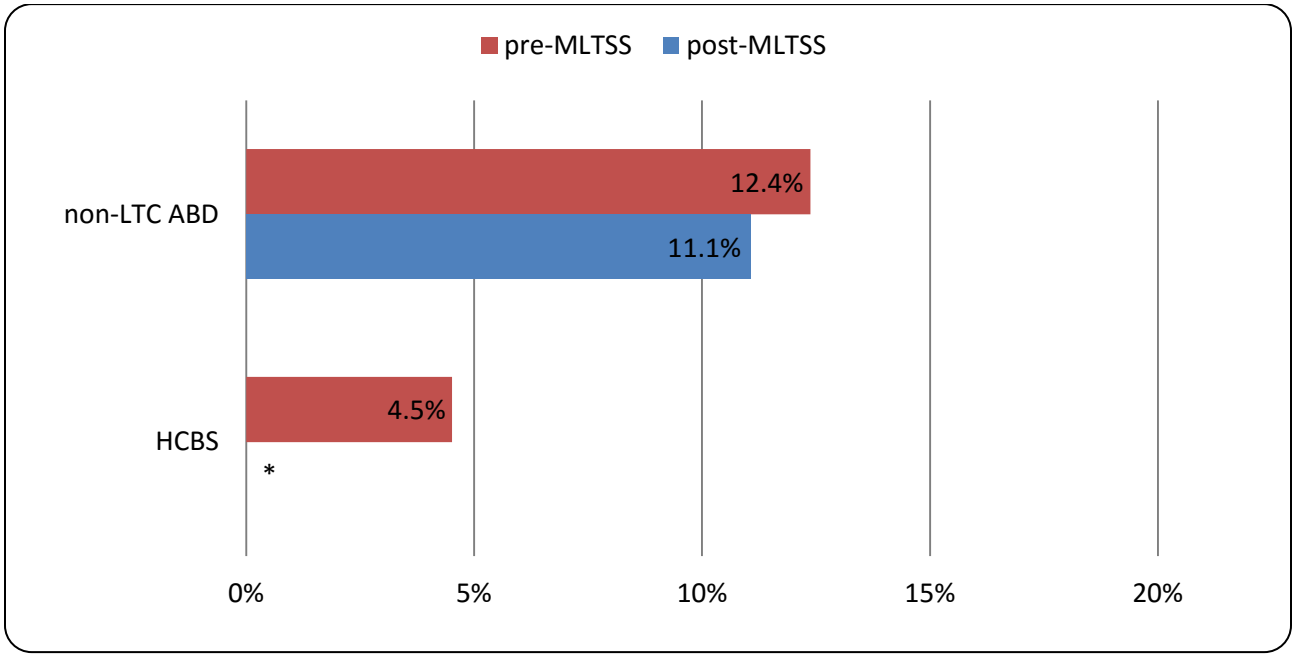
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled.

Figure 3B.12: Thirty-day heart failure readmission rates among HCBS beneficiaries and a comparison population during the pre- and post-MLTSS periods



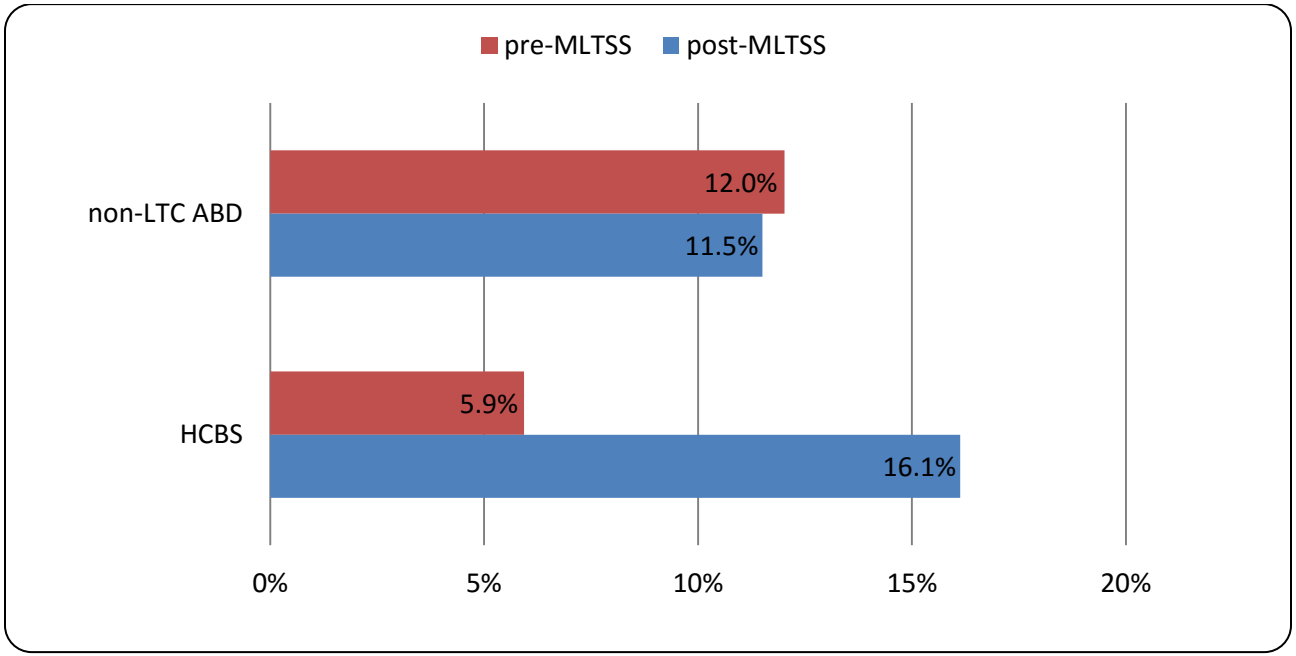
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled.

Figure 3B.13: Thirty-day AMI readmission rates among HCBS beneficiaries and a comparison population during the pre- and post-MLTSS periods



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Notes: AMI=Acute Myocardial Infarction; HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled.
*Post-MLTSS estimate for the HCBS population suppressed due to insufficient sample size.

Figure 3B.14: Thirty-day pneumonia readmission rates among HCBS beneficiaries and a comparison population during the pre- and post-MLTSS periods



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled.

Table 3B.8: Adjusted MLTSS impact on hospital readmission rates among the HCBS population

MLTSS Impact Estimates	Hospital-Wide *(n=132,791)*	Heart Failure *(n=5,938)*	AMI *(n=2,011)*	Pneumonia *(n=4,798)*
HCBS * Post-MLTSS	-0.00428	0.05633	0.05124	0.11282*
	(0.013)	(0.048)	(0.079)	(0.059)

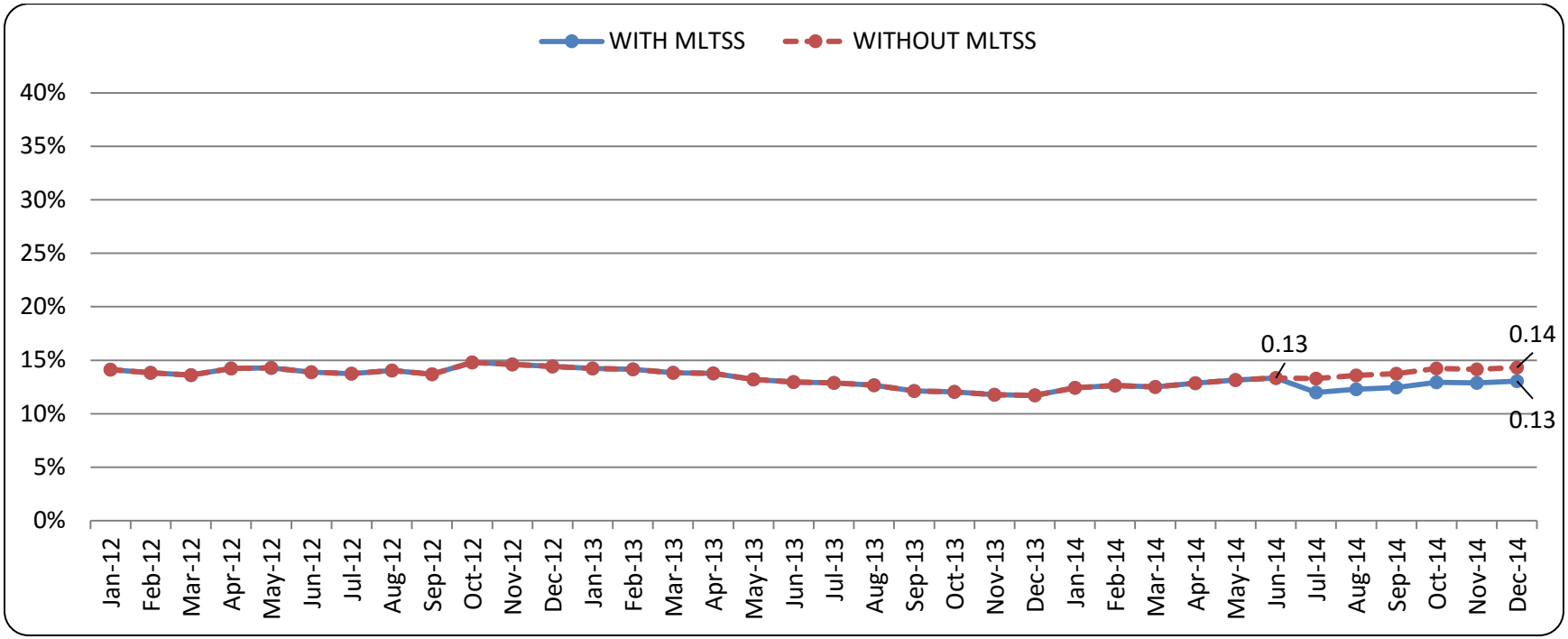
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Notes: AMI=Acute Myocardial Infarction; HCBS=Home and Community-Based Services.
Hospital readmissions for initial index hospitalizations that may be all-cause or related to heart failure, AMI, or pneumonia.
Discharge level difference-in-differences regression analysis with hospital fixed effects.
Models adjusted for sex, elderly status, monthly time trends, waiver initiation, Medicaid expansion, and all condition-specific risk factors listed in Appendix F.
Shaded estimates are based on small sample sizes that may affect the reliability of these estimates.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table 3B.9: MLTSS impact on hospital-wide readmissions among the Medicaid managed care population with a behavioral health condition

MLTSS Impact Estimates	Hospital-Wide Readmissions *(n=133,906)*
mltss_post	-0.01303*
	(0.007)
mltss_time	0.00006
	(0.002)
mltss_post and mltss_time	

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Discharge-level segmented regression analysis with hospital fixed effects.
Models adjusted for sex, elderly status, monthly time trends, waiver initiation, Medicaid expansion, and all condition-specific risk factors listed in Appendix F.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Figure 3B.15: Regression-based probability of 30-day readmission following all-cause hospitalizations with and without MLTSS effect for the Medicaid managed care population with a behavioral health condition



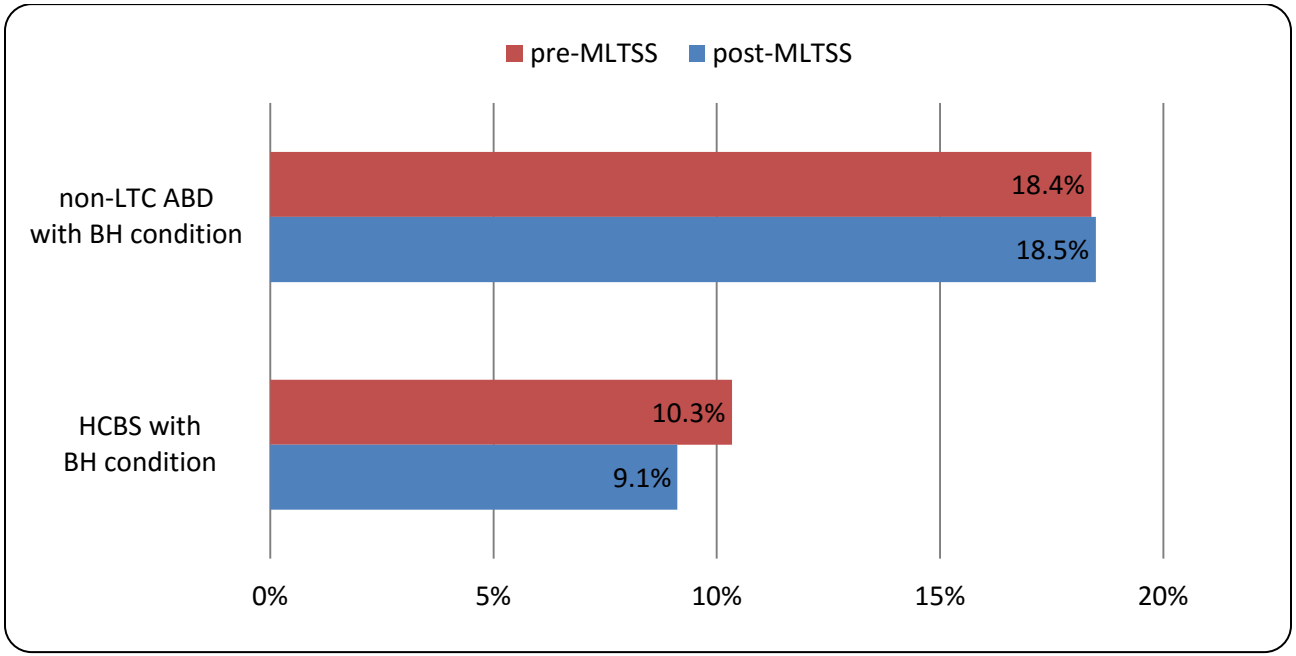
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Table 3B.10: Unadjusted MLTSS impact on 30-day hospital-wide readmission rates among the HCBS population with a behavioral health condition

	non-LTC ABD with a BH condition		HCBS with a BH condition		Unadjusted Difference in Differences*
	pre-MLTSS *(a)*	post-MLTSS *(b)*	pre-MLTSS *(c)*	post-MLTSS *(d)*	
Hospital-wide readmissions	18.4%	18.5%	10.3%	9.1%	-1.3

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled; BH=Behavioral Health.
Not adjusted for beneficiary or provider characteristics.
*Calculated as [*d*-*c*]-[*b*-*a*]; Units of unadjusted difference in differences is a percentage point change.

Figure 3B.16: Thirty-day hospital-wide readmission rates among HCBS beneficiaries and a comparison population with a behavioral health condition during the pre- and post-MLTSS periods



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled; BH=Behavioral Health.

Table 3B.11: Adjusted MLTSS impact on hospital-wide readmission rates among the HCBS population with a behavioral health condition

MLTSS Impact Estimate	Hospital-Wide Readmissions *(n=92,273)*
HCBS * Post-MLTSS	-0.00203
	(0.019)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Notes: Discharge level difference-in-differences regression analysis with hospital fixed effects.

Models adjusted for sex, elderly status, monthly time trends, waiver initiation, Medicaid expansion, and all condition-specific risk factors listed in Appendix F.

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Table 3B.12: MLTSS impact on follow-up after mental illness hospitalization among the Medicaid managed care population

MLTSS Impact Estimates *(n=33,557)*	Follow-up within 7 days	Follow-up within 30 days
mltss_post	0.00798	-0.01467
	(0.016)	(0.021)
mltss_time	-0.00690	-0.01182**
	(0.004)	(0.005)
mltss_post and mltss_time		**

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

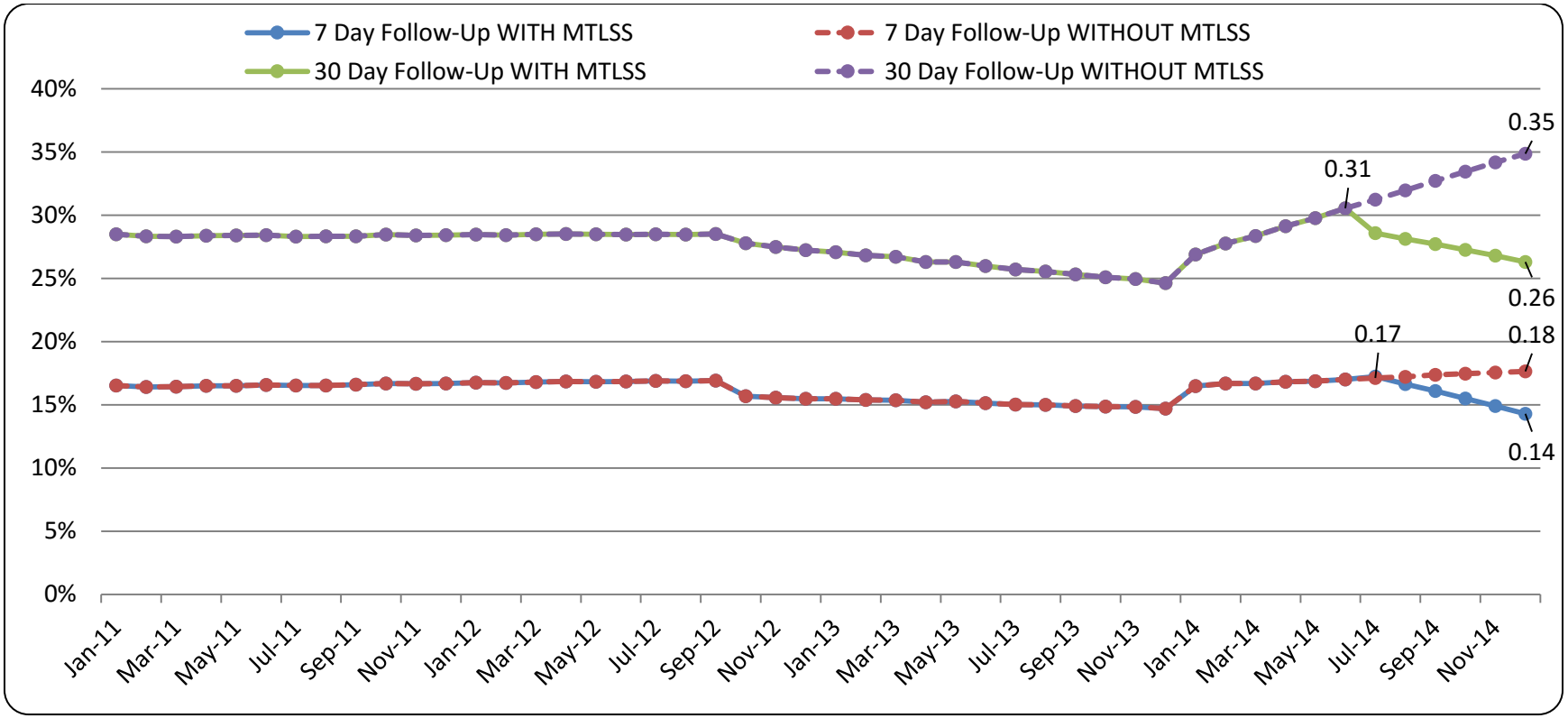
Notes: Discharge-level segmented regression analysis with hospital fixed effects.

Models adjusted for sex, elderly status, monthly time trends, waiver initiation, Medicaid expansion, and CDPS risk score category.

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Figure 3B.17: Regression-based rates of follow-up after mental illness hospitalization with and without MLTSS effect



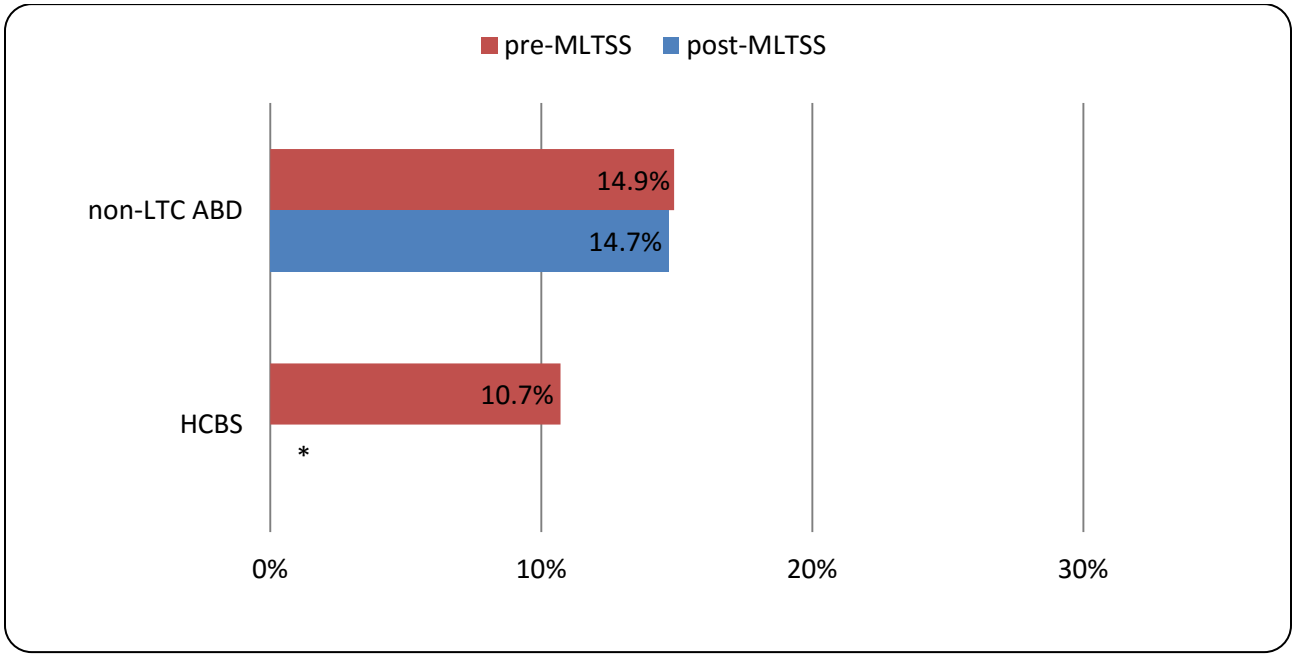
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Table 3B.13: Unadjusted MLTSS impact on follow-up after mental illness hospitalization among the HCBS population

	non-LTC ABD		HCBS		Unadjusted Difference in Differences*
	pre-MLTSS *(a)*	post-MLTSS *(b)*	pre-MLTSS *(c)*	post-MLTSS *(d)*	
Follow-up within 7 days	14.9%	14.7%	10.7%	**	**
Follow-up within 30 days	26.4%	26.7%	19.3%	**	**

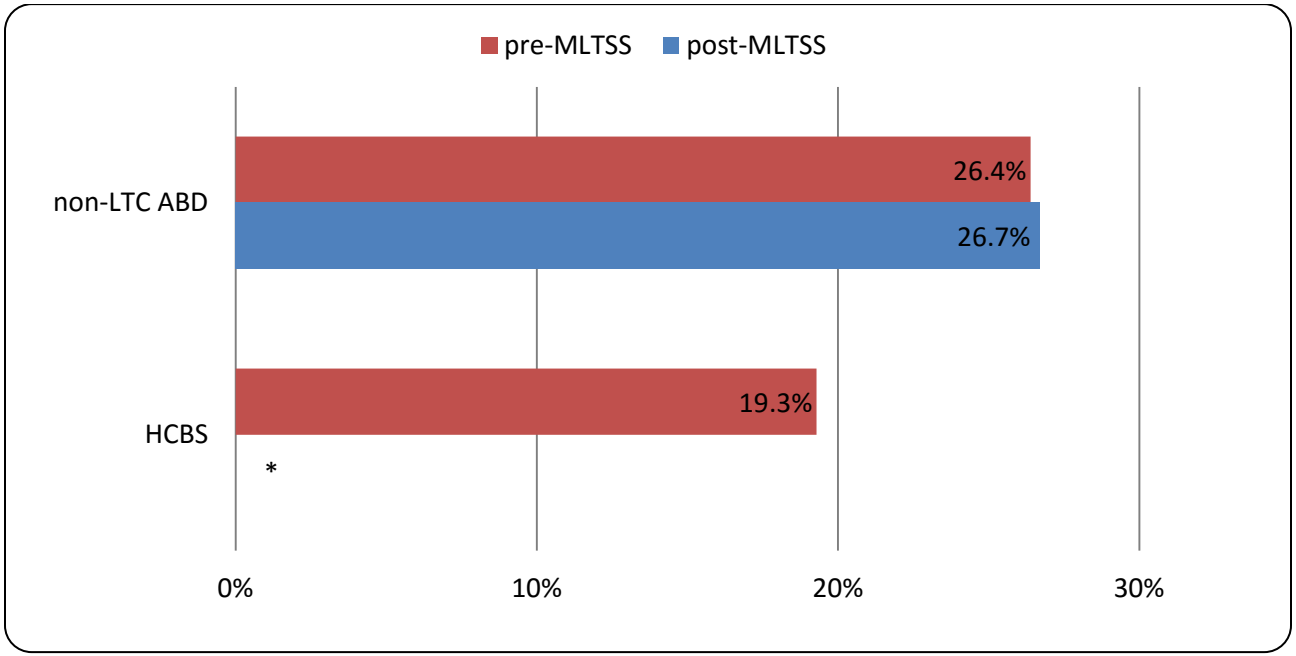
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled.
Not adjusted for beneficiary and provider characteristics.
*Calculated as [*d*-*c*]-[*b*-*a*]; Units of unadjusted difference in differences is a percentage point change.
**Estimate suppressed due to insufficient sample size.

Figure 3B.18: Seven-day follow-up after mental illness hospitalization among HCBS beneficiaries and a comparison population during the pre- and post-MLTSS periods



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled
*Post-MLTSS estimate for the HCBS population suppressed due to insufficient sample size.

Figure 3B.19: Thirty-day follow-up after mental illness hospitalization among HCBS beneficiaries and a comparison population during the pre- and post-MLTSS periods



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled
*Post-MLTSS estimate for the HCBS population suppressed due to insufficient sample size.

Table 3B.14: Adjusted MLTSS impact on follow-up after mental illness hospitalization among the HCBS population

MLTSS Impact Estimates *(n=20,044)*	**Follow-up within 7 days**	**Follow-up within 30 days**
HCBS * Post-MLTSS	0.16913	0.08933
	(0.232)	(0.222)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

Discharge level difference-in-differences regression analysis with hospital fixed effects.

Models adjusted for sex, elderly status, monthly time trends, waiver initiation, Medicaid expansion, and CDPS risk score category.

Shaded estimates are based on small sample sizes that may affect the reliability of these estimates.

Robust standard errors in parentheses.

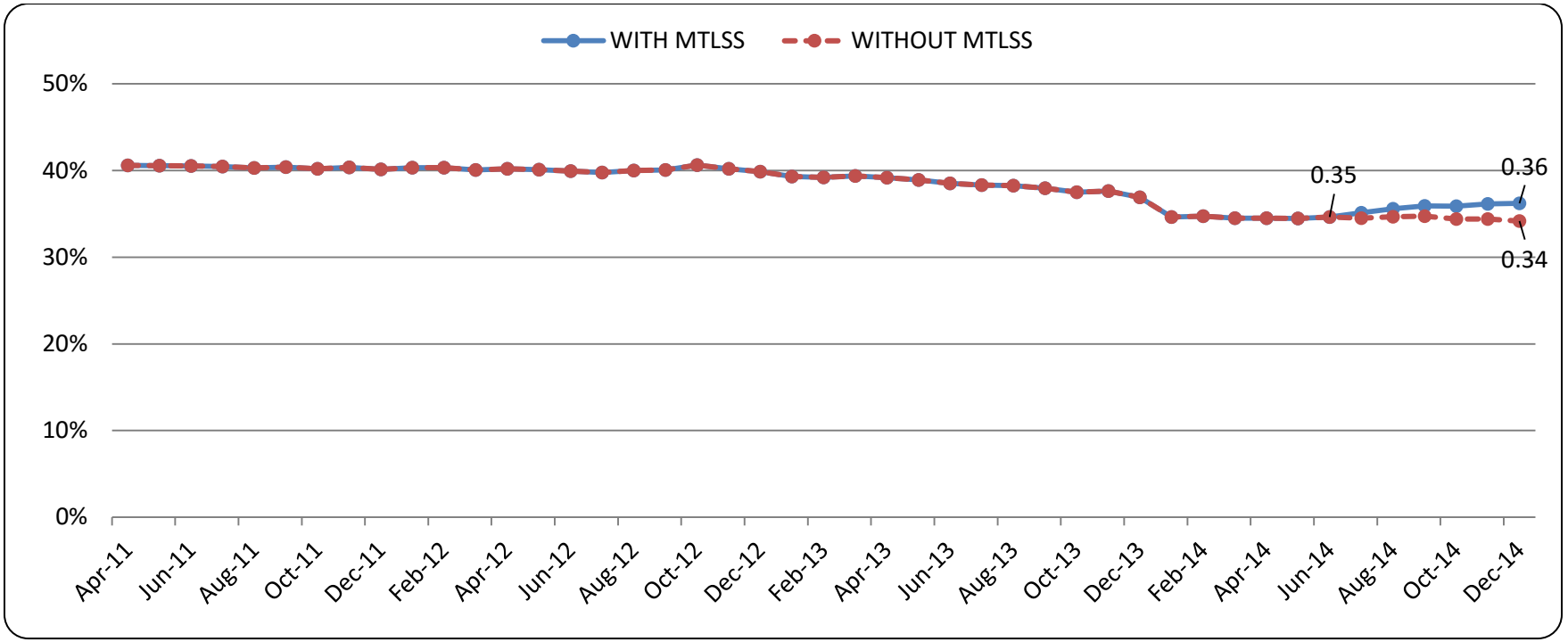
*** p<0.01, ** p<0.05, * p<0.1

Table 3B.15: MLTSS impact on 14-day ambulatory visit rates after hospitalization among the Medicaid managed care population

MLTSS Impact Estimates	Visit 14 Days After Discharge Home *(n=191,313)*
mltss_post	0.00318
	(0.008)
mltss_time	0.00287
	(0.003)
mltss_post and mltss_time	

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Discharge-level segmented regression analysis with hospital fixed effects.
Models adjusted for sex, elderly status, monthly time trends, waiver initiation, Medicaid expansion, and CDPS risk score category.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Figure 3B.20: Regression-based 14-day ambulatory visit rates after hospitalization with and without MLTSS effect



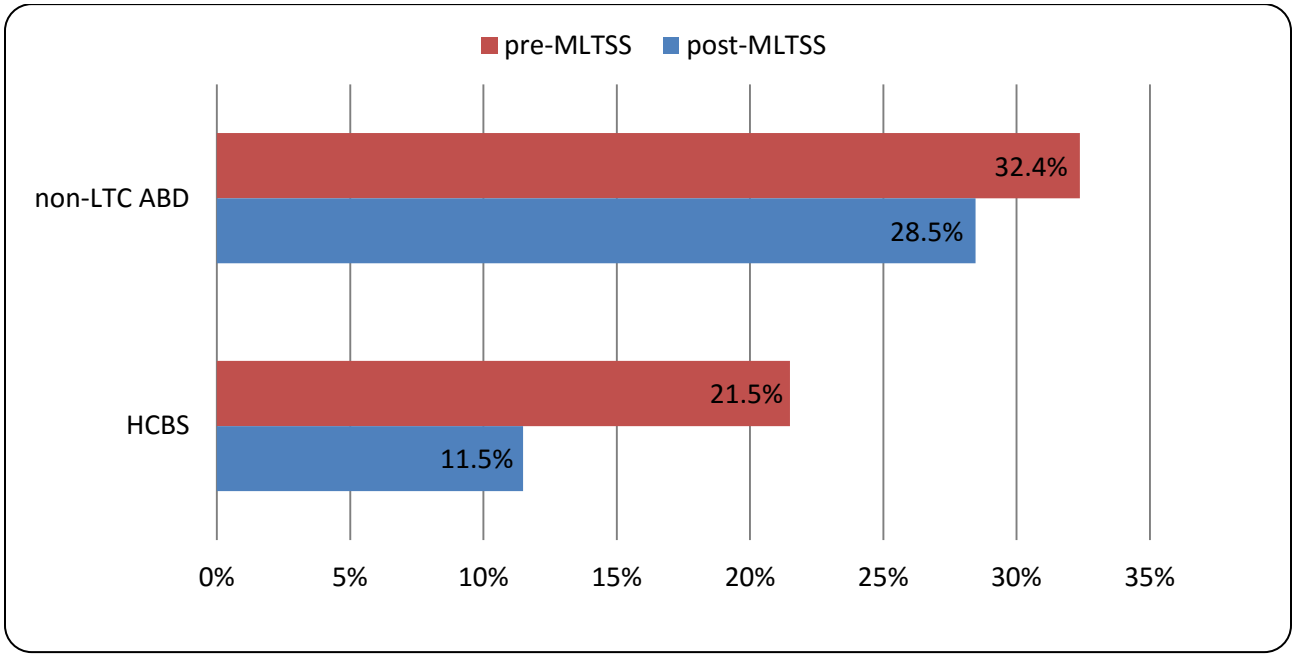
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Table 3B.16: Unadjusted MLTSS impact on 14-day ambulatory visit rates after hospitalization among the HCBS population

	non-LTC ABD		HCBS		Unadjusted Difference in Differences*
	pre-MLTSS *(a)*	post-MLTSS *(b)*	pre-MLTSS *(c)*	post-MLTSS *(d)*	
Ambulatory visit 14 days after discharge home	32.4%	28.5%	21.5%	11.5%	-6.1

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled.
Not adjusted for beneficiary and provider characteristics.
*Calculated as [*d*-*c*]-[*b*-*a*]; Units of unadjusted difference in differences is a percentage point change.

Figure 3B.21: Ambulatory visit 14 days after hospitalization among HCBS beneficiaries and a comparison population during the pre- and post-MLTSS periods



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled.

Table 3B.17: Adjusted MLTSS impact on ambulatory visit rates after hospitalization among the HCBS population

MLTSS Impact Estimate	Ambulatory Visit 14 Days After Discharge Home *(n=106,169)*
HCBS * Post-MLTSS	-0.05495***
	(0.017)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services.
Discharge level difference-in-differences regression analysis with hospital fixed effects.
Models adjusted for sex, elderly status, monthly time trends, waiver initiation, Medicaid expansion, and CDPS risk score category.
Significant difference in pre-trends between HCBS and comparison group equaling -0.001
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Discussion

In contrast to previous chapters where the data come from secondary sources, here we utilized Medicaid claims to calculate a set of metrics that capture the effect of specific waiver policies. These data are particularly valuable since in addition to calculating these measures, we are able to account for individual, provider, and area characteristics, and time periods while identifying the effect of policies on outcomes. For instance, while examining Research Question 1a, we are able to examine changes in outcomes for the months immediately after implementation of specific policies that allows identification of their effects and in addition account for the changes in beneficiary characteristics that occurs after the Medicaid expansion policy. Similarly, for Research Question 1b, claims-level information allows us to examine changes in outcome for the targeted LTC population before and after policy implementation and further compare these changes to our defined comparison group so that we can control for underlying trends in outcomes not connected to the policy effect.

For identifying the policy effects on the targeted LTC population and also the overall managed care population, we examined a broad range of outcomes for specific groups of Medicaid beneficiaries that relate to distinct aspects of care. Examples include avoidable inpatient hospitalizations and ED visits that arise due to inadequate ambulatory or primary care in the community; hospital readmissions overall and for specific diseases that reflect potentially inadequate inpatient care and lack of care coordination; follow-up after mental illness hospitalizations that examines similar issues specifically for individuals with behavioral health conditions; and ambulatory visit rates that reflect the quality of care transitions. We also construct several spending-related measures to see potential changes in distribution of spending over time and across places-of-care.

Descriptive Results

Our descriptive analysis examines mostly annual changes in measures from 2011 to 2014. While these trends may broadly indicate effects on the overall managed care population or the HCBS population, it is important to remember that these are not adjusted for changing beneficiary characteristics (subsequent to the Medicaid expansion) or underlying trends in outcomes unrelated to the policy. The value of these findings lie in outlining the levels of different measures (as opposed to magnitude of changes) for our years of analysis as well as specific eligibility groups. Partitioning our analysis into separate outcomes and distinct groups of Medicaid beneficiaries sheds light on whether the effects vary based on the aspect of care or specific Medicaid beneficiary characteristics which informs the current evaluation initiative as well as future rounds of policy formulation.

Some results also help establish baseline quality of care for individuals with behavioral health conditions prior to potential changes in care delivery for this population. We will highlight a few key findings.

Rates of avoidable inpatient hospitalizations were the highest among the LTC population receiving HCBS services and among them, those with behavioral health conditions. This makes this metric particularly important for examining changes in quality of care in this population. Rates of avoidable inpatient and ED visits were generally lowest in 2014 and this may at least partially be due to a decreasing trend that started in 2012. This highlights the utility of our regression models that account for pre-policy implementation trends.

Unlike avoidable inpatient hospitalizations, hospital readmissions were less prevalent among the HCBS population than among Medicaid managed care beneficiaries overall.

We also found that most of the total spending for Medicaid beneficiaries overall is related to non-hospital spending. Thus, while a decrease in avoidable inpatient hospitalizations and ED visits may signify better community-level care, it may not necessarily impact total spending in these populations. The spending estimates are also useful for examining the distribution of LTC spending across the different categories of spending by NF residents and HCBS beneficiaries. The bulk of spending related to the LTC population across 2011-2014 is accounted for by the NF LTSS spending. Focusing on policies to keep beneficiaries in the community and rebalancing spending is a promising strategy to control costs.

Adjusted Analysis: Overall Managed Care Population

For examining the effect of the managed care expansion on the overall managed care population our regression-based statistical analysis examined changes in outcomes since MLTSS implementation, but additionally accounted for underlying trends arising from previous policy changes such as the waiver implementation, and the Medicaid expansion.

Examining avoidable inpatient hospitalizations and avoidable ED visits we found neither exhibited consistent positive nor negative effects. There was an immediate decrease subsequent to MLTSS implementation (corresponding to about a 9% decline over baseline in the likelihood of an avoidable hospitalization in a quarter and a 15% decline over baseline in the number of avoidable ED visits per beneficiary per quarter) and then an increasing trend over the 6 months of implementation. While statistically significant, the absolute value of the rate decrease is very small. Further the increasing trend erodes the decrease in rates immediately after implementation.

For all four categories of hospital readmissions pertaining to the overall group of managed care beneficiaries, our analysis indicates a decrease in a managed care beneficiary's probability of a readmission subsequent to the MLTSS implementation, but only the decline related to hospital-wide readmissions is statistically significant. Hospital-wide readmissions also significantly decreased for those with behavioral health conditions. Overall the readmission effects suggest no worsening of overall managed care quality, in fact some potential improvements may have occurred, not all of which can be statistically verified.

Examination of follow-up after hospitalizations yielded mixed results. There is a statistically significant decrease in 30-day follow up after mental illness hospitalizations post-MLTSS, but a small and non-significant increase in ambulatory visits 14 days after discharge. It is likely that MLTSS effects on continuity of care vary across different patient groups.

Overall, there were no negative effects on access to care for the managed care population during the first six months of MLTSS implementation, but nor were there any definitive positive effects. The decrease in avoidable inpatient hospitalizations and avoidable ED visits immediately after implementation were of very small magnitude, although significant statistically. In terms of quality, efficiency, and coordination of care, decreases in readmission rates suggest improvements, further supported by small increases in ambulatory visits after discharge, though only the drop in hospital-wide readmission rates is significant. In terms of behavioral health quality, we see mixed results. Hospital-wide readmissions improved for individuals with behavioral health conditions, as they did for all managed care beneficiaries, as a result of MLTSS, but mental health-specific follow-up care after a hospitalization for mental illness showed a significant decline. This is the only significant negative impact observed for the entire managed care population coincident with MLTSS implementation.

Adjusted Analysis: HCBS Population

We examined the effect of the MLTSS policy on the HCBS population that transitioned to managed care on July 1, 2014. The effects on ambulatory/primary care are ambiguous since results differ based on place of treatment – the likelihood of avoidable hospitalizations per quarter decreased by about 8% and avoidable ED visits increased by about 10% per beneficiary per quarter for the HCBS population. Both these changes were statistically significant. However, the per-person costs related to such hospitalizations moved in the opposite direction. This implies that the avoidable inpatient stays became less likely, but more expensive, and the avoidable ED visits became more likely, but less expensive.

We find a large and marginally significant increase in 30-day readmissions following hospitalization for pneumonia among the HCBS population, and increases in AMI and HF

readmissions which are not statistically significant. This points to potential issues related to care coordination for HCBS beneficiaries hospitalized for pneumonia under MLTSS.

There was a substantial, but not statistically significant, increase in follow-up rates after mental illness hospitalizations, but the reliability of this finding is questionable due to small sample size. There was a statistically significant decrease in the likelihood of ambulatory visit after hospitalization. Based on the trends reported above, trends in these measures were in opposite direction to the overall managed care population.

In summary, access to care and quality of care for the HCBS population showed no definitive positive impacts due to the first six months of MLTSS implementation. The probability of avoidable inpatient hospitalizations declined slightly in magnitude but these hospitalizations also became more expensive. Consistently, metrics relating to post-discharge care following hospitalizations for medical conditions worsened, though most of these results also did not reach conventional levels of statistical significance. In terms of the managed care carve-in of behavioral health for the HCBS population under MLTSS, hospital-wide readmissions among those with a behavioral health condition declined, but the effect was neither substantial nor statistically significant. Follow-up after mental illness hospitalizations did show improvements, but the effects were not statistically significant and the model based on too small of a sample to be reliable. Additional data extending beyond the first six months of the post-MLTSS period will help us determine whether any of these findings persist or strengthen to the point that they can be conclusively considered MLTSS policy effects.

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Appendix A: Description of Measures

Inpatient Utilization and Emergency Department Visits: These measures assess the extent to which individuals receive inpatient hospital treatment or seek ambulatory care in the emergency department because of pregnancy and childbirth, for surgery, or for nonsurgical medical treatment. These measures of service use gather information about the provision of care to individuals and how organizations managing that care use and allocate resources. Use of inpatient and emergency department services is affected by many member characteristics such as age, sex, health, and socioeconomic status.

Our preparation of these metrics considers utilization at any general acute care hospital, inside or outside NJ. The costs associated with all identified inpatient and emergency department visits are also aggregated by beneficiary.

Ambulatory Care Sensitive (ACS) Inpatient Hospitalizations and Avoidable/Preventable Emergency Department Visits: We calculate rates of ACS inpatient (IP) hospitalizations and avoidable treat-and-release ED visits that may occur due to inadequate ambulatory/primary care within communities. Avoidable hospitalizations have been widely used in previous research to measure access to primary care, and disparities in health outcomes (Basu, Friedman, and Burstin 2004; Billings et al. 1993; Bindman et al. 1995; Howard et al. 2007). The federal Agency for Healthcare Research and Quality (AHRQ) provides validated programming algorithms to calculate rates of avoidable ACS hospitalizations which are used in this analysis. These are known as the Prevention Quality Indicators (PQI) for adults (ages 18 and above) and Pediatric Quality Indicators for children (ages 6-17). Appendix B gives a list of ACS conditions that constitute a composite index that measures the overall rate of avoidable IP hospitalizations per unit of population. Appendix B also lists the constituents of the two other composite indicators (based on acute and chronic conditions).

We also calculate avoidable treat-and-release ED visits based on the methodology provided by the New York University, Center for Health and Public Service Research (Billings, Parikh, and Mijanovich 2000), which are part of AHRQ's Safety Net Monitoring Toolkit. These comprise three categories of avoidable ED visits that could have been treated in an outpatient primary care setting or could have been prevented with timely access to primary care. Detailed definitions of these classifications are provided with examples in Appendix C.

Our preparation of these metrics considers utilization at any general acute care hospital, inside or outside NJ. The costs associated with all identified avoidable inpatient and emergency department visits are also aggregated by beneficiary.

Readmissions: Because hospital readmissions can result from poor quality of care or inadequate transitional care, 30-day readmissions metrics are used to broadly measure the quality of care delivered by hospitals (Benbassat and Taragin 2000; Jencks, Williams, and Coleman 2009). Such 'potentially preventable' readmissions are defined as readmission for any cause within 30 days of the discharge date for the index hospitalization, excluding a specified set of planned readmissions. While readmissions rates have been most heavily utilized to assess quality for the Medicare population, calculating these measures among the Medicaid population has received growing attention (Trudnak et al. 2014). The readmissions metrics we calculate (all-cause, heart failure, pneumonia, and acute myocardial infarction) are endorsed by the National Quality Forum (NQF) and are adapted from the 2014 Centers for Medicare and Medicaid Services methodology available at QualityNet.[80]

We consider index admissions and readmissions at any general acute care hospital, inside or outside NJ. In accordance with specifications for all Centers for Medicare and Medicaid Services (CMS) readmissions metrics, we required that the beneficiary be enrolled for 12 months prior to the index hospitalization (ignoring gaps of 45 days or less) to allow for sufficient claims history for risk-adjustment. Therefore, estimates for year 2011 could not be calculated due to this restriction.

Follow-up After Hospitalization for Mental Illness: Following an acute hospitalization for mental illness, it is recommended that patients have an outpatient visit with a mental health practitioner to ensure appropriate and regular follow-up therapy and medication monitoring. This measure is used to assess the percentage of discharges for members hospitalized for the treatment of selected mental health disorders that were followed by a qualifying visit with a mental health practitioner within 7 and 30 days. Our preparation of this measure considers index admissions at any general acute care hospital or short-term psychiatric hospital, inside or outside NJ. This measure is endorsed by the NQF and is part of the Medicaid Adult Core and Child Core Sets of Health Care Quality Measures.

We followed the National Committee of Quality Assurance's specifications for the calculation of this metric (NCQA 2014) with the exception that we identified follow-up visits for hospital discharges through December 31 of the calendar year (instead of through December 1) in order

[80] https://www.qualitynet.org.

to support time series regression analyses and were limited in our ability to identify partial hospitalizations which qualify as a follow-up visit due to the unavailability of the CMS place of service variable in our claims dataset.

Finally, since patients residing in medical facilities, such as a nursing homes, may have follow-up care provided within the facility itself, metrics relating to post-acute ambulatory care cannot be accurately calculated for this population if follow-up services are not billed separately within these facilities. Specifically, some care provided by physicians to NF residents in NJ are included in the facility per diem rate and thus claims are not generated for these services. Therefore, populations in nursing facilities or intermediate care facilities were excluded from the analytic population when conducting regression analyses on this metric.

Ambulatory Care Visit 14 Days After Discharge: Motivated by research showing that readmissions and ED visits are less likely to occur if patients are seen by a primary clinician or specialist shortly after discharge, this measure assesses the frequency of clinician follow-up visits within 14 days after patients are discharged from the hospital for medical conditions. It was developed by the Dartmouth Atlas Project for use in the Medicare population. Using their methodology and adapting it for the Medicaid claims data, access to ambulatory care is assessed among all discharges and then separately for discharges home (with or without home health services), to facility-based rehabilitation (SNFs, inpatient rehabilitation facilities, long-term acute care hospitals), and to other facilities (such as an intermediate care facility) (Goodman, Fisher, and Chang 2011).

In our preparation of this measure, we consider discharges from only general acute care hospitals in NJ. Hospitalizations outside NJ could not be included because this measure requires identification of medical discharges from AP-DRG billing codes. Hospitals in other states may use different DRG systems to which our crosswalk would not apply. Also, this measure requires a negative 90-day hospitalization history. Our claims database begins on January 1, 2011 so this negative history could not be established for hospitalizations in the first three months of 2011. Therefore, this metric was only based on April through December in year 2011.

Finally, since patients residing in medical facilities, such as a nursing homes, may have follow-up care provided within the facility itself, metrics relating to post-acute ambulatory care cannot be accurately calculated for this population if follow-up services are not billed separately within these facilities. Specifically, some care provided by physicians to NF residents in NJ are included in the facility per diem rate and thus claims are not generated for these services. Therefore, populations in nursing facilities or intermediate care facilities were excluded from the analytic population when conducting regression analyses on this metric.

Behavioral Health Comorbidities: Behavioral health comprises two mutually exclusive categories: problems related to mental health (MH) and substance use disorders/substance abuse (SA). We adapt the Agency for Health Care Research and Quality (AHRQ) Clinical Classification Software (CCS) to identify BH problems among Medicaid beneficiaries. The software uses information from ICD-9-CM diagnosis and procedure codes to classify hospital discharges into a number of clinically meaningful disease categories (HCUP 2014). Mental health conditions include mood disorders; schizophrenia; anxiety disorder; delirium; dementia and substance abuse includes alcohol and substance-related disorders (See Appendix E for details).

Appendix B: AHRQ Prevention Quality Indicators and Pediatric Quality Indicators – Composites and Constituents

Overall Composite (PQI #90)	
PQI #01 Diabetes Short-Term Complications Admission Rate	PQI #11 Bacterial Pneumonia Admission Rate
PQI #03 Diabetes Long-Term Complications Admission Rate	PQI #12 Urinary Tract Infection Admission Rate
PQI #05 Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate	PQI #13 Angina without Procedure Admission Rate
PQI #07 Hypertension Admission Rate	PQI #14 Uncontrolled Diabetes Admission Rate
PQI #08 Congestive Heart Failure (CHF) Admission Rate	PQI #15 Asthma in Younger Adults Admission Rate
PQI #10 Dehydration Admission Rate	PQI #16 Rate of Lower-Extremity Amputation Among Patients With Diabetes
Acute Composite (PQI #91)	
PQI #10 Dehydration Admission Rate	PQI #12 Urinary Tract Infection Admission Rate
PQI #11 Bacterial Pneumonia Admission Rate	
Chronic Composite (PQI #92)	
PQI #01 Diabetes Short-Term Complications Admission Rate	PQI #13 Angina without Procedure Admission Rate
PQI #03 Diabetes Long-Term Complications Admission Rate	PQI #14 Uncontrolled Diabetes Admission Rate
PQI #05 Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate	PQI #15 Asthma in Younger Adults Admission Rate
PQI #07 Hypertension Admission Rate	PQI #16 Rate of Lower-Extremity Amputation Among Patients With Diabetes
PQI #08 Congestive Heart Failure (CHF) Admission Rate	

Source: Prevention Quality Indicators Technical Specifications - Version 5.0, March 2015; http://www.qualityindicators.ahrq.gov/Modules/PQI_TechSpec.aspx.

Overall Composite (PDI #90)
PDI #14 Asthma Admission Rate
PDI #15 Diabetes Short-Term Complications Admission Rate
PDI #16 Gastroenteritis Admission Rate
PDI #18 Urinary Tract Infection Admission Rate

Source: Pediatric Quality Indicators Technical Specifications - Version 5.0, March 2015; http://www.qualityindicators.ahrq.gov/modules/PDI_TechSpec.aspx.

Appendix C: Classification of Emergency Department Visits

Type Description	Diagnoses
Non-Emergent: The patient's initial complaint, presenting symptoms, vital signs, medical history, and age indicated that immediate medical care was not required within 12 hours.	Headache, Dental disorder, Types of migraine
Emergent, Primary Care Treatable: Conditions for which treatment was required within 12 hours, but care could have been provided effectively and safely in a primary care setting. The complaint did not require continuous observation, and no procedures were performed or resources used that are not available in a primary care setting (e.g., CAT scan or certain lab tests)	Acute bronchitis, Painful respiration, etc.
Emergent, ED Care Needed, Preventable/Avoidable: Emergency department care was required based on the complaint or procedures performed/resources used, but the emergent nature of the condition was potentially preventable/avoidable if timely and effective ambulatory care had been received during the episode of illness	Flare-ups of asthma, diabetes, congestive heart failure, etc.
Emergent, ED Care Needed, Not Preventable/Avoidable: Emergency department care was required and ambulatory care treatment could not have prevented the condition	Trauma, appendicitis, myocardial infarction

The first three categories are considered to be avoidable/preventable.
Type descriptions taken from http://wagner.nyu.edu/faculty/billings/nyued-background.php.

Appendix D: Long-Term Care Assignment Algorithms

Monthly Assignment: For every month in which a beneficiary had at least one day of active enrollment as determined by the effective dates of the Program Status Code, assignment to one of the following categories was implemented hierarchically: facility, home and community-based services (HBCS), or other. The rules for assignment were: If at least one claim showed up for a nursing facility (Category of Service=07) in the month or the post-MLTSS Special Program Code (SPC) for facility resident (61,63-67) was effective at least one day in the month, the month was assigned as NF (nursing facility). For the remaining beneficiary-months, if there was ever an active pre-MLTSS SPC in the month indicating the beneficiary was in one of the §1915(c) waiver programs (3,4,6=CRPD, 5=ACCAP, 17=TBI, 32,33=GO) or an active post-MLTSS SPC code in the month indicating home or community-based residence (60=community, 62=assisted living), the month was designated as HCBS. The remaining months fell into the 'Other' category. Any month classified as facility or HCBS was a long-term care month (LTC). Months in the 'Other' category were non-LTC.

Quarterly Assignment: For any beneficiary ever having at least one day of active enrollment in the quarter as determined by the effective dates of the Program Status Code, a quarterly assignment to either NF, HCBS, or non-LTC was implemented using the monthly assignment and a majority rule. In cases where there was no majority, assignment was hierarchical based on the order: NF, HCBS, non-LTC.

Annual Assignment: For any beneficiary ever having at least one day of active enrollment in the calendar year as determined by the effective dates of the Program Status Code, 'X' was the number of months designated as facility months in the monthly assignment. 'Y' was the number of months designated HCBS. If at least half of the beneficiary's enrolled months during that year had one of these LTC designations then the beneficiary was classified as part of the LTC population for that year. If less than half, then the beneficiary was non-LTC. Within the LTC population, 'X' and 'Y' were compared to make an annual assignment to either the facility or community. If 'X' was greater than or equal to 'Y' then the beneficiary was in the facility population for the entire year. If 'X' was less than 'Y' then the beneficiary was designated as being a LTC HCBS recipient.

Appendix E: Definition of Mental Health and Substance Abuse

Mental Health	
5.1	Adjustment disorders [650]
5.2	Anxiety disorders [651]
5.3	Attention deficit conduct and disruptive behavior disorders [652]
5.3.1	Conduct disorder [6521]
5.3.2	Oppositional defiant disorder [6522]
5.3.3	Attention deficit disorder and Attention deficit hyperactivity disorder [6523]
5.4	Delirium dementia and amnestic and other cognitive disorders [653]
5.5	Developmental disorders [654]
5.5.1	Communication disorders [6541]
5.5.2	Developmental disabilities [6542]
5.5.3	Intellectual disabilities [6543]
5.5.4	Learning disorders [6544]
5.5.5	Motor skill disorders [6545]
5.6	Disorders usually diagnosed in infancy childhood or adolescence [655]
5.6.1	Elimination disorders [6551]
5.6.2	Other disorders of infancy childhood or adolescence [6552]
5.6.3	Pervasive developmental disorders [6553]
5.6.4	Tic disorders [6554]
5.7	Impulse control disorders not elsewhere classified [656]
5.8	Mood disorders [657]
5.8.1	Bipolar disorders [6571]
5.8.2	Depressive disorders [6572]
5.9	Personality disorders [658]
5.10	Schizophrenia and other psychotic disorders [659]
5.13	Suicide and intentional self-inflicted injury [662]
5.14.1	Codes related to mental health disorders [6631]
5.15	Miscellaneous mental disorders [670]
5.15.1	Dissociative disorders [6701]
5.15.2	Eating disorders [6702]
5.15.3	Factitious disorders [6703]
5.15.4	Psychogenic disorders [6704]
5.15.5	Sexual and gender identity disorders [6705]
5.15.6	Sleep disorders [6706]
5.15.7	Somatoform disorders [6707]
5.15.8	Mental disorders due to general medical conditions not elsewhere classified [6708]
5.15.9	Other miscellaneous mental conditions [6709]
Substance Abuse	
5.11	Alcohol-related disorders [660]
5.12	Substance-related disorders [661]
5.14.2	Codes related to substance-related disorders [6632]

Source: AHRQ Clinical Classification Software (CCS). Numbers in the first column denote multi-level CCS diagnostic categories. Numbers in the second column denote single-level categories.

Appendix F: Risk-Adjustment Variables for Readmissions Metrics

For the 30-day readmission metrics, control variables for health status come from a full year of data prior to the index admission date and encompass clinically relevant comorbidities (not complications) that have strong relationships with readmission for the specific condition being analyzed.

Heart Failure Readmissions

• Age • Sex • History of Coronary Artery Bypass Graft • History of Percutaneous Transluminal Coronary Angioplasty • Diabetes Mellitus (DM) or DM Complications • Disorders of Fluid/Electrolyte/Acid-Base • Iron Deficiency or Other Unspecified Anemias and Blood Disease • Cardio-Respiratory Failure or Shock • Congestive Heart Failure • Vascular or Circulatory Disease • Chronic obstructive pulmonary disease • Pneumonia • Renal Failure • Other Urinary Tract Disorders • Decubitus Ulcer or Chronic Skin Ulcer • Other Gastrointestinal Disorders • Acute Coronary Syndrome • Valvular or Rheumatic Heart Disease	• Specified Arrhythmias • Asthma • Peptic Ulcer, Hemorrhage, Other Specified Gastrointestinal Disorders • Cancer • Drug/Alcohol Abuse/Dependence/Psychosis • Major Psychiatric Disorders • End-Stage Renal Disease or Dialysis • Severe Hematological Disorders • Nephritis • Liver or Biliary Disease • Metastatic Cancer or Acute Leukemia • Stroke • Dementia or Other Specified Brain Disorders • Coronary Atherosclerosis or Angina • Other or Unspecified Heart Disease • Other Psychiatric Disorders • Fibrosis of Lung or Other Chronic Lung Disorders • Hemiplegia, Paraplegia, Paralysis, Functional Disability • Depression

Acute Myocardial Infarction (AMI) Readmissions

• Age • Sex • History of Coronary Artery Bypass Graft • History of Percutaneous Transluminal Coronary Angioplasty	• Vascular or Circulatory Disease • Disorders of Fluid/Electrolyte/Acid-Base Coronary Atherosclerosis • History of infection • Cerebrovascular Disease

Acute Myocardial Infarction (AMI) Readmissions (continued)

• Diabetes Mellitus (DM) or DM Complications • Iron Deficiency or Other Unspecified Anemias and Blood Disease • Congestive Heart Failure • Valvular or Rheumatic Heart Disease • Chronic obstructive pulmonary disease • End-Stage Renal Disease or Dialysis • Other Urinary Tract Disorders • Specified Arrhythmias • Pneumonia • Renal Failure	• Metastatic Cancer or Acute Leukemia • Cancer • Decubitus Ulcer or Chronic Skin Ulcer • Dementia or Other Specified Brain Disorders • Angina Pectoris/Old Myocardial Infarction • Stroke • Asthma • Acute Coronary Syndrome • Hemiplegia, Paraplegia, Paralysis, Functional Disability • 'Protein-Calorie Malnutrition; • Anterior Myocardial Infarction • Other Location of Myocardial Infarction

Pneumonia Readmissions

• Age • Sex • History of Coronary Artery Bypass Graft • History of Percutaneous Transluminal Coronary Angioplasty • History of infection • Septicemia/Shock • Metastatic Cancer or Acute Leukemia • Lung, Upper Digestive Tract, and Other Severe Cancers • Other Major Cancers • Diabetes Mellitus (DM) or DM Complications • Disorders of Fluid/Electrolyte/Acid-Base • Other Gastrointestinal Disorders • Severe Hematological Disorders • Iron Deficiency or Other Unspecified Anemias and Blood Disease • Dementia or Other Specified Brain Disorders • Drug/Alcohol Abuse/Dependence/Psychosis • Major Psychiatric Disorders • Other Psychiatric Disorders • Hemiplegia, Paraplegia, Paralysis, Functional Disability	• Protein-Calorie Malnutrition • Cardio-Respiratory Failure or Shock • Congestive Heart Failure • Acute Coronary Syndrome • Coronary Atherosclerosis or Angina • Valvular or Rheumatic Heart Disease • Specified Arrhythmias • Stroke • Vascular or Circulatory Disease • Chronic obstructive pulmonary disease • Fibrosis of Lung or Other Chronic Lung Disorders • Asthma • Pneumonia • Pleural Effusion/Pneumothorax • Other Lung Disorders • End-Stage Renal Disease or Dialysis • Renal Failure • Urinary Tract Infection • Other Urinary Tract Disorders • Decubitus Ulcer or Chronic Skin Ulcer • Vertebral fractures • Other Injuries

Hospital-Wide Readmissions

• Age • Metastatic cancer/acute leukemia • Severe Cancer • Other Cancers • Severe Hematological Disorders • Coagulation Defects and Other Specified Hematological Disorders • Iron Deficiency or Other Unspecified Anemia and Blood Disease • End-stage Liver Disease • Pancreatic Disease • Dialysis Status • Acute Renal Failure • Transplants • Severe Infection • Other Infectious Diseases and Pneumonias • Septicemia/Shock • Congestive Heart Failure • Polyneuropathy • Congestive Heart Failure • Chronic Atherosclerosis or Angina, Cerebrovascular Disease	• Specified Arrhythmias • Cardio-respiratory Failure or Cardio-respiratory Shock • Chronic Obstructive Pulmonary Disease • Fibrosis of Lung or Other Chronic Lung Disorders • Protein-calorie Malnutrition • Disorders of Fluid, Electrolyte, Acid-Base • Rheumatoid Arthritis and Inflammatory Connective Tissue Disease • Diabetes Mellitus • Decubitus Ulcer or Chronic Skin Ulcer • Hemiplegia, Paraplegia, Paralysis, Functional Disability • Seizure Disorders and Convulsions • Respirator Dependence/Tracheostomy Status • Drug and Alcohol Disorders • Psychiatric Comorbidity • Hip Fracture/Dislocation

Chapter 4: Analysis of Medicaid Claims Data to Examine Care Outcomes for Populations of Children and Youth Eligible for Home and Community-Based Services

Introduction

In this chapter, we present metrics calculated from Medicaid claims and managed care encounter data for the baseline (2011-2012) and early demonstration period (2013-2014) for several populations of children targeted for additional home and community-based services (HCBS) under the Waiver. Specifically, the Waiver authorizes the NJ Division of Children and Families' Children's System of Care (DCF's CSOC)[81] to coordinate new supportive services for children with Autism Spectrum Disorder (ASD), co-occurring intellectual/developmental disabilities and mental illness (ID-DD/MI), and Serious Emotional Disturbance (SED). The Waiver also expands Medicaid eligibility for children with SED.

Our selection, analysis, and presentation of quality metrics in this report is guided by the following evaluation hypothesis and research questions in the waiver Special Terms and Conditions document (CMS 2014) relating to this expansion in targeted home and community-based services.

Hypothesis 2: **"Providing home and community-based services to Medicaid and CHIP beneficiaries and others with serious emotional disturbance, autism spectrum disorder, or intellectual disabilities/developmental disabilities will lead to better care outcomes."**

Research Question 2a: **" What is the impact of providing additional home and community-based services to Medicaid and CHIP beneficiaries with serious emotional disturbance, autism spectrum disorder, or intellectual disabilities/developmental disabilities?"**
Research Question 2b: **"What is the impact of the program to provide a safe, stable, and therapeutically supportive environment for children from age 5 up to age 21 with serious emotional disturbance who have, or who otherwise would be at risk for, institutionalization?"**

[81] By January of 2013, DCF assumed responsibility for all children previously managed by the Division of Developmental Disabilities (DDD).

All metrics in this chapter are calculated for the calendar years of the waiver baseline period, (2011-2012)[82] and the first two years of the demonstration period (2013-2014). All of the services authorized under the Waiver for the DCF populations started being offered during calendar year 2014 or later, limiting the data on the post-implementation period available for this interim report. Our final evaluation report due in 2017, which will include calendar year 2015 in the study period, will compare the levels and trends in these metrics from baseline through the demonstration years and isolate, to the extent allowed by available data, the direct and indirect impacts of the waiver demonstration programs providing targeted home and community-based services to populations of Medicaid youth.

Background

A brief background on the service packages and target populations for each of the DCF CSOC waiver initiatives is provided here as context for the analytic methods and quantitative findings on quality of care we present in this chapter.

ASD

The services provided through the ASD pilot program are evidence-based habilitative services often covered under private insurance that improve adaptive behavior, language, and cognitive outcomes. The new components of the ASD service package authorized under the Waiver are:

- Behavior Consultative Supports
- Individual Behavior Supports

Up to 200 children under 13 years of age with ASD who are Medicaid/CHIP eligible and who have a functional behavioral assessment indicating their condition is of high or moderate acuity are eligible for these behavioral therapies through the ASD pilot program. This program became operational in the spring of 2014 with enrollment ongoing as newly eligible children were identified.[83]

ID-DD/MI

The pilot program for children with ID-DD/MI provides intensive in-home and out-of-home services that help to stabilize children in the least restrictive setting. There are seven services in the ID-DD/MI package authorized under the Waiver:

- Case/Care Management

[82] While the waiver demonstration period starts on October 2012, our analytic findings here are based on full calendar years so that our estimates are not driven by seasonality differences.

[83] Service codes for the new behavioral therapies were not built into the administrative claims system of the State's fiscal agent (Molina) at the time the pilot program began. Claims were handled manually until March 2015 when the service codes become operational.

- Individual Supports
- Natural Supports Training
- Intensive In-Community Services – Habilitation
- Respite
- Non-medical Transportation
- Interpreter Services

Up to 200 children ages 5-20 years old with dual diagnoses of ID-DD/MI who are Medicaid/CHIP eligible, meet the level of care criteria, and are involved with a Care Management Organization are eligible for these services through the ID-DD/MI pilot program.[84] Three of the services started in March 2015, Individual Supports began in June 2015, and respite was operationalized in January 2016. Developing the provider network for some services is still ongoing and thus, non-medical transportation and natural supports are not operational yet.

SED

The SED component of the Waiver (1) expands Medicaid/CHIP eligibility to all youth with SED who are at-risk for hospitalization or who require a hospital level of care regardless of parental income, (2) federalizes general behavioral health services paid for on the state dollar for all SED children in Medicaid/CHIP, and (3) provides three new behavioral health services shown to be critical in supporting children with serious emotional disturbance in the community:

- Transitioning Youth Life Skill Building (ages 16-20)
- Youth Support and Training (ages 5-16)
- Non-medical Transportation

The expansion in eligibility for waiver services (though not State Plan services) to youth with SED at-risk for hospitalization and federalization of behavioral health services became effective immediately after approval of the Waiver in October 2012. The expansion granting youth at a hospital-level of care both Medicaid State Plan and waiver service eligibility is currently under development. The new services are targeted at children with SED ages 5-20 years old who are involved with a Care Management Organization. The Transitioning Youth Life Skill Building and Youth Support and Training services were operationalized in the fall of 2015.

Methods

Data Sources

The analyses in this chapter were generated using Medicaid fee-for-service (FFS) claims and managed care encounter data for January 1, 2011 through December 31, 2014. We used recipient

[84] The services are delivered on a FFS basis as part of the Individual Service Plan implemented by the child's Care Management Organization.

-level program enrollment information through September 2015 to allow for stratification of quality metrics to relevant subpopulations.

Metrics

The metrics in this chapter span the baseline period (2011-2012) and first two years of the Waiver demonstration period (2013-2014).[85] They are intended to examine health care outcomes and associated costs for specific subpopulations of children directly affected by the changes implemented under the Waiver. The metrics we utilize are based on specific types of hospital utilization that reflect quality of care in the community. We examine inpatient (IP) utilization overall and for mental illness, avoidable hospital admissions, emergency department (ED) visits, and hospital readmissions or ED visits following an initial hospitalization (all-cause or specifically for mental illness). We also calculate annual costs relating to hospital use overall. This metric illustrates potential cost savings to be realized from the improved home and community-based support provided to children through waiver services.

Table A outlines the planned metrics calculated using the Medicaid FFS claims and managed care encounter data. Due to identification and accuracy concerns, only those metrics where the denominator criterion is fulfilled (see Reporting Criteria below) are reported. Because all metrics assess hospital use, the facility type(s) included in the calculation are also noted. Metrics 1-7 and 11 are population-based and rates are assessed per unit population. Metrics 8-10, on the other hand, are based on index events that arise in a hospital setting. Our purpose was to capture aspects of utilization relevant to the populations being evaluated and potentially impacted by changes under the Waiver. To achieve this, several of these metrics are adaptations of existing metrics. Appendix A contains additional details on each of these measures.

Table A: Metrics related to quantitative evaluation of Hypothesis 2

	Metrics	Description	Facility Type(s)
	Utilization		
1	Pediatric Quality Indicators (children 6-17)	Ambulatory care sensitive hospitalizations by children that reflect inadequate community-level care.	General acute care hospitals
2	Inpatient hospital utilization (all ages)	Admissions to general acute care hospitals.	General acute care hospitals
3	Inpatient days (all ages)	Total duration of hospital stays.	General acute care hospitals
4	Mental illness admissions (ages 6+)	Admissions to an acute inpatient facility with a primary diagnosis of mental illness.	General acute care hospitals
5	Severe mental illness admissions (ages 6+)	Admissions to an acute inpatient facility with a primary diagnosis of severe mental illness.*	General acute care hospitals

[85] While the waiver demonstration period starts on October 2012, our analytic findings here are based on full calendar years so that our estimates are not driven by seasonality differences.

	Metrics	Description	Facility Type(s)
6	Psychiatric hospital utilization (all ages)	Admissions to psychiatric hospitals.	Short-term and long-term psychiatric hospitals
7	Emergency department utilization (all ages)	Visits to emergency departments.	General acute care hospitals
	Post-Acute Care		
8	All-cause: 30-day readmissions or 30-day post-discharge ED visits (all ages)	All-cause unplanned readmissions or ED visit(s) during a 30-day period following an initial hospital admission. These may reflect post-discharge gaps in inpatient care and/or care coordination following discharge.	General acute care hospitals and short-term psychiatric hospitals
9	Mental illness: 30-day readmissions or 30-day post-discharge ED visits (age 6+)	All-cause unplanned readmissions or ED visit(s) during a 30-day period following an initial hospital admission for mental illness. These may reflect post-discharge gaps in inpatient care and/or care coordination specific to patients with mental illness.	General acute care hospitals and short-term psychiatric hospitals
10	Severe mental illness: 30-day readmissions or 30-day post-discharge ED visits (ages 6+)	All-cause unplanned readmissions or ED visit(s) during a 30-day period following an initial hospital admission for severe mental illness (SMI). These may reflect post-discharge gaps in inpatient care and/or care coordination for patients with SMI.	General acute care hospitals and short-term psychiatric hospitals
	Cost/Spending		
11	Costs related to all inpatient hospitalizations and ED visits	Assess the effects of the targeted HCBS on acute care spending overall.	General acute care hospitals

* This metric is assessed only among hospitalizations for beneficiaries meeting the criteria for a mental illness admission (metric 4). Therefore, admissions for some of the diagnoses falling within the severe mental illness designation but outside of the HEDIS mental illness designation, specifically those related to substance abuse, are not included in this metric. See Appendix C for the diagnosis codes included in the definition of severe mental illness used in this chapter.

If not already part of the metric specification, an inclusion criteria imposed on all metrics was the requirement that a claim for utilization was only counted if the beneficiary had been continuously enrolled in Medicaid for at least 30 days preceding the claim date. As stated in our evaluation plan, this criteria eliminates events which might precipitate Medicaid enrollment and confound the effect of the demonstration.

Mental Illness Designations

We used information from the primary ICD9-CM diagnosis code present on inpatient claims to identify hospitalizations for mental illness and severe mental illness. Specifically, we used the National Committee for Quality Assurance's 2014 HEDIS Mental Illness Value Set to identify hospitalizations for mental illness (NCQA 2014). Within this universe of designated mental illness hospitalizations we further identified those hospitalizations which were for severe mental illness conditions based on findings from the national comorbidity survey – replication (Kessler et al. 2005) and subsequent work by Coffey et al. (2011) at the Agency for Health Care Research and

Quality (AHRQ). Appendix C lists the diagnosis codes included in the definition of severe mental illness used in this chapter.

Costs

Data on costs come from the payment fields in the Medicaid claims data. We only tabulated costs to Medicaid and Medicaid HMOs incurred via direct payment for services to providers. Payments made by Medicare or from any other source are not included. Costs for hospital use only reflect facility charges and do not include any physician or lab charges associated with hospitalization or outpatient visits. All costs were inflation adjusted and expressed in year 2012 purchasing power using the Consumer Price Index for medical care from Table 1A (Crawford, Church, and Rippy 2013, 164; Crawford and Church 2014, 165; Crawford, Church, and Akin 2015, 165).

Population Definitions

Medicaid Youth: Beneficiaries, ages 0-20, with any period of active enrollment in a particular calendar year, as indicated by the effective dates of their Program Status Codes, made up the Medicaid youth cohort for that year. Metrics are presented for this population to capture any trends in quality metrics that impact all Medicaid children and youth.

ASD: The cohort of children enrolled in the ASD pilot program was identified starting with recipient-level data from January 2014 - September 2015. Any child with an active 'Special Program Code' (SPC) of 48 (indicating ASD moderate acuity) or 49 (indicating ASD high acuity) during this period was included in the ASD cohort. All children in this cohort who were identified in years 2011-2014, as indicated by their presence in the respective Medicaid youth eligibility cohort, made up the ASD study population for each of these years.

ID-DD/MI: The cohort of children enrolled in the ID-DD/MI pilot program was identified starting with recipient-level data from January 2014 - September 2015. Any child with an active SPC of 38 during this period was included in the ID-DD/MI cohort. All children in this cohort who were identified in years 2011-2014, as indicated by their presence in the respective Medicaid youth eligibility cohort, made up the ID-DD/MI study population for each of these years.

SED: The cohort of children with SED and eligible to receive waiver services was identified starting with recipient-level data from September 2015. Any child age 5-20, with a SPC of 37 and a concurrently active Program Status Code of 641[86] was included in the SED cohort. All children in this cohort who were identified in years 2011-2014, as indicated by their presence in the respective Medicaid youth eligibility cohort, made up the SED population for each of these years.

[86] Program Status Code 641 indicates the program under the Division of Public Welfare for Medicaid beneficiaries eligible for Child Behavioral Health Services only.

Table B shows the number of children identified in each cohort using enrollment data and special program codes from the period(s) when the waiver services were operational and attrition of those population totals as enrollment was tracked back to the years in the interim report study period. Children with SED newly enrolled as a result of the eligibility expansion under the Waiver would not be in the recipient-level data in the baseline years, thus explaining the larger declines in the SED population.

Table B: Population totals for cohorts of children and youth eligible for home and community-based waiver services

	Identification	2014	2013	2012	2011
ASD	54	54	52	49	40
ID-DD/MI	220	219	202	187	180
SED*	2,780	1,369	767	546	507

*Only enrollment in September 2015, when waiver services for this population were operationalized, was considered when identifying the SED cohort.

Reporting Criteria

For Metrics 1-7 and 11, which are population-based rates, estimates are not shown when the denominator for IP hospitalizations or ED visits is less than 50. For the remaining three metrics, denominators and estimates are suppressed when denominators are less than 30. We calculated annual estimates over 2011-2014.

While we have already suppressed estimates based on small denominators, it is important to note due to small numbers of children in the ASD and ID-DD/MI cohorts, the observed variation for the metrics between years might be the result of outliers in the data or random events. Estimates based on small samples should be interpreted with this caveat. Additionally, the SED at-risk population was eligible only for waiver services starting in October 2012. Hospitalizations and emergency department use for these individuals would not be present in our claims data since they require eligibility for State Plan services. Consequently, the population-based metrics (Metrics 1-7 and 11) in the post-baseline years for the SED cohort will include more individuals in the denominator than we can capture numerator information for, resulting in lower rates.

Data Analysis

Due to small sample sizes in the ASD cohort and because waiver services for the other two cohorts were not delivered during the study period of this interim evaluation report, only descriptive results are shown. Statistical testing, where feasible, will be conducted in our final evaluation report due in 2017.

Results

Tables 4.1 and 4.2 show several rates of hospital utilization for populations of Medicaid youth eligible for home and community-based waiver services.[87] Our sample was insufficient to present these rates for the ASD waiver population for the baseline years and for some metrics in years 2013 and 2014. In general, rates of avoidable hospitalizations were very low (Table 4.1). There were 0.2 avoidable hospitalizations per 100 Medicaid youth in each year of the study period. The rate was higher in the ID-DD/MI cohort, reaching 1.8 per 100 ID-DD/MI youth in 2013. There were nearly no avoidable hospitalizations among the SED cohort in any year. We observe a slight downward trend in inpatient utilization for Medicaid youth overall over 2011-2014 which is mirrored in the ID-DD/MI cohort. To illustrate, in 2011 and 2014 there were 16.1 and 11.9 visits, respectively, per 100 youth in the ID-DD/MI cohort. A decline in inpatient utilization over this period is also seen in the SED cohort, but this may be because hospitalizations are not captured in the claims data for the SED at-risk portion of this cohort who, though Medicaid enrolled, are not eligible for State Plan services. The lowest emergency department visit rate for most cohorts is in year 2014, although this rate has not trended downward consistently for all the cohorts. Per-capita costs associated with hospital use are generally greater for the ID-DD/MI cohort in all years compared to the other cohorts, reflecting their higher rates of inpatient stays and ED visits. As an example, hospital costs were $1,085 per 100 children in the ID-DD/MI cohort in 2012. The corresponding rate was $350 per 100 for all Medicaid youth under 21 years of age in the same year.

Considering inpatient hospital use for mental health conditions (Table 4.2), rates for Medicaid youth overall were steady over the study period. Rates were higher among the cohorts of children eventually eligible for waiver services. There were 1.6 mental illness hospitalizations per 100 children in the SED cohort in 2011 and 0.5 such hospitalizations per 100 in 2014. This is lower than the corresponding rates among the ID-DD/MI cohort. Hospitalizations for severe mental illness were infrequent in general, with rates of 1 or less per 100 for all cohorts in all years. Admissions to either long-term or short-term psychiatric hospitals were greatest in each year for children in the ID-DD/MI cohort with no clear trend across the study period. There was 1.7 admissions per 100 in 2011 and 1.8 admissions per 100 in 2014 for this cohort.

Table 4.3 presents 30-day readmission rates and rates of ED treat-and-release visits within 30 days of discharge for different types of hospitalizations occurring in 2012, 2013, and 2014. These estimates are presented for the cohorts of children combined to ensure the minimum denominator of 30 index hospitalizations. In the one baseline year (2012), nearly 6% of

[87] It is important to note that rates are consistently presented as events per 100 population, but as shown in the tables accompanying each rate table, the relevant denominators are sometimes less than 100.

hospitalizations among all children eventually eligible for waiver home and community-based services were followed by a readmission within 30 days. Eleven percent were followed by an ED visit within the same window resulting in 14% being followed by either one or both of these outcomes. These rates were generally better (lower) than the corresponding rates for all Medicaid youth. However, in the early demonstration years this pattern inverts. Readmission and ED visits post-discharge improve slightly (reflected in lower percentages) among Medicaid youth overall, but appear to worsen among the combined ASD, ID-DD/MI, and SED cohort. In 2014, 16% of hospitalizations in this cohort were followed by a readmission within 30 days, 19% were followed by an ED visit within the same window resulting in nearly 26% being followed by either one or both of these outcomes. The infrequency of mental illness and serious mental illness hospitalizations in these cohorts prevent us from assessing their trends in the early demonstration years.

Table 4.1: Overall hospital utilization rates (per 100 population) and costs per beneficiary for Medicaid youth eligible for home and community-based waiver services

	ASD				ID-DD/MI				SED				Medicaid Youth			
Overall Hospital Utilization	**2011**	**2012**	**2013**	**2014**	**2011**	**2012**	**2013**	**2014**	**2011**	**2012**	**2013**	**2014**	**2011**	**2012**	**2013**	**2014**
Avoidable hospitalizations	*	*	*	*	1.4	0.0	1.8	0.6	0.0	0.0	0.1	0.0	0.2	0.2	0.2	0.2
Inpatient utilization	*	*	13.5	7.4	16.1	13.9	11.4	11.9	2.3	0.9	1.2	0.4	3.4	3.1	2.8	2.5
Inpatient days	*	*	44.2	16.7	69.4	43.3	57.4	158.0	14.1	2.0	5.7	3.1	11.9	11.3	10.7	9.6
ED visits	*	*	53.8	44.4	73.3	59.9	60.4	61.2	20.9	17.1	12.9	5.5	42.9	44.2	43.9	42.8
Hospital costs per beneficiary	*	*	$954	$656	$1,117	$1,085	$903	$2,847	$128	$136	$119	$58	$336	$350	$352	$350

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Notes: ASD=Autism Spectrum Disorder; ID-DD/MI=Co-occurring intellectual/developmental disability and mental illness; SED=Serious Emotional Disturbance; ED=Emergency Department.
Rates are per 100 population; Medicaid youth includes all beneficiaries ages 0–20.
*Estimate suppressed due to insufficient sample size.

Cohort Sizes	ASD				ID-DD/MI				SED				Medicaid Youth			
	2011	**2012**	**2013**	**2014**	**2011**	**2012**	**2013**	**2014**	**2011**	**2012**	**2013**	**2014**	**2011**	**2012**	**2013**	**2014**
Avoidable hospitalizations	15	23	35	43	143	153	169	173	437	513	727	1,274	479,503	497,129	512,211	539,136
Inpatient utilization	40	49	52	54	180	187	202	219	516	556	767	1,369	868,829	886,595	897,412	941,512
Inpatient days	40	49	52	54	180	187	202	219	516	556	767	1,369	868,829	886,595	897,412	941,512
ED visits	40	49	52	54	180	187	202	219	516	556	767	1,369	868,829	886,595	897,412	941,512

These Ns reflect relevant denominators for rates reported in the top panel.
See Appendix A for details on inclusion/exclusion criteria resulting in eligible population for each metric.

Table 4.2: Mental health inpatient utilization rates (per 100 population) for Medicaid youth eligible for home and community-based waiver services

Inpatient Hospital Utilization for Mental Health Conditions	ASD				ID-DD/MI				SED				Medicaid Youth			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Mental illness hospitalizations	*	*	*	*	6.3	3.1	4.2	4.8	1.6	0.4	0.5	0.5	0.4	0.4	0.4	0.4
Severe mental illness hospitalizations	*	*	*	*	0.7	0.6	0.0	1.0	0.9	0.2	0.4	0.4	0.2	0.2	0.3	0.3
Hospitalizations at psychiatric hospitals	*	*	0.0	0.0	1.7	2.1	1.5	1.8	0.4	1.3	1.0	0.7	0.1	0.1	0.1	0.1

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Notes: ASD=Autism Spectrum Disorder; ID-DD/MI=Co-occurring intellectual/developmental disability and mental illness; SED=Serious Emotional Disturbance.
Rates are per 100 population; Medicaid youth includes all beneficiaries ages 0–20.
*Estimate suppressed due to insufficient sample size.

Cohort Sizes	ASD				ID-DD/MI				SED				Medicaid Youth			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Mental illness hospitalizations	15	23	35	44	143	162	189	207	437	513	732	1,326	565,150	581,855	596,448	637,731
SMI hospitalizations	15	23	35	44	143	162	189	207	437	513	732	1,326	565,150	581,855	596,448	637,731
Hospitalizations at psychiatric hospitals	40	49	52	54	180	187	202	219	516	556	767	1,369	868,829	886,595	897,412	941,512

Notes: SMI=Severe Mental Illness.
These Ns reflect relevant denominators for rates reported in the top panel.
See Appendix A for details on inclusion/exclusion criteria resulting in eligible population for each metric.

Table 4.3: Post-acute care following hospitalization of Medicaid youth eligible for home and community-based waiver services

	Combined Waiver Populations (ASD, ID-DD/MI, SED)			Medicaid Youth		
Post-Acute Care Following Types of Hospitalizations	**2012**	**2013**	**2014**	**2012**	**2013**	**2014**
All-Cause Hospitalizations						
Readmission within 30 days	5.7%	9.8%	16.1%	8.5%	8.2%	7.1%
ED Visit within 30 days	11.4%	14.6%	19.4%	14.1%	13.8%	14.0%
Either of above	14.3%	22.0%	25.8%	19.6%	19.0%	18.6%
Mental Illness Hospitalizations						
Readmission within 30 days	*	*	*	11.6%	10.7%	10.8%
ED Visit within 30 days	*	*	*	21.0%	18.8%	20.5%
Either of above	*	*	*	25.8%	23.1%	23.8%
Severe Mental Illness Hospitalizations						
Readmission within 30 days	*	*	*	11.3%	11.6%	11.7%
ED Visit within 30 days	*	*	*	20.6%	19.3%	21.3%
Either of above	*	*	*	24.9%	24.0%	25.2%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: ASD=Autism Spectrum Disorder; ID-DD/MI=Co-occurring intellectual/developmental disability and mental illness; SED=Serious Emotional Disturbance; ED=Emergency Department.

Medicaid youth includes all beneficiaries ages 0-20.

*Estimate suppressed due to insufficient sample size.

Discussion

This chapter presents estimates for the baseline and early demonstration years for the metrics we proposed to assess the impact of expanded home and community-based services authorized under the Comprehensive Medicaid Waiver for children with autism spectrum disorder, co-occurring intellectual disabilities/developmental disabilities and mental illness, and serious emotional disturbance. With respect to the waiver services for children with ASD and ID-DD/MI, it is worth noting that DCF delivers these services to more children than just those enrolled in the pilot programs established by the Waiver. Thus, while the scope of our evaluation is limited to the cohorts meeting the inclusion criteria for the pilot programs, our analytic strategy will not fully reflect the impact of these supportive home and community-based services on all children receiving them.

Below we highlight some key takeaway points from this chapter's findings. Due to small sample sizes in the ASD cohort and because waiver services for the other two cohorts were not delivered during the study period of this interim evaluation report, we mostly cannot assess the impact of these new services based on the analysis period 2011-2014. One exception to this is a decrease in overall hospital utilization rate in the ASD population from 2013 to 2014, potentially reflecting an improvement in quality of care that leads to a decrease in hospitalizations.

While we occasionally note differences between estimates for individual years or between populations, the intent is descriptive and should be interpreted with the caveat that the differences discussed have not been adjusted for patient and provider characteristics and can be influenced by outlier events in small populations.

Rates of avoidable hospital use paid for by Medicaid for children with ID-DD/MI and SED in our defined cohorts and for Medicaid youth overall were very low in the baseline and early demonstration period. Hospital use, as measured by overall inpatient stays, ED visit rates, mental illness hospitalizations, and admissions to psychiatric hospitals showed greater variation across subpopulations, and we observed higher rates of utilization and costs per beneficiary among children with ID-DD/MI. Their utilization was consistently greater in all years than the corresponding rates for other cohorts of children and youth for which estimates could be generated. Estimates of inpatient utilization and ED visits for the ID-DD/MI and SED cohorts are lower in 2014 than in 2011, and are lower in 2014 than in 2013 for the ASD cohort.

Measures of hospital use for mental health conditions remained steady for Medicaid youth overall between 2011 and 2014, but we observed declines in mental illness hospitalizations across this time period for children with ID-DD/MI and SED. Slight increases with the SED cohort

in hospitalizations at psychiatric hospitals are also evident. The different trends between inpatient facility types (general acute care vs. psychiatric) is relevant to consider given the goal of expanded home and community-based services in reducing institutionalization (with the caveat that some of the estimates of change may not represent a systematic trend due to small sample sizes).

Several of the exclusion criteria (e.g. lack of Medicaid enrollment history) for identifying qualifying index admissions for assessment of 30-day readmissions and ED visits within 30 days of discharge present challenges for small cohorts. We could not reach the minimum sample size for assessing utilization subsequent to mental or severe mental illness hospitalizations. For all-cause hospitalizations, we found that the combined populations of youth eligible for the HCBS waiver programs started with lower rates of readmissions and ED visits than Medicaid youth overall, but have a greater prevalence of these poor outcomes by 2014. This could be due to a steadily growing prevalence within all-cause hospitalizations of severe mental illness hospitalizations and hospitalizations at psychiatric hospitals among the waiver cohorts. As can be observed for Medicaid youth overall, the rate of readmissions or ED visits following discharge are highest following hospitalizations for severe mental illness.

The rates of specific types of utilization calculated in this chapter help shed light on the relative applicability of the proposed metrics to the various subpopulations of interest. As a key example, hospital use metrics do not reflect quality for the SED at-risk population since this utilization is not on the menu of services available to them under the Waiver. In order to address this limitation, we will determine supplemental metrics for the SED cohort in our final evaluation report due in 2017. Specifically, we will investigate rates of residential treatment facility use and out-of-home placement in this cohort. Additionally, we will consider the feasibility of combining years of data in order to achieve minimum sample sizes for examining the ASD cohort and outcomes following hospitalization for mental and severe mental illness. Finally, subject to availability, we will examine relevant measures reported by DCF in accordance with their Quality Strategy for the Waiver. Within the limits of data availability and the timing of policy implementation, we will devise the optimal approach to answering the research questions under Hypothesis 2 of the waiver Special Terms and Conditions (CMS 2014).

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Appendix A: Description of Measures

Inpatient Utilization and Emergency Department Visits: These measures assess the extent to which individuals receive inpatient hospital treatment or care in the emergency department. These measures of acute care and emergency medical utilization shed light on overall health of individuals and capture potential policy impact on health and healthcare. It is however important to remember that use of inpatient and emergency department services is affected by many member characteristics such as age, sex, health, and socioeconomic status.

Our preparation of these measures consider utilization at any general acute care hospital, inside or outside NJ, by members of our defined child cohorts (ASD, ID-DD/MI, SED, and Youth). The days associated with all identified inpatient hospitalizations, and the costs associated with all identified inpatient and emergency department visits are also aggregated over cohort members.

Ambulatory Care Sensitive (ACS) Inpatient Hospitalizations: We calculate rates of ACS inpatient (IP) hospitalizations that may occur due to inadequate quality of ambulatory/primary care within communities. Avoidable hospitalizations have been widely used in previous research to measure access to primary care, and disparities in health outcomes (Basu, Friedman, and Burstin 2004; Billings et al. 1993; Bindman et al. 1995; Howard et al. 2007). The federal Agency for Healthcare Research and Quality (AHRQ) provides validated programming algorithms to calculate rates of avoidable ACS hospitalizations which are used in this analysis. These are known as the Pediatric Quality Indicators for children (ages 6-17). Appendix B gives a list of ACS conditions that constitute a composite index that measures the overall rate of avoidable IP hospitalizations per unit of population.

Our preparation of this metric considers avoidable hospitalizations occurring at any general acute care hospital, inside or outside NJ, by members of our defined child cohorts (ASD, ID-DD/MI, SED, and Youth).

Mental Illness Admissions: This measure of inpatient utilization assesses the extent to which individuals receive inpatient hospital treatment for mental illness. Like general measures of hospital utilization, this measure of service use gathers information about the provision of care to individuals and how organizations managing that care use and allocate resources. Use of inpatient services is affected by many member characteristics such as age, sex, health, and socioeconomic status.

This metric was adapted from the National Committee of Quality Assurance's Follow-up after Hospitalization for Mental Illness (FUH) metric which is endorsed by NQF. Our preparation of this metric considers hospitalizations for mental illness occurring at any general acute care hospital, inside or outside NJ, by members of our defined child cohorts (ASD, ID-DD/MI, SED, and Youth). In accordance with the metric specification for FUH, index hospitalizations for mental illness were only identified for the population age 6 and older.

Severe Mental Illness Admissions: Preparation of this metric followed the same specifications as Mental Illness Admissions. The only difference was that the admissions counted were a subset of the mental illness admissions, defined as those admissions with a diagnosis qualifying as severe mental illness. Therefore, admissions for some of the diagnoses falling within the severe mental illness designation but outside of the HEDIS Mental Illness Value Set, specifically those related to substance abuse, are not included in this metric. See Appendix C for the list of diagnosis codes designated as severe mental illness in this report.

Admissions to Psychiatric Hospitals: This measures assesses the extent to which individuals receive inpatient treatment at a short-term or long-term psychiatric hospital. Our preparation of this metric considers utilization at any psychiatric hospital, inside or outside NJ, by members of our defined child cohorts (ASD, ID-DD/MI, SED, and Youth).

Readmissions: Thirty-day readmissions metrics are used to broadly measure the quality of care delivered by hospitals (Benbassat and Taragin 2000; Jencks, Williams, and Coleman 2009) and post-discharge care coordination. Such 'potentially preventable' readmissions are defined as readmission for any cause within 30 days of the discharge date for the index hospitalization, excluding a specified set of planned readmissions. While readmissions rates have been most heavily utilized to assess quality for the Medicare population, calculating these measures among the Medicaid population has received growing attention (Trudnak et al. 2014).

We prepared readmission metrics considering hospitalizations at acute inpatient facilities, both general acute care hospitals and short-term psychiatric hospitals, inside or outside NJ, by members of our defined child cohorts (ASD, ID-DD/MI, SED, and Youth). In accordance with specifications for all Centers for Medicare and Medicaid Services (CMS) readmissions metrics, we required that the beneficiary be enrolled for 12 months prior to the index hospitalization (ignoring gaps of 45 days or less) to allow for sufficient claims history if risk-adjustment were to be undertaken. While estimates presented in this chapter are not risk-adjusted, estimates for year 2011 could not be calculated due to this restriction.

Hospital-Wide All-Cause Unplanned Readmissions: This readmission metric is endorsed by the National Quality Forum (NQF) and it was calculated by adapting the federal CMS methodology available at QualityNet[88] to the Medicaid FFS claims and encounter data. It was calculated for children ages 0-17 so it could be used to assess quality for the populations of children affected by the Waiver policies. Additionally, we included index admissions with a principal psychiatric diagnosis.

Readmission Following Hospitalization for Mental Illness: We adapted the National Committee of Quality Assurance's 'Follow up after hospitalization' (FUH) specifications for the identification of a hospitalization for mental illness in the calculation of this metric (NCQA 2014). For this metric, we considered admissions to any general acute care hospital or short-term psychiatric hospital with a diagnosis of mental illness. In accordance with the metric specification for FUH, index hospitalizations for mental illness were only identified for the population age 6 and older.

Readmission Following Hospitalization for Severe Mental Illness: Preparation of this metric followed the same specifications as *Readmission Following Hospitalization for Mental Illness*. The only difference was that the universe of index admissions considered was a subset of the mental illness index admissions defined as those admissions with a diagnosis qualifying as severe mental illness. Therefore, admissions for some of the diagnoses falling within the severe mental illness designation but outside of the HEDIS mental illness designation, specifically those related to substance abuse, are not included in this metric. See Appendix C for the list of diagnosis codes designated as severe mental illness.

Emergency Department Visits within 30 Days of Discharge: Return visits to the ED after a hospital discharge can be an important indicator of inadequate post-discharge follow-up and care coordination. Although not a validated quality metric, research on this topic is growing (DeLia et al. 2014). For each of the index admission universes identified for the readmission metrics described above, we also flagged whether there was an ED treat-and-release visit at any general acute care hospital inside or outside NJ within 30 days of discharge.

[88] https://www.qualitynet.org.

Appendix B: AHRQ Pediatric Quality Composite Indicator – Constituents

Overall Composite (PDI #90)
PDI #14 Asthma Admission Rate
PDI #15 Diabetes Short-Term Complications Admission Rate
PDI #16 Gastroenteritis Admission Rate
PDI #18 Urinary Tract Infection Admission Rate

Source: Pediatric Quality Indicators Technical Specifications - Version 5.0, March 2015; http://www.qualityindicators.ahrq.gov/Archive/PDI_TechSpec_V45.aspx.

Appendix C: Severe Mental Illness Diagnoses

Severe Mental Illness	
295, 297, 298	Psychotic disorders
296.00-06, 296.10-16, 296.40-46, 296.50-56, 296.60-66, 296.7, 296.80-82, 296.89, 296.90, 296.99	Bipolar disorders
300.3	Obsessive compulsive disorder
300.4, 309.1, 301.11-12	Dysthymia (chronic depression)
313.81	Oppositional defiant disorder
296.20, 296.23, 296.24, 296.30, 296.33, 296.34	Depressive disorders
301.20	Personality disorder
312.03, 312.13, 312.21	Conduct disorder

Chapter 5: Discussion

This interim report examines various sources of information to address the first three demonstration hypotheses and corresponding research questions set forth in the Special Terms and Conditions (CMS 2014) of the New Jersey Medicaid Comprehensive Waiver. The key changes authorized by the Waiver and considered in this draft interim report are the expansion in managed care to Long-term Services and Supports (LTSS) and behavioral health (BH) services, targeted home and community-based services (HCBS) for specific populations of children, and administrative simplifications in the Medicaid eligibility process for low-income applicants seeking LTSS. We utilize data on NJ Medicaid MCO performance and processes from the Healthcare Effectiveness Data and Information Set (HEDIS®), the Consumer Assessment of Healthcare Providers and Systems (CAHPS®) survey, MCO reports to the Department of Human Services, data reported by divisions within the Department of Human Services (DMAHS, DoAS, and DDS), reports from the Department of Banking and Insurance, and four years of Medicaid FFS claims and managed care encounter data spanning the baseline and early demonstration years. This report supplements an earlier report with qualitative findings from key informant interviews of providers, consumer advocates, MCOs and state officials on MLTSS implementation[89] and the midpoint evaluation of the Delivery System Reform Incentive Payment (DSRIP) program which is part of the Waiver, but evaluated as a separate component.[90]

On the whole, this interim report primarily addresses the very early impacts of the policy changes occurring under the Waiver. Quality metrics included in this report extend through the end of calendar year 2014, capturing only the first six months of MLTSS implementation and preceding initiation of two out of the three targeted home and community-based waiver services programs for Medicaid children/youth with autism spectrum disorder, co-occurring intellectual and developmental disabilities and mental illness, and severe emotional disturbance. Some of the MCO performance and process measures from secondary data sources presented in Chapter 2 cover more of the post-MLTSS period and extend as far as the first quarter of calendar year 2016.

[89] Farnham J, S Chakravarty, and K Lloyd. 2015. *Initial Stakeholder Feedback on Implementation of the Managed Care Expansion in Long-Term Services and Supports*. New Brunswick, NJ: Rutgers Center for State Health Policy. http://www.cshp.rutgers.edu/Downloads/10740.pdf.

[90] The DSRIP midpoint evaluation was submitted to the New Jersey Division of Medical Assistance and Health Services (DMAHS) on September 2015 with the final evaluation due in March 2018.

Hypothesis 1

Summary: While all of the findings have been discussed in detail in the individual chapters, we identify below some common themes related to Hypothesis 1 across these different components. Measures of quality of care and consumer satisfaction for the entire Medicaid managed care population indicate there were no substantial negative impacts evident during the first six months of the MLTSS program. The evidence for this conclusion is strongest in the preventive care domain. Here, most HEDIS® metrics demonstrate improvement and the few declines are, on average, of a smaller magnitude than the improvements. For most of the HEDIS® metrics related to chronic conditions, we observed unchanged or improved quality. These findings are concordant with rates of avoidable inpatient and avoidable ED visits which are designed to reflect inadequate ambulatory/primary care within communities that may lead to preventable hospital use due to unmanaged conditions. Both types of avoidable utilization declined over 2011-2014 for the managed care population in our descriptive analyses and showed no net positive or negative effect as a result of MLTSS in the regression analyses. This is one of the more robust findings, although there may be several other areas where there was potential improvement in terms of quality, efficiency, and coordination of care. Decreases in readmission rates, further supported by small increases in ambulatory visits after discharge were observed, though only the decrease in hospital-wide readmission rates was statistically significant.

The one area with negative findings for the managed care population relates to ambulatory care for beneficiaries with behavioral health conditions. In both the results from annual HEDIS® reports applying to the DDD population and our claims-based analysis of all managed care beneficiaries, there were significant declines in the rate of 30-day follow-up with a mental health practitioner after discharge from a hospitalization for mental illness. With the exception of the DDD population and the HCBS population in the second half of 2014, this follow-up care would occur on a FFS basis for most managed care beneficiaries over this time period because behavioral health was carved out of MCO contracts (though the mental health hospitalization would be under the purview of the MCO). Thus, this effect is not exclusively an issue with service delivery through managed care, but is an area where managed care beneficiaries and MCOs stand to benefit from innovations in behavioral health care delivery.

A broad goal of the managed care expansion under the Waiver was to serve more long-term care beneficiaries in their homes and communities, rebalancing spending away from nursing facilities. Presentations made by DMAHS at MLTSS stakeholder meetings show this shift in setting. Since MLTSS implementation in July 2014, the percentage of beneficiaries in nursing facilities has decreased as the share in home and community-based settings has increased, and those individuals transitioned from former HCBS waiver programs have generally stayed in HCBS settings. Our own analysis of claims-based monthly estimates of total spending partitioned

between the NF and HCBS populations also show an increasing proportion of total spending attributable to HCBS beneficiaries from July 2014 through December 2014. Both the LTSS spending and the non-avoidable portion of non-LTSS spending are the growing components for the HCBS population over this time period. Avoidable costs of care have no net growth and comprise less than 1% of total spending. Thus, there is initial evidence that the intended rebalancing is underway, and our final evaluation report spanning a longer follow up period will indicate whether these trends persist.

When we examine the impact of MLTSS specifically on beneficiaries meeting an institutional level of care and residing in their homes and communities under the former 1915(c) waiver programs or, after July 1, 2014, under MLTSS, both health outcomes and process measures paint a more complicated picture of quality, especially in the very early months of MLTSS implementation. Both claims-based annual estimates for the HCBS population and data in MLTSS performance measure reports from MCOs show declines in overall inpatient and emergency department use rates, over 2013-2014 in claims estimates and from July 2014 to March 2015 in performance reports. Further, overall rates of avoidable inpatient and avoidable ED visits declined from 2013 to 2014 for the HCBS population in annual claims-based estimates. However, when we undertake regression analysis that accounts for other factors and isolates trends in hospital use directly attributable to MLTSS, we find mixed effects. The probability of avoidable inpatient hospitalizations declined significantly in the first six months of MLTSS, but the number of avoidable ED visits significantly increased. Our statistical models also find increased growth in avoidable inpatient costs in the HCBS population due to MLTSS, but avoidable ED costs go down. In the aggregate, these marginal effects do not impact the share of avoidable hospital costs as mentioned above, but it will be important to monitor this further into the post-MLTSS period.

A number of metrics relating to inpatient and post-discharge care following hospitalizations for medical conditions (e.g. 30-day readmissions for heart failure, AMI, or pneumonia and ambulatory care visit within 14 days of discharge) worsened for HCBS individuals as a result of MLTSS, though most of these results did not reach conventional levels of statistical significance. It is important to note that quality measures calculated using claims data cover only the first six months of MLTSS in this interim report, which was a period of transition. In these early months of the program, there were issues with timeliness of assessment for new MLTSS enrollees and waiver transitionees. While continuity of care was ensured by State requirements and no changes were made to delivery of acute care services, this was an uncertain time for beneficiaries when the coordination of all services under managed care was not complete and, for existing enrollees, transitions to a new care manager working for their MCO were underway. Uninterrupted HCBS care is important to maintaining or stabilizing people's health and preventing progression to a higher level of care where possible. Additional claims data analysis extending beyond the first six

months of the post-MLTSS period will help us determine whether any of these findings persist or strengthen to a level of statistical significance thereby giving a comprehensive picture of the MLTSS policy impact.

Information provided by the Division of Aging Services and by MCOs indicates that the timeliness of clinical assessments continues to improve. MCO-reports of potentially negative events, such as critical incidents, complaints, grievances, appeals, and service reductions appear to show that such events affect a small number of members and are generally reported in a timely fashion. The Division of Banking and Insurance did not show an increase in appeals of managed care decisions in 2014. Network adequacy information has not been reported for MLTSS services, but MCO-reported grievances appear to show, at most, 12 cases in 2015 relating to problems accessing MLTSS providers.

Limitations/Caveats: The Medicaid claims and encounter data available to us for this evaluation presents specific challenges related to the dual eligible population. Duals in managed care plans may not have their utilization captured in the Medicaid claims data if there is no Medicaid liability in terms of a copayment or coinsurance for the acute care service. The HCBS portion of this population has been progressively moved into managed care starting in late 2011, with the NF population shifting slowly via attrition of grandfathered FFS beneficiaries starting in mid-2014. Therefore, any underestimate of utilization will be present in the both the pre- and the post-MLTSS period thereby allowing our difference-in-differences statistical model to correct for this while estimating policy impacts.[91]

Finally, there are two limitations of our data preparation related to the nursing facility population. First, we are unable to differentiate between custodial NF residents and individuals only temporarily in a NF for rehabilitation. Our algorithm for defining the NF population on an annual basis (Appendix D) reduces the possibility of misclassification of non-LTC or community-LTC beneficiaries as part of the NF population because of a rehab stay, but we also use a monthly classification in other models. We may be excluding some observations relating to HCBS individuals in those specifications. We will consider sensitivity tests relating to this in our final report. Second, since patients residing in medical facilities, such as a nursing homes, may have follow-up care provided within the facility itself, our analysis of metrics relating to post-acute ambulatory care (*Follow-up After Hospitalization for Mental Illness* and *Ambulatory Visit within 14 Days of Discharge*) cannot be accurately calculated for this population if follow-up services are not billed separately within these facilities. Specifically, some care provided by physicians to NF

[91] Any under-representation of utilization (which we expect to be limited) in the claims data for duals would only bias our findings if it changed differentially across the pre and post-MLTSS period for the HCBS population compared to the non-LTC ABD population used as a control group.

residents in NJ are included in the facility per diem rate and thus claims are not generated for these services. We however can accurately calculate this metric for individuals discharged to home thereby retaining its importance as an important metric for the HCBS population.

Hypothesis 2

Summary: As observed in analyses related to hypothesis 1, we also see declines in rates of inpatient utilization and ED visits between 2013 and 2014 for children enrolled in the ASD pilot program under the Waiver which started in the spring of 2014. Rates of avoidable inpatient admissions were very low among cohorts of children eligible for home and community-based waiver services so we did not observe any overall declines between 2011 and 2014 as we did for the HCBS cohort under hypothesis 1. Additionally, most of the waiver policies under hypothesis 2 were not in effect during the study period of this interim report precluding any assessment of policy impacts. Thus, at this point, we cannot determine whether waiver services designed to support beneficiaries, both children with special needs and long-term care beneficiaries, in their homes and communities are generally positive, negative, or differ in their effects on health outcomes for these two targeted populations.

Limitations: Implementation timing and small sample sizes limit our ability to evaluate the impact of waiver policies on populations of children and youth eligible for home and community-based services. The hospital use metrics proposed in our evaluation plan will not reflect quality for the SED at-risk population since this utilization is not on the menu of services available to them under the Waiver. In order to address these limitations, we will investigate rates of residential treatment facility use and out-of-home placement in this cohort in our final evaluation report due in 2017. Additionally, we will consider the feasibility of combining years of data in order to achieve minimum sample sizes for examining the impacts of waiver services on the pilot-enrolled ASD cohort, and ED and readmission outcomes following hospitalization for mental and severe mental illness for all populations of youth receiving targeted HCBS.

Hypothesis 3

Information provided by the state indicates that as of the end of 2015, nearly 900 individuals had set up Qualified Income Trusts (QITs), which allow people whose income is above the level normally eligible for Medicaid but is not sufficient to pay the cost of long-term care services, to spend down their excess income and become eligible for Medicaid. Prior to the Comprehensive Waiver, this kind of designation (medically needy) was only possible for those in institutional settings. We do not know exactly how many of the 900 individuals are in HCBS settings, but we know from state presentations that some are.

Information provided by the state indicates that as of the end of 2015, about 627 individuals who were under the federal poverty level were able to self-attest that they had not transferred assets during the past five years, meaning that the county welfare agencies and the beneficiary were able to skip a comprehensive financial examination. Audits of the effectiveness of this process are not yet available.

The existence of these new avenues into the Medicaid long-term care system, particularly the establishment of QITs, has the potential to impact the number and mix of individuals in the MLTSS program. We will examine the direct effects of these administrative simplifications in a future report, but these changes also have implications for our evaluation of Hypothesis 1. They underscore the importance of adjusting for differing patient characteristics in determining the impact of the MLTSS policy on health outcomes.

Future Work

Our final evaluation report due in 2017 will build off the analyses presented here. We will have a longer post-MLTSS implementation for claims-based metrics which will increase our ability to detect policy effects and will reflect the impacts of the program after the early transitionary period. As more nursing facility residents come under MLTSS, we will explore the impact of MLTSS on this population as well, subject to a sufficient sample size. If data for the post-MLTSS period are sufficient to achieve minimum sample sizes, we will also explore stratification of metrics by demographic characteristics, such as race/ethnicity, and examine whether there are any differential impacts of MLTSS on outcomes by race/ethnicity in statistical models. Uniform billing hospital discharge data, if publically available, will be prepared for selected metrics to compare trends between Medicaid and other payers over the period of the demonstration. We will have data from the 2015 CAHPS® survey available which will reflect consumer perceptions of care for a time period when MLTSS was in effect and lend itself to potentially meaningful comparisons of trends within eligibility groups, in particular for the ABD population. HEDIS®, CAHPS®, and MCO performance reports will also include data for Aetna, a Medicaid MCO that entered the market in December of 2014. We will have conducted a second round of stakeholder interviews to gauge ongoing experiences with and perceptions of the MLTSS program, and will have qualitative interview data from stakeholders, state officials, and provider organizations regarding the Supports program, which began in the summer of 2015. Finally, data on the implementation and quality of the administrative simplifications process being collected by the State will be shared with us for the final report.

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Center for State Health Policy

Center for State Health Policy
Rutgers, The State University of New Jersey
112 Paterson Street, 5th Floor
New Brunswick, NJ 08901

p. 848-932-3105 f. 732-932-0069
cshp_info@ifh.rutgers.edu
www.cshp.rutgers.edu

Supplement: Early Findings on the Impact of Waiver Reforms to Streamline Medicaid Eligibility Processes

Introduction

In this supplement to the draft interim evaluation report, we examine the reforms under the Medicaid Comprehensive Waiver intended to streamline eligibility processes for new applicants and existing beneficiaries in need of long-term care services. The following evaluation hypothesis and research questions in the waiver Special Terms and Conditions document (CMS 2014) are addressed:

Hypothesis 3: **"Utilizing a projected spend-down provision and eliminating the look back period at time of application for transfer of assets for applicants or beneficiaries seeking long term services and supports whose income is at or below 100% of the FPL will simplify Medicaid eligibility and enrollment processes without compromising program integrity."**

Research Question 3a: **"What is the impact of the projected spend-down provision on the Medicaid eligibility and enrollment process? What economies or efficiencies were achieved, and if so, what were they? Was there a change in the number of individuals or on the mix of individuals qualifying for Medicaid due to this provision?"**
Research Question 3b: **"What is the impact of eliminating the transfer of assets look-back period for long term care and home and community based services for individuals who are at or below 100% of the FPL? Was there a change in the number of individuals or in the mix of individuals qualifying for Medicaid due to this provision?"**

To evaluate these reforms we draw on statistics from administrative records provided to us by State officials or available in public reports and presentations. We also rely on audit data collected by the State's Bureau of Quality Control (BQC) and contextual information on the audit process and findings from direct communications with State officials. Although only limited data are available at the time of this interim evaluation, the final evaluation report due in 2017 will build upon the findings presented in this supplement.

Background

Transfer of Assets Self-Attestation

Medicaid eligibility for long-term care services requires that applicants have not transferred any assets or resources for less than fair market value during the five years preceding their date of application. Applicants are often required to furnish bank statements and financial documents proving compliance with this requirement before eligibility can be granted. If a transfer of assets did occur then a penalty period is imposed delaying eligibility for long-term care services.

Under the Waiver, individuals with income at or below 100% of the Federal Poverty Level (FPL) applying for institutional or home and community-based services are permitted to self-attest that they have made no disqualifying asset transfers during the past five years. This attestation is a sworn statement documented on an addendum to the Medicaid application used by County Welfare Agencies for new entrants, or collected during the financial eligibility determination conducted by Managed Care Organizations for existing beneficiaries moving into Managed Long-term Services and Supports (MLTSS) after July 1, 2014. This form, which was approved for use in December 2012, eliminates the need for the time intensive five-year lookback process, and was intended to expedite eligibility approvals for very low-income applicants.

Qualified Income Trusts

The adoption of Qualified Income Trusts (QITs) in December 2014 fulfills the intent of the hypothetical spend-down provision for individuals having a nursing facility level-of-care which was originally proposed in the Waiver. QITs allow clinically eligible individuals whose monthly income is above 300% of the Supplemental Security Income rate (recently $2,199) to spend down their resources on long-term supports and services (delivered in their homes/communities or in a nursing facility) to become eligible for Medicaid. Income above the threshold is deposited in a separate bank account which is used for cost-sharing expenses. Prior to the Waiver, spend-down for higher income applicants was only available for nursing facility residents (a medically needy designation), which may have led people who could not afford to pay the full cost of care delivered as home and community-based services (HCBS) to choose nursing facilities at a higher cost to the state. QITs effectively create a new eligibility pathway for long-term care services in home and community settings.

Methods

Data Sources

In this section, we use statistics collected by the State for public- and CMS-reporting purposes as well as data collected by the Bureau of Quality Control specifically for evaluation of the self-attestation policy. We also use Medicaid fee-for-service (FFS) claims and managed care encounter data for January 1, 2011 through December 31, 2014.

Measures

Drawing from quarterly reports from DMAHS to CMS, we present counts of self-attestation forms received by the State. Using data from the Department of Human Services' response to the Office of Legislative Services on the budget (state fiscal year 2016-2017), we present here the count of applicants using QITs. We also present trends in settings of care (HCBS v Nursing Facility) for long-term care beneficiaries calculated from Medicaid claims data. Finally, we report the error rate and average time to approval for applications with self-attestations resulting from the BQC's review process.

Quality Control Review of Transfer of Assets Self-Attestation

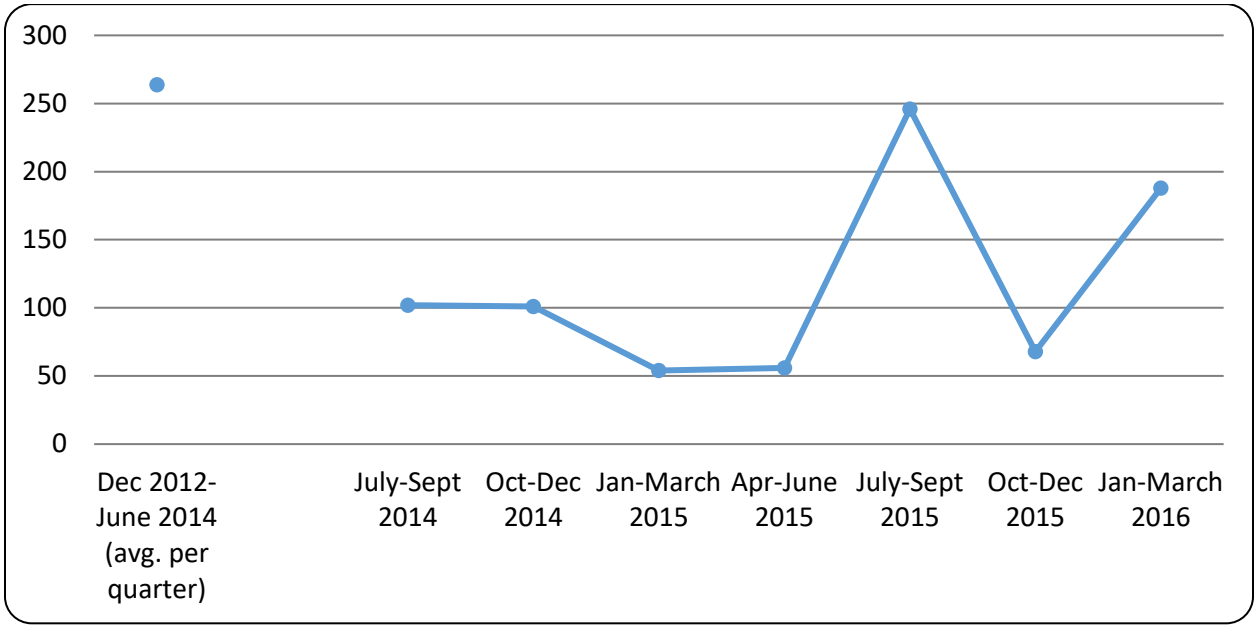
In July through September 2015, the BQC piloted a review protocol to measure the accuracy and effectiveness of the transfer of assets self-attestation procedure. Completed self-attestations provided to BQC each quarter from the Office of Eligibility were sampled for detailed review. First a random sample of 30 forms from each batch was selected, and then 8 of the 30 were randomly selected. The applicants on these 8 forms were then contacted and underwent an audit process. In this process, a representative sample of financial documents (i.e. information on bank accounts, properties, investments, and any other resource or asset) was requested for up to five years prior to the time of application in order to determine whether any assets had been transferred for less than fair market value. Any finding on the sample of 8 would trigger a review of all 30 of the sampled cases. The error rate was calculated as the percentage of all reviewed cases having a positive finding, meaning a transfer penalty would have been imposed under a pre-waiver financial eligibility determination.

At our request, BQC is adding to their protocol a procedure for determining the average time from application to approval in each quarter for all cases reviewed in the audit process. Since this information routes through CWAs and MCOs, depending on the application pathway, it is more challenging to implement in a standardized way and is therefore, not yet available for this interim report.

Results

Figure S.1 shows the number of self-attestations collected during each quarter after MLTSS implementation in July 2014. Prior to MLTSS, 1,670 self-attestations were collected from CWAs and this is presented as an average per quarter on the chart.

Figure S.1: Quarterly number of self-attestation forms received from Medicaid long-term care applicants, December 2012 to March 2016



Source: DMAHS, Quarterly reports to CMS

During fiscal year 2015,[1] 544 QIT applications were approved out of the 1,800 received (30%) (DHS 2016, p.23). Table S.1 shows the number of Medicaid Only beneficiaries with QITs in different settings from December 2014 until March 1, 2016. During that period, there were 1,054 QIT users, of whom 72% were in nursing facilities, 21% were in Assisted Living (considered a community setting) and 7% were living at home.

Table S.1: Cumulative amount of individuals eligible for Medicaid Only using a QIT from December 1, 2014 to March 1, 2016

Setting	Number	Percent
Nursing Facility	763	72%
Assisted Living	218	21%
Living at Home	73	7%
Total	**1054**	**100%**

Source: Department of Human Services response to Office of Legislative Services, State Fiscal Year 2016-2017

[1] July 1, 2014 through June 30, 2015 (QIT applications were accepted beginning December 1,2014).

Table S.2 shows the number of long-term care (LTC) designated[2] recipients receiving services in nursing facilities or in their homes and communities (which includes assisted living) from 2011-2014. It also shows the percentage of all designated long-term care beneficiaries in an HCBS setting. This percentage increases after the Waiver was approved (2013-2014) compared to the baseline period (2011-2012). While our analysis of Medicaid claims data for the interim evaluation did not extend beyond 2014, data from secondary sources presented in Figure 1, Chapter 2 (p.25) of our draft interim evaluation report shows a continuing increase in the percentage of LTC beneficiaries receiving HCBS from July 2014-January 2016.

Table S.2: New Jersey long-term care population by setting of care, 2011-2014

	2011		2012		2013		2014	
	Total	**%**	**Total**	**%**	**Total**	**%**	**Total**	**%**
Long-Term Care Beneficiaries	49,912	100.0%	49,534	100.0%	49,337	100.0%	47,721	100.0%
Nursing Facility	37,009	74.1%	36,011	72.7%	35,384	71.7%	34,373	72.0%
HCBS	12,903	25.9%	13,523	27.3%	13,953	28.3%	13,348	28.0%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy

Note: HCBS=Home and Community-Based Services

Table S.3 shows results of BQC's self-attestation review process for two recent quarters. The error rate on the eight sampled applicants in each quarter was 0%. Data on timing to approval is still pending as of the writing of this supplement.

Table S.3: Error rate and time to approval from quality control review of self-attestation forms

Quarter	Self-attestations received	Number reviewed	Error rate	Time from application to approval
Oct-Dec 2015	67	8	0%	*
Jan-March 2016	183	8	0%	*
April-June 2016	*	*	*	*

Source: DMAHS, Communication from Bureau of Quality Control shared in October 2016

*data being collected, but unavailable for this report

Discussion

This supplemental section presents findings to date on the administrative simplifications approved under the Waiver and designed to ease the application and approval process for existing beneficiaries and new applicants in need of an institutional level of care. These new

[2] See Chapter 3 (pp.69 & 177) for definition of the long-term care assignment algorithm used in analysis of Medicaid claims data.

processes are being used and monitored, and they very likely have expanded and streamlined the eligibility process for a number of Medicaid applicants. As of March 2016, the availability of QITs has allowed nearly 300 new applicants to qualify for Medicaid home and community-based services who would have otherwise been ineligible at their current income level. With regards to self-attestation for transfer of assets, a 0% error rate on audited cases is promising evidence that the often burdensome five year lookback process can be safely eliminated for many low-income applicants.

Whether these new processes are being used uniformly and equitably is not yet clear. The BQC has noted that, although all CWAs have been provided with the self-attestation form, the counties drawn in the early samples were not representative of the distribution of the Medicaid population in the state, suggesting that some counties may not be regularly using the form. This would mean some applicants who should get the benefit of self-attestation may not be, depending on county-specific practices. The small sample of reviewed cases and uncertainty around its uniform use also mean the error rate may not be representative of the statewide error rate. With regard to QITs, stakeholders have expressed concerns about access to legal assistance for consumers with limited financial or social resources at a disadvantage for drawing up the trust documents and designating a representative to administer the trust over time.

The existence of these new avenues into the Medicaid long-term care system, particularly the establishment of QITs, has the potential to impact the number and mix of individuals in the MLTSS program. While self-attestation could potentially increase the number of eligible beneficiaries by streamlining the process, establishment of QITs would potentially increase the share of beneficiaries in the community. This motivates our examination of the percentage of long-term care beneficiaries receiving HCBS. This shift does appear to be taking place, although we cannot directly attribute it to these administrative changes implemented under the Waiver. We will continue to monitor the number and mix of individuals for our final report, examining changes in the share of beneficiaries requiring a nursing facility level of care being served in their homes and communities.

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Center for State Health Policy

Center for State Health Policy
Rutgers, The State University of New Jersey
112 Paterson Street, 5th Floor
New Brunswick, NJ 08901

p. 848-932-3105 f. 732-932-0069
cshp_info@ifh.rutgers.edu
www.cshp.rutgers.edu

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A Midpoint Evaluation of the New Jersey DSRIP Program: Findings from Stakeholder Interviews, Hospital Survey, Medicaid Claims Data, and Reported Quality Metrics

Sujoy Chakravarty, Ph.D.
Kristen Lloyd, M.P.H.
Susan Brownlee, Ph.D.
Jennifer Farnham, M.S.
Katie Zhang, M.S.

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Acknowledgments

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A Midpoint Evaluation of the New Jersey DSRIP Program: Findings from Stakeholder Interviews, Hospital Survey, Medicaid Claims Data, and Reported Quality Metrics

Sujoy Chakravarty, Ph.D., Kristen Lloyd, M.P.H., Susan Brownlee, Ph.D., Jennifer Farnham, M.S., and Katie Zhang, M.S.

Executive Summary

The Delivery System Reform Incentive Payment (DSRIP) Program was approved as part of the New Jersey Medicaid Comprehensive Waiver Demonstration in October 2012. The hospital-based DSRIP program uses resources transitioned from the previously existing Hospital Relief Subsidy Fund to establish a pay-for-performance and pay-for-reporting system to achieve specific health improvement goals for the state's low income population.

Over the course of this program participating hospitals receive payments for developing, implementing, and monitoring specific disease management projects; for reporting/verifying two sets of metrics: specific quality metrics related to their adopted projects (Stage 3 metrics) and also a universal set of metrics (known as Stage 4 metrics); for improving performance assessed on the basis of the project-specific Stage 3 metrics; and for improving or maintaining performance on a core set of metrics relating to inpatient care through funding available from a Universal Performance Pool.

The Rutgers Center for State Health Policy (CSHP) was engaged to evaluate the effectiveness of New Jersey's DSRIP program in achieving its goals. We formulated specific testable hypotheses to examine the following six research questions from the DSRIP Planning Protocol (detailed in the Waiver Special Terms and Conditions document) that determine the scope of the evaluation:

1. To what extent does the DSRIP program achieve better care?
2. To what extent does the DSRIP program achieve better health?
3. To what extent does the DSRIP program lower costs?
4. To what extent did the DSRIP program affect hospital finances?
5. To what extent did stakeholders report improvement in consumer care and population health?
6. How do key stakeholders perceive the strengths and weaknesses of the DSRIP program?

This report, the DSRIP midpoint evaluation, presents qualitative and quantitative assessments of the impact of DSRIP program activities during the planning and early implementation period as well as stakeholder perceptions relating to implementation activities and future program potential. It is comprised of four distinct chapters each covering one analytic component of the evaluation plan. These specific components covered different time periods of the program depending on data availability and implementation of the specific evaluation activity, and range from the first DSRIP program year, which was calendar year 2013, through the spring of 2015.

The table below summarizes the content, assessment period, and research questions addressed by each chapter in this report.

Chapter	Evaluation Activity/ Study Period	Assessment Period	Research Question
1. Key informant interviews	10/2014–2/2015	1/2013–2/2015	5, 6
2. Hospital survey	3/2015–4/2015	1/2013–4/2015	5, 6
3. Analysis of Medicaid claims data	1/2011–12/2013	1/2013–12/2013	1, 2, 3, 4
4. Analysis of Stage 4 metrics	1/2013–3/2015	1/2013–12/2014	2

Key Informant Interviews

Chapter 1 reports findings from the key informant interviews that examined stakeholder perceptions of strengths and weaknesses of the program, whether stakeholders reported any improvements in consumer care and population health, and also their impressions relating to program potential to achieve such gains in the future. The findings from these interviews address the hypotheses associated with research questions 5 and 6, assisted in designing the hospital web survey, and will inform the second round of stakeholder interviews that will be a part of the summative evaluation due in March 2018.

Twelve key informants were interviewed between mid-October of 2014 and mid-February of 2015. These included staff members from DSRIP-participating and non-participating hospitals, and individuals involved in DSRIP committees and the Learning Collaboratives. We included safety net providers as well as those serving more income-secure populations, outpatient partners, state officials, and industry association representatives who have participated as stakeholders in program discussions.

Eight themes were distilled from the interviews.

- Theme 1: Hospitals are enthusiastic about chronic disease management and population health improvement, though uncertain about which specific interventions are best.
- Theme 2: The program's evolving nature and delays in the finalization of approvals and details have caused anxiety and confusion.

- Theme 3: Reporting requirements are a significant burden that is unevenly distributed across hospitals and reporting partners due to differences in the level of technology and the number of low-income patients between hospitals.
- Theme 4: Reporting is an important component of the program tied to payments, yet many participants are unsure of the value of measures to be reported.
- Theme 5: It is too early to determine definite outcomes from the program, either positively or negatively.
- Theme 6: Participants spoke very positively of the Learning Collaboratives.
- Theme 7: The effect of concurrent policy developments on DSRIP program objectives is uncertain.
- Theme 8: Suggestions for future rounds of DSRIP (included more advance knowledge of program requirements prior to rollout, a smaller set of measures with a clearly defined purpose, more involvement of outpatient partners and careful monitoring of the attribution model).

In general, hospitals were enthusiastic about interventions to improve chronic disease management and population health, but had concerns about the burdens of reporting, which fell most heavily on safety-net hospitals. The evolving nature of the program created uncertainty for participants.

Hospital Survey

Chapter 2 reports findings from a web survey of DSRIP-eligible hospitals in New Jersey that was conducted in the spring of 2015. The survey was designed to explore issues relevant to answering research questions 5 and 6 related to stakeholder perceptions. Accordingly, it included questions relating to hospitals' motivations for applying to the program; their experiences while implementing preparatory activities based on program requirements; and whether the hospitals felt that the program improved access to care, quality of care, and population health.

Key findings include:

- Support for the disease management goals of the DSRIP program was cited as the most important reason for applying.
- Hospitals with higher shares of Medicaid beneficiaries were much more likely to need the DSRIP funds to finance existing operations.
- The hospitals did not feel that any of the program specifications/requirements were clear from the beginning. While most of these were clarified over time, requirements related to reporting activities, outpatient partners, and the attribution model continued to remain unclear.

- Over 2/3 of the hospitals felt that the requirements related to the collection/verification of the universal Stage 4 metrics increased over time.
- The hospitals reported that only 42.7% of the Stage 4 hospital inpatient/ED chart-based metrics were obtainable from their electronic health record (EHR). For the hospitals' data reporting partners, an even lower percentage (27.4%) of their outpatient chart-based metrics were obtainable from an EHR.
- On average, the hospitals estimated that just under half (45.9%) of the attributed patients are or will be included in their DSRIP program intervention.
- The chronic disease management programs were rated as having the most positive impact while reporting of the Stage 4 universal metrics was rated as having the lowest impact on quality of care and population health.
- Overall, the hospitals gave a slightly negative rating to the financial impact of DSRIP on their own hospital's finances.
- Hospitals found useful the Learning Collaborative activities such as networking with other hospitals, DSRIP training webinars, and Frequently Asked Questions (FAQs) on the DSRIP website.

In summary, most of the hospitals felt that the DSRIP program had the potential to improve quality of care and population health and that the Stage 3 care management programs aligned well with these population health improvement goals. However, the reporting requirements were too onerous and resource-intensive, especially the Stage 4 universal metrics. The hospitals were concerned about the increase in program requirements and delays in receiving key information. EHR interoperability with program partners was also cited as a major issue, particularly for obtaining the outpatient metrics required for Stage 3 and Stage 4 reporting. Networking with other hospitals and being able to share challenges were rated as the most useful aspects of the Learning Collaborative.

Analysis of Medicaid Claims Data

Chapter 3 examines the very early impact of the DSRIP program on patient care, patient health, costs of care, and hospital finances through quantitative analysis of quality metrics calculated primarily from Medicaid fee-for-service claims and encounter data, and an analysis of hospital-level financial information. Multiple metrics were used to test the first four evaluation hypotheses aligned with research questions 1 through 4 that were the focus of this chapter. We compared changes in outcomes from a baseline period of 2011–2012 to the first program year, 2013, between DSRIP-participating hospitals (or areas with such hospitals) and appropriate comparison groups. It is important to note that no hospital projects had formally launched in 2013 and the program was in transition at this time. Our methods thus identify effects of DSRIP hospitals' activities on chronic disease outcomes, health outcomes, ambulatory care quality,

disparities, and costs, as well as on hospital financial margins during the first program year as they prepared their DSRIP applications and planned for the potential implementation of chronic disease management projects.

Findings relevant to each hypothesis were as follows:

Hypothesis 1: DSRIP hospital projects improve related care and outcomes.

- There were statistically significant improvements reflected in decreasing rates of avoidable asthma and diabetes hospitalizations attributable to the respective disease management programs, but also a worsening in other areas reflected in increasing rates of emergency department visits for asthma among adults. Quality indicators for other chronic diseases showed no significant changes attributable to DSRIP activities.

Hypothesis 2: The DSRIP program improves the quality of ambulatory care, both recommended and preventive, with positive effects on population health.

- As a geographic area's exposure to DSRIP-participating hospitals increased, rates of avoidable inpatient hospitalizations improved (decreased in magnitude) from baseline to the first DSRIP program year, and this change was statistically significant. At the same time, there was a significant worsening (i.e., an increase) of costs associated with avoidable emergency department (ED) visits, although the corresponding negative impact on avoidable ED visits (reflected in an increase in rates) was not statistically significant. Results for readmission rates and inpatient mental health utilization were mixed and none were statistically significant.

Hypothesis 3: The DSRIP program will reduce racial/ethnic and gender disparities in avoidable hospital admissions, treat-and-release ED visits, and hospital readmissions.

- Changes in racial/ethnic disparities in 30-day readmissions or avoidable hospital use that could be attributed to DSRIP generally showed a reduction in disparities, but most of these improvements were not statistically significant. There was a statistically significant ($p<0.05$) worsening of disparities in readmissions for COPD for minority populations (as a group) compared to whites attributable to DSRIP activities. There were no significant changes in gender disparities for any of the quality metrics examined.

Hypothesis 4: Hospitals receiving incentive payments do not experience adverse financial impacts.

- There was no evidence of an adverse impact of DSRIP activities on hospitals' total or operating margins through the first program year.

In general, reductions in rates of avoidable inpatient hospital use among Medicaid beneficiaries was the most consistent outcome attributable to DSRIP-participating hospitals' activities in 2013. No other statistically significant positive or negative trends were notable at this early point in

implementation. As we incorporate data pertaining to later demonstration years when hospitals fully implement their chronic disease management projects, these same statistical techniques applied on additional years of data will allow measurement of full DSRIP program effects.

Analysis of Stage 4 Metrics

Chapter 4 presents results from an analysis of several Stage 4 reported metrics for all DSRIP-participating hospitals in New Jersey. Derived from Medicaid administrative claims data and provided to CSHP by the State, these measures reflect changes in preventive and recommended care over 2013–2014 for hospitals' attributed patients. These metrics provide additional data for evaluating the hypothesis aligned with research question 2 regarding DSRIP's success in achieving better health. Specific metrics that we analyze include rates of: screening, child and adolescent access to primary care practitioners, potentially preventable hospitalizations relating to chronic obstructive pulmonary disease (COPD) and heart failure, and childhood vaccination rates and well-child visits for infants. Paired t-tests assessed statistical significance of change over time for each of the metrics across all 50 New Jersey hospitals participating in the DSRIP program.

Key findings include:

- Significant improvements over time in access to primary care practitioners were reported for children ages 7 years to 11 years and adolescents ages 12 years to 19 years.
- Hospital admission rates for COPD and heart failure significantly improved (decreased in magnitude) from 2013 to 2014. The percentage of HIV patients with 2+ CD4 T-cell count taken during the year significantly improved from 2013 to 2014. Preventive screening rates for both cervical cancer and chlamydia improved slightly from 2013 to 2014, but the changes were not statistically significant.
- There was a slight improvement in the metric measuring percentage of newborns with low birth weight from 2013 to 2014, but the change was not statistically significant.
- Rates for the Hepatitis B vaccination improved significantly from 2013 to 2014. The Rota virus vaccination rate improved slightly from 2013 to 2014, but it was not a statistically significant increase. Rates of all remaining vaccinations significantly decreased from 2013 to 2014.
- Although well-child visits in the first 15 months of life increased slightly, it was not statistically significant.

Discussion

This report examines various sources of information to identify the effects of the NJ DSRIP program using a combination of qualitative and quantitative research techniques. The assessment periods differ across the different components, but collectively span the time from the first DSRIP program year (calendar year 2013) until the spring of 2015. All of these findings

thus relate to the period prior to the full implementation of the DSRIP hospital projects that occurs in Demonstration Year 4, and will not capture the effects (or lack thereof) of these specific disease management activities on access, quality and efficiency of care, and more generally overall population health.

The primary value of the findings in this report lies in documenting stakeholder experiences during the application and early implementation phases and in examining their perceptions relating to the potential of the program to achieve its stated objectives. In addition, detailed analyses of DSRIP quality metrics based on Medicaid fee-for-service claims and managed care encounter data provide useful baseline estimates for the summative evaluation and also estimates of any first-year program effects that may arise from preparatory/anticipatory activities by the hospitals.

Some common themes emerged across the different components of this evaluation exercise. Both the hospital survey and stakeholder interviews identified common issues and challenges that included lack of clarity on program specifications (many of these issues were subsequently resolved); enthusiasm relating to the chronic disease management programs; the significant burden of the reporting requirements that increased over time; and program requirements that did not take into account differing capabilities across hospitals such as EHR capability or lack of interoperability with reporting partners that caused disproportionate burden on some.

The findings from our quantitative analyses offer some insights into which programs offered the greatest opportunity, an issue articulated by some interviewees. We found some evidence of improvements in diabetes care reflected in decreasing rates of ambulatory care sensitive diabetes-related hospitalizations, but based on similar metrics we found mixed results in the case of asthma care in areas where hospitals were planning to implement programs in this chronic disease area. These were the only two conditions for which there was some evidence for an early and significant impact attributable to DSRIP in areas where hospitals planned on these activities. There were improvements in several metrics for preventive and recommended care over 2013–2014 that reflected stakeholder expectations that the program will improve care.

In summary, the range of methods and related findings from this report vary in the nature of their contribution to the assessment of the DSRIP program. Many are valuable in their own right such as those that detail stakeholder and hospital experiences in the early phases of the DSRIP program which can guide continued implementation. Others such as the results from the quantitative analysis, in addition to assessing very early impacts from the first program year, provide valuable information relating to baseline year estimates and measurement techniques that will guide analyses conducted in the summative evaluation.

A Midpoint Evaluation of the New Jersey DSRIP Program: Findings from Stakeholder Interviews, Hospital Survey, Medicaid Claims Data, and Reported Quality Metrics

Sujoy Chakravarty, Ph.D., Kristen Lloyd, M.P.H., Susan Brownlee, Ph.D., Jennifer Farnham, M.S., and Katie Zhang, M.S.

Introduction

The Delivery System Reform Incentive Payment (DSRIP) Program was approved as part of the New Jersey Medicaid Comprehensive Waiver Demonstration in October 2012. The hospital-based DSRIP program uses resources transitioned from the previously existing Hospital Relief Subsidy Fund to establish a pay-for-performance and pay-for-reporting system to achieve specific health improvement goals for the state's low income population.

The objective of the DSRIP program is aligned to a large extent with the Healthy New Jersey 2020 (HNJ 2020) plan that sets the pathway for comprehensive disease prevention and health promotion for New Jersey residents. Under DSRIP, implementation of specific disease management projects relate to three of the five leading health indicators in HNJ 2020 (NJDOH 2013, 6). Specifically, the eight focus areas including a) asthma b) behavioral health c) cardiac care d) chemical addiction/substance abuse e) diabetes f) HIV/AIDS g) obesity and h) pneumonia may potentially impact three areas of HNJ 2020 health promotion or disease prevention namely, access to primary care; heart disease related outcomes; and obesity prevention. The focus of performance improvement and measurement in the DSRIP program is however, restricted to the low income population group that includes Medicaid, CHIP (Children's Health insurance Program) and the charity care population.

The incentive payment structure of the DSRIP program is based on both hospital performance as well as hospital reporting. Over the course of five demonstration years (DYs), participating hospitals receive payments for developing, implementing, and monitoring specific disease management projects; for reporting/verifying two sets of metrics: specific quality metrics related to their adopted projects (Stage 3 metrics), and also a universal set of metrics (known as Stage 4 metrics); for improving performance assessed on the basis of the project-specific Stage 3 metrics;

and for improving or maintaining performance on a core set of metrics relating to inpatient care through funding available from a Universal Performance Pool.

The Rutgers Center for State Health Policy (CSHP) was engaged to evaluate the effectiveness of New Jersey's DSRIP program in achieving its goals. We formulated specific testable hypotheses to examine the following six research questions from the DSRIP Planning Protocol (detailed in the Waiver Special Terms and Conditions document) that determine the scope of the evaluation:

1. To what extent does the DSRIP program achieve better care?
2. To what extent does the DSRIP program achieve better health?
3. To what extent does the DSRIP program lower costs?
4. To what extent did the DSRIP program affect hospital finances?
5. To what extent did stakeholders report improvement in consumer care and population health?
6. How do key stakeholders perceive the strengths and weaknesses of the DSRIP program?

The hypotheses were tested utilizing a mix of quantitative and qualitative methods. The findings would be presented in two reports: a midpoint evaluation focusing on the DSRIP planning and early implementation period (through the first half of DY3), and a summative evaluation covering the full implementation period (through the end of DY5).

This report, the DSRIP midpoint evaluation, presents qualitative and quantitative assessments of the impact of DSRIP program activities during the planning and early implementation periods as well as stakeholder perceptions relating to implementation activities and future program potential. It is comprised of four distinct chapters each covering one analytic component of our evaluation plan. These specific components covered different time periods of the program depending on data availability and implementation of the specific evaluation activity, and range from the first DSRIP program year (administrative data analysis for calendar year 2013) to approximately one and half years after the start of the implementation period (hospital web survey fielded during March–April 2015).

Fielded during the third demonstration year, the key informant interview and the hospital web survey components assess stakeholder experiences with DSRIP program implementation and perceptions relating to future potential by examining individual stakeholder and hospital-level responses to structured questions relating to research questions 5 and 6. To examine specific hypotheses related to research questions 1-4, we conduct a quantitative analysis of independently-calculated metrics related to patient access to care, quality of care, patient health, and costs of providing care using Medicaid claims and managed care encounter data,. Due to lags in data availability, we are restricted to an analysis period of 2011–2013 comprising a baseline

period of 2011–2012 and the first DSRIP program year of 2013. The results from this specific analysis thus capture the early impact of planning/preparatory activities for the DSRIP program on changes in outcomes that are reflected in administrative data. We also examine for any program effect on hospital finances based on Medicare Cost Reports over the period 2011–2013. Finally, we use hospital reported data through the end of the first half of DY3 to examine whether specific trends existed in metrics reported by all hospitals that indicated a positive or negative impact of the program.

The table below summarizes the content, assessment period, and research questions addressed by each chapter in this report.

Chapter	Evaluation Activity/ Study Period	Assessment Period	Research Question
1. Key informant interviews	10/2014–2/2015	1/2013–2/2015	5, 6
2. Hospital survey	3/2015–4/2015	1/2013–4/2015	5, 6
3. Analysis of Medicaid claims data	1/2011–12/2013	1/2013–12/2013	1, 2, 3, 4
4. Analysis of Stage 4 metrics	1/2013–3/2015	1/2013–12/2014	2

References

NJDOH (New Jersey Department of Health). 2013. *Delivery System Reform Incentive Payment (DSRIP) Program Planning Protocol, V1*. Trenton: NJDOH. https://dsrip.nj.gov/Documents/NJ DSRIP PLANNING PROTOCOL_v1_08-09-2013.pdf.

Chapter 1: Key Informant Interviews: Examining Stakeholder Perceptions Relating to the DSRIP Program

Introduction

Key informant interviews are part of the qualitative evaluation of the DSRIP program. They are designed to 1) directly address research questions specified in the Waiver Special Terms and Conditions document related to stakeholder perceptions of improvements in consumer care and population health as well as stakeholder perceptions of strengths and weaknesses of the program, 2) assist in designing other components of the evaluation, such as the web survey and 3) inform the final, summative evaluation of the program by querying stakeholders for program issues some of which may not have been anticipated at the time of the initial research design.

Methods

Subject Recruitment

The research protocol was approved by the Institutional Review Board at Rutgers. Telephone interviews with twelve key informants were conducted from mid-October of 2014 through mid-February of 2015. Interviewees included hospital staff members participating in the various DSRIP Program committees and collaboratives, hospital staff from hospitals that decided not to participate or withdrew from the program, outpatient partners, officials from the New Jersey Department of Health, and industry association representatives who have participated as stakeholders in program discussions and facilitated communications among hospitals and the New Jersey Department of Health, Myers and Stauffer, and CMS. Our candidate list included Quality and Measures Subcommittee members since they could speak to the program's development as well as their individual hospital's experience and Learning Collaborative leaders, who organized group discussions providing information and support to hospitals selecting similar chronic disease projects. We included safety net providers as well as those serving more income-secure populations.

Question Development

The interview questions (available in the Appendix) were constructed so as to address the research questions detailed in DSRIP Planning Protocol based on the Waiver Special Terms and Conditions. Question formulation was informed by knowledge gained by CSHP researchers through participation in various meetings, conference calls, and printed materials distributed

regarding the DSRIP program. An initial draft of questions was piloted in the summer of 2014 in three informal telephone interviews conducted with stakeholders knowledgeable about program operations. These pilots facilitated refinements to the initial draft resulting in the final version of questions.

Questioning Strategy

Interviewers used a semi-structured list of basic questions with detailed potential follow-up questions noted in advance and also created new follow-up questions at the time of the interview if appropriate.

Documentation and Analysis

One CSHP researcher participated in all interviews and created a preliminary summary of each interview that was reviewed and edited by the other two research team members to ensure agreement across the team on the content of each interview. The interviews were audio-recorded and the recordings were consulted in any case where the researchers' notes were unclear. Each research team member independently analyzed the interviews to identify what they believed to be the themes that emerged from the interviews. The team then met as a group to discuss their individual analyses and any differences were discussed. There were no basic disagreements about themes, though there were a few minor differences in emphasis.

Findings

In this section we discuss the themes that emerged in our discussions with stakeholders regarding various elements of the DSRIP program. In brief, participants were generally enthusiastic about chronic disease management interventions and the Learning Collaboratives, where they were able to discuss their intervention programs. They were generally unsatisfied with reporting requirements, because most stakeholders found them to be a significant burden and also questioned the purpose or value of the metrics. Participants generally thought it was too early to determine outcomes from the DSRIP program and were uncertain about the effects of concurrent policy developments. Finally, participants offered suggestions for future rounds of DSRIP.

Theme 1: Hospitals are enthusiastic about chronic disease management and population health improvement, though uncertain about which specific interventions are best

Most hospitals are moving forward with some kind of chronic disease management and/or population health initiatives with or without the DSRIP program (i.e., even those who withdrew or did not participate still engaged in such programs). Many were not able to single out one or more of the project types (asthma, diabetes, heart disease, etc.) as more potentially

transformative than others. When interviewees noted distinctions, their thinking was based on the hospital's target population and related prevalence of specific conditions, or on existing health needs and return on investment from healthcare programs. For instance, one interviewee felt that some conditions had already been targeted for some time (asthma, diabetes, heart disease) and that more gains could be achieved from those that had not been targeted in the past (e.g., obesity, behavioral health). Another interviewee agreed on the need for behavioral health-related projects, but questioned the capacity of the current health system infrastructure to adequately treat such needs because of a lack of available support services, particularly regarding substance abuse treatment. One framed the issue of comparability between disease-specific DSRIP projects in terms of the time that would be necessary to show clinical outcomes and cost reduction. This interviewee felt that asthma interventions offered the best hope for a quick improvement in clinical outcomes through reduced asthma attacks and in cost reduction through reduced visits to the emergency department. From this perspective, cardiac interventions ranked second and diabetes-improvement projects lagged because of the necessity for ongoing monitoring and treatment and the extended time horizon needed to show improvements in clinical outcomes such as reduced amputations.

Theme 2: The program's evolving nature and delays in the finalization of approvals and details have caused anxiety and confusion

Because the program's design was not complete at the beginning of the application process, all involved have dealt with uncertainty. For safety-net hospitals with already tight budgets standing to lose significant financial resources, the anxiety has been significant. Some of the specific factors cited causing anxiety or confusion included:

- The fast turnaround time required to submit complicated DSRIP applications left hospitals scrambling to complete the applications.
- Difficulty getting answers about program requirements led to the involvement of a hospital advocacy group to resolve confusion.
- Significant delays in notification of project awards caused uncertainty regarding whether hospitals should move ahead with planned projects. Hospitals worried that if they did not move forward they might face future penalties by not meeting targets if timelines were not adjusted. On the other hand, if they moved ahead with an unapproved project, they might have to change it significantly in a way that could cause a loss of scarce resources.
- There was a significant increase (perception was at least a tenfold increase) in the number of measures to be reported. In cases where measures have to be manually abstracted from medical charts, this involves significant costs for hospitals. Many interviewees felt that the character of the program changed as it was implemented from a chronic disease management intervention focus to a heavy reporting focus. As will be discussed in more detail later, many stakeholders are dubious about the value of the measures to be

reported, and reporting requirements create a burden that is uneven across hospitals due to their differing capabilities.

- The delay in design and notification to hospitals of their attributed populations caused uncertainty and anxiety about whether their intervention populations were different from the populations based on whom the performance payments would be calculated. Some interviewees were dubious about the use of attribution modeling for a low income population that may move around and get care from different places, making it difficult to assign them with certainty.
- Uncertainty about requirements for project partners led some to go without any, despite seeing the value of partnerships. There was concern that the requirement that a reporting project partner only participate with one hospital could disrupt existing relationships.

Theme 3: Reporting requirements are a significant burden that is unevenly distributed across hospitals and reporting partners

Some hospitals are much further along in the implementation of electronic records than others, and some have interoperable systems with outpatient partners. For these hospitals and their partners, chart-based measures pose a smaller burden than for others lacking such systems. Other hospitals and their reporting partners for whom the measures in question are not recorded electronically have to hire abstractors to extract the metrics from paper-based charts. This is a significant cost for these hospitals and partners. In addition, the program did not set aside resources for reporting partners, so these requirements discouraged the formation of reporting partner relationships. Though no definitive data was available, it seems likely that safety net hospitals are more adversely affected by the reporting requirements since they have the largest low-income populations to report on and also tend to have tight budgets.

Theme 4: Reporting is an important component of the program tied to payments, yet many participants are unsure of the value of measures to be reported

Most interviewees were unsure of the reasons for reporting measures beyond those related to their specific interventions, and also the selection process for such measures. Many claimed they had asked and had not received an answer. In some cases the measures are collected for other purposes such as accreditation or hospital reports to CMS, but in other cases the measures required by the DSRIP program have been dropped by other reporting stewards, leading interviewees to question why they are required to report them for this program.

Theme 5: It is too early to determine definite outcomes from the program, either positively or negatively

Most chronic disease projects had only been operating for a few months at the time of our interviews, so there was not yet definitive data as to their outcomes. Many reported positive

preliminary results for the patients in their programs. There was also concern that the cost burden of reporting and the uncertainties of dealing with patient attribution lists would sap hospital resources that could otherwise be used to improve care.

Theme 6: Participants spoke very positively of the Learning Collaboratives

The Learning Collaboratives give participants a chance to network with others working on similar projects, sharing information and knowledge, and also providing peer support. Interviewees felt that the knowledge exchanged through the Learning Collaboratives would help participants improve their chronic disease management programs and improve consumer health. State-official interviewees noted that Learning Collaboratives have been well-attended.

Theme 7: The effect of concurrent policy developments on DSRIP program objectives is uncertain

In many ways, concurrent policy developments such as the expansion of Medicaid, Medicare penalties for readmission, and the formation of accountable care organizations, reinforce similar principles as DSRIP.

Medicaid Expansion: Interviewees were uncertain as to the effect of the Medicaid expansion on hospital patient care and available resources. While formerly uninsured people will gain coverage with the expansion, it is unclear whether this will make up for decrease in availability of funds formerly dedicated to the uninsured. Interviewees believe that Medicaid not paying for the full cost of care, and some low-income individuals not being eligible for the expansion due to immigration status means that there will be continuing shortfalls in financing care; interviewees are also unsure how these shortfalls will be met.

Readmission Penalties: Medicare penalties for readmissions, while attempting to encourage quality of care, will decrease available resources for hospitals. One interviewee noted that these penalties do not adjust for the socio-economic status of the patient population served by hospitals, which affects the potential for readmission independent of the care received at the hospital.

Other Policies: Several existing quality and reimbursement related programs require measures reporting, and interviewees hoped that these requirements could be aligned across programs to reduce the reporting burden faced by hospitals.

Theme 8: Suggestions for future rounds of DSRIP

- It would be preferable to have the program requirements finalized before the rollout for the next round.

- Most interviewees would like a smaller set of measures (that need to be reported) with a clearly defined rationale and purpose for each measure collected (i.e., how will the data from these measures be used to improve care).
- A few interviewees mentioned the need to involve outpatient partners during the development of the program in the future, and to set aside resources for outpatient partners in addition to hospitals.
- The attribution model should be carefully monitored given the complexities of the patient population. Lower-income populations tend to be more geographically mobile and may have changes in insurance coverage as income levels fluctuate, leading to utilization and payment patterns that make them harder to track than higher-income populations.

Appendix: Interview Question Guides

DSRIP Interview Question Guide, Participating Hospitals

As you know, the NJ DSRIP program introduces a hospital incentive payment system based on pay-for-reporting and pay-for-performance. The program's objective is to improve access and quality of care in communities served by hospitals participating in the DSRIP program, resulting in better health and lower costs. Our questions relate to the experience of hospitals participating in these programs and perceptions of the program's potential to improve access, healthcare and health.

1. **What are the hospital experiences to date in understanding the DSRIP program requirements?**
2. **What are the hospital experiences to date in implementing the initial requirements of the DSRIP program relating to application, approval, planning and other early implementation processes?**
3. **Do the hospitals feel that the DSRIP program will facilitate their ability to improve access and quality of care? If so, do they feel these improvements will result in positive effects on population health?**
4. **What specific components of the program, if any, will make the greatest contribution to promoting one or more of the triple aims: better care, better health, and lower costs? Which of the triple aim(s) will the program promote? Can you give some specific examples of program components that will promote the aims?**
5. **Similarly, what program requirements/characteristics, if any, pose challenges to participating hospitals in terms of implementation and consequently achieving the desired outcomes?**
6. **Among the eight chronic disease project areas, are there some that offer the greatest potential for improvement through this program? Which ones?**
7. **What improvements in care and health, if any, have already been noted in your communities as a result of the DSRIP activities?**
8. **What problems in care and health, if any, have already been noted in your communities as a result of the DSRIP activities?**
9. **Will other concurrent policy changes (e.g., Medicaid expansion, readmission penalties, ACOs) impact DSRIP activities or outcomes? If so, in what ways?**

10. **What has been the experience of the hospitals related to the learning collaborative and rapid cycle improvement tools? Have these program features aided in the process of project implementation and advanced DSRIP health improvement goals? If so, in what ways?**
11. **Is there anything else that we should know about hospital experiences and potential of the DSRIP but have not asked about?**

DSRIP Interview Question Guide, Nonparticipating Hospitals

As you know, the NJ DSRIP program introduces a hospital incentive payment system based on pay-for-reporting and pay-for-performance. The program's objective is to improve access and quality of care in communities served by hospitals participating in the DSRIP program, resulting in better health and lower costs. Our questions relate the experience of hospitals and other stakeholders participating in these programs and perceptions on the program's potential to improve access, improve health and lower costs.

1. **Our understanding is that your hospital, along with several others, chose not to participate in DSRIP. What factors would you say led to your decision not to participate?**
2. **How involved did you get in the process before deciding not to submit an application?**
3. **What do you think about the potential of the DSRIP program to improve access and quality of care in the state as a whole? Do you think it could improve population health? How relevant is this to your own patient population?**
4. **What specific components of the program, if any, will make the greatest contribution to promoting one or more of the triple aims: better care, better health, and lower costs? Which of the triple aim(s) will the program promote? Can you give some specific examples of program components that will promote the aims?**
5. **Similarly, what program requirements/characteristics, if any, pose challenges to participating hospitals in terms of implementation and consequently achieving the desired outcomes?**
6. **Among the eight project areas, are there some that offer the greatest potential for improvement through this program? Which ones?**
7. **What improvements in care and health, if any, have already been noted as a result of the DSRIP activities?**
8. **What problems in care and health, if any, have already been noted as a result of the DSRIP activities?**
9. **Will other concurrent policy changes (e.g., Medicaid expansion, readmission penalties, ACOs) impact DSRIP activities or outcomes? If so, in what ways?**
10. **In terms of future program design, what kinds of changes would make you more likely to participate?**
11. **Is there anything else that we should know about hospital experiences and potential of the DSRIP but have not asked about?**

DSRIP Interview Question Guide, Nonparticipating Hospitals (Withdrawn)

As you know, the NJ DSRIP program introduces a hospital incentive payment system based on pay-for-reporting and pay-for-performance. The program's objective is to improve access and quality of care in communities served by hospitals participating in the DSRIP program, resulting in better health and lower costs. Our questions relate the experience of hospitals and other stakeholders participating in these programs and perceptions on the program's potential to improve access, improve health and lower costs.

1. **Our understanding is that your hospital initially participated but then withdrew from the program. What factors would you say led to your decision to withdraw?**
2. **How involved did you get in the process before deciding to withdraw? How difficult was it to arrive at that decision?**
3. **What do you think about the potential of the DSRIP program to improve access and quality of care in the state as a whole? Do you think it could improve population health? How relevant is this to your own patient population?**
4. **What specific components of the program, if any, will make the greatest contribution to promoting one or more of the triple aims: better care, better health, and lower costs? Which of the triple aim(s) will the program promote? Can you give some specific examples of program components that will promote the aims?**
5. **Similarly, what program requirements/characteristics, if any, pose challenges to participating hospitals in terms of implementation and consequently achieving the desired outcomes?**
6. **Among the eight project areas, are there some that offer the greatest potential for improvement through this program? Which ones?**
7. **What improvements in care and health, if any, have already been noted as a result of the DSRIP activities?**
8. **What problems in care and health, if any, have already been noted as a result of the DSRIP activities?**
9. **Will other concurrent policy changes (e.g., Medicaid expansion, readmission penalties, ACOs) impact DSRIP activities or outcomes? If so, in what ways?**
10. **In terms of future program design, what kinds of changes would make you more likely to participate?**
11. **Is there anything else that we should know about hospital experiences and potential of the DSRIP but have not asked about?**

DSRIP Interview Question Guide, FQHCs

As you know, the NJ DSRIP program introduces a hospital incentive payment system based on pay-for-reporting and pay-for-performance. The program's objective is to improve access and quality of care in communities served by hospitals participating in the DSRIP program, resulting in better health and lower costs. Our questions relate the experience of hospitals and other stakeholders participating in these programs and perceptions on the program's potential to improve access, improve health and lower costs.

1. **What are the FQHC experiences to date with the DSRIP program?**
2. **Do the FQHCs feel that the DSRIP program will improve access and quality of care with positive effects on population health? How would the hospitals and the outpatient partners contribute to achieving these aims?**
3. **What specific components of the program, if any, will make the greatest contribution to promoting one or more of the triple aims: better care, better health, and lower costs? Which of the triple aim(s) will the program promote? Can you give some specific examples of program components that will promote the aims?**
4. **Similarly, what program requirements/characteristics, if any, pose challenges to participating hospitals/FQHCs/partnerships in terms of implementation and consequently achieving the desired outcomes?**
5. **Among the project areas (asthma/pneumonia, behavioral health/chemical addiction/substance abuse, cardiac care, diabetes and obesity) are there some that offer the greatest potential for improvement through this program? Which ones?**
6. **What improvements in care and health, if any, have already been noted in your communities as a result of the DSRIP activities?**
7. **What problems in care and health, if any, have already been noted in your communities as a result of the DSRIP activities?**
8. **Will other concurrent policy changes (e.g., Medicaid expansion, readmission penalties, ACOs) impact DSRIP activities or outcomes? If so, in what ways?**
9. **As a part of the DSRIP process hospitals are involved in learning collaboratives and rapid cycle improvement tools. Are FQHCs involved in these hospital-related activities in any way?**
10. **Is there anything else that we should know about FQHC experiences related to the DSRIP program, but have not asked about?**

Chapter 2: Hospital Survey on Experiences and Perceptions Relating to DSRIP Application Process, Implementation, and Program Potential

Introduction

In this chapter, we examine the results from the web survey of DSRIP-eligible hospitals in New Jersey. This survey evaluates the DSRIP program implementation and potential impact based on hospital perceptions and experiences. It examines whether the hospitals faced any barriers in implementing the program's requirements and whether the hospitals felt that the program was beneficial and contributed to the Triple Aim of better care, better health, and lower cost through improvement. A copy of the web survey questionnaire can be found in Appendix A.

Methods

The hospital midpoint web survey was designed by CSHP staff in January and February, 2015, and included feedback from the key informant telephone interviews conducted earlier and information from the Learning Collaboratives. The final version of the questionnaire was programmed into Survey Monkey and pretested by CSHP staff. The DSRIP contact persons at all DSRIP-eligible hospitals in New Jersey were provided to CSHP by the New Jersey Department of Health. These hospitals were emailed an advance endorsement letter on State letterhead from an official at the New Jersey Department of Health on March 3, 2015. This advance letter described the survey and its purpose, encouraged the hospitals to provide feedback on the program via the survey, and indicated that Rutgers Center for State Health Policy researchers would be conducting the survey. DSRIP participating and non-participating hospitals (including hospitals that withdrew from the program) received slightly tailored versions of the advance letter. The email accompanying the advance letter requested that the hospitals contact CSHP staff if the survey should be sent to a different hospital representative, and CSHP followed up on these contact person changes.

The fieldwork for the web survey of DSRIP-eligible hospitals (N=63) was conducted from March 12, 2015, to April 24, 2015. The first email sent on March 12 described the survey and contained informed consent information and a link to the web survey. Reminder emails with the consent

information and survey link were sent on March 23, April 1, and April 15. The survey fieldwork closed on April 24. The advance letter and email reminders can be found in Appendix B.

There were 41 responses to the web survey for a response rate of 65%. Of these, 35 were from hospitals participating in the DSRIP program, 4 were from non-participating hospitals, and 2 were from hospitals who initially signed up for the DSRIP program but then withdrew. Eight additional hospitals started the survey but did not complete it and we did not receive any response from 14 hospitals. Most of the hospital officials who responded to the survey were either vice presidents, department directors, or program managers.

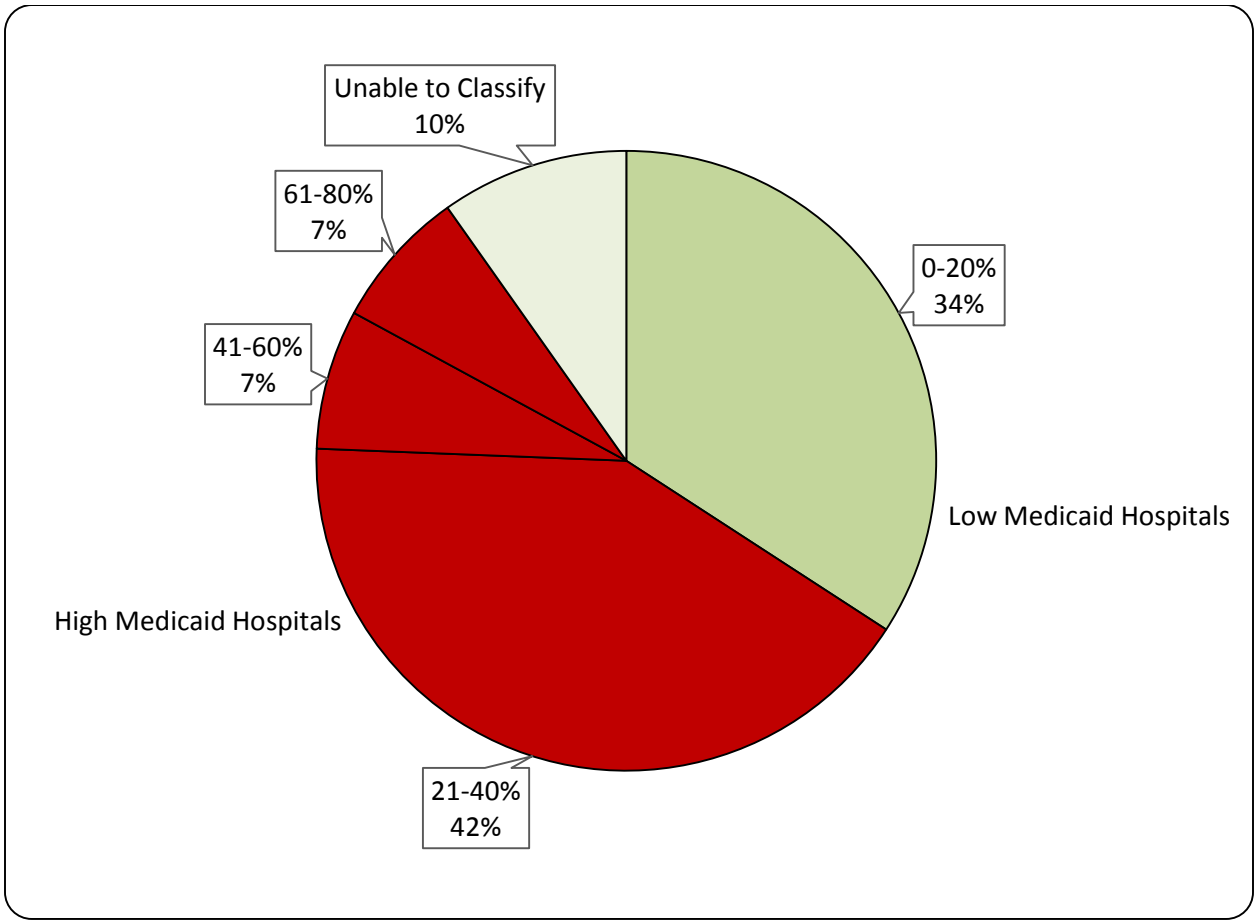
Survey topics included hospital characteristics such as percent of patients on Medicaid/CHIP or charity care, factors in the decision to apply/not apply for the DSRIP program, perceptions regarding DSRIP program requirements, number and selection of DSRIP project partners, metrics obtainable from EHRs, percent of attributed patients in the DSRIP intervention, experience with Stage 1 and Stage 2 activities, experience with preparing Stage 3 and Stage 4 metrics, hospital perceptions relating to the effect of the DSRIP program on health outcomes, changes in community health and hospital finances due to the DSRIP program, perceptions of Learning Collaborative activities, use of rapid-cycle evaluation tools, and difficulty with accomplishing DSRIP activities. The hospital respondents were also given the opportunity to provide open-ended comments on DSRIP project best practices, recommended future changes to the DSRIP program, and any other comments.

To understand whether the DSRIP program had a differential impact on safety net versus non-safety net hospitals, the responding hospitals were divided into two "Medicaid groups" based on the percent of their patients who were Medicaid/CHIP or charity care (see Figure 2.1). The "Low Medicaid" hospitals reported 0-20% of their patients were Medicaid/CHIP or charity care (n=14), and the "High Medicaid" hospitals reported more than 20% of their patients were Medicaid/CHIP or charity care (n=22). This group division correlated well with a report from the Hospital Alliance of New Jersey as to which NJ hospitals are considered safety net hospitals (Ianni 2006).

Frequencies of all measures are presented at the end of the chapter (see Table 2.1). In the Findings section, p-values for significant differences ($p<.05$) between the Low and High Medicaid hospital groups are presented. Due to low sample size, marginally significant differences ($p<.10$) are also mentioned as tending to differ, but p-values are not presented. Charts for selected measures are presented in the text.

Most survey questions had item non-response below 5%. For these variables, missing values are excluded from the analysis.

Figure 2.1: Percent of Medicaid/CHIP/Charity Care Patients in DSRIP Hospitals, n=41



Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Findings

Reasons Hospitals Did Not Apply/Withdrew for the DSRIP Program

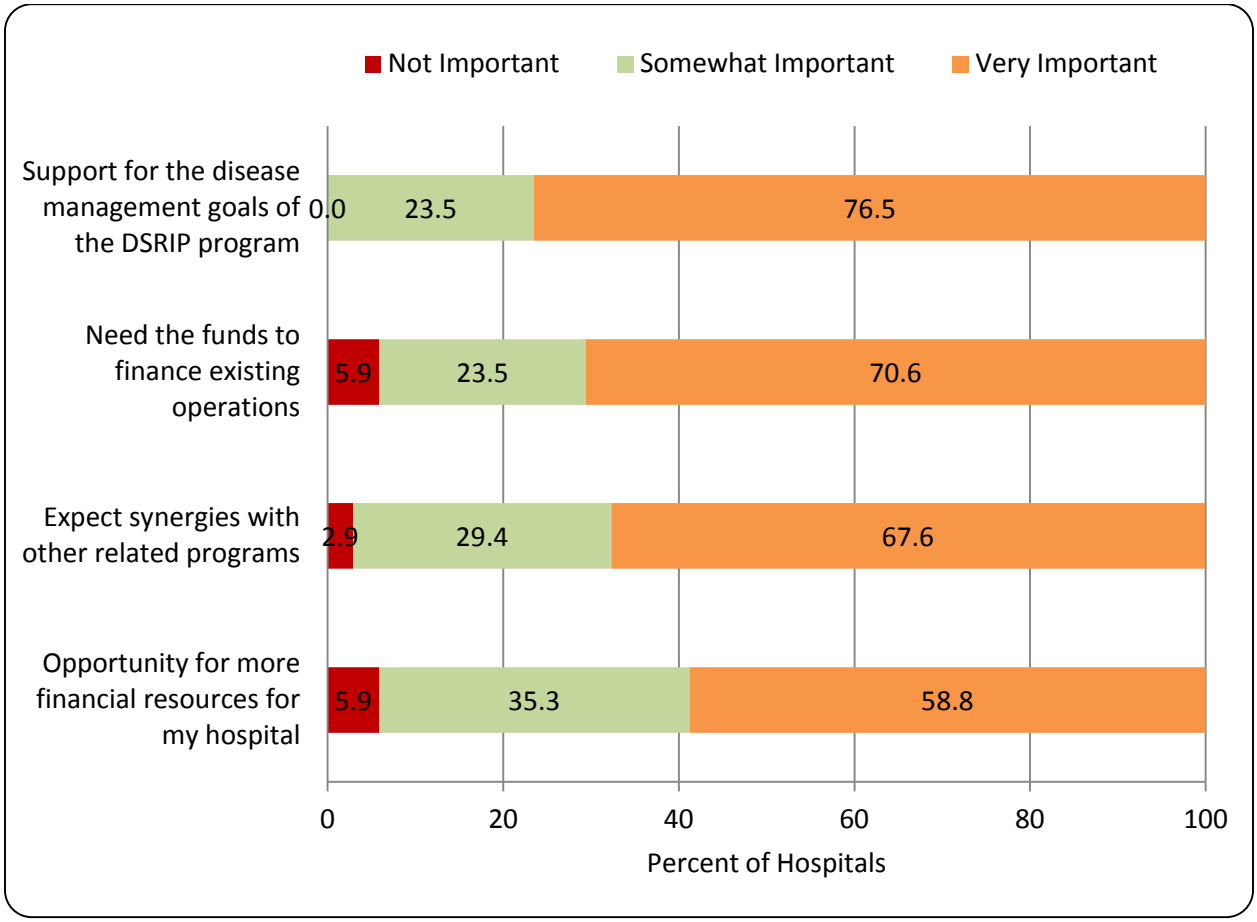
For the responding hospitals that did not apply for or withdrew from the DSRIP program reported, among the reasons cited for not applying or withdrawing included that they did not have enough Medicaid/CHIP/charity care patients, the infrastructure requirements for the program were too expensive, the incentive payment was not enough to justify costs, and the implementation process was too burdensome (the question allowed them to select all applicable responses).

Reasons Hospitals Applied for the DSRIP Program

Most of the responding hospitals applied for the DSRIP program (89.7% applied) (see Table 2.1). High Medicaid hospitals tended to be more likely to apply.

For those responding hospitals that did apply for the DSRIP program, support for the disease management goals of the DSRIP program was cited as the most important reason for applying (76.5% rated this reason as very important in the decision to apply) (see Figure 2.2). This was followed by needing the DSRIP funds to finance existing operations (70.6% rated this very important) and expecting synergies with other related programs such as hospital readmissions, ACOs, and value-based purchasing programs (67.6% rated this very important). Seeing the DSRIP program as an opportunity for more financial resources was cited as very important less often (58.8%).

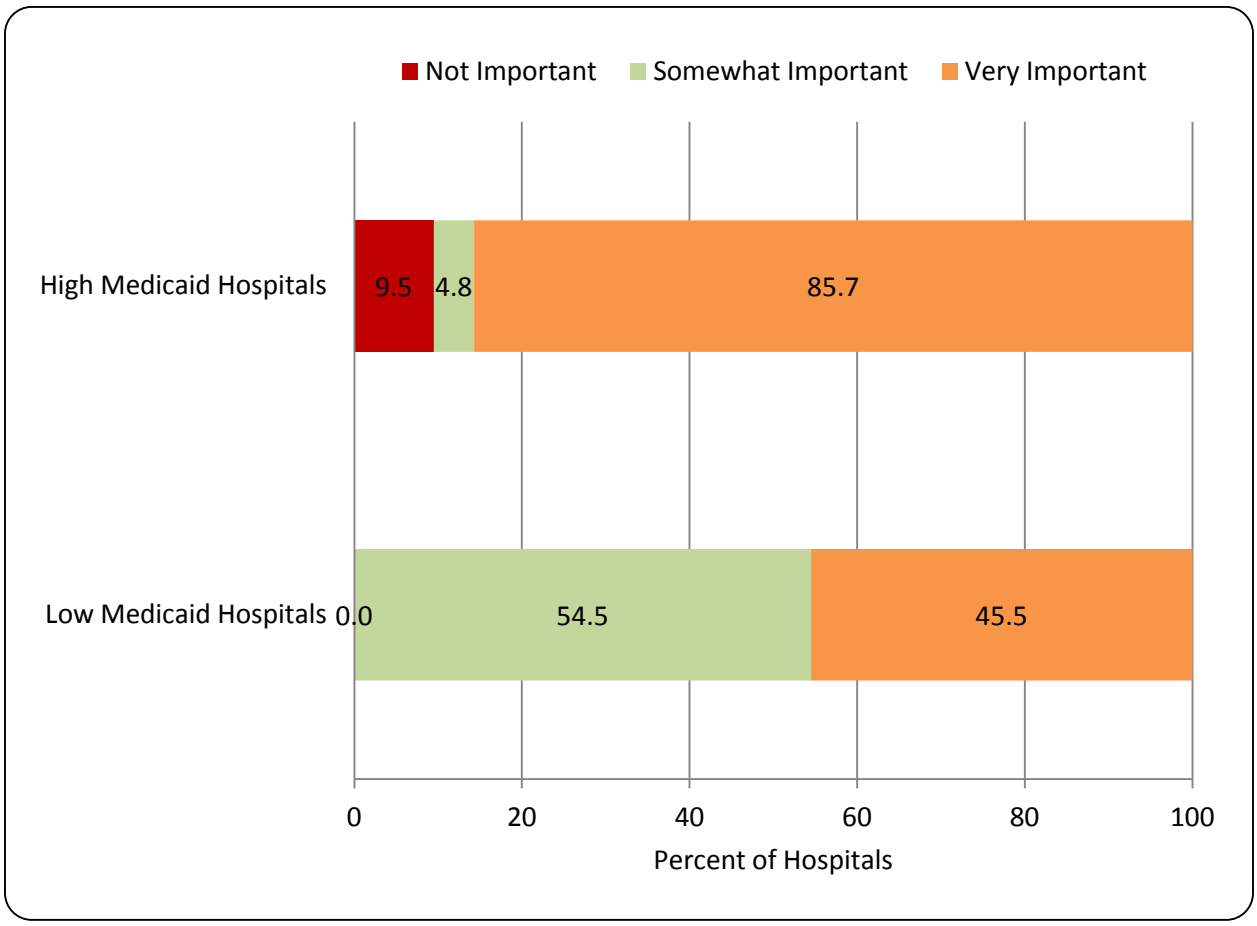
Figure 2.2: Importance of Factors in Decision to Apply for DSRIP



Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

High Medicaid hospitals were much more likely than Low Medicaid hospitals to rate as very important needing the DSRIP funds to finance existing operations (High Medicaid: 85.7%, Low Medicaid: 45.5%, p<.004) (see Figure 2.3).

Figure 2.3: Importance of Factors in Decision to Apply for DSRIP: Need the Funds to Finance Existing Operations by Medicaid Hospital Group, p<.004



Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Perceptions about the DSRIP Program Specifications/Requirements

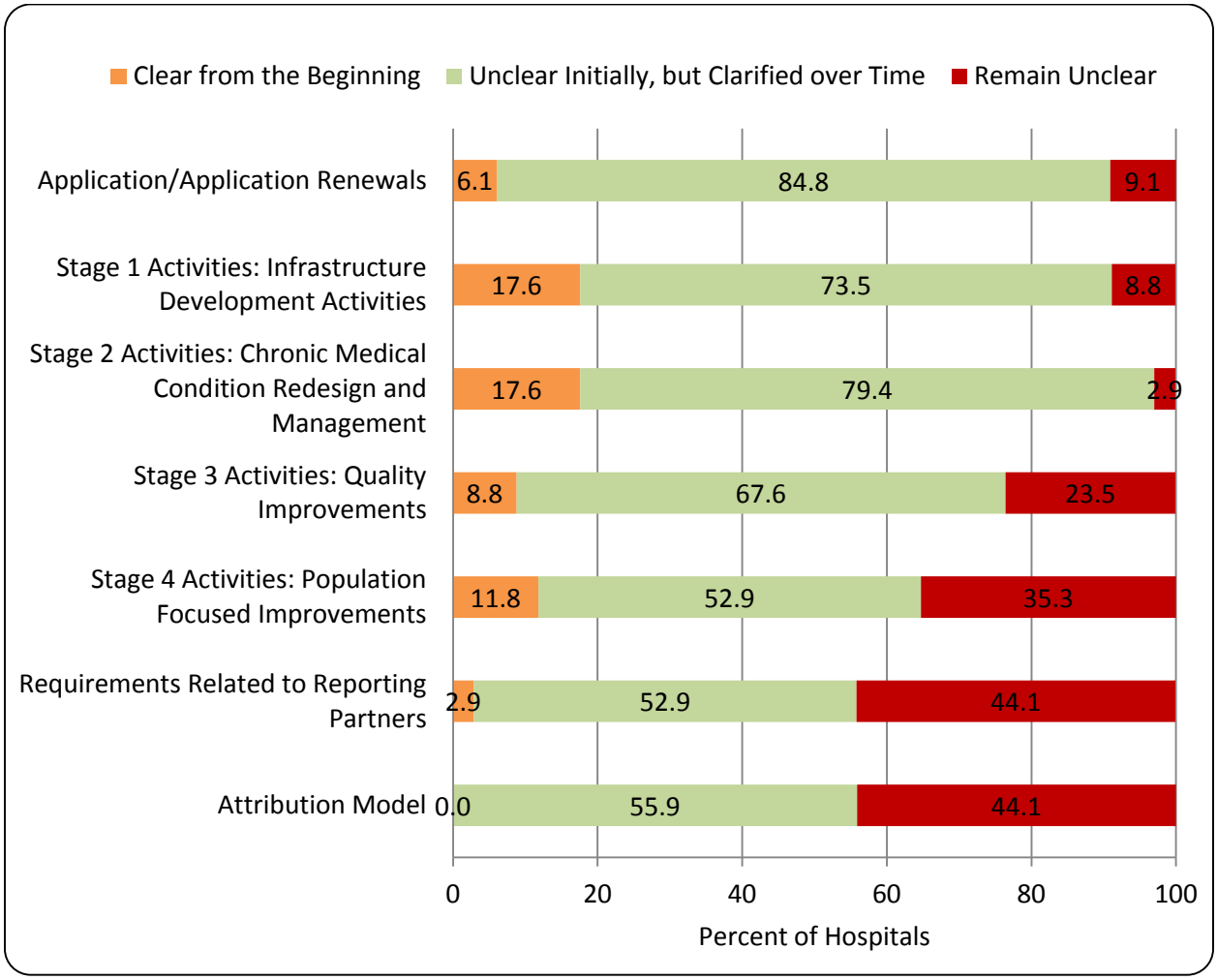
The hospitals were asked their perceptions regarding the following DSRIP program specifications/requirements, and whether they were clear from the beginning, they were unclear initially but clarified over time, or they remained unclear:

- Application and application renewals
- Stage 1 Activities: Infrastructure Development
- Stage 2 Activities: Chronic Medical Condition Redesign and Management
- Stage 3 Activities: Quality Improvements
- Stage 4 Activities: Population Focused Improvements

- Requirements related to reporting Partners
- Attribution model

In general, the hospitals did not feel that any of these program specifications/requirements were clear from the beginning (see Figure 2.4). However, most hospitals felt that the application and renewals, Stage 1 Activities, Stage 2 Activities, and Stage 3 Activities clarified over time (84.8%, 73.5%, 79.4%, and 67.6% of the hospitals, respectively, reported improved clarification over time). The hospitals rated the Stage 4 Activities, Reporting Partner Requirements, and Attribution Model as less clear, with 35.3%, 44.1%, and 44.1% of the hospitals, respectively, reporting that these requirements remain unclear. These perceptions did not differ between the High and Low Medicaid hospitals.

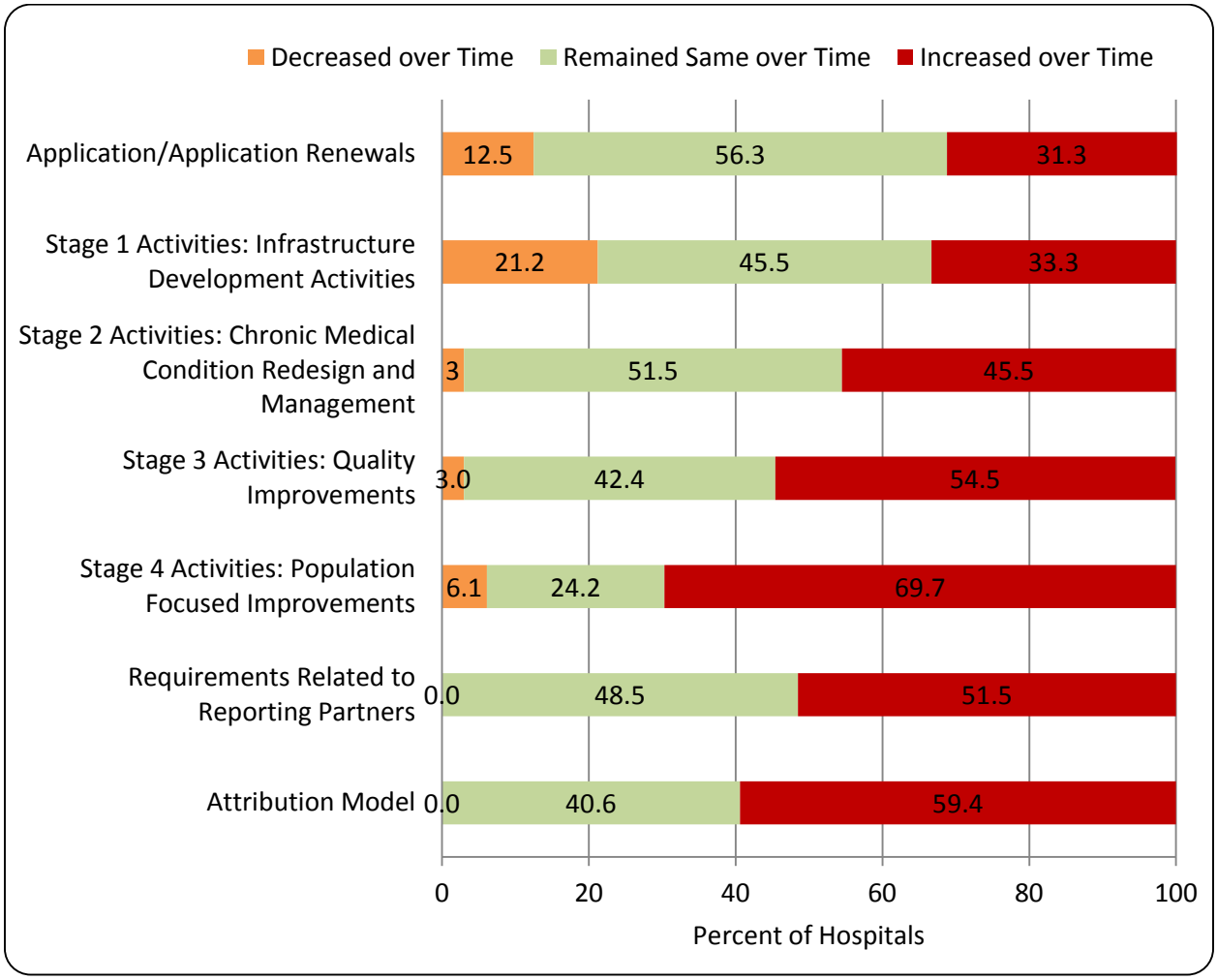
Figure 2.4: Perceptions of DSRIP Specifications/Requirements over Time, Part 1: Clarity



Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

The hospitals were then asked to rate these same program requirements as to whether they increased, decreased, or remained the same over time (see Figure 2.5). Over 2/3 (69.7%) of the hospitals felt that the requirements for the Stage 4 Activities increased over time, 59.4% felt that the requirements for the Attribution Model increased, and 54.5% felt that the requirements for the Stage 3 Activities had increased. These perceptions also did not differ between the High and Low Medicaid hospitals.

Figure 2.5: Perceptions of DSRIP Specifications/Requirements over Time, Part 2: Volume

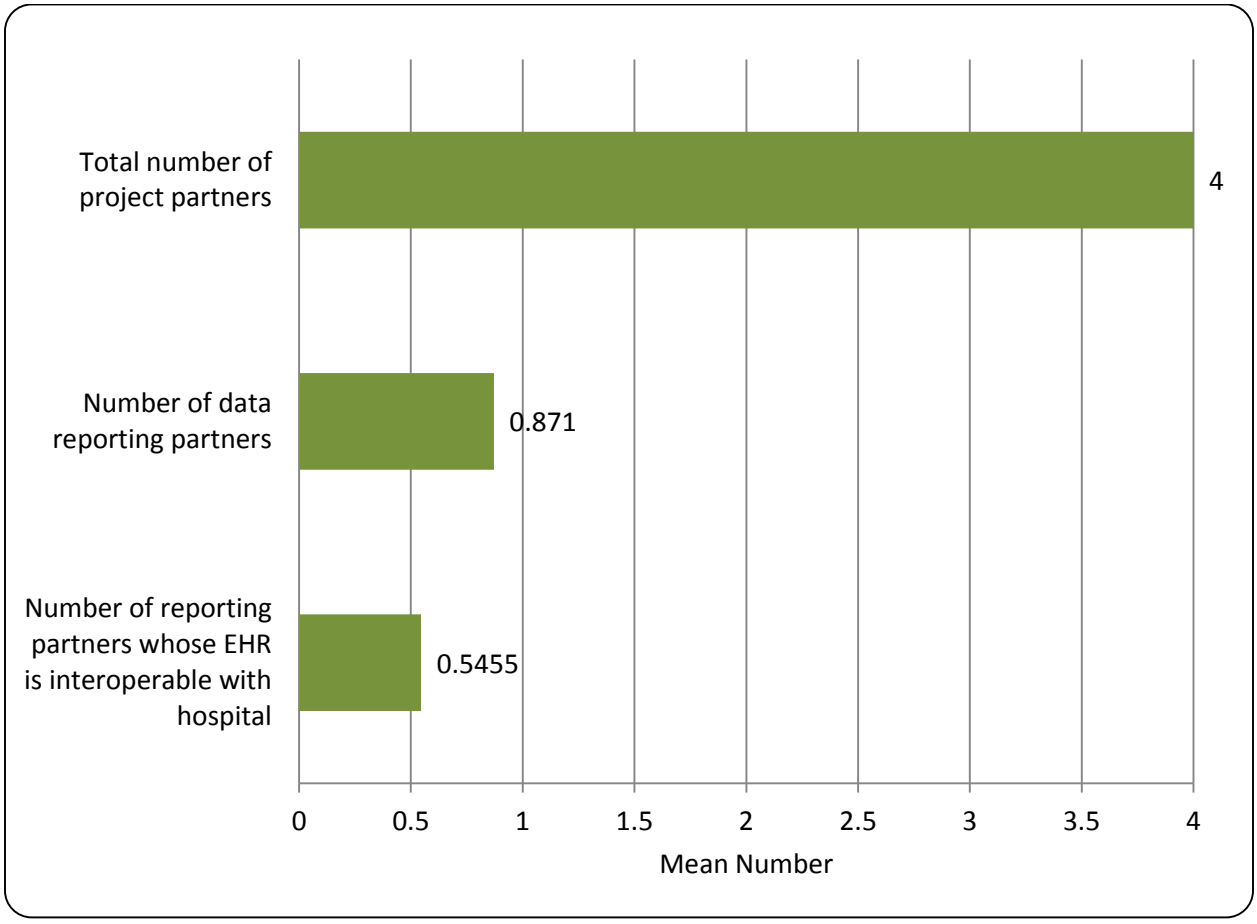


Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Project Partners

The hospitals were asked about their DSRIP project partners, how many of these were data reporting partners, and whether these partners had an interoperable electronic health record (EHR) with the hospital (see Figure 2.6). The participating hospitals average 4.0 project partners. Of those with partners, about 1/3 (32.7%, average=0.87 partners) of these partners are data reporting partners and ¼ (25.0%, average=0.55 partners) have an interoperable EHR with the hospital. There was no differences between the Medicaid hospital groups for these measures.

Figure 2.6: Number of Project Partners – Overall, Data Reporting, EHR Interoperable with Hospital

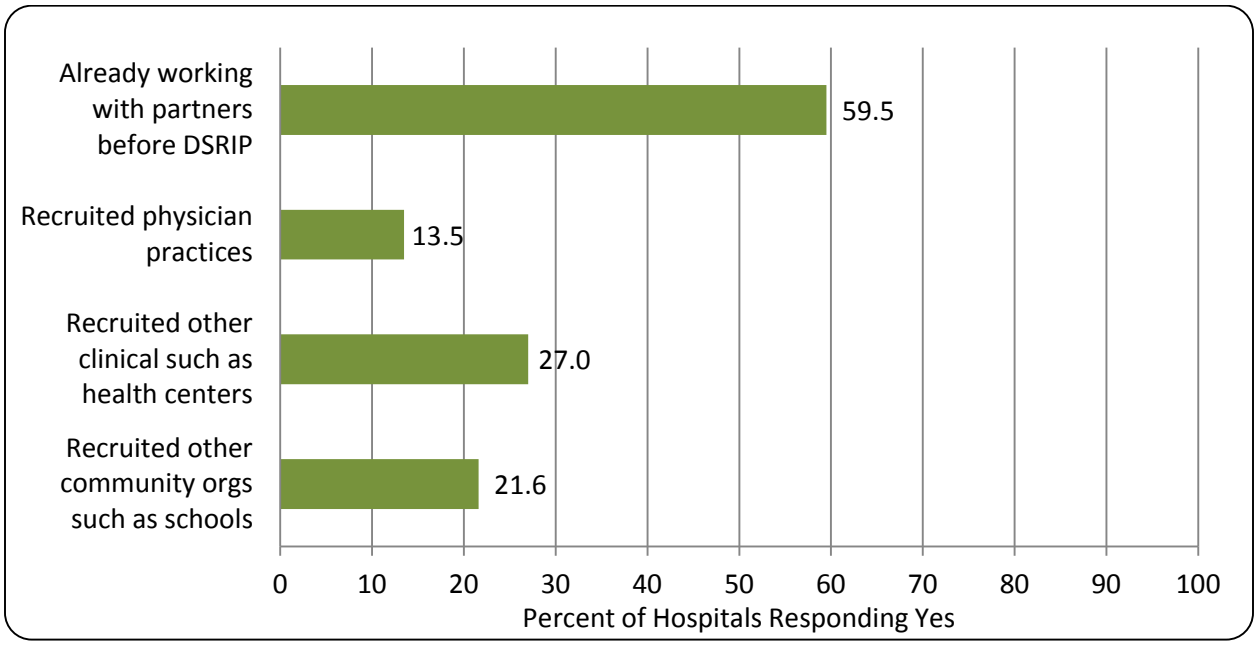


Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

The hospitals were asked how they identified these partners and if they were unable to recruit some partners because the organizations were unable to share the necessary data or were already participating in the DSRIP program with a different hospital (see Figure 2.7). A majority of the hospitals (59.5%) reported that they were already working with the partners before DSRIP was implemented. High Medicaid hospitals were much more likely than Low Medicaid hospitals to report that they were already working with the partners before DSRIP (73.9% vs. 35.7%,

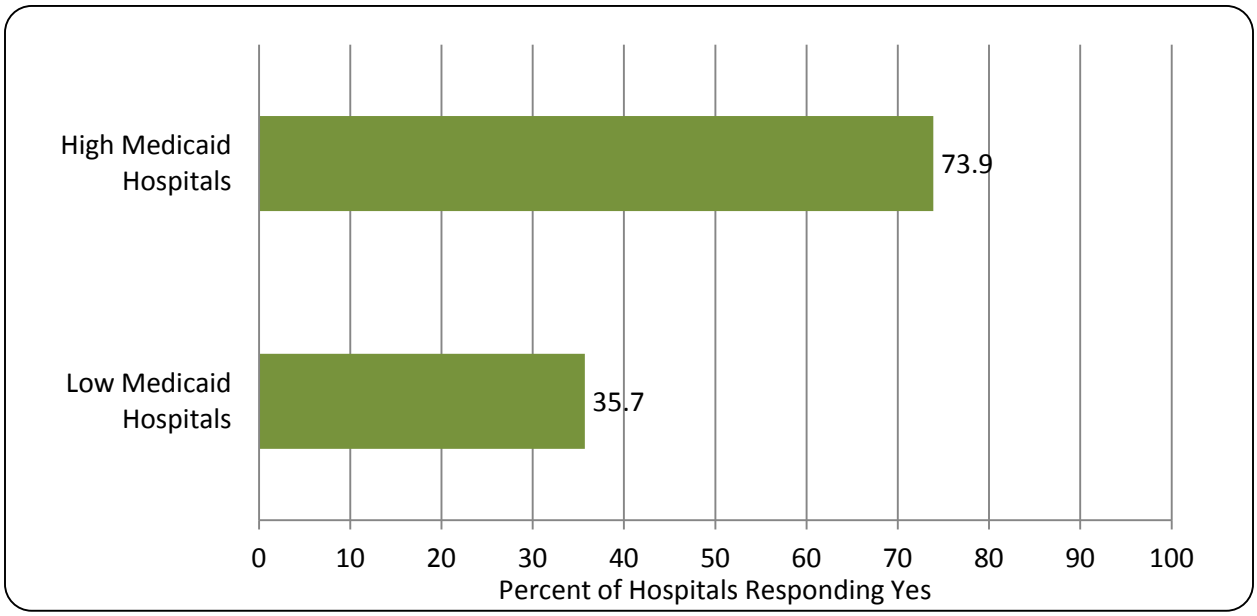
p<.022) (see Figure 2.8). Just over ¼ (27.0%) of the hospitals recruited other clinical partners such as community health centers and 21.6% recruited other community organizations such as schools to be partners. Only 13.5% recruited physician practices as partners. These did not differ between the Medicaid hospital groups.

Figure 2.7: Hospital Identification of Project Partners (select all that apply)



Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Figure 2.8: Identification of Project Partners,
Already Working with Partners before DSRIP by Medicaid Hospital Group, p<.022



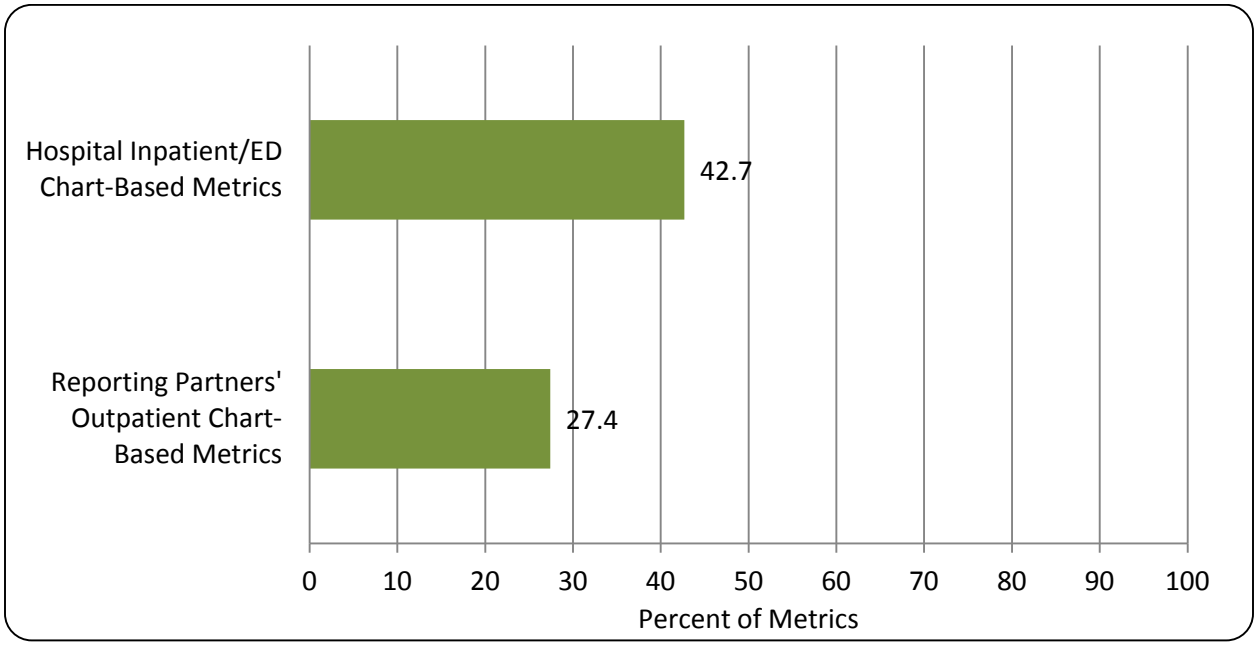
Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

About one in six hospitals (17.2%) reported that they were unable to recruit at least one partner because the organization was not able to share the necessary data. Only a few hospitals (6.9%) reported that they were unable to recruit a partner because the organization was already participating in the DSRIP program with a different hospital (see Table 2.1). Neither of these recruiting issues differed between the High and Low Medicaid hospitals.

EHR Interoperability with DSRIP Metrics

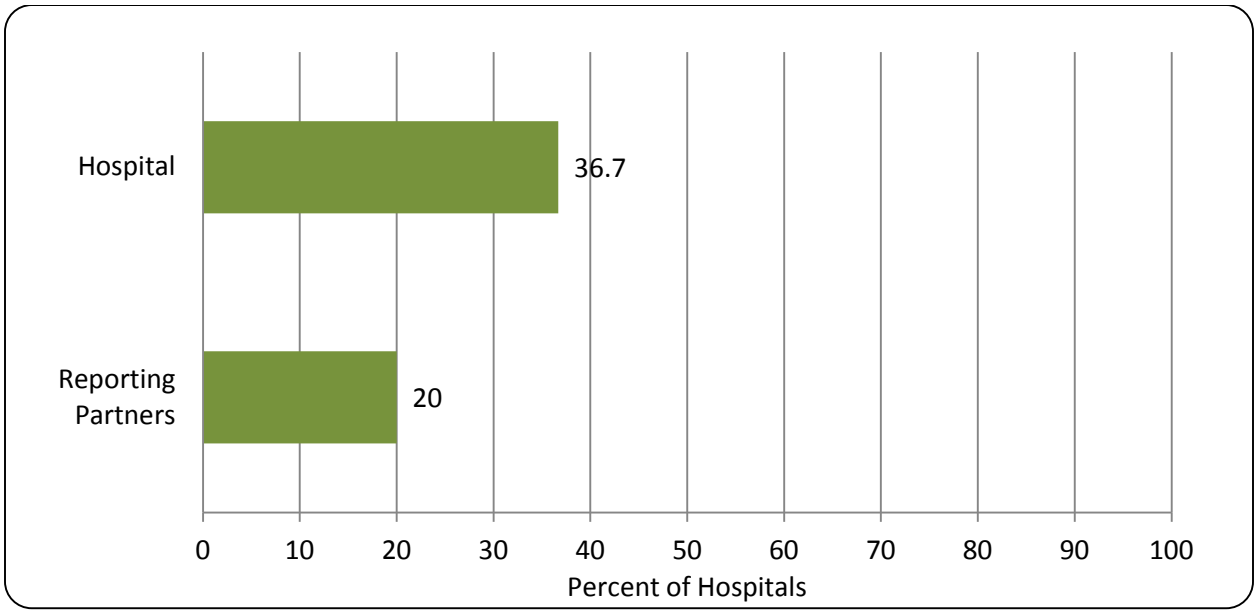
The hospitals reported that only 42.7% of the Stage 4 hospital inpatient/ED chart-based metrics were obtainable from their EHR (see Figure 2.9), and this did not differ between the High and Low Medicaid hospitals (the midpoint value of the response category chosen was assigned to each hospital). For the hospitals' data reporting partners, an even lower percentage (27.4%) of their outpatient chart-based metrics were obtainable from an EHR, and this also did not differ between the Medicaid hospital groups. Just over 1/3 (36.7%) of the hospitals reported an increase in their EHR capability since the time of their DSRIP application, and about 1/5 (20.0%) of the reporting partners had increased their EHR capability (see Figure 2.10). This did not differ between the Medicaid hospital groups.

Figure 2.9: Percent of Required Metrics Obtainable from Electronic Health Record (EHR)



Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Figure 2.10: Percent Reporting an Increase in EHR Capability since DSRIP Application

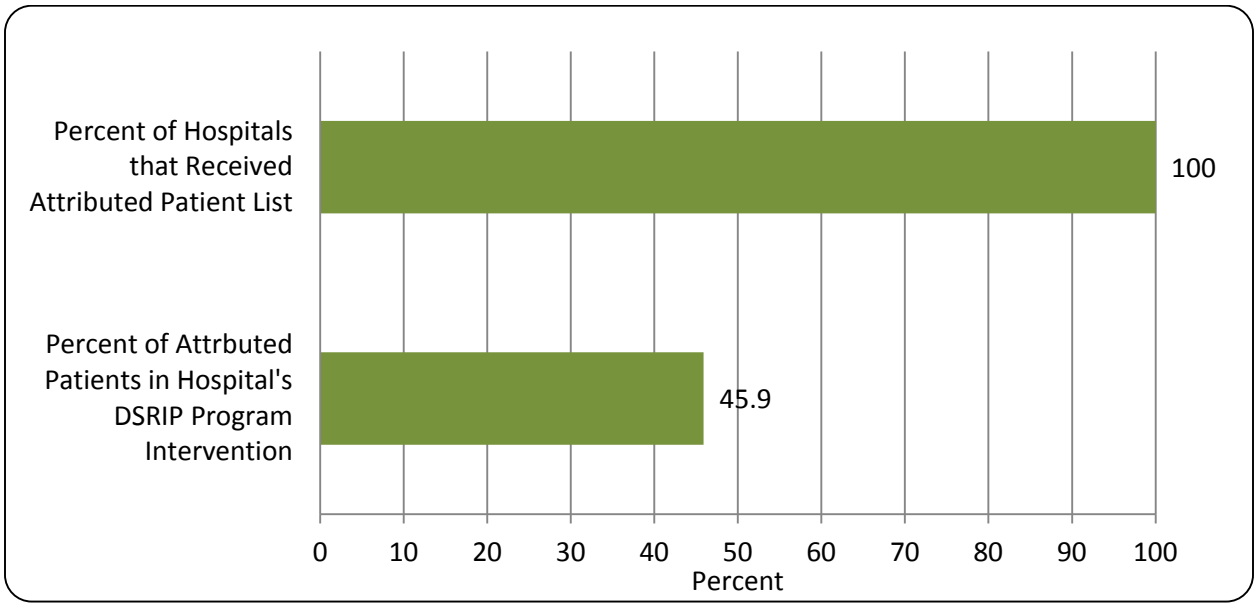


Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Attribution Model

All of the hospitals reported that they had received their list of attributed patients at the time of the survey (see Figure 2.11). On average, the hospitals estimated that just under half (45.9%) of the attributed patients are or will be included in their DSRIP program intervention. This did not differ between High and Low Medicaid hospitals.

Figure 2.11: Attributed Patient List



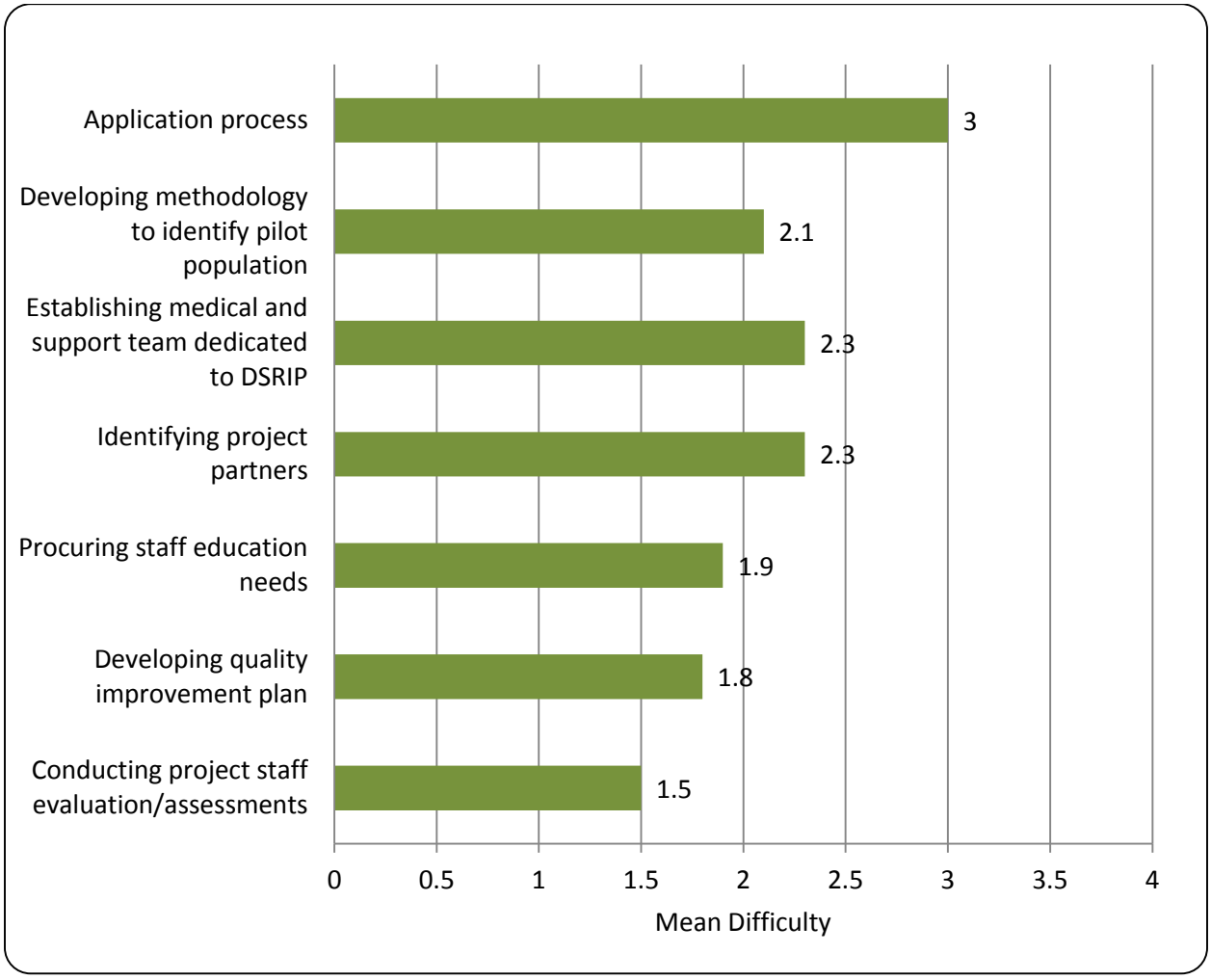
Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Perceptions about Specific Aspects of the DSRIP Program

The hospitals were asked to rate the level of difficulty experienced on a four-point scale (no difficulty=1, minor difficulty=2, moderate difficulty=3, major difficulty=4) in dealing with the following different aspects of the DSRIP program: application process, Stage 1 activities, Stage 2 activities, Stage 3 project-specific metrics, and Stage 4 universal metrics.

The application process was rated by the hospitals as moderately difficult (average rating=3.0) and this did not differ between the High and Low Medicaid hospitals (see Figure 2.12).

Figure 2.12: Difficulty with Application & DSRIP Stage 1 Activities (1=none, 4=major difficulty)



Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

The following Stage 1 activities were rated:

- Developing methodology to identify pilot population
- Establishing multi-therapeutic medical and support team dedicated to DSRIP
- Identifying project partners

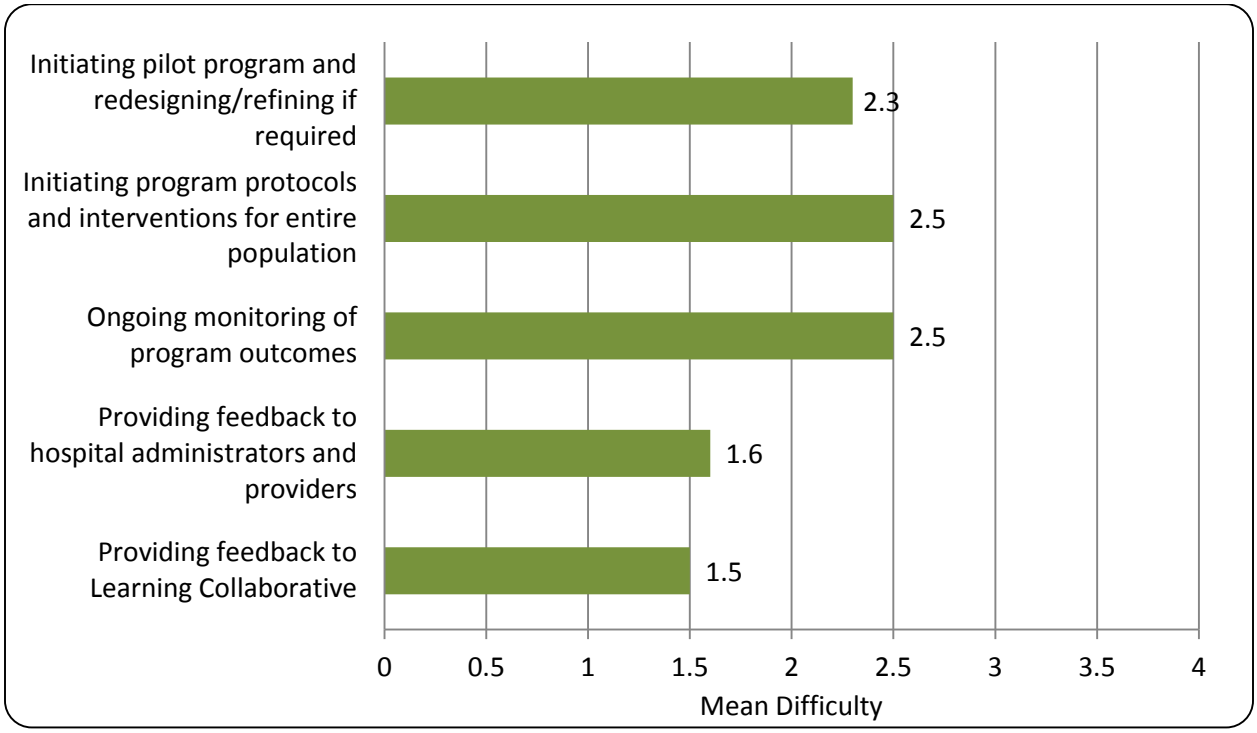
- Procuring staff education needs
- Developing quality improvement plan
- Conduct project staff evaluations/assessments

All the Stage 1 activities combined were given a minor difficulty rating (average rating=2.0) by the hospitals. Among these activities, establishing a medical and support team dedicated to DSRIP and identifying project partners were rated as slightly more difficult (both ratings=2.3) (also see Figure 2.12). Conducting project staff evaluations/assessments was rated as least difficult (rating=1.5), followed by developing a quality improvement plan (rating=1.8). High Medicaid hospitals tended to rate conducting project staff evaluations/assessments as somewhat more difficult than the Low Medicaid hospitals. Difficulty ratings for the other Stage 1 activities did not differ between the High and Low Medicaid hospitals.

The following Stage 2 activities were rated:

- Initiating pilot program redesigning/refining if needed
- Initiating program protocols and intervention for entire population
- Ongoing monitoring of program outcomes
- Providing feedback to hospital administrators and participating providers
- Providing feedback to Learning Collaborative

Figure 2.13: Difficulty with DSRIP Stage 2 Activities (1=none, 4=major difficulty)



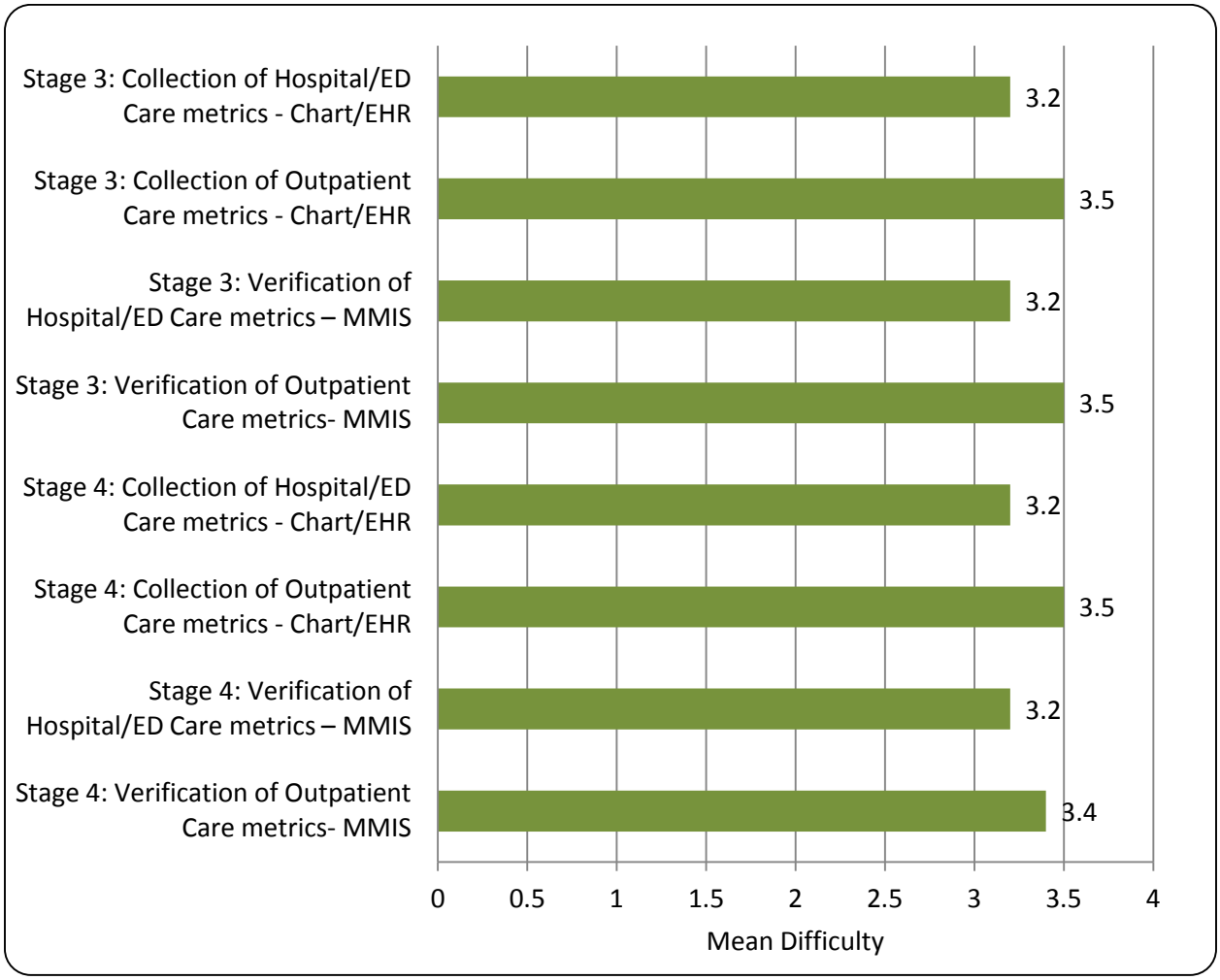
Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

All the Stage 2 activities combined were given a minor difficulty rating (average rating=2.1) by the hospitals (see Figure 2.13). Among these Stage 2 activities, initiating program protocols/intervention for the entire population and ongoing monitoring of program outcomes were rated as slightly more difficult (both ratings=2.5). Providing feedback to the Learning Collaborative was rated as least difficult (rating=1.5), followed by providing feedback to hospital administrators and participating providers (rating=1.6). None of the difficulty ratings for the Stage 2 activities differed between High and Low Medicaid hospitals.

The following Stage 3 project-specific metrics were rated:

- Collection of hospital/inpatient or ED care metrics from chart/EHR
- Collection of outpatient care metrics from chart/EHR
- Verification of hospital/inpatient or ED care metrics from MMIS
- Verification of outpatient care or multi-setting care metrics from MMIS

Figure 2.14: Difficulty with DSRIP Data Requirements (1=none, 4=major difficulty)



Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

All of the Stage 3 project-specific metrics combined were rated as higher than moderate difficulty (average rating=3.3) (see Figure 2.14). Collection and verification of the outpatient project-specific metrics (both ratings=3.5) were rated by the hospitals as more difficult than collection and verification of the hospital/ED project-specific metrics (both ratings=3.2). High Medicaid hospitals tended to rate collection of the hospital/ED project-specific metrics as more difficult than the Low Medicaid hospitals. The others did not differ between the High and Low Medicaid hospitals.

The following Stage 4 universal metrics were rated:

- Collection of hospital/inpatient or ED care metrics from chart/EHR
- Collection of outpatient care metrics from chart/EHR
- Verification of hospital/inpatient or ED care metrics from MMIS
- Verification of outpatient care or multi-setting care metrics from MMIS

All of the Stage 4 universal metrics combined were also rated as higher than moderate difficulty (average rating=3.4) (also see Figure 2.14). Likewise, collection and verification of the outpatient universal metrics (ratings=3.5 and 3.4, respectively) were rated by the hospitals as more difficult than collection and verification of the hospital/ED universal metrics (both ratings=3.2). High Medicaid hospitals tended to rate collection of the hospital/ED universal metrics as more difficult than the Low Medicaid hospitals. The other measures did not differ between the High and Low Medicaid hospitals.

Overall Impact of DSRIP Components on Quality of Care and Population Health

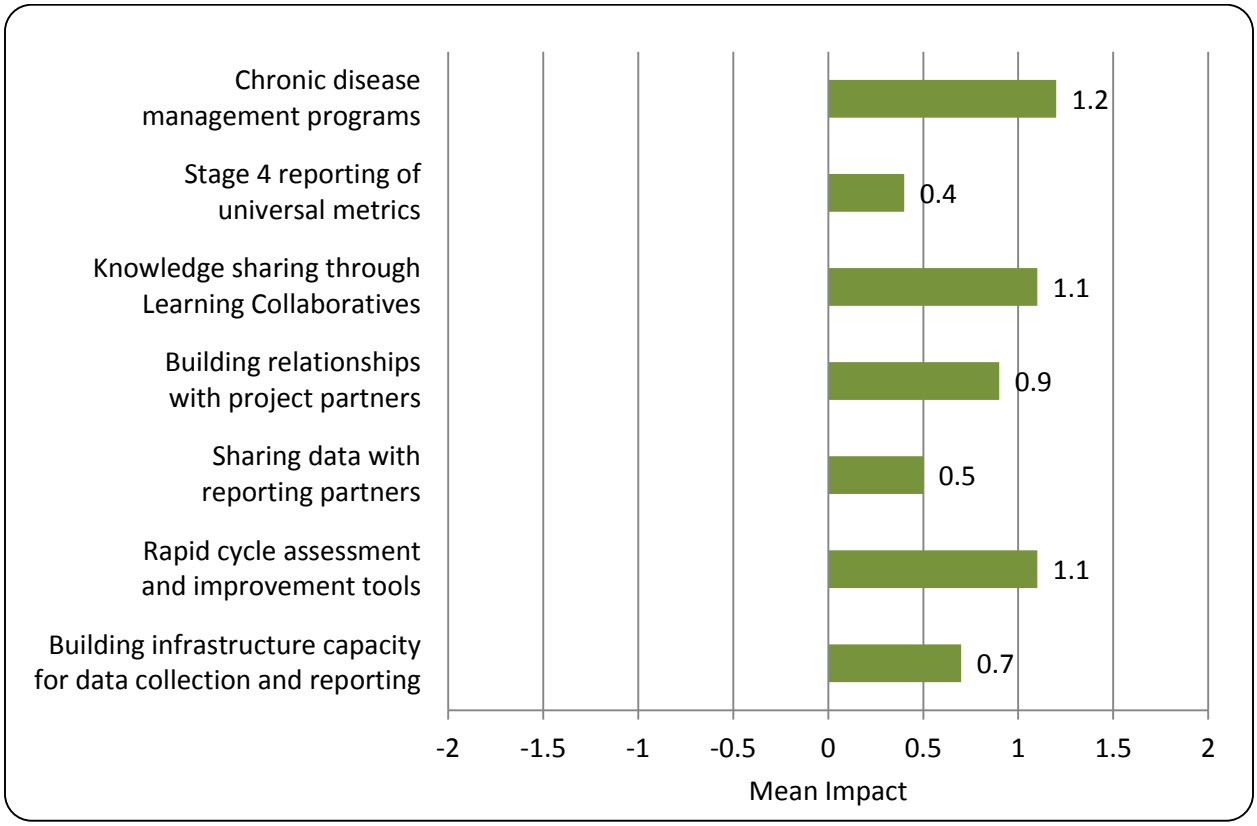
The hospitals were asked to rate on a five-point scale (-2=substantially negative, -1=moderately negative, 0=little or no impact, 1=moderately positive, 2=substantially positive) the following aspects of the DSRIP program for their impact on quality of care and population health (or health outcomes):

- Chronic disease management programs
- Stage 4 reporting of universal metrics
- Knowledge sharing through Learning Collaboratives
- Building relationships with project partners
- Sharing data with reporting partners
- Rapid cycle assessment and improvement tools
- Building infrastructure capacity for data collection and reporting

Impact ratings for all of the program aspects were positive (average impact rating=0.8) (see Figure 2.15). The chronic disease management programs were rated as having the most positive impact on quality of care and population health (impact rating=1.2), followed by knowledge sharing through the Learning Collaboratives and rapid cycle assessment/improvement tools (both ratings=1.1). The Stage 4 reporting of universal metrics was rated as having the lowest

impact on quality of care and population health, although it was still rated as positive on average (impact rating=0.4). This was followed by sharing data with reporting partners (impact rating=0.5). None of these program aspects differed between the High and Low Medicaid hospitals.

Figure 2.15: Impact of DSRIP Components on Quality of Care and Population Health (-2=very negative, 2=very positive)



Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Overall Impact of DSRIP Program on Hospital Finances

The hospitals were asked to also rate on a five-point scale (-2=very negative, -1=negative, 0=no impact, 1=positive, 2=very positive) the impact of the DSRIP program on their hospital's finances. Overall, the hospitals gave a slightly negative rating (rating=-0.1) to the financial impact of DSRIP on their own hospital's finances, and this did not differ between the High and Low Medicaid hospitals.

Community Health-Related Changes as a Result of DSRIP Activities

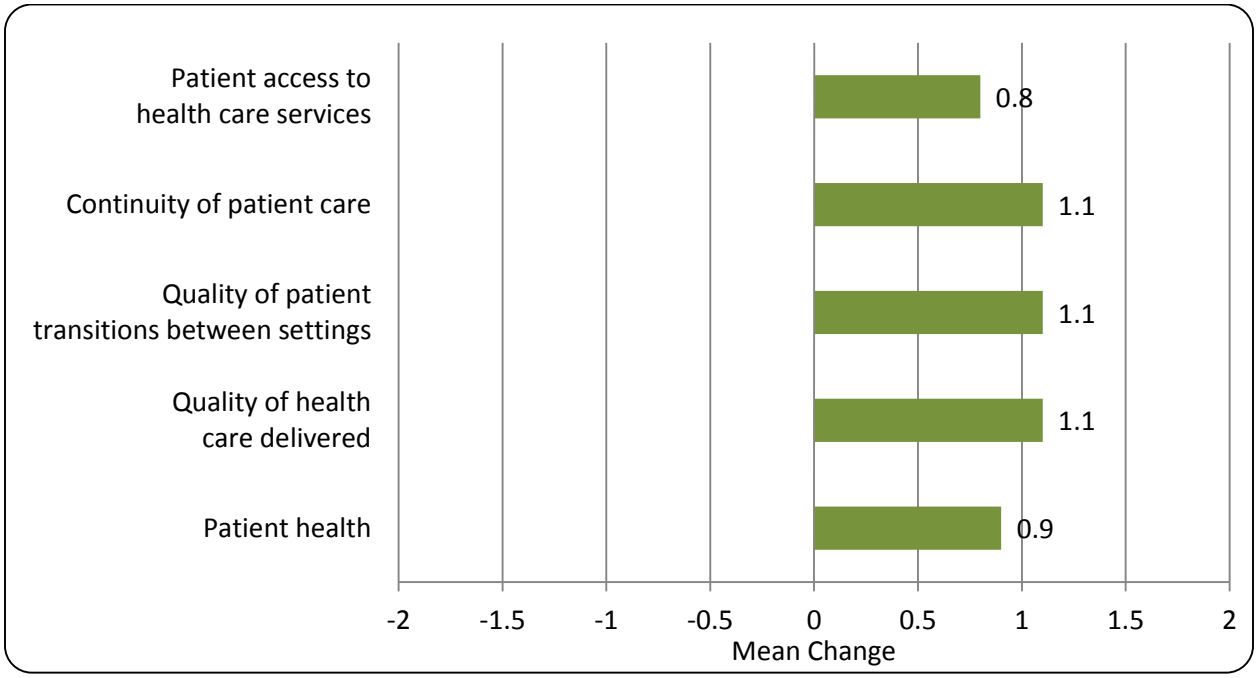
The hospitals were asked to rate on a five-point scale (-2=substantial worsening, -1=some worsening, 0=little or no impact/too early to assess, 1=some improvement, 2=substantial

improvement) changes in the following health-related aspects of their community as a result of DSRIP activities:

- Patient access to health care services
- Continuity of patient care
- Quality of patient transitions between settings
- Quality of health care delivered
- Patient health

All of these measures of change were rated positively by the hospitals and as some improvement (average rating=1.0) (see Figure 2.16). Changes in the continuity of patient care, quality of patient transitions between settings, and quality of health care delivered were rated slightly more positively (all three ratings=1.1) than changes in patient access to health care services (rating=0.8) and patient health (rating=0.9) as a result of DSRIP activities. None of these change ratings differed between the High and Low Medicaid hospitals.

Figure 2.16: Changes in Community Health Due to DSRIP (-2=very worse, 2=very better)



Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Usefulness of Learning Collaborative Activities and Other DSRIP Resources

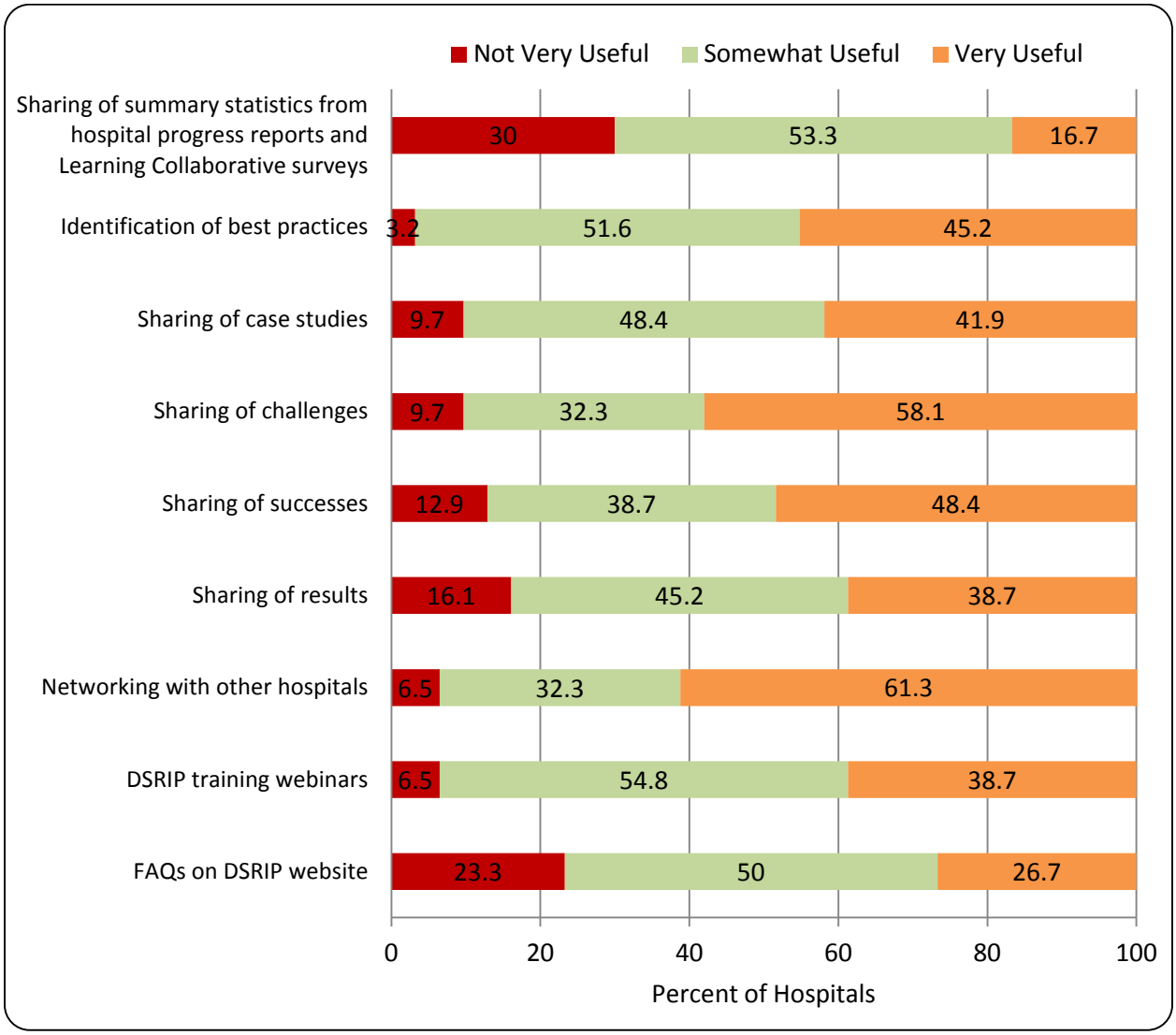
The hospitals were then asked to rate how useful the following Learning Collaborative activities were to their hospital:

- Sharing of summary statistics based on data from hospitals' progress reports and monthly Learning Collaborative surveys
- Identification of best practices

- Sharing of case studies
- Sharing of challenges
- Sharing of successes
- Sharing of results
- Networking with other hospitals

Networking with other hospitals was rated as most useful (61.3% of the hospitals rated this as very useful), followed by sharing of challenges (58.1% rated this as very useful) (see Figure 2.17). Only 16.7% of the hospitals rated as very useful the sharing of summary statistics from hospital progress reports and Learning Collaborative surveys. None of these measures differed between High and Low Medicaid hospitals.

Figure 2.17: Usefulness of Learning Collaborative Activities and Other DSRIP Resources



Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

The hospitals rated the usefulness to their hospital of two other DSRIP resources:

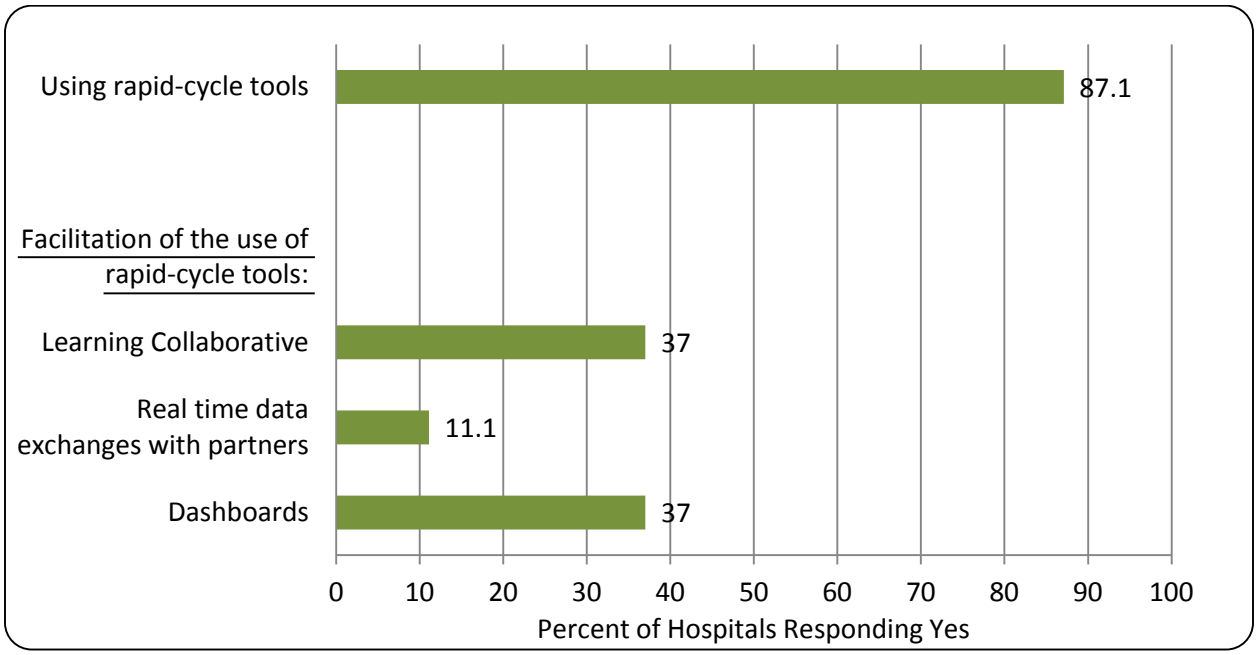
- DSRIP Training Webinars
- Frequently Asked Questions (FAQs)on DSRIP website

These resources were rated moderately useful, with 38.7% rating the webinars as very useful and 26.7% rating the FAQs as very useful (also see Figure 2.17). Neither measure differed between the High and Low Medicaid hospitals.

Rapid-Cycle Evaluation Tools

Almost all (87.1%) of the hospitals were using rapid-cycle evaluation tools, and this did not differ between the High and Low Medicaid hospitals (see Figure 2.18).

Figure 2.18: Percent Reporting Use of Rapid-Cycle Evaluation Tools and Factors Facilitating the Use of Rapid-Cycle Tools



Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

The hospitals were then asked if the following facilitated their use of rapid-cycle tools:

- Learning Collaborative
- Real time data exchanges with partners
- Dashboards

The Learning Collaborative facilitated the use of rapid-cycle tools for 37.0% of the hospitals, and dashboards also facilitated the use of rapid-cycle tools for 37.0% of the hospitals (also see Figure 2.18). Only 11.1% of the hospitals reported that real time data exchanges with their project partners facilitated the use of rapid-cycle tools. None of these measures differed between High and Low Medicaid hospitals.

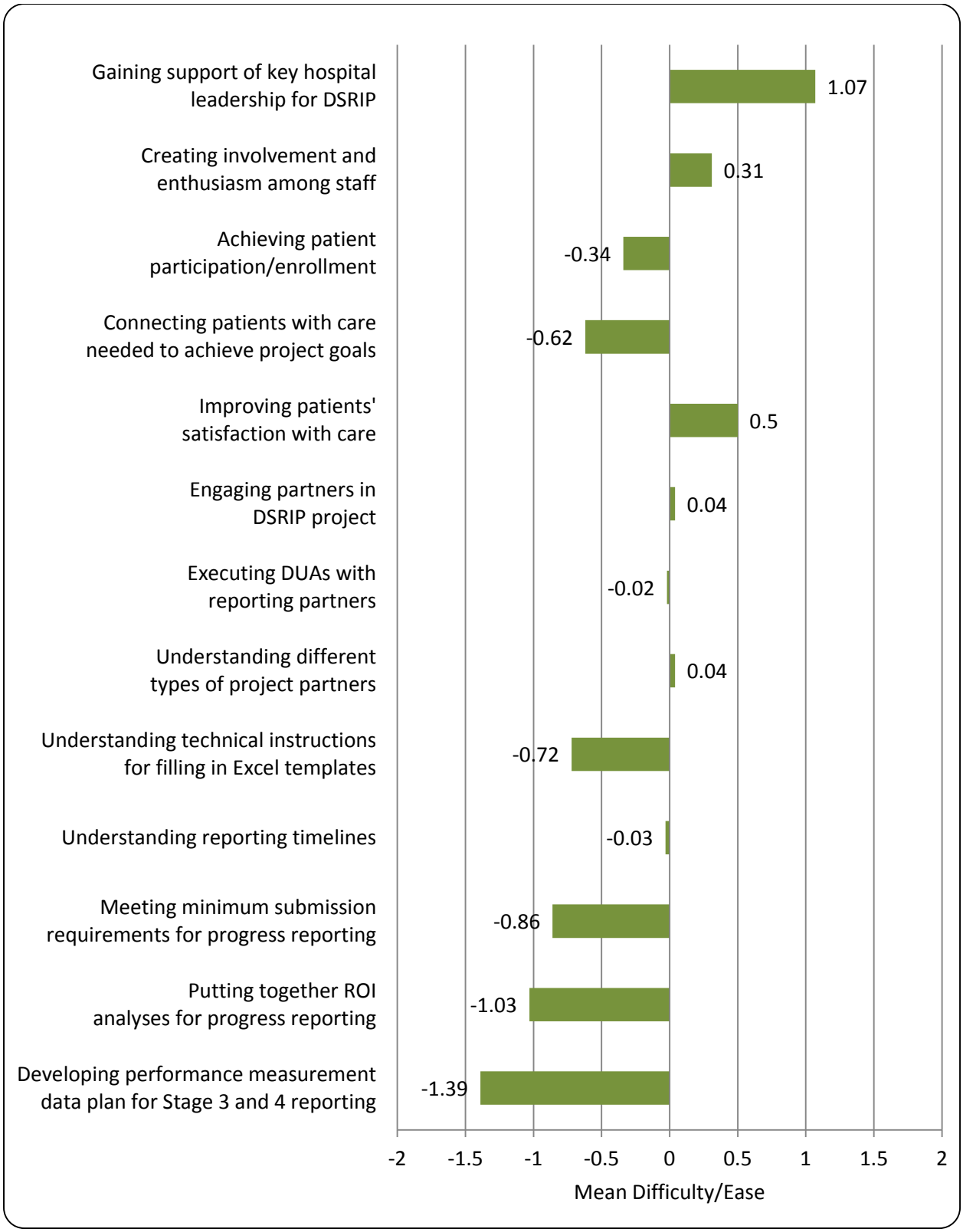
Level of Ease/Difficulty in Accomplishing DSRIP Activities

The hospitals were asked to rate on a four-point scale (-2=very difficult, -1=somewhat difficult, 1=somewhat easy, 2=very easy) how easy or difficult it had been for their hospital to accomplish the following DSRIP activities:

- Gaining support of key hospital leadership for DSRIP
- Creating involvement and enthusiasm among staff
- Achieving patient participation/enrollment
- Connecting patients with care needed to achieve project goals
- Improving patients' satisfaction with care
- Engaging partners in your DSRIP project
- Executing DUAs with reporting partners
- Understanding different types of project partners
- Understanding technical instructions for filling in Excel templates
- Understanding reporting timelines
- Meeting minimum submission requirements for progress reporting
- Putting together return on investment (economic value) analyses as part of progress reporting
- Developing a performance measurement data plan for Stage 3 and 4 reporting

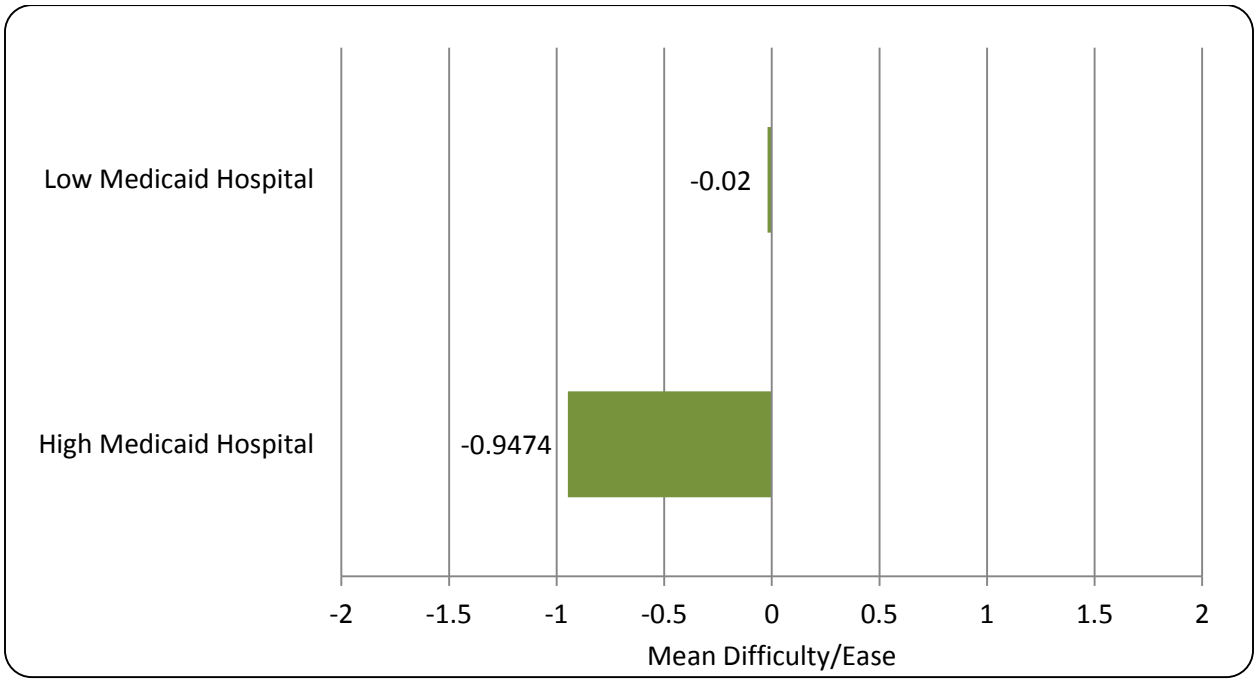
The average rating across all measures was slightly difficult (average rating=-0.2). Gaining support of key hospital leadership for DSRIP was rated as the easiest to accomplish (rating=1.1), followed by improving patients' satisfaction with care (rating=0.5) and creating involvement and enthusiasm among staff (rating=0.3). Developing a performance measurement data plan for Stage 3 and 4 reporting was rated as most difficult to accomplish with a rating of -1.39, followed by putting together return on investment analyses for progress reporting (rating =-1.03), meeting minimum submission requirements for progress reporting (rating=-0.86), and understanding technical instructions for filling in Excel templates (rating=-0.7) (see Figure 2.19). High Medicaid hospitals rated connecting patients with care needed to achieve project goals as more difficult than Low Medicaid hospitals (High Medicaid hospital rating: -0.9, Low Medicaid hospital rating: 0.0, $p<.037$) (see Figure 2.20), but Low Medicaid hospitals rated executing DUAs with reporting partners as more difficult than High Medicaid hospitals (Low Medicaid hospital rating: -1.0, High Medicaid hospital rating: 0.5, $p<.044$) (see Figure 2.21). None of the other measures differed between High and Low Medicaid hospitals.

Figure 2.19: Difficulty/Ease of Accomplishing DSRIP Activities (-2=very difficult, 2=very easy)



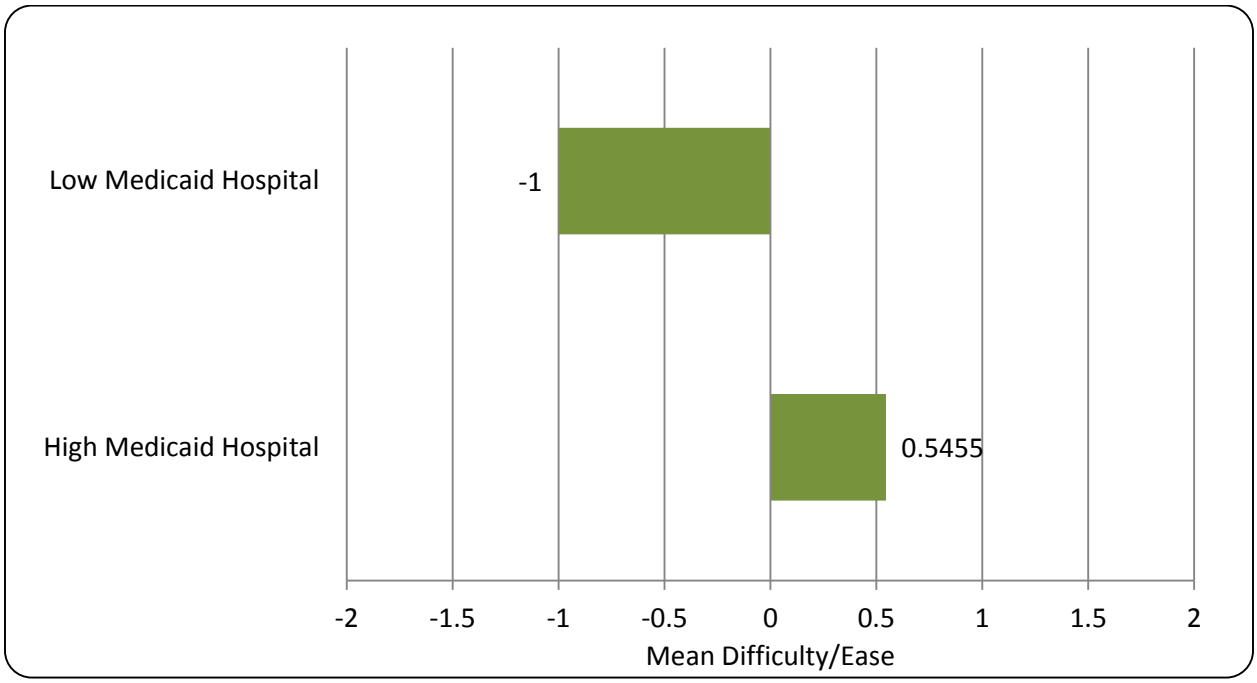
Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Figure 2.20: Difficulty/Ease of Accomplishing DSRIP Activities (-2=very difficult, 2=very easy): Connecting Patients with Care Needed to Achieve Project Goals by Medicaid Hospital Group, p<.037



Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Figure 2.21: Difficulty/Ease of Accomplishing DSRIP Activities (-2=very difficult, 2=very easy): Executing DUAs with Reporting Partners by Medicaid Hospital Group, p<.044



Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Additional Comments about the DSRIP Program

The hospitals were asked the following three open-ended questions about the DSRIP program:

- Please detail any lessons learned or best practices identified to date by your project team.
- Other comments including those relating to the implementation or impact of the DSRIP project on your hospital.
- What changes would you like to see in future implementations of DSRIP?

About 1/3 of the hospitals provided comments for each of these open-ended questions. For summary purposes, the comments were grouped into themes as reported below.

For lessons learned, the comments were grouped into the following themes:

- Communication
- Staff and partner issues
- Specific care management strategies
- Patients make or break the program
- Need to address social and access issues of patients
- Patient recruitment
- Challenges with data collection and the attribution list

For other comments related to DSRIP implementation or impact on hospital, the following themes were identified:

- Data collection issues/reporting is overly burdensome
- DSRIP delays, unclear direction
- Resource intensive
- Positive impact of DSRIP program
- DSRIP program reorganization

For suggestions as to future implementations of DSRIP, the following themes were identified:

- Fewer data metrics/less onerous reporting/Excel template issues
- Better or clearer directions and requirements/better management from State and consultant
- Need attribution list and data templates earlier/timely communication from DSRIP
- Need to restructure communication/interaction forums
- Re-organization of DSRIP programs/hospital burdens/collaborations

Conclusions

Most of the hospitals who responded to the survey felt that the DSRIP program had the potential to improve quality of care and population health. They felt that the Stage 3 care management

programs aligned well with the population health improvement objectives. However, the reporting requirements were too onerous and resource intensive, especially the metrics required for Stage 4, the reporting partner requirements, and the attribution model. The hospitals were concerned about shifting requirements and information not being provided to them early enough for the reporting requirements. Networking with other hospitals and being able to share challenges were rated as the most useful aspects of the Learning Collaboratives.

EHR interoperability with program partners was also cited as a major issue, particularly for obtaining the outpatient metrics required for Stage 3 and Stage 4 reporting. There has been some increase in EHR capability over time, but more for the hospitals than for the partners.

There were only a few statistically significant differences between hospitals based on the share of Medicaid patients; however this could be due to small sample sizes. High Medicaid hospitals were more likely than Low Medicaid hospitals to report needing DSRIP funds to finance existing programs and that they were already working with their programs partners before DSRIP was implemented. High Medicaid hospitals also reported more difficulty connecting patients with the care needed to achieve project goals. However, High Medicaid hospitals reported less difficulty executing DUAs with their project reporting partners.

References

Ianni S. 2006. *Examining the State of Our Healthcare System: The Unique Challenges Facing Urban Hospitals and Their Importance in Our State*. Trenton: Hospital Alliance of New Jersey. http://www.nj.gov/health/rhc/documents/hospital_alliance.pdf.

Table 2.1: Item Frequencies and Means

	N	%
Total	**41**	**100.0**
Percentage of hospital's patients on Medicaid/CHIP or charity care		
0-20%	14	34.2
21-40%	17	41.5
41-60%	3	7.3
61-80%	3	7.3
Unable to classify	4	9.8
Did your hospital apply for the DSRIP program?		
Yes	35	89.7
No	4	10.3
Importance to decision to apply for DSRIP		
Support for the disease management goals of the DSRIP program		
Very Important	26	76.5
Somewhat Important	8	23.5
Not Important	0	0.0
Need the funds to finance existing operations		
Very Important	24	70.6
Somewhat Important	8	23.5
Not Important	2	5.9
Expect synergies with other related programs, e.g., hosp readmissions, ACOs, value-based purchasing		
Very Important	23	67.6
Somewhat Important	10	29.4
Not Important	1	2.9
Opportunity for more financial resources for my hospital		
Very Important	20	58.8
Somewhat Important	12	35.3
Not Important	2	5.9
Perceptions of DSRIP specifications/requirements over time		
Application/Application Renewals		
Specs/Reqs clear from the beginning	2	6.1
Specs/Reqs unclear initially but clarified over time	28	84.8
Specs/Reqs remain unclear	3	9.1
Stage 1 Activities: Infrastructure Development Activities		
Specs/Reqs clear from the beginning	6	17.6
Specs/Reqs unclear initially but clarified over time	25	73.5
Specs/Reqs remain unclear	3	8.8

Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Table 2.1: Item Frequencies and Means (continued)

	N	%
Total	**41**	**100.0**
Stage 2 Activities: Chronic Medical Condition Redesign and Management		
Specs/Reqs clear from the beginning	6	17.6
Specs/Reqs unclear initially but clarified over time	27	79.4
Specs/Reqs remain unclear	1	2.9
Stage 3 Activities: Quality Improvements		
Specs/Reqs clear from the beginning	3	8.8
Specs/Reqs unclear initially but clarified over time	23	67.6
Specs/Reqs remain unclear	8	23.5
Stage 4 Activities: Population Focused Improvements		
Specs/Reqs clear from the beginning	4	11.8
Specs/Reqs unclear initially but clarified over time	18	52.9
Specs/Reqs remain unclear	12	35.3
Perceptions of DSRIP specifications/requirements over time (continued)		
Requirements related to Reporting Partners		
Specs/Reqs clear from the beginning	1	2.9
Specs/Reqs unclear initially but clarified over time	18	52.9
Specs/Reqs remain unclear	15	44.1
Attribution Model		
Specs/Reqs clear from the beginning	0	0.0
Specs/Reqs unclear initially but clarified over time	19	55.9
Specs/Reqs remain unclear	15	44.1
Perceptions of DSRIP specifications/requirements over time		
Application/Application Renewals		
Specs/Reqs decreased over time	4	12.5
Specs/Reqs remained same over time	18	56.3
Specs/Reqs increased over time	10	31.3
Stage 1 Activities: Infrastructure Development Activities		
Specs/Reqs decreased over time	7	21.2
Specs/Reqs remained same over time	15	45.5
Specs/Reqs increased over time	11	33.3
Stage 2 Activities: Chronic Medical Condition Redesign and Management		
Specs/Reqs decreased over time	1	3.0
Specs/Reqs remained same over time	17	51.5
Specs/Reqs increased over time	15	45.5
Stage 3 Activities: Quality Improvements		
Specs/Reqs decreased over time	1	3.0
Specs/Reqs remained same over time	14	42.4
Specs/Reqs increased over time	18	54.5

Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Table 2.1: Item Frequencies and Means (continued)

	N	%
Total	**41**	**100.0**
Stage 4 Activities: Population Focused Improvements		
Specs/Reqs decreased over time	2	6.1
Specs/Reqs remained same over time	8	24.2
Specs/Reqs increased over time	23	69.7
Requirements related to Reporting Partners		
Specs/Reqs decreased over time	0	0.0
Specs/Reqs remained same over time	16	48.5
Specs/Reqs increased over time	17	51.5
Attribution Model		
Specs/Reqs decreased over time	0	0.0
Specs/Reqs remained same over time	13	40.6
Specs/Reqs increased over time	19	59.4
Is your hospital still participating in the DSRIP program?		
Yes	33	94.3
No	2	5.7
# of project partners	31	4.0 (mean)
# of data reporting partners	31	0.9 (mean)
# of data reporting partners with interoperable EHR with hospital	22	0.5 (mean)
How did your hospital identify project partners? (Select all that apply)		
Already working with partners before DSRIP was implemented	23	59.5
Recruited physician practices as partners	6	13.5
Recruited other clinical partners such as community health centers	10	27.0
Recruited other community organizations as partners	9	21.6
# of organizations not partner because unable to share necessary data		
None	24	82.8
One	2	6.9
Two	3	10.3
# of organizations not partner because working with another hospital		
None	27	93.1
One	2	6.9
Two		
		(Mean)
% hospital's inpatient/ED chart-based metrics obtainable from EHR	30	42.7
% reporting partners' outpatient chart-based metrics from EHR	23	27.4
Increase in hospital's EHR capability since DSRIP application	11	36.7
Increase in reporting partner's EHR capability since DSRIP application	4	20.0

Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Table 2.1: Item Frequencies and Means (continued)

	N	%
Total	**41**	**100.0**
Have you received your attributed patient list?	32	100.0
% attributed patients included in DSRIP program intervention (Mean %)	29	45.9
Difficulty dealing with DSRIP program (1=none, 4=major diffic)		(Mean)
Application process	29	3.0
Stage 1: Developing methodology to identify pilot population	29	2.1
Stage 1: Establishing medical and support team dedicated to DSRIP	29	2.3
Stage 1: Identifying project partners	29	2.3
Stage 1: Procuring staff education needs	29	1.9
Stage 1: Developing quality improvement plan	29	1.8
Stage 1: Conducting project staff evaluation/assessments	29	1.5
Stage 2: Initiating pilot program and redesigning/refining if required	29	2.3
Stage 2: Initiating program protocols and interventions for entire population	27	2.5
Stage 2: Ongoing monitoring of program outcomes	29	2.5
Stage 2: Providing feedback to hospital administrators and providers	29	1.6
Stage 2: Providing feedback to Learning Collaborative	29	1.5
Difficulty with DSRIP data requirements (1=none, 4=major diffic)		(Mean)
Stage 3: Collection of Hospital/ED Care metrics - Chart/EHR	29	3.2
Stage 3: Collection of Outpatient Care metrics - Chart/EHR	29	3.5
Stage 3: Verification of Hospital/ED Care metrics – MMIS	28	3.2
Stage 3: Verification of Outpatient Care metrics- MMIS	28	3.5
Stage 4: Collection of Hospital/ED Care metrics - Chart/EHR	29	3.2
Stage 4: Collection of Outpatient Care metrics - Chart/EHR	29	3.5
Stage 4: Verification of Hospital/ED Care metrics – MMIS	28	3.2
Stage 4: Verification of Outpatient Care metrics- MMIS	27	3.4
Impact of DSRIP on quality of care, pop health (-2=v. neg, 2=v.pos)		(Mean)
Chronic disease management programs	29	1.2
Stage 4 reporting of universal metrics	29	0.4
Knowledge sharing through Learning Collaboratives	29	1.1
Building relationships with project partners	29	0.9
Sharing data with reporting partners	25	0.5
Rapid cycle assessment and improvement tools	29	1.1
Building infrastructure capacity for data collection and reporting	29	0.7

Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Table 2.1: Item Frequencies and Means (continued)

	N	%
Total	**41**	**100.0**
Changes in community health due to DSRIP (-2=v. worse, 2=v.better)		(Mean)
Patient access to health care services	29	0.8
Continuity of patient care	29	1.1
Quality of patient transitions between settings	29	1.1
Quality of health care delivered	29	1.1
Patient health	29	0.9
Mean impact of DSRIP on hospital's finances (-2=v. neg, 2=v. pos)	29	-0.1
Usefulness of DSRIP to Hospitals (% reporting very useful)		(%)
Sharing of summary stats from hosp prog repts, learning collab surveys	5	16.7
Identification of best practices	14	45.2
Sharing of case studies	13	41.9
Sharing of challenges	18	58.1
Sharing of successes	15	48.4
Sharing of results	12	38.7
Networking with other hospitals	19	61.3
DSRIP training webinars	12	38.7
FAQs on DSRIP website	8	26.7
Using rapid-cycle evaluation tools (% yes)	27	87.1
Facilitated use of rapid cycle tools (% yes)		
Learning collaborative	10	37
Real time data exchanges with partners	3	11.1
Dashboards	10	37
Ease/difficulty accomplishing DSRIP activities (-2=v. diffic, 2=v. easy)		(Mean)
Gaining support of key hospital leadership for DSRIP	29	1.1
Creating involvement and enthusiasm among staff	29	0.3
Achieving patient participation/enrollment	29	-0.3
Connecting patients with care needed to achieve project goals	29	-0.6
Improving patients' satisfaction with care	28	0.5
Engaging partners in DSRIP project	27	0.0
Executing DUAs with reporting partners	17	0.0
Understanding different types of project partners	24	0.0
Understanding technical instructions for filling in Excel templates	29	-0.7
Understanding reporting timelines	29	0.0
Meeting minimum submission requirements for progress reporting	29	-0.9
Putting together ROI analyses for progress reporting	29	-1.0
Developing performance measurement data plan for Stage 3, 4 reporting	28	-1.4

Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Appendix A: Hospital Midpoint Web Survey, Questionnaire

***1. Introduction and Consent:**

This hospital-based survey aims to provide feedback about the planning and implementation of the DSRIP program. Please complete this survey on the basis of your hospital's experience with the DSRIP application, approval, planning and implementation process. All information will remain confidential, and only summary data will be released from survey responses.

If you are 18 years of age or older, understand the statements in the email containing this survey link, and will consent to participate in the study, click on the "I Agree" button to begin the survey. If not, please click on the "I Do Not Agree" button after which you will exit this program.

- ◯ I Agree
- ◯ I Do Not Agree

2. Survey Respondent
Your Work Title:

3. Hospital Name

Hospital Name

Select your hospital name from the drop-down box to the right:

Other (please specify)

4. Please estimate the overall percentage of your hospital's patients who are on Medicaid/CHIP or charity care.

- ◯ 0-20%
- ◯ 21-40%
- ◯ 41-60%
- ◯ 61-80%
- ◯ 81-100%

5. Did your hospital apply for the DSRIP program?

- ◯ Yes
- ◯ No

6. Which of the following are reasons your hospital did not apply? (Select all that apply)

- ☐ Not enough Medicaid/CHIP/charity care patients
- ☐ Application process too burdensome
- ☐ Infrastructure requirements too expensive

Other (please specify)

7. Please rate each of the following with regard to their importance to your hospital's decision to apply:

	Very Important	Somewhat Important	Not Important
Support for the disease management goals of the DSRIP program	◯	◯	◯
Need the funds to finance existing operations	◯	◯	◯
Expect synergies with other related programs, such as hospital readmissions, ACOs, Hospital Value-Based Purchasing Program	◯	◯	◯
Opportunity for more financial resources for my hospital	◯	◯	◯
Other (specify below)	◯	◯	◯

Specify other here

8. How would you characterize the DSRIP program specifications/requirements over time?

	Specs/Reqs clear from the beginning	Specs/Reqs unclear initially but clarified over time	Specs/Reqs remain unclear
Application/Application Renewals	◯	◯	◯
Stage 1 Activities: Infrastructure Development Activities	◯	◯	◯
Stage 2 Activities: Chronic Medical Condition Redesign and Management	◯	◯	◯
Stage 3 Activities: Quality Improvements	◯	◯	◯
Stage 4 Activities: Population Focused Improvements	◯	◯	◯
Requirements related to reporting Partners	◯	◯	◯
Attribution model	◯	◯	◯

9. Part 2 to "How would you characterize the DSRIP program specifications/requirements over time?"

	Specs/Reqs decreased over time	Specs/Reqs remained same over time	Specs/Reqs increased over time
Application/Application Renewals	◯	◯	◯
Stage 1 Activities: Infrastructure Development Activities	◯	◯	◯
Stage 2 Activities: Chronic Medical Condition Redesign and Management	◯	◯	◯
Stage 3 Activities: Quality Improvements	◯	◯	◯
Stage 4 Activities: Population Focused Improvements	◯	◯	◯
Requirements related to reporting Partners	◯	◯	◯
Attribution model	◯	◯	◯

10. What project area did your hospital select?

- ◯ Asthma
- ◯ Behavioral Health
- ◯ Substance Abuse
- ◯ Pneumonia
- ◯ Obesity
- ◯ Diabetes
- ◯ Cardiac

11. Is your hospital still participating in the DSRIP program?

- ◯ Yes
- ◯ No

12. Which of the following are reasons your hospital withdrew from the program? (Select all that apply)

- ☐ Not enough Medicaid/CHIP/charity care patients
- ☐ Incentive payment was not enough to justify costs
- ☐ Too difficult to find project partners or fulfill project partner requirements
- ☐ Implementation process too burdensome
- ☐ Change in hospital ownership
- ☐ Reorganization as a result of mergers and acquisitions

Other (please specify)

13. A project partner is any organization helping your hospital and your patients achieve the aims of the DSRIP program (e.g., schools, clinics, physician practices, etc.).

How many project partners does your hospital have?

# of project partners:

14. A reporting partner is a project partner included in the attribution model and required to collect and report outpatient data.

Out of your project partners, how many are data reporting partners?

# of data reporting partners:

15. With how many of these reporting partners does your hospital have an interoperable EHR? (Skip if your hospital does not have any reporting partners)

# of reporting partners:

16. How did your hospital identify project partners? (Select all that apply)

- ☐ Already working with partners before DSRIP was implemented
- ☐ Recruited physician practices as partners
- ☐ Recruited other clinical partners such as community health centers/FQHCs
- ☐ Recruited other community organizations as partners (for example, schools)

17. In addition to your reporting partners, with how many other organizations did you want to establish a reporting partner relationship but could not because they were unable to share the necessary data?

- ◯ None
- ◯ One
- ◯ Two
- ◯ Three or more

18. With how many organizations did you want to establish a reporting partner relationship but could not because they were participating in the DSRIP program with a different hospital?

- ◯ None
- ◯ One
- ◯ Two
- ◯ Three or more

19. At the time of your DSRIP application, what percent of Stage 4 metrics were obtainable from EHRs?

	No EHR	1-20%	21-40%	41-60%	61-80%	81-100%
Your hospital's inpatient/ED chart-based metrics from EHR	◯	◯	◯	◯	◯	◯
Your outpatient reporting partners' outpatient chart-based metrics from EHR	◯	◯	◯	◯	◯	◯

20. Has there been a change in EHR capability since the time of application?

	Decrease in capability	No change	Increase in capability
Your hospital's EHR	◯	◯	◯
Reporting partners' EHR	◯	◯	◯

21. Have you received your attributed patient list?

- ◯ Yes
- ◯ No

22. Please estimate the percentage of the attributed patients that are or will be included in your DSRIP program intervention.

- ◯ 0-20%
- ◯ 21-40%
- ◯ 41-60%
- ◯ 61-80%
- ◯ 81-100%

23. Please rate your hospital's experience in dealing with the following aspects of the DSRIP program:

	No difficulty	Minor difficulty	Moderate difficulty	Major difficulty
Application Process	◯	◯	◯	◯

24. Please rate your hospital's experience in dealing with the following aspects of the DSRIP program:

Stage 1 Activities: Infrastructure Development

	No difficulty	Minor difficulty	Moderate difficulty	Major difficulty
Developing methodology to identify pilot population	◯	◯	◯	◯
Establishing multi-therapeutic medical and support team dedicated to DSRIP	◯	◯	◯	◯
Identifying project partners	◯	◯	◯	◯
Procuring staff education needs	◯	◯	◯	◯
Developing quality improvement plan	◯	◯	◯	◯
Conducting project staff evaluation/assessments	◯	◯	◯	◯

25. Please rate your hospital's experience in dealing with the following aspects of the DSRIP program:

Stage 2 Activities: Chronic Medical Condition Redesign and Management

	No difficulty	Minor difficulty	Moderate difficulty	Major difficulty
Initiating pilot program and redesigning/refining if required	◯	◯	◯	◯
Initiating program protocols and interventions for entire population	◯	◯	◯	◯
Ongoing monitoring of program outcomes	◯	◯	◯	◯
Providing feedback to hospital administrators and participating providers	◯	◯	◯	◯
Providing feedback to Learning Collaborative	◯	◯	◯	◯

26. Please rate your hospital's experience in preparing for the data-related aspects of the DSRIP program:

Stage 3 Project-Specific Metrics (Chart/EHR or MMIS-based):

	No difficulty	Minor difficulty	Moderate difficulty	Major difficulty
Collection of Hospital/Inpatient or ED Care metrics - Chart/EHR	◯	◯	◯	◯
Collection of Outpatient Care metrics - Chart/EHR	◯	◯	◯	◯
Verification of Hospital/Inpatient or ED Care metrics – MMIS	◯	◯	◯	◯
Verification of Outpatient Care or Multi-Setting Care metrics- MMIS	◯	◯	◯	◯

27. Please rate your hospital's experience in preparing for the data-related aspects of the DSRIP program:

Stage 4 Universal Metrics (Chart/EHR or MMIS-based):

	No difficulty	Minor difficulty	Moderate difficulty	Major difficulty
Collection of Hospital/Inpatient or ED Care metrics - Chart/EHR	◯	◯	◯	◯
Collection of Outpatient Care - Chart/EHR metrics	◯	◯	◯	◯
Verification of Hospital/Inpatient or ED Care metrics – MMIS	◯	◯	◯	◯
Verification of Outpatient Care or Multi-Setting Care metrics- MMIS	◯	◯	◯	◯

28. What overall impact do you think the following aspects of the DSRIP program have on quality of care and population health (or health outcomes)?

	Substantially positive	Moderately positive	Little or no impact	Moderately negative	Substantially negative
Chronic disease management programs	◯	◯	◯	◯	◯
Stage 4 reporting of universal metrics	◯	◯	◯	◯	◯
Knowledge sharing through Learning Collaboratives	◯	◯	◯	◯	◯
Building relationships with project partners	◯	◯	◯	◯	◯
Sharing data with reporting partners	◯	◯	◯	◯	◯
Rapid cycle assessment and improvement tools	◯	◯	◯	◯	◯
Building infrastructure capacity for data collection and reporting	◯	◯	◯	◯	◯

29. How would you characterize changes in the following health-related aspects of your community as a result of DSRIP activities?

	Substantial improvement	Some improvement	Little or no impact	Some worsening	Substantial worsening	Too early to assess
Patient access to health care services	◯	◯	◯	◯	◯	◯
Continuity of patient care	◯	◯	◯	◯	◯	◯
Quality of patient transitions between settings	◯	◯	◯	◯	◯	◯
Quality of health care delivered	◯	◯	◯	◯	◯	◯
Patient health	◯	◯	◯	◯	◯	◯

30. What impact, if any, has the DSRIP program had on your hospital's finances?

- ◯ Very positive
- ◯ Positive
- ◯ No impact
- ◯ Negative
- ◯ Very negative

31. How useful were the following Learning Collaborative activities to your hospital?

	Very useful	Somewhat useful	Not very useful
Sharing of summary statistics based on data from hospitals' progress reports and monthly Learning Collaborative surveys	◯	◯	◯
Identification of best practices	◯	◯	◯
Sharing of case studies	◯	◯	◯
Sharing of challenges	◯	◯	◯
Sharing of successes	◯	◯	◯
Sharing of results	◯	◯	◯
Networking with other hospitals	◯	◯	◯

32. How useful were the following other activities to your hospital?

	Very useful	Somewhat useful	Not very useful
DSRIP Training Webinars	◯	◯	◯
Frequently Asked Questions on DSRIP website	◯	◯	◯

33. Are you using any rapid-cycle evaluation tools?

◯ Yes

◯ No

34. Have the following facilitated your use of rapid cycle tools?

	Yes	No	Not applicable
Learning Collaborative	◯	◯	◯
Real time data exchanges with partners	◯	◯	◯
Dashboards	◯	◯	◯
Other (specify below)	◯	◯	◯

Specify other here

35. How easy or difficult has it been for your hospital to accomplish each of the following DSRIP activities?

	Very Easy	Somewhat Easy	Somewhat Difficult	Very Difficult	N/A
Gaining support of key hospital leadership for DSRIP	◯	◯	◯	◯	◯
Creating involvement and enthusiasm among staff	◯	◯	◯	◯	◯
Achieving patient participation/enrollment	◯	◯	◯	◯	◯
Connecting patients with care needed to achieve project goals	◯	◯	◯	◯	◯
Improving patients' satisfaction with care	◯	◯	◯	◯	◯
Engaging partners in your DSRIP project	◯	◯	◯	◯	◯
Executing DUAs with reporting partners	◯	◯	◯	◯	◯
Understanding different types of project partners	◯	◯	◯	◯	◯
Understanding technical instructions for filling in Excel templates	◯	◯	◯	◯	◯
Understanding reporting timelines	◯	◯	◯	◯	◯
Meeting minimum submission requirements for progress reporting	◯	◯	◯	◯	◯
Putting together return on investment (economic value) analyses as part of progress reporting	◯	◯	◯	◯	◯
Developing a performance measurement data plan for Stage 3 and 4 reporting	◯	◯	◯	◯	◯

36. Please detail any lessons learned or best practices identified to date by your project team:

1.
2.
3.

37. Other comments including those relating to the implementation or impact of the DSRIP project on your hospital:

1.
2.
3.

38. What changes would you like to see in future implementations of DSRIP?

1.
2.
3.

THANK YOU!!

Appendix B: Hospital Midpoint Web Survey, Advance Letters and Email Reminders

Continued on next page.

Advance Letter from State for Participating Hospitals

State of New Jersey
DEPARTMENT OF HEALTH
PO BOX 360
TRENTON, N.J. 08625-0360

www.nj.gov/health

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

MARY E. O'DOWD, M.P.H.
Commissioner

Dear DSRIP Participant:

Thank you for your participation in the New Jersey Delivery System Reform Incentive Payment (NJ DSRIP) program, a program of the New Jersey Comprehensive Waiver (NJCW). As you may know, and referenced in section XX of Centers for Medicare & Medicaid Services (CMS) Special Terms and Conditions (STCs) and in section X.c. of the NJ DSRIP program Planning Protocol, one requirement of the waiver is submission of an evaluation of the NJ DSRIP program to the Centers for Medicare & Medicaid Services (CMS).

In the coming weeks, the Rutgers Center for State Health Policy (CSHP) will proceed with the evaluation, reaching out to you for interviews and/or web surveys. The Rutgers Institutional Review Board requires any comment or information you provide to the CSHP evaluators remain confidential. No specific comment or data will be attributed to an individual hospital or interviewee.

Please find additional information about the evaluation in the NJ DSRIP program Planning Protocol. The protocol is available under the Resources tab of the NJ DSRIP website, http://dsrip.nj.gov.

If you have any questions about the evaluation, please contact me at 609-292-7874 or by email at michael.conca@doh.state.nj.us. Thank you again for your participation in transforming the health care delivery system through the NJ DSRIP program.

Sincerely,

Michael D. Conca
Hospital Consultant

Advance Letter from State for Non-Participating Hospitals

State of New Jersey
DEPARTMENT OF HEALTH
PO BOX 360
TRENTON, N.J. 08625-0360
www.nj.gov/health

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

MARY E. O'DOWD, M.P.H.
Commissioner

January 14, 2015

Dear NJ Hospital Official:

Although your hospital is not participating in the New Jersey Delivery System Reform Incentive Payment (NJ DSRIP) program that is part of the NJ Comprehensive Waiver (NJCW) from the Centers of Medicare & Medicaid Services (CMS), we would like to understand more about your views on the program and how it could be improved should CMS offer the program again in the future. We plan to include suggestions from both participating and non-participating hospitals in the program evaluation required by CMS.

In the coming weeks, the Rutgers Center for State Health Policy (CSHP) will proceed with the evaluation, reaching out to you for interviews and/or web surveys. The Rutgers Institutional Review Board requires any comment or information you provide to the CSHP evaluators remain confidential. No specific comment or data will be attributed to an individual hospital or interviewee.

Please find additional information about the evaluation in the NJ DSRIP program Planning Protocol. The protocol is available under the Resources tab of the NJ DSRIP website, http://dsrip.nj.gov.

If you have any questions about the evaluation, please contact me at 609-292-7874 or by email at michael.conca@doh.state.nj.us. Thank you again for your participation in this program evaluation.

Sincerely,

Michael D. Conca
Hospital Consultant

Advance Letter from State for Withdrawn Hospitals

State of New Jersey
DEPARTMENT OF HEALTH
PO BOX 360
TRENTON, N.J. 08625-0360
www.nj.gov/health

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

MARY E. O'DOWD, M.P.H.
Commissioner

January 14, 2015

Dear NJ Hospital Official:

Although your hospital is no longer participating in the New Jersey Delivery System Reform Incentive Payment (NJ DSRIP) program that is part of the NJ Comprehensive Waiver (NJCW) from the Centers of Medicare & Medicaid Services (CMS), we would like to understand more about your views on the program and how it could be improved should CMS offer the program again in the future. We plan to include suggestions from both participating and non-participating hospitals in the program evaluation required by CMS.

In the coming weeks, the Rutgers Center for State Health Policy (CSHP) will proceed with the evaluation, reaching out to you for interviews and/or web surveys. The Rutgers Institutional Review Board requires any comment or information you provide to the CSHP evaluators remain confidential. No specific comment or data will be attributed to an individual hospital or interviewee.

Please find additional information about the evaluation in the NJ DSRIP program Planning Protocol. The protocol is available under the Resources tab of the NJ DSRIP website, http://dsrip.nj.gov.

If you have any questions about the evaluation, please contact me at 609-292-7874 or by email at michael.conca@doh.state.nj.us. Thank you again for your participation in this program evaluation.

Sincerely,

Michael D. Conca
Hospital Consultant

Advance Email Accompanying Advance Letter from State

Dear Hospital Official,

Attached is a letter from Michael Conca at the New Jersey Department of Health inviting you to participate in an online survey relating to the evaluation of the New Jersey Delivery System Reform Incentive Payment (NJ DSRIP) program that is part of the NJ Comprehensive Waiver (NJCW). This evaluation is being conducted by the Center for State Health Policy at Rutgers University for the NJ Department of Health. The purpose of this evaluation is to understand your hospital's experiences and perceptions with implementation of the DSRIP program.

We will be sending you another email in the coming weeks with a link to the online evaluation survey. Your feedback is vital to understanding the benefits and challenges to DSRIP implementation in your hospital. We thank you in advance for your time and input.

Sincerely,
Susan Brownlee, PhD
Senior Research Manager
Rutgers Center for State Health Policy

Email with Survey Link and Consent Information

Dear hospital official,

You recently received an email from the Center of State Health Policy at Rutgers University with an attached letter from Michael Conca at the New Jersey Department of Health inviting you to participate in an online survey relating to the evaluation of the New Jersey Delivery System Reform Incentive Payment (NJ DSRIP) program that is part of the NJ Comprehensive Waiver (NJCW). This evaluation is being conducted by the Center for State Health Policy at Rutgers University and the purpose of this web survey is to understand your hospital's experiences with implementation of the DSRIP program.

This research is confidential. Confidential means that the research records will include some information about you and your hospital and this information will be stored in such a manner that some linkage between your identity and the response in the research exists. Some of the information collected about you includes the name and address of your hospital and your title. Please note that we will keep this information confidential by limiting access to the research team and keeping it in a secure location. The data gathered in this study are confidential with respect to your personal identity unless you specify otherwise. The survey should take about 15 minutes to complete and is being sent to all 64 DSRIP-eligible New Jersey hospitals.

The research team and the Institutional Review Board at Rutgers University are the only parties that will be allowed to see the data, except as may be required by law. If a report of this evaluation is published, or the results are presented at a professional conference, only group results will be stated. All study data will be kept for a minimum of three years.

There are no foreseeable risks to participation in this evaluation. In addition, you may receive no direct benefit from taking part in this evaluation. Participation in this evaluation is voluntary. You may choose not to participate, and you may withdraw at any time during the survey without any penalty to you. In addition, you may choose not to answer any questions with which you are not comfortable.

If you have any questions about the evaluation or survey, you may contact Susan Brownlee at Rutgers Center for State Health Policy, 112 Paterson St, New Brunswick, NJ 08901, 848-932-4666, sbrownlee@ifh.rutgers.edu.

If you have any questions about your rights as a research subject, please contact an IRB Administrator at the Rutgers University, Arts and Sciences IRB:

Institutional Review Board, Rutgers University, the State University of New Jersey
Liberty Plaza / Suite 3200, 335 George Street, 3rd Floor, New Brunswick, NJ 08901
Phone: 732-235-9806, Email: humansubjects@orsp.rutgers.edu

Please retain a copy of this form for your records. By participating in the above stated procedures, then you agree to participation in this evaluation.

**Click on this link to access the survey: [insert survey hyperlink]

Thank you in advance for your assistance,
Susan Brownlee, PhD
Senior Research Manager
Rutgers Center for State Health Policy

Chapter 3: Analysis of Medicaid Claims Data to Examine Early DSRIP Impact on Patient Care, Health, Costs, and Hospital Finances

Introduction

This chapter examines four DSRIP program-related research questions detailed below using analysis, primarily based on Medicaid fee-for-service claims and managed care encounter data over the period 2011–2013.

1. To what extent does the DSRIP program achieve better care?
2. To what extent does the DSRIP program achieve better health?
3. To what extent does the DSRIP program lower costs?
4. To what extent did the DSRIP program affect hospital finances?

These research questions are addressed through four specific testable hypotheses related to DSRIP hospital programs, patient access and quality of care, cost of care, patient health, and hospital finances. Each hypothesis may shed light on multiple research questions. These four hypotheses are:

Hypothesis 1: The adoption of hospital projects in a specific focus area will result in greater improvements in related care and outcomes for patients from hospitals adopting these interventions compared to hospitals which do not adopt these interventions e.g., rates of 30-day heart failure/acute myocardial infarction readmissions will decrease in hospitals adopting cardiac care projects during the DSRIP program compared to hospitals not adopting cardiac care projects.
Hypothesis 2: The DSRIP program improves the quality of ambulatory care, both recommended and preventive, with positive effects on access to care, quality and efficiency of care, and population health. These improvements would be reflected in a decrease in rates of avoidable inpatient hospitalizations and avoidable/preventable treat-and-release emergency department (ED) visits.
Hypothesis 3: The DSRIP program will reduce racial/ethnic and gender disparities in avoidable hospital admissions, treat-and-release ED visits, and hospital readmissions.
Hypothesis 4: Hospitals receiving incentive payments do not experience adverse financial impacts.

Table A below is excerpted from our evaluation plan and presents the quality metrics examined in this report cross-walked to the one or more hypotheses that they serve to evaluate. The metrics are grouped to indicate those independently calculated by our study team and metrics calculated for hospitals by the state or by the hospitals themselves. In this chapter we present our analysis of evaluator-calculated metrics. Metrics provided to us by the state that were calculated by hospitals (for chart-based metrics) or a third-party contractor (for claims-based metrics) are presented in Chapter 4.[1]

Table A: Metrics for the Quantitative Evaluation of the NJ DSRIP Program

	Program Focus of Evaluation	Metric	Chronic Disease Outcomes	Health Outcomes	Care	Disparities	Hospital Finances
			Hypothesis				
			1	2		3	4
Evaluator-Calculated Metrics							
1	Behavioral Health	Follow-up after Hospitalization for Mental Illness 7 Days Post Discharge	X				
2	Behavioral Health	Follow-up after Hospitalization for Mental Illness 30 Days Post Discharge	X				
3	Chemical Addiction/ Substance Abuse	Initiation of Alcohol and Other Drug Treatment	X				
4	Chemical Addiction/ Substance Abuse	Engagement of Alcohol and Other Drug Treatment	X				
5	DSRIP Overall & Cardiac Care	30-Day All-Cause Readmission Rate Following Heart Failure (HF) Hospitalization	X	X		X	

PQI=Prevention Quality Indicator relating to ambulatory care sensitive hospitalizations.

[1] The analysis in Chapter 4 is distinct since it is based on data aggregated at the hospital level, on metrics that are not independently calculated by the evaluator, on hospitals' attributed Medicaid and charity care patients, and relates to a different time period: calendar years 2013 and 2014. While these reported metrics shed light on hypothesis 2, specifically the overall impact of the DSRIP program on access to care and outcomes, one of these state-provided metrics, Children and Adolescents' Access to Primary Care Practitioners, is also used to evaluate hypothesis 1 related to the obesity project. That analysis is presented in this chapter.

Table A: Metrics for the Quantitative Evaluation of the NJ DSRIP Program (continued)

	Program Focus of Evaluation	Metric	Chronic Disease Outcomes	Health Outcomes	Care	Disparities	Hospital Finances
			Hypothesis				
			1	2		3	4
6	DSRIP Overall & Cardiac Care	30-Day All-Cause Readmission Rate Following Acute Myocardial Infarction (AMI) Hospitalization	X	X		X	
7	DSRIP Overall & Pneumonia	30-Day All-Cause Readmission Rate Following Pneumonia (PN) Hospitalization	X	X		X	
8	DSRIP Overall	30-Day All-Cause Readmission Rate Following Chronic Obstructive Pulmonary Disease (COPD) Hospitalization		X		X	
9	Asthma	Emergency Department (ED) Visits for Asthma	X				
10	DSRIP Overall	Mental Health Utilization - Inpatient			X		
11	Asthma	Young Adult Asthma Admission Rate (PQI-15)	X				
12	Diabetes	Diabetes Short-Term Complications Admission Rate (PQI-01)	X				
13	DSRIP Overall	Preventable Hospitalizations (PQI-90)		X	X	X	
14	DSRIP Overall	Preventable/Avoidable Treat-and-Release ED Visits		X	X	X	
15	DSRIP Overall	Hospital Costs Related to Avoidable Inpatient Stays and Treat-and-Release ED Visits			X		
16	DSRIP Overall	Hospital Total and Operating Margins					X
Hospital and State-Reported Metrics							
17	DSRIP Overall & Obesity	Children and Adolescents' Access to Primary Care Practitioners	X		X		

PQI=Prevention Quality Indicator relating to ambulatory care sensitive hospitalizations.

Table A: Metrics for the Quantitative Evaluation of the NJ DSRIP Program (continued)

	Program Focus of Evaluation	Metric	Chronic Disease Outcomes	Health Outcomes	Care	Disparities	Hospital Finances
			Hypothesis				
			1	2		3	4
18	DSRIP Overall	COPD Admission Rate		X	X		
19	DSRIP Overall	Heart Failure Admission Rate		X	X		
20	DSRIP Overall	CD4 T-Cell Count			X		
21	DSRIP Overall	Hospital Acquired Potentially-Preventable Venous Thromboembolism (VTE)		X	X		
22	DSRIP Overall	Cervical Cancer Screening			X		
23	DSRIP Overall	Chlamydia Screening in Women Ages 21-24			X		
24	DSRIP Overall	Percentage of Live Births Weighing Less than 2,500 Grams		X	X		
25	DSRIP Overall	Pneumococcal Immunization (PPV 23)			X		
26	DSRIP Overall	Childhood Immunization Status			X		
27	DSRIP Overall	Well-Child Visits in the First 15 Months of Life			X		

PQI=Prevention Quality Indicator relating to ambulatory care sensitive hospitalizations.

Methods

Data Sources

We use Medicaid fee-for-service claims and managed care encounter data for calendar years 2011–2013 and also uniform billing (UB) all-payer hospital discharge data over the same period. The 2008–2012 American Community Survey (ACS) was our source for defining the list of populated zip codes in New Jersey and creating population denominators for all-payer rates in 2011–2012. The 2009–2013 ACS was used for population denominators for all-payer rates for 2013. Finally, we used 2011–2013 CMS hospital-level cost reports for data on hospital finances and one state-reported hospital performance metric for 2013–2014.

Study Period

The baseline years for evaluation of the DSRIP program are 2011–2012. Year 2013, which spans Demonstration Years 1 and 2, is the first DSRIP program year, although it is important to note that no hospital projects had formally launched in 2013 and the program was in transition at this time. Therefore, this midpoint assessment comparing outcomes in 2013 to 2011–2012 describes only the very early impact of DSRIP program activities as hospitals prepared their DSRIP applications and planned for the potential implementation of chronic disease management projects.

Selection and Calculation of Outcome Variables

Table B below presents the 17 quality metrics examined in this chapter of the report. We selected validated metrics such as those developed by the National Committee on Quality Assurance (NCQA) and National Quality Forum (NQF)-endorsed metrics that could be calculated from available data. We chose metrics that would reflect the effect of DSRIP program on the overall delivery system, both inpatient and ambulatory care, instead of narrower inpatient process-based measures. We focused on metrics that are being used to assess similar delivery system-related pay-for-performance efforts e.g., all-cause readmissions from initial hospitalizations of heart failure, acute myocardial infarction, and pneumonia. Appendix A provides additional information on these metrics and their relevance in assessing delivery system changes.

We followed the specifications of the measure steward for each metric as closely as possible given the data available. The set of metrics from the Healthcare Effectiveness Data and Information Set (HEDIS) were calculated using the 2014 HEDIS specifications. For calculating hospital readmissions we adapted the 2014 Centers for Medicare & Medicaid Services' 30-day readmission measures criteria for the Medicaid claims data. We used the August 2014 version 4.5A of the Agency for Healthcare Research and Quality's (AHRQ) Prevention Quality Indicators (PQI) program for analyzing avoidable/preventable inpatient hospitalizations and algorithms by Professor John Billings of New York University to calculate primary care preventable ED visits.

If not already part of the metric specification, an additional inclusion criteria imposed on all metrics was the requirement that a claim was only counted if the beneficiary had been continuously enrolled in Medicaid for at least 30 days preceding the claim date. As stated in our evaluation plan, this criterion eliminates events which might precipitate Medicaid enrollment and confound the effect of the DSRIP program.

Table B organizes the metrics used in our evaluation of chronic disease outcomes, access and quality of care, and racial/ethnic and gender disparities into three categories: index-event-based, population-based, and hospital-level metrics.

Index Event and Population-Based Metrics: The first category of *Index Event-Based Metrics* comprises outcomes related to an initial *index* event (an initial hospital stay or provider visit) experienced by the patient. Examples include whether the patient had a readmission within 30 days of an initial index hospitalization; had a follow up visit within 7 days of an index hospitalization for mental illness, or initiated and engaged in alcohol treatment shortly after an index diagnosis of alcohol or other drug dependence. The second category of *Population-Based Metrics* relates to outcome events where the relevant denominator is a population of Medicaid beneficiaries. This metric type could be assessed at an individual level (e.g., ED visit for asthma by any person) or aggregated at a geographic level (rate of avoidable hospitalizations per unit population in a zip code). When calculating zip code-level rates, we used the sum of enrollment periods for all Medicaid beneficiaries in that zip code for a particular year as the denominator. This accounts for differing lengths of enrollment time across zip codes that would influence the likelihood of the outcome event in Medicaid data. When calculating costs associated with avoidable inpatient and ED use, we put estimates for all years in 2012 dollars using consumer price indices (CPI) for medical care to adjust for medical care inflation over the study period (Crawford and Church 2014, 165; Crawford, Church, and Rippy 2013, 164).

Table B shows that the outcome variables may be binary (e.g., readmissions) or continuous (e.g., number of avoidable hospitalizations per unit population). It also includes provider or Medicaid beneficiary-related inclusion criteria that are adopted for calculating each of these metrics.

Hospital-Level Metrics: We utilized two sets of hospital-level metrics. The first relates to hospital financial performance and includes hospital total and operating margin. This assesses the financial impact of the DSRIP program on hospitals.

The second set of metrics relate to children and adolescents' access to primary care practitioners stratified by specific age groups. This metric belongs to both Stage 3 category (they are reported for hospitals in the obesity program) and Stage 4 category (reported for all hospitals). This outcome is used to assess the effect of the obesity program on improvement in access to primary care.

Table B: Metric Descriptions

	Program Focus of Evaluation	Metric Abbreviation	Metric	Inclusion Criteria	Outcome	DSRIP Exposure Assignment
Index Event-Based Metrics						
1	Behavioral Health	FUH-7	Follow-up after Hospitalization for Mental Illness 7 Days Post Discharge	Ages 6+ at any NJ DSRIP-participating hospital	0/1	by hospital
2	Behavioral Health	FUH-30	Follow-up after Hospitalization for Mental Illness 30 Days Post Discharge	Ages 6+ at any NJ DSRIP-participating hospital	0/1	by hospital
3	Chemical Addiction/ Substance Abuse	IT-AOD	Initiation of Alcohol and Other Drug Treatment	NJ residents[2] ages 13+ at any NJ provider	0/1	by zip
4	Chemical Addiction/ Substance Abuse	ET-AOD	Engagement of Alcohol and Other Drug Treatment	NJ residents[2] ages 13+ at any NJ provider	0/1	by zip
5	DSRIP Overall & Cardiac Care	RSRR-HF	30-Day All-Cause Readmission Rate Following Heart Failure (HF) Hospitalization	Ages 18+ at any NJ hospital[1]	0/1	by hospital

[1] For analysis of readmission metrics assessing DSRIP programs related to chronic conditions, only DSRIP participating hospitals are included.

[2] For population-based metrics assessing DSRIP programs related to chronic conditions, only NJ residents in zips with non-zero DSRIP exposure are included in analyses.

Notes: With the exception of the hospital financial metrics (#16) and Children and Adolescents' Access to Primary Care Practitioners metric (#17), all metrics are calculated using Medicaid claims and encounter data. Comparisons using uniform billing hospital discharge data are also conducted for preventable hospital use metrics (#13 and #14).

Table B: Metric Descriptions (continued)

	Program Focus of Evaluation	Metric Abbreviation	Metric	Inclusion Criteria	Outcome	DSRIP Exposure Assignment
6	DSRIP Overall & Cardiac Care	RSRR-AMI	30-Day All-Cause Readmission Rate Following Acute Myocardial Infarction (AMI) Hospitalization	Ages 18+ at any NJ hospital[1]	0/1	by hospital
7	DSRIP Overall & Pneumonia	RSRR-PN	30-Day All-Cause Readmission Rate Following Pneumonia (PN) Hospitalization	Ages 18+ at any NJ hospital[1]	0/1	by hospital
8	DSRIP Overall	RSRR-COPD	30-Day All-Cause Readmission Rate Following Chronic Obstructive Pulmonary Disease (COPD) Hospitalization	Ages 18+ at any NJ hospital	0/1	by hospital
Population-Based Metrics						
Person-Level						
9	Asthma	HDC-AC	Emergency Department (ED) Visits for Asthma	NJ residents[2]	0/1	by zip
10	DSRIP Overall	MPT	Mental Health Utilization – Inpatient	NJ residents	0/1	by zip
Zip-Level						
11	Asthma	PQI-15	Younger Adult Asthma Admission Rate (PQI-15)	NJ residents[2] ages 18+	count per 10K beneficiary years	by zip

[1] For analysis of readmission metrics assessing DSRIP programs related to chronic conditions, only DSRIP participating hospitals are included.

[2] For population-based metrics assessing DSRIP programs related to chronic conditions, only NJ residents in zips with non-zero DSRIP exposure are included in analyses.

Notes: With the exception of the hospital financial metrics (#16) and Children and Adolescents' Access to Primary Care Practitioners metric (#17), all metrics are calculated using Medicaid claims and encounter data. Comparisons using uniform billing hospital discharge data are also conducted for preventable hospital use metrics (#13 and #14).

Table B: Metric Descriptions (continued)

	Program Focus of Evaluation	Metric Abbreviation	Metric	Inclusion Criteria	Outcome	DSRIP Exposure Assignment
12	Diabetes	PQI-01	Diabetes Short-Term Complications Admission Rate (PQI-01)	NJ residents[2] ages 18+	count per 10K beneficiary years	by zip
13	DSRIP Overall	PQI-90	Preventable Inpatient Hospitalizations (PQI 90)	NJ residents ages 18+	count per 10K beneficiary years	by zip
14	DSRIP Overall	AVED	Preventable/Avoidable Treat-and-Release ED Visits	NJ residents ages 18+	count per 10K beneficiary years	by zip
15	DSRIP Overall	AV$	Hospital Costs Related to Avoidable Inpatient Stays and Treat-and-Release ED Visits	NJ residents ages 18+	costs per 10K beneficiary years	by zip
Hospital-Level Metrics						
16	DSRIP Overall	MGN	Hospital Total and Operating Margin	All NJ hospitals	percentage	by hospital
17	DSRIP Overall & Obesity	CAP	Children and Adolescents' Access to Primary Care Practitioners	NJ DSRIP-participating hospitals	percentage	by hospital

[1] For analysis of readmission metrics assessing DSRIP programs related to chronic conditions, only DSRIP participating hospitals are included.
[2] For population-based metrics assessing DSRIP programs related to chronic conditions, only NJ residents in zips with non-zero DSRIP exposure are included in analyses.
Notes: With the exception of the hospital financial metrics (#16) and Children and Adolescents' Access to Primary Care Practitioners metric (#17), all metrics are calculated using Medicaid claims and encounter data. Comparisons using uniform billing hospital discharge data are also conducted for preventable hospital use metrics (#13 and #14).

Defining Exposure to DSRIP Program

For all index event-based metrics, except initiation/engagement of AOD, the index event occurs in an inpatient hospital setting, and the patient was considered exposed to the DSRIP program overall (or a particular chronic disease management program) if the hospital where the index admission occurred was participating in the DSRIP program in 2013 (or participating in a chronic disease management program). Over the course of the DSRIP program, hospitals may discontinue participation and our analysis will incorporate such changes.

Assignment of DSRIP exposure for all population-based metrics and for initiation/engagement of AOD, (where the qualifying index event could occur at an outpatient provider setting) is based on the extent to which zip codes where the patients resided had DSRIP-participating hospitals. This was operationalized using a "choice set" methodology previously developed at CSHP (DeLia et al. 2009). Using 2011–2012 UB hospital discharge data for both inpatient stays and emergency department treat-and-release visits from 591 NJ zip codes (see Appendix G for details relating to zip code identification and selection), we created a "choice set" (or relevant set) of hospitals for each NJ zip code based on the volume of Medicaid discharges from area hospitals. The hospital choice set for a particular zip code is the smallest set of hospitals that accounts for at least 75% of all hospital discharges relating to Medicaid beneficiaries in that zip code. The purpose of the choice set thus, is to focus on those hospitals that individually account for the highest number of Medicaid-paid discharges relating to patients residing in a zip code, and also as a group account for the majority of Medicaid discharges relating to that zip code.

Based on the choice set hospitals, we considered three alternative measures of the zip code population's (or a patient's, in case of AOD metrics) exposure to DSRIP.

Exposure Measure 1: Equals 1 if any hospital in the choice set took part in the program, 0 otherwise
Exposure Measure 2: Equals the number of hospitals in the choice set that took part in the program
Exposure Measure 3: Percent of discharges relating to all hospitals in the choice set that belong to hospitals taking part in the program

Exposure Measure 3 was our primary indicator of DSRIP exposure at the zip code level. We also created an additional measure based on this to classify zip codes as having high or low exposure to DSRIP. Specifically, if for any zip code the DSRIP-participating hospitals in the choice set accounted for more than 50% of Medicaid discharges from all choice set hospitals, that zip code was considered a high DSRIP exposure zip code. If the percentage was less than or equal to 50%, that zip code was considered low exposure.

We conducted robustness checks where appropriate, alternatively defining the hospital choice set based on 90% of Medicaid discharges to a zip code.

Analytic Strategy

The effect of the DSRIP program is assessed by identifying its impact on individual patient outcomes as well as population-based outcomes that are aggregated across zip codes. The effect on patient outcomes that are related to hospital events (index event based metrics) is measured by the change in outcomes over time for hospitals that participated in the DSRIP program relative to comparison hospitals that did not participate in the program. Similarly the effect of specific disease management programs is examined by comparing hospitals that took part in the program to other DSRIP-participating hospitals that did not take part in the program. For instance, the effectiveness of the cardiac care program is examined by comparing related patient outcomes in DSRIP-participating hospitals adopting that program to those that did not adopt that program at two points of time-before and after the start of the DSRIP program.

For metrics that are population-based, we examine how patient outcomes vary across NJ zip codes and over time, as the DSRIP program is implemented. The zip codes are distinguished by their differing exposure to the DSRIP program based on the exposure measures defined above.

The statistical method utilized to identify the program effect is a difference-in-differences (DD) estimation technique that examines changes in selected outcomes in the study group, from pre- to post-program implementation, relative to a comparison group. Such an estimation strategy is able to identify changes in outcomes that are due to program impact, and distinct from secular trends. It further accounts for the effect of unobserved factors, as long as their impact on one of the groups relative to the other do not change over time.

$$Y_{it} = \beta_0 + \beta_1(program)_i + \beta_2(post)_t + \beta_3(program_i * post_t) + \gamma X_{it} + \varepsilon_{it} \qquad (1)$$

Equation (1) illustrates the general DD specification. The variable Y_{it} represents the outcome for the i^{th} patient or zip code[2], depending on the metric, at year t. *Post*= 0 for years 2011–2012 and =1 for year 2013 when the DSRIP program began in New Jersey[3]. *Program* equals 0 or 1 (depending on hospital participation) when the outcome is a hospital-based metric, or equals the DSRIP exposure variable when the program effect operates based on the zip code where the

[2] For the obesity-related metrics or hospital financial margin the unit of analysis is the hospital.

[3] 30-day readmissions metrics require a full year of retrospective data for risk adjustment and are therefore calculated only for years 2012 and 2013. Therefore, *post*=0 for year 2012 and =1 for year 2013 in models using readmissions outcomes.

patient resides. In this model, β_3 measures the program impact. X_{it} is a vector of other control variables relating to the patient, and ε_{it} represents the random error term.

Depending on the specific metric, Y_{it} can be modelled as a rate or a binary variable. Details relating to the unit of analysis which may be a patient, a hospital discharge, or zip code, and statistical modelling are detailed in Table C. The basic model in equation (1) is augmented with year, zip code or hospital fixed effects as applicable. For analysis of outcomes that have zip code Medicaid population-based denominators (adjusted by differing enrollment periods), regressions were weighted by total beneficiary-years in each zip code. This ensured that each zip code contributed to the estimation of DSRIP effects in proportion to the volume and enrollment duration of its Medicaid beneficiaries who met the inclusion criteria for the metric.

The model was also augmented to examine the effect of the DSRIP program on racial/ethnic and gender disparities. For readmission metrics, we introduced additional terms that included the interaction between the indicators for program, post period and race/ethnicity along with other related main and interaction effects.

When there was insufficient sample size for each of the individual racial/ethnic groups, we created a minority indicator variable that combined Blacks, Hispanics, and patients belonging to other-race/ethnicity into a single group. This variable was then used in models to estimate whether there was any differential effect of DSRIP on minorities as a group compared to Whites.

For assessing disparities based on avoidable hospitalizations and ED visits, we examined the effect of the program on the difference in the rate of these events between each racial/ethnic minority group and whites, and also between females and males. When assessing disparities based on these zip-code based metrics, the total beneficiary-years of the specific minority group, or females, were used as analytic weights to account for variability in these populations across zip codes.

The final two metrics that we analyze relate to hospital financial performance and assessment of the obesity program and the unit of analysis is the hospital. The outcome variables are hospital operating margin, hospital total margin, and percentage of hospital attributed population that had access to primary care physician. Within the previously described DD framework, the estimated coefficient of the interaction term between program and post measures the effect of the DSRIP program on the relevant outcome.

Results relating to event-based metrics are not reported when estimates are based on denominators are less than 30. Our estimation procedures were conducted using STATA MP 14 or SAS 9.2 software.

Explanatory Variables

Table C lists details on explanatory variables used in the multivariate regression analysis relating to the 15 metrics. For modelling outcomes related to the index-event based metrics, we used individual-level control variables such as beneficiary age and sex, and diagnosis-based Chronic Illness and Disability Payment System (CDPS) risk score that measures disease diagnoses and burden of illness with higher values indicating greater disease burden. For the FUH and AOD metrics, we used the individual's CDPS risk score category (<=1, 1-2, 2-3, 3-5, and >5) during baseline and the post-implementation year to adjust for health status changes. For readmission metrics we used the full set of risk-adjustment variables that are defined by the CMS methodology related to Risk Standardized Readmission Rates (RSRR) (QualityNet 2015). Appendix E lists all the risk-adjustment variables for each of the readmission outcomes. For all of these metrics, except IT-AOD and ET-AOD, we utilize hospital fixed effects to adjust for the effect on outcomes of time-invariant differences across hospitals.

For population-based metrics and the IT-AOD and ET-AOD metrics where DSRIP exposure is assigned based on zip codes where patients reside, zip code fixed effects account for time-invariant differences across zip codes such as socio-demographic composition and disease prevalence. As before, we account for the change in disease diagnoses and burden of illness over time by adjusting for the CDPS risk score category for each individual for person-level metrics. For metrics that are averages based on zip-populations, such as avoidable hospitalizations or those relating to asthma or diabetes hospitalizations, we use the average CDPS score in the zip code for each year.

For all metrics, year fixed effects adjust for changes in outcomes over time that are common across all patients.[4]

[4] 30-day readmissions metrics require a full year of retrospective data for risk adjustment and are therefore calculated only for years 2012 and 2013. For these, the *post* indicator for calendar year 2013 is the year fixed effect.

Table C: Modeling Details

	Program Focus of Evaluation	Metric	Unit of Analysis	Outcome	Model Specification[1]	Control Variables
Index Event-Based Metrics						
1	Behavioral Health	Follow-up after Hospitalization for Mental Illness 7 Days Post Discharge	index hospitalization	0/1	Linear Probability Model	gender, age, CDPS risk category, hospital and year FE
2	Behavioral Health	Follow-up after Hospitalization for Mental Illness 30 Days Post Discharge	index hospitalization	0/1	Linear Probability Model	gender, age, CDPS risk category, hospital and year FE
3	Chemical Addiction/ Substance Abuse	Initiation of Alcohol and Other Drug Treatment	index event	0/1	Linear Probability Model[2]	gender, CDPS risk category, zip and year FE
4	Chemical Addiction/ Substance Abuse	Engagement of Alcohol and Other Drug Treatment	index event	0/1	Linear Probability Model[2]	gender, CDPS risk category, zip and year FE
5	DSRIP Overall & Cardiac Care	30-Day All-Cause Readmission Rate Following Heart Failure (HF) Hospitalization	index hospitalization	0/1	Linear Probability Model	age, gender, clinical risk factors, hospital FE
6	DSRIP Overall & Cardiac Care	30-Day All-Cause Readmission Rate Following Acute Myocardial Infarction (AMI) Hospitalization	index hospitalization	0/1	Linear Probability Model	age, gender, clinical risk factors, hospital FE
7	DSRIP Overall & Pneumonia	30-Day All-Cause Readmission Rate Following Pneumonia (PN) Hospitalization	Index hospitalization	0/1	Linear Probability Model	age, gender, clinical risk factors, hospital FE

CDPS=Chronic Illness and Disability Payment System; FE=Fixed Effects.

[1] All models use robust standard errors.

[2] Models are stratified by age (13-17, and 18+) as per HEDIS specifications for this metric.

[3] Models are stratified by age (0-17, and 18+).

Table C: Modeling Details (continued)

	Program Focus of Evaluation	Metric	Unit of Analysis	Outcome	Model Specification[1]	Control Variables
8	DSRIP Overall	30-Day All-Cause Readmission Rate Following Chronic Obstructive Pulmonary Disease (COPD) Hospitalization	Index hospitalization	0/1	Linear Probability Model	age, clinical risk factors, hospital FE
Population-Based Metrics						
Person-Level						
9	Asthma	Emergency Department (ED) Visits for Asthma	beneficiary	0/1	Linear Probability Model[3]	gender, CDPS risk category zip and year FE
10	DSRIP Overall	Mental Health Utilization - Inpatient	beneficiary	0/1	Linear Probability Model	age, gender, CDPS risk category zip and year FE
Zip-Level						
11	Asthma	Younger Adult Asthma Admission Rate (PQI-15)	zip code	count per 10K beneficiary years	Weighted linear regression	CDPS average, zip and year FE
12	Diabetes	Diabetes Short-Term Complications Admission Rate (PQI-01)	zip code	count per 10K beneficiary years	Weighted linear regression	CDPS average, zip and year FE
13	DSRIP Overall	Preventable Inpatient Hospitalizations (PQI-90)	zip code	count per 10K beneficiary years	Weighted linear regression	CDPS average, zip and year FE
14	DSRIP Overall	Preventable/Avoidable Treat-and-Release ED Visits	zip code	count per 10K beneficiary years	Weighted linear regression	CDPS average, zip and year FE

CDPS=Chronic Illness and Disability Payment System; FE=Fixed Effects.

[1] All models use robust standard errors.

[2] Models are stratified by age (13-17, and 18+) as per HEDIS specifications for this metric.

[3] Models are stratified by age (0-17, and 18+).

Table C: Modeling Details (continued)

	Program Focus of Evaluation	Metric	Unit of Analysis	Outcome	Model Specification[1]	Control Variables
15	DSRIP Overall	Hospital Costs Related to Avoidable Inpatient Stays and Treat-and-Release ED Visits	zip code	costs per 10K beneficiary years	Weighted, generalized linear model with gamma log link	CDPS average, year FE
Hospital-level Metrics						
16	DSRIP Overall	Hospital Total and Operating Margin	hospital	percentage	Linear regression	—
17	DSRIP Overall & Obesity	Children and Adolescents' Access to Primary Care Practitioners	hospital	percentage	Weighted linear regression	—

CDPS=Chronic Illness and Disability Payment System; FE=Fixed Effects.

[1] All models use robust standard errors.

[2] Models are stratified by age (13-17, and 18+) as per HEDIS specifications for this metric.

[3] Models are stratified by age (0-17, and 18+).

Results

In this section we report findings from quantitative analyses that capture the very early effects of the DSRIP program. It is important to remember that we compare outcomes between the pre-DSRIP baseline period comprising 2011–2012 and the first year of the DSRIP program which is 2013. This year precedes the official DSRIP implementation period that starts in January 2014 (Myers and Stauffer LC 2015), but we characterize and refer to hospitals by their participation status (including selected program area) effective in 2014. As additional data become available relating to periods of active implementation of the DSRIP projects, analyses based on that data could potentially yield substantively different findings from those found here. With that caveat, our estimates of program impact in this specific report will be based on the baseline period and first DSRIP program year. Finally, unless otherwise noted, findings reported do not differ substantively when sensitivity analyses are done using an alternative specification of the hospital choice set used to define DSRIP exposure (as discussed in the Methods section).

Impact of DSRIP Programs by Focus Area

Behavioral Health Program: Figures 3.1 and 3.2 report 7-day and 30-day follow up rates after a hospitalization for mental illness. These rates are shown separately for the group of hospitals

that are participating in the BH program and the comparison group of DSRIP hospitals that is not, for the baseline period spanning 2011–2012 and calendar year 2013 which is the first DSRIP program year.

Thirty-day follow up rates are expectedly higher than 7-day rates and this difference is higher for DSRIP hospitals participating in the BH programs (for these hospitals rates are twice as high). For both metrics, the follow up rates are higher among the hospitals not participating in the BH program.

Table 3.1 reports the findings based on a regression analysis examining the effect of the BH program on these outcomes by comparing hospitals that participated in the program to those that did not, for the baseline and the first year of the DSRIP program. We find that the effect of the BH program is reflected in a 1.5 percentage point decrease in both follow up rates, but these estimates are not statistically significant.

Chemical Addiction/Substance Abuse Program: Figures 3.3 reports rates of initiation in alcohol and other drug (AOD) treatment for two groups of patients classified based on whether at least one hospital in their zip codes was taking part in a chemical addiction/substance abuse program. These are reported for the baseline period spanning 2011–2012 and calendar year 2013 which is the first DSRIP program year. Figure 3.4 reports the corresponding rates for engagement in AOD.

We see that both groups of patients experienced an increase in both initiation and engagement rates from baseline to the first DSRIP program year. Rates for initiation for any group of patient during any year(s) were higher than the corresponding rates of engagement.

Table 3.2 reports the findings based on a regression analysis examining the effect of the chemical addiction and substance abuse program on these outcomes. The results are reported overall and separately for age stratifications 13-17 and 18+. The estimates reflect the average increase in the likelihood (ranging between 0 and 1) of initiation and engagement, due to a 1% increase in DSRIP exposure.

Compared to a zip code with zero exposure to the program (i.e. where none of the hospitals took part in the program), a patient in a zip code with 100% exposure to the program (where all hospitals took part in the program) had 1.3 percentage point higher likelihood of initiation in AOD.

The corresponding increase in engagement was by less than 1 percentage point. Neither of these effects were statistically significant. The pattern was similar for both age stratifications, although still not statistically significant.

Asthma Program: Figure 3.5 reports rates of ED visits for asthma among patients classified by whether their zip code had at least one hospital participating in the asthma program. Rates of ED visits for asthma decreased from the baseline to the first DSRIP program year for patients in both types of zip code.

Table 3.3 reports the results from a regression analysis stratifying patients by age. The effect of the program on the likelihood of ED visit for asthma was close to zero. Specifically, as a child's exposure to DSRIP asthma programs increased from 0% to 100%, the probability of an ED visit for asthma increased by 2/10 of a percentage point For adults it increased by 3/10 of a percentage point and was significant at the 5% level.

Figures 3.6 and 3.7 report rates of population-based, younger adult hospital admission rates for asthma in zip codes distinguished by hospitals' participation in an asthma intervention project. Figure 3.6 classifies zip codes based on whether they had participation by at least one hospital and Figure 3.7 classifies zip codes on the extent of area hospital participation. We see that asthma admission rates were higher for both periods in zip codes that had greater hospital participation. Additionally, for every category of zip code, the admission rates decreased from the baseline to the first DSRIP program year.

Table 3.4 reports the results from a regression analysis examining the effect of the asthma program. We see a very small but statistically significant decrease in preventable asthma admissions due to the asthma program. The estimate indicates that compared to a zip code that had no exposure to the program, a zip code where all hospitals participated in the asthma program had 8.3 fewer preventable asthma hospitalizations per 10,000 Medicaid beneficiary-years (for ages 18-39).

Diabetes Program: Figures 3.8 and 3.9 report rates of population-based, diabetes short-term complications admission rates in zip codes distinguished by hospitals' participation in a diabetes intervention project. Figure 3.8 classifies zip codes based on whether they had participation by at least one hospital and Figure 3.9 classifies zip codes on the extent of area hospital participation. We see that diabetes short-term complications admission rates were higher for both periods in zip codes that had greater hospital participation. However, zips with the higher exposure to DSRIP hospitals in the diabetes program had a decrease in this preventable

admission rate from the baseline to the first DSRIP program year. Zips with no or low area hospital participation had an increase in the rate over this time period.

Table 3.5 reports the results from a regression analysis examining the effect of the diabetes program. We see a very small but statistically significant decrease in preventable diabetes admissions for short-term complications due to the diabetes DSRIP program. The estimate indicates that compared to a zip code that had no exposure to the program, a zip code where all hospitals participated in the diabetes program had 4.8 fewer of these preventable diabetes hospitalizations per 10,000 Medicaid beneficiary-years (for ages 18 and above).

Cardiac Care Program: Figures 3.10 and 3.11 report HF and AMI readmission rates in 2012 and 2013 for patients in hospitals classified by participation in the cardiac care program. Average HF readmission rates improved (decreased in magnitude) for patients in 2013 for both categories of hospitals; AMI readmission rates worsened slightly for hospitals taking part in the program but improved slightly for hospitals not taking part. All the AMI readmission-related changes were less than 0.5 percentage point.

Table 3.6 reports results from regression analyses examining the effect of the cardiac care program. The program effect is reflected in a 3.1 percentage point decrease in HF readmissions and a 1.6 percentage point increase in AMI readmissions. None of these changes were statistically significant.

Pneumonia Program: Figures 3.12 reports pneumonia readmission rates in 2012 and 2013 for patients in hospitals classified by participation in the pneumonia program. Average pneumonia readmission rates improved (decreased in magnitude) in 2013 for both categories of hospitals, and the improvement was greater for DSRIP hospitals not taking part in the pneumonia program.

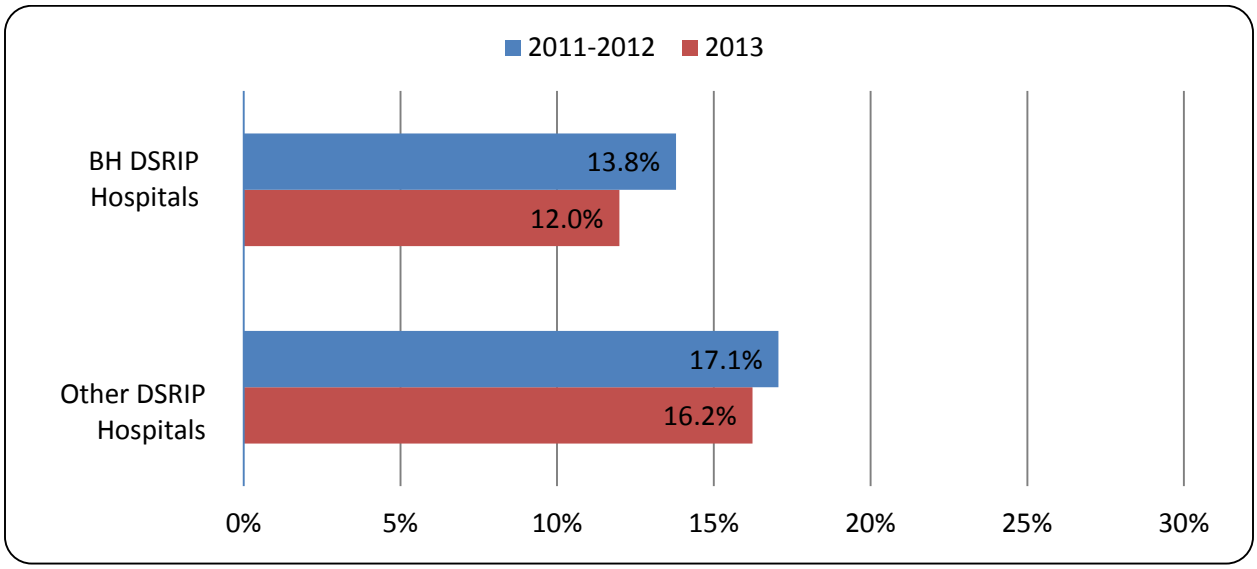
Table 3.7 reports results from regression analyses examining the effect of the pneumonia program. The program's effect is reflected in a 0.3 percentage point increase in pneumonia readmissions, but this change was not statistically significant.

Obesity Program: Figure 3.13 is an analysis of the hospital-level metric calculated and reported by the state on behalf of DSRIP-participating hospitals. It assesses the percentage of children ages 7-11 years old attributed to DSRIP hospitals with access to primary care physicians.

The hospital participating in the obesity program had slightly higher rates in both 2013 and 2014 than hospitals in DSRIP but participating in interventions for other chronic conditions. While both groups of hospitals had small increases in this metric from 2013 to 2014, the increase for the

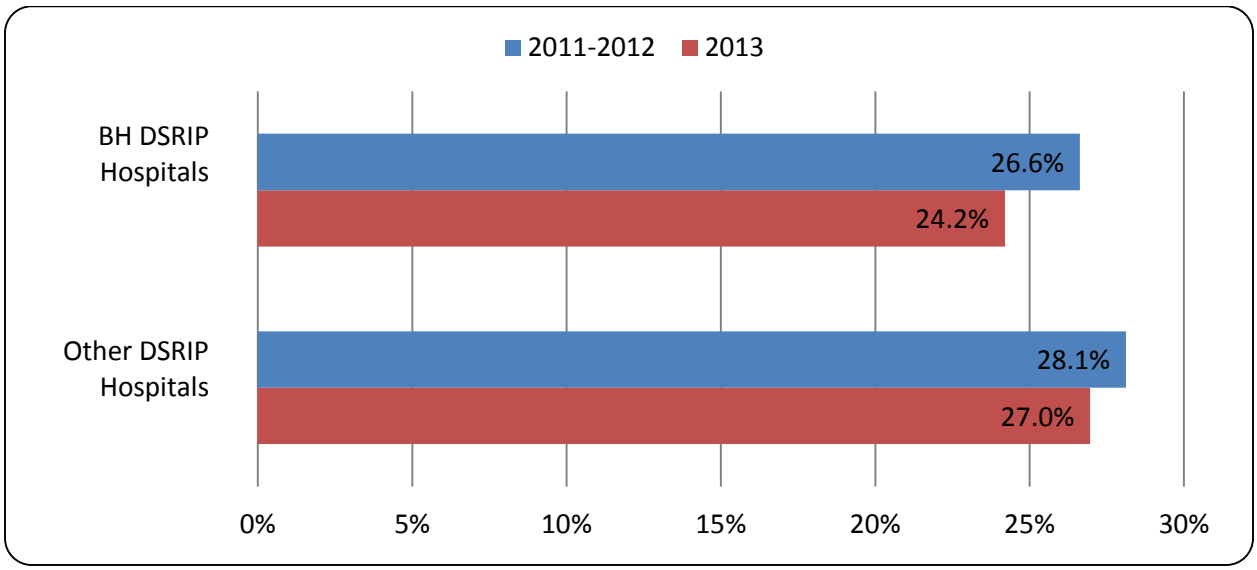
hospital with the obesity project was greater by 0.5 percentage points, though this was not statistically significant.

Figure 3.1: Rates of 7-Day Follow-up after Hospitalization for Mental Illness by DSRIP Hospital Participation in the Behavioral Health Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: BH=Behavioral Health.
Discharge-level analysis.

Figure 3.2: Rates of 30-Day Follow-up after Hospitalization for Mental Illness by DSRIP Hospital Participation in the Behavioral Health Program



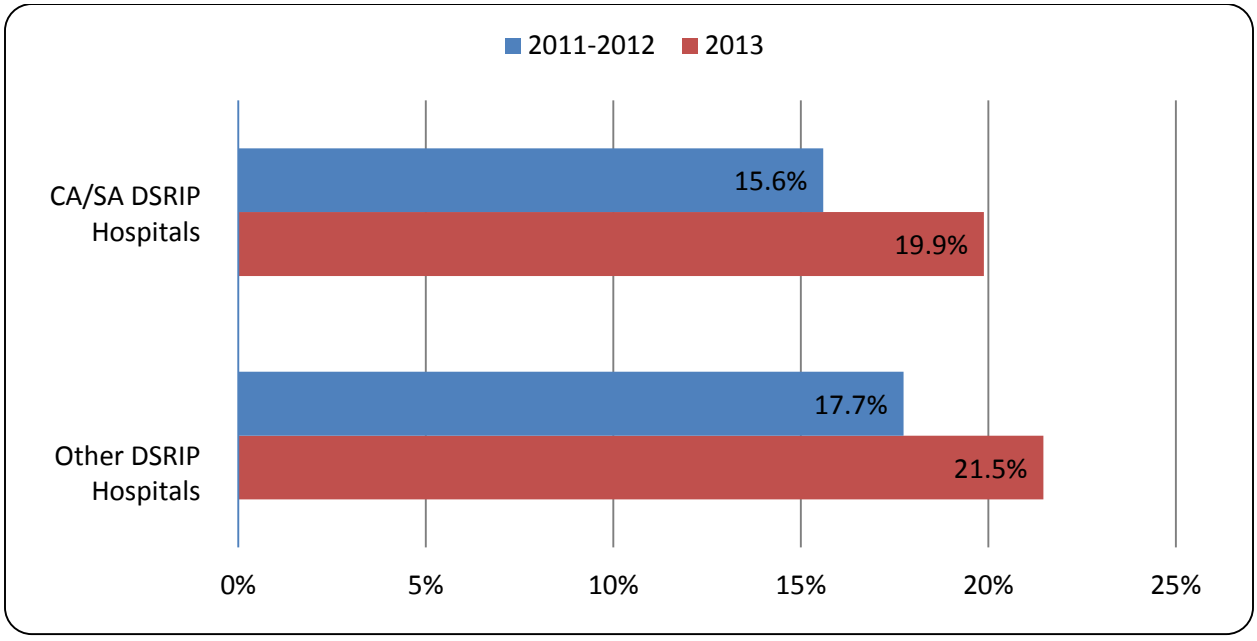
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: BH=Behavioral Health.
Discharge-level analysis.

Table 3.1: DSRIP Behavioral Health Program's Impact on Follow-up after Hospitalization for Mental Illness

n=20,108	DSRIP BH Program Impact Estimate
7-Day Follow-up	-0.015
	(0.011)
30-Day Follow-up	-0.015
	(0.013)

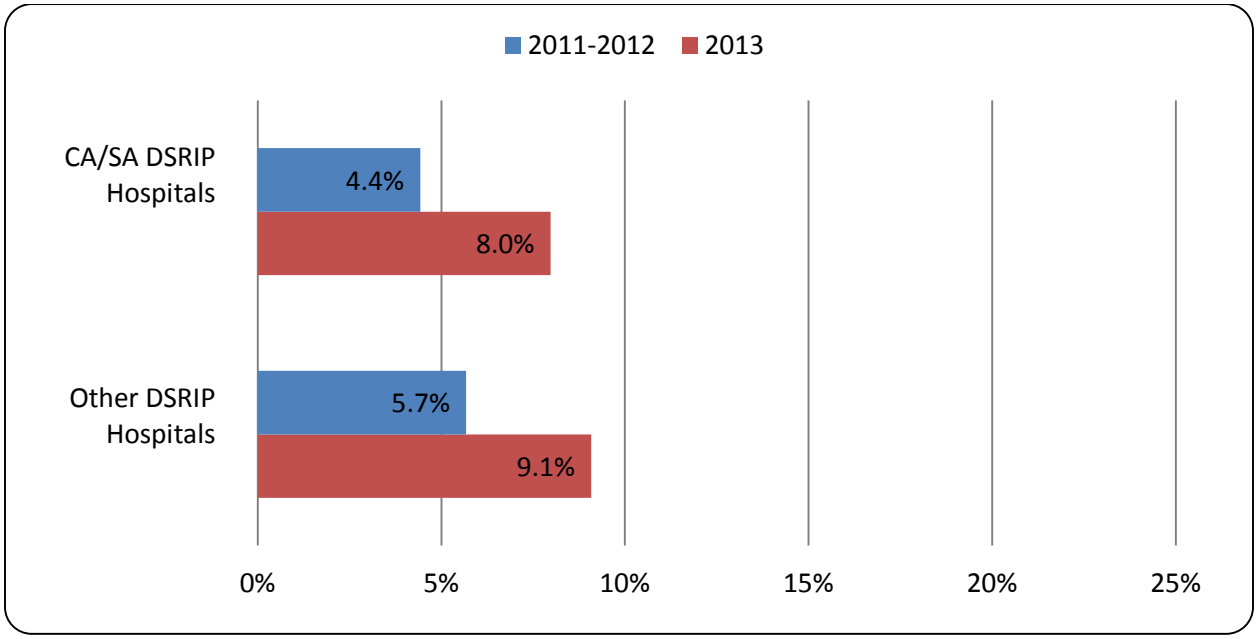
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: BH=Behavioral Health.
Discharge-level regression analysis with hospital fixed effects.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1
See Appendix G for full model results.

Figure 3.3: Rates of Initiation in Alcohol or Other Drug Treatment by DSRIP Hospital Participation in the Chemical Addiction/Substance Abuse Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: CA/SA=Chemical Addiction/Substance Abuse.
Rates are reported for patients in zip codes with DSRIP hospitals participating in the CA/SA program, and also zip codes where hospitals did not take part in the program.

Figure 3.4: Rate of Engagement in Alcohol or Other Drug Treatment by DSRIP Hospital Participation in the Chemical Addiction/Substance Abuse Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

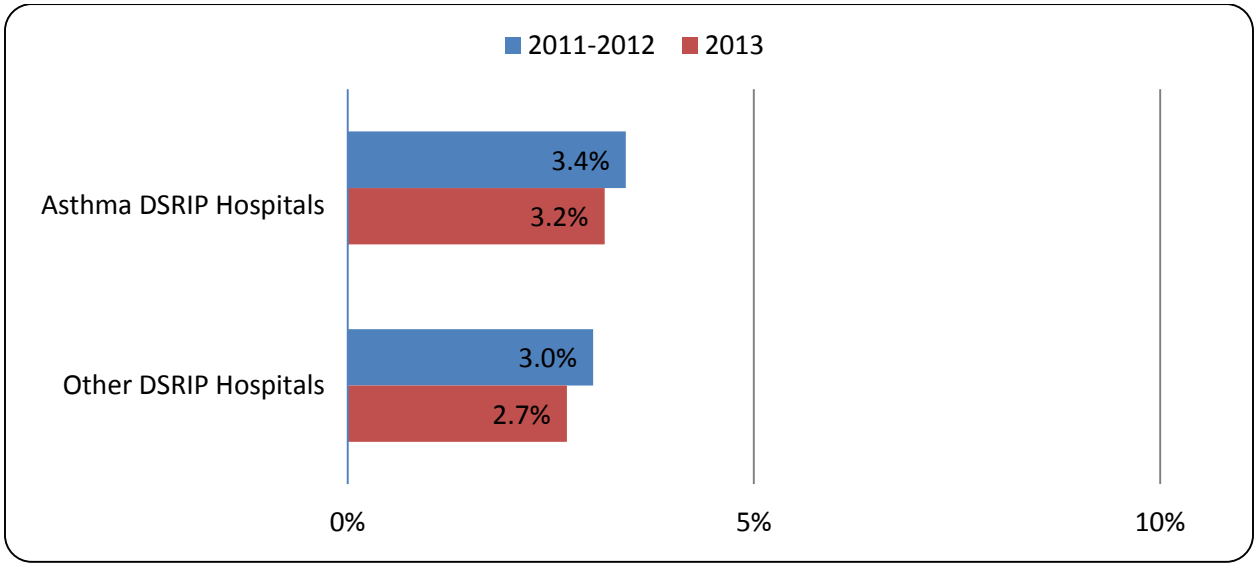
Notes: CA/SA=Chemical Addiction/Substance Abuse.
Rates are reported for patients in zip codes with DSRIP hospitals participating in the CA/SA program, and also zip codes where hospitals did not take part in the program.

Table 3.2: DSRIP Chemical Addiction/Substance Abuse Program's Impact on Initiation and Engagement in Alcohol and Other Drug Treatment

	DSRIP CA/SA Program Impact Estimate		
	Overall *(n=70,623)*	**Ages 13-17** *(n=5,902)*	**Ages 18+** *(n=64,721)*
Initiation of AOD Treatment	0.00013	0.00011	0.00009
	(0.00014)	(0.00048)	(0.00014)
Engagement in AOD Treatment	0.00004	-0.00001	0.00002
	(0.00008)	(0.00026)	(0.00008)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: CA/SA=Chemical Addiction/Substance Abuse.
Patient-level regression analysis with zip code fixed effects.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1
See Appendix G for full model results.

Figure 3.5: Emergency Department Visit for Asthma by DSRIP Hospital Participation in the Asthma Program



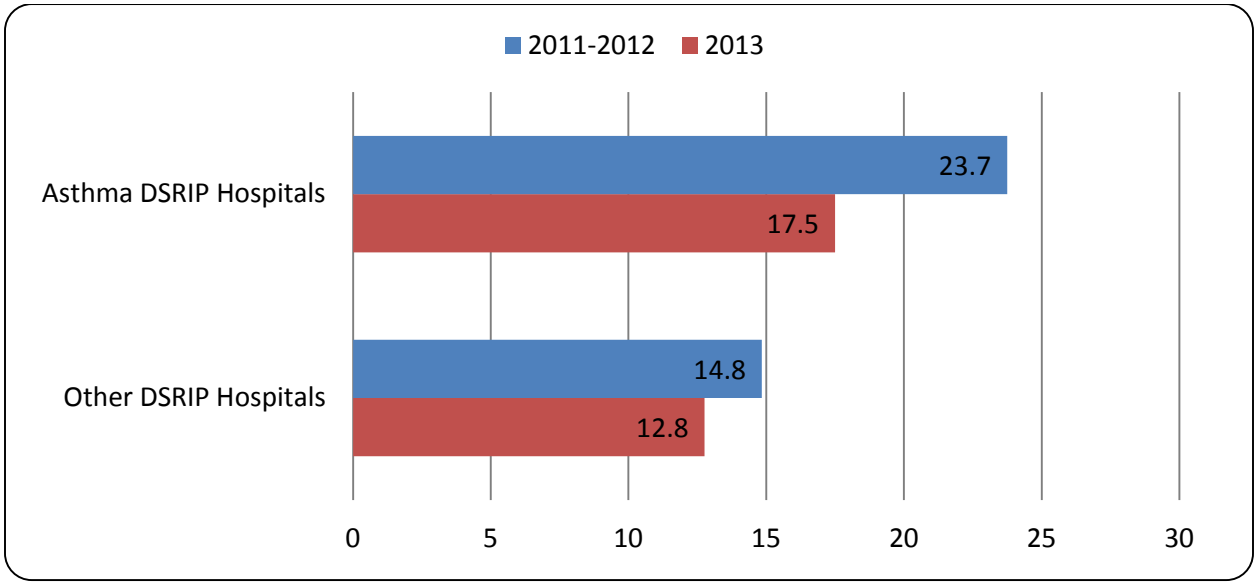
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Note: Bars reflect percentage of Medicaid beneficiaries with one or more ED visits for asthma during the year.
Percentages in the 'Asthma DSRIP Hospitals' category represent patients in zip code areas where hospitals took part in a DSRIP asthma program. The 'Other DSRIP Hospital' category represents patients in zip codes that have at least one hospital participating in DSRIP, but none participating in the DSRIP asthma program.

Table 3.3: DSRIP Asthma Program's Impact on Emergency Department Visits for Asthma

	DSRIP Asthma Program Impact Estimate	
	Ages 0-17 *(n=2,186,925)*	**Ages 18+** *(n=1,983,210)*
ED Visit for Asthma	0.00002	0.00003**
	(0.00001)	(0.00001)

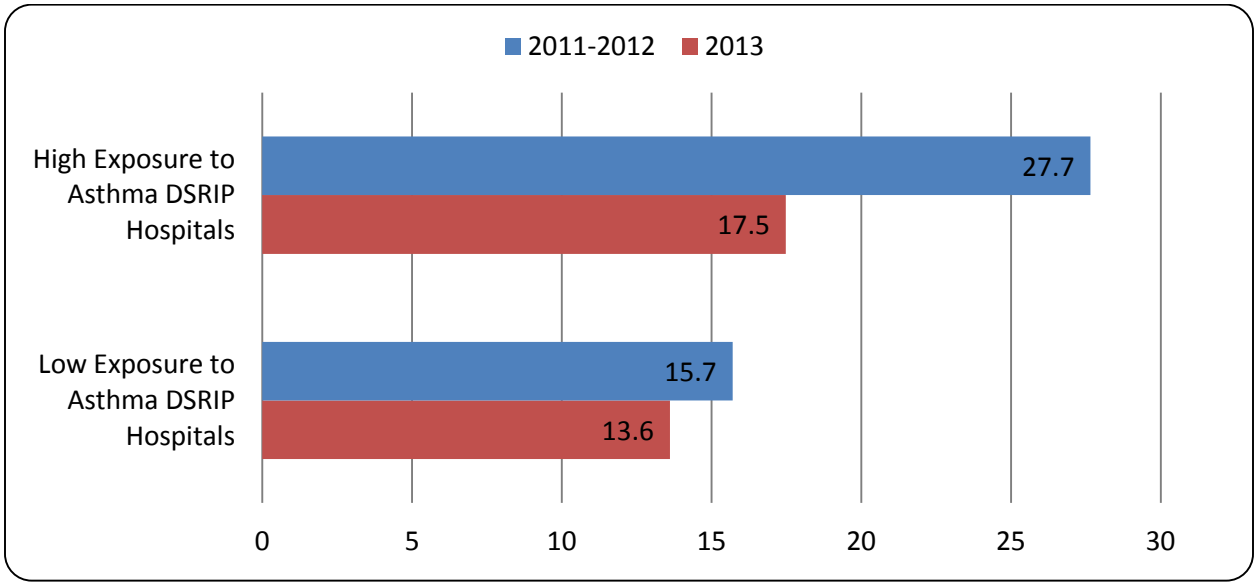
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: ED=Emergency Department.
Person-level regression analysis with zip code fixed effects.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1
See Appendix G for full model results.

Figure 3.6: Younger Adult Asthma Admission Rates by DSRIP Hospital Participation in the Asthma Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Each bar represents a weighted average of zip code-level rates of avoidable hospitalizations per 10,000 Medicaid beneficiary-years relating to beneficiaries of age 18-39. The 'Asthma DSRIP Hospital' category represents those zip codes that have at least one hospital participating in the DSRIP asthma program. The 'Other DSRIP Hospital' category represents those zip codes that have at least one hospital participating in DSRIP, but none participating in the DSRIP asthma program.

Figure 3.7: Younger Adult Asthma Admission Rates by DSRIP Hospital High/Low Participation in the Asthma Program



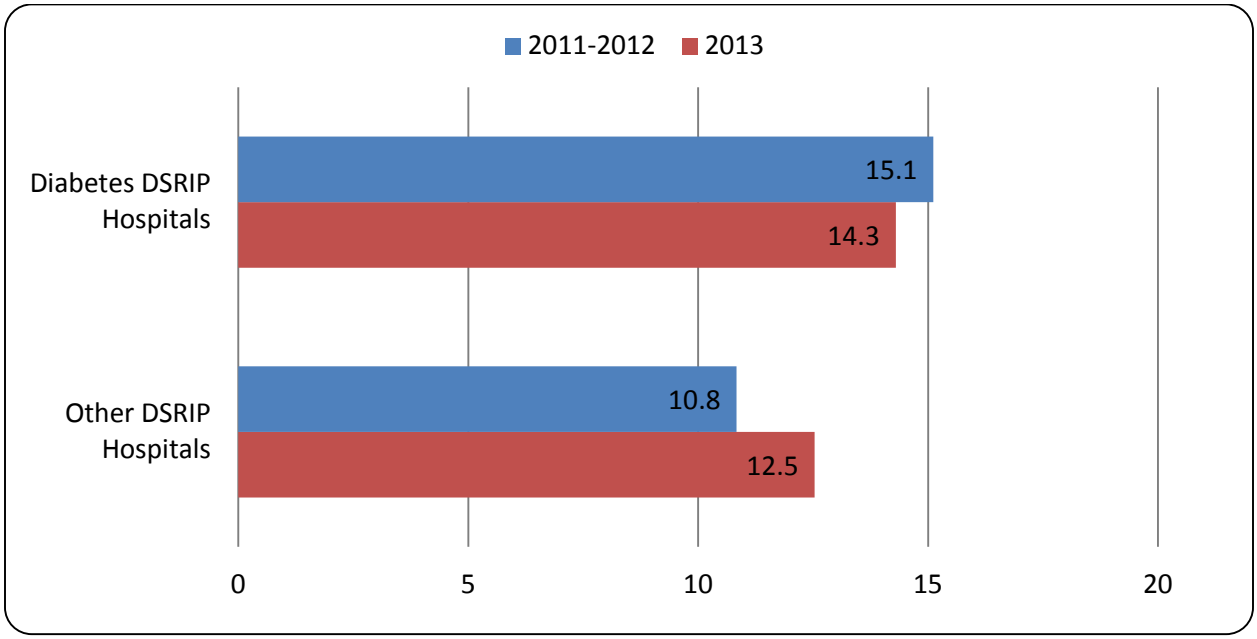
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Each bar represents a weighted average of zip code-level rates of avoidable hospitalizations per 10,000 Medicaid beneficiary-years relating to beneficiaries of age 18-39. Rates are reported separately for zip code areas with high and low exposure to the DSRIP asthma program (see Methods).

Table 3.4: DSRIP Asthma Program's Impact on Asthma in Younger Adults Admission Rate

(n=1,722)	DSRIP Asthma Program Impact Estimate
Younger Adults Asthma Admission Rate	-0.083**
	(0.039)

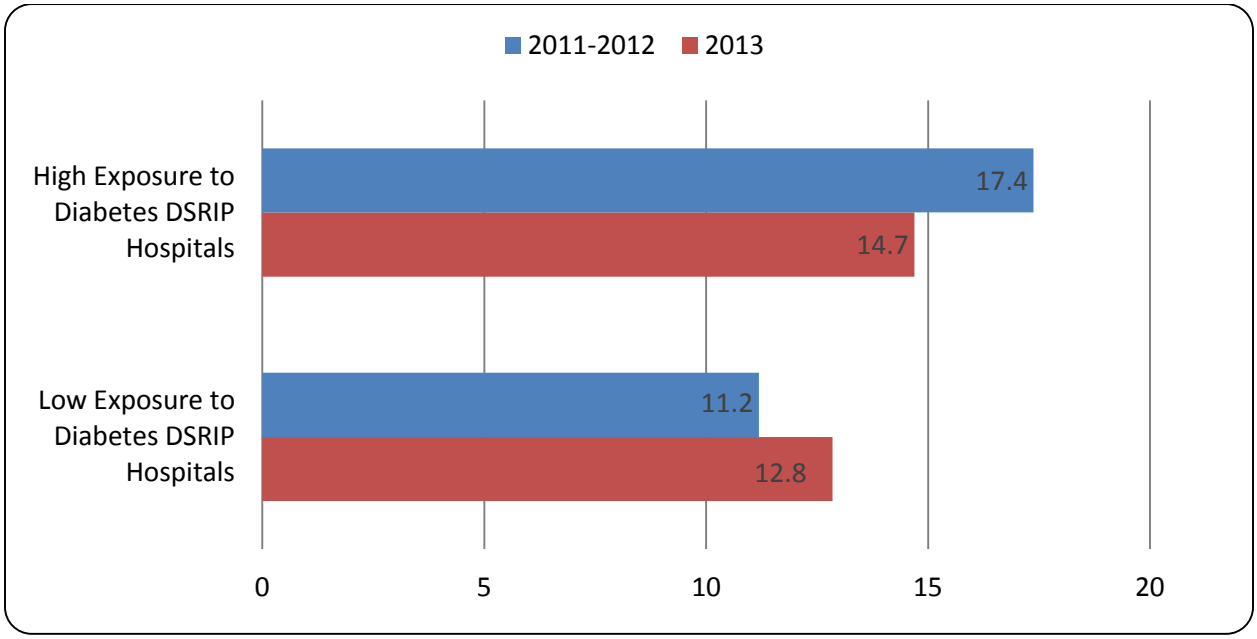
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Zip-level regression analysis with zip code fixed effects.
Rates are per 10,000 Medicaid beneficiary-years for beneficiaries ages 18-39.
Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
See Appendix G for full model results.

Figure 3.8: Diabetes Short-Term Complications Admission Rates by DSRIP Hospital Participation in the Diabetes Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Each bar represents a weighted average of zip code-level rates of avoidable hospitalizations per 10,000 Medicaid beneficiary-years relating to beneficiaries of ages 18 and above. The 'Diabetes DSRIP Hospital' category represents those zip codes that have at least one hospital participating in the DSRIP diabetes program. The 'Other DSRIP Hospital' category represents those zip codes that have at least one hospital participating in DSRIP, but none participating in the DSRIP diabetes program.

Figure 3.9: Diabetes Short-Term Complications Admission Rates by DSRIP Hospital High/Low Participation in the Diabetes Program



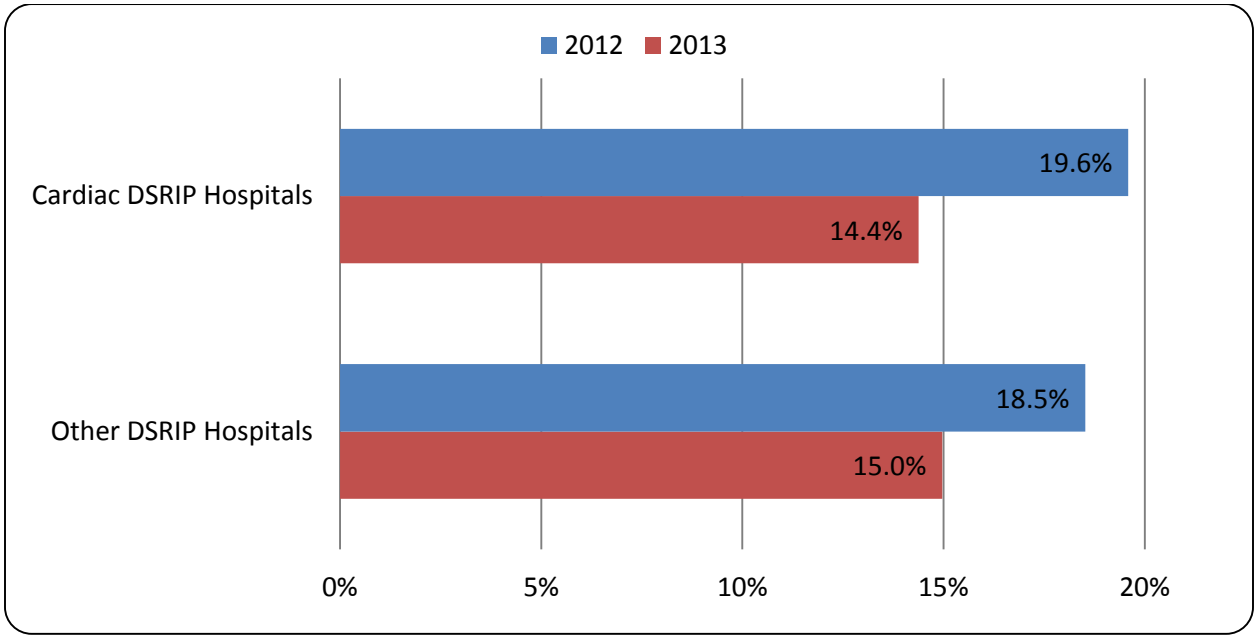
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Each bar represents a weighted average of zip code-level rates of avoidable hospitalizations per 10,000 Medicaid beneficiary-years relating to beneficiaries of ages 18 and above. Rates are reported separately for zip code areas with high and low exposure to the DSRIP diabetes program (see Methods).

Table 3.5: DSRIP Diabetes Program's Impact on Diabetes Short-Term Complications Admission Rate

(n=1,731)	**DSRIP Diabetes Program Impact Estimate**
Diabetes Short-term Complications Admission Rate	-0.048**
	(0.019)

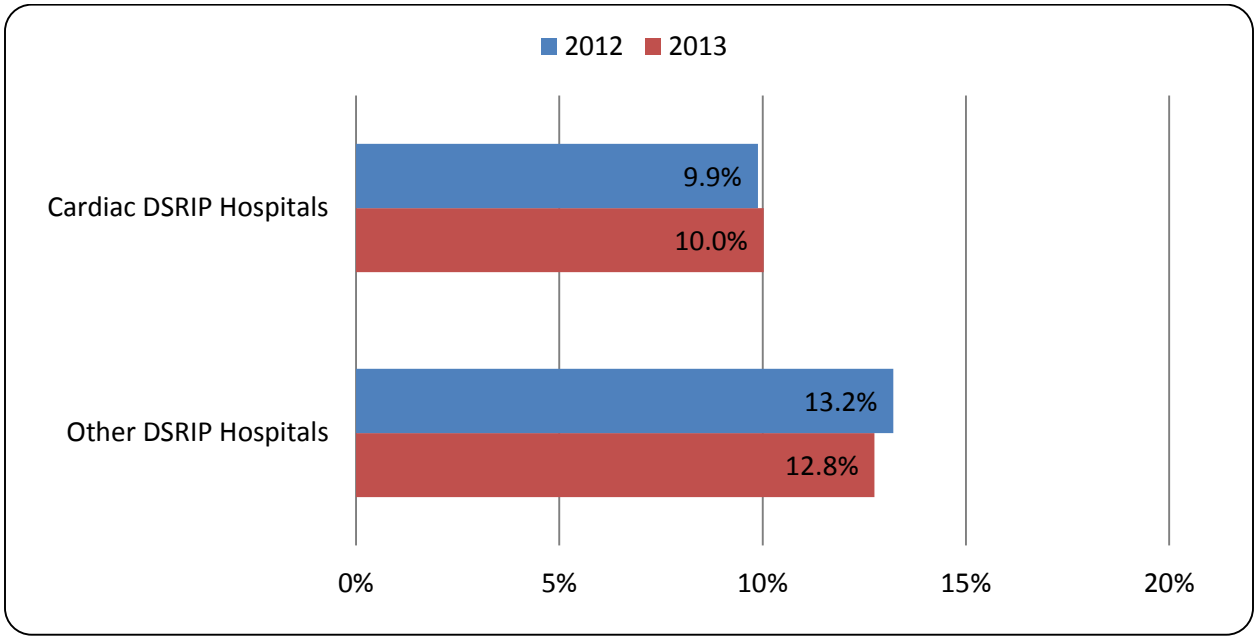
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Zip-level regression analysis with zip code fixed effects.
Rates are per 10,000 Medicaid beneficiary-years for beneficiaries ages 18+.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1
See Appendix G for full model results.

Figure 3.10: Heart Failure Readmission Rates by DSRIP Hospital Participation in the Cardiac Care Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Discharge-level analysis.

Figure 3.11: Acute Myocardial Infarction (AMI) Readmission Rates by DSRIP Hospital Participation in the Cardiac Care Program



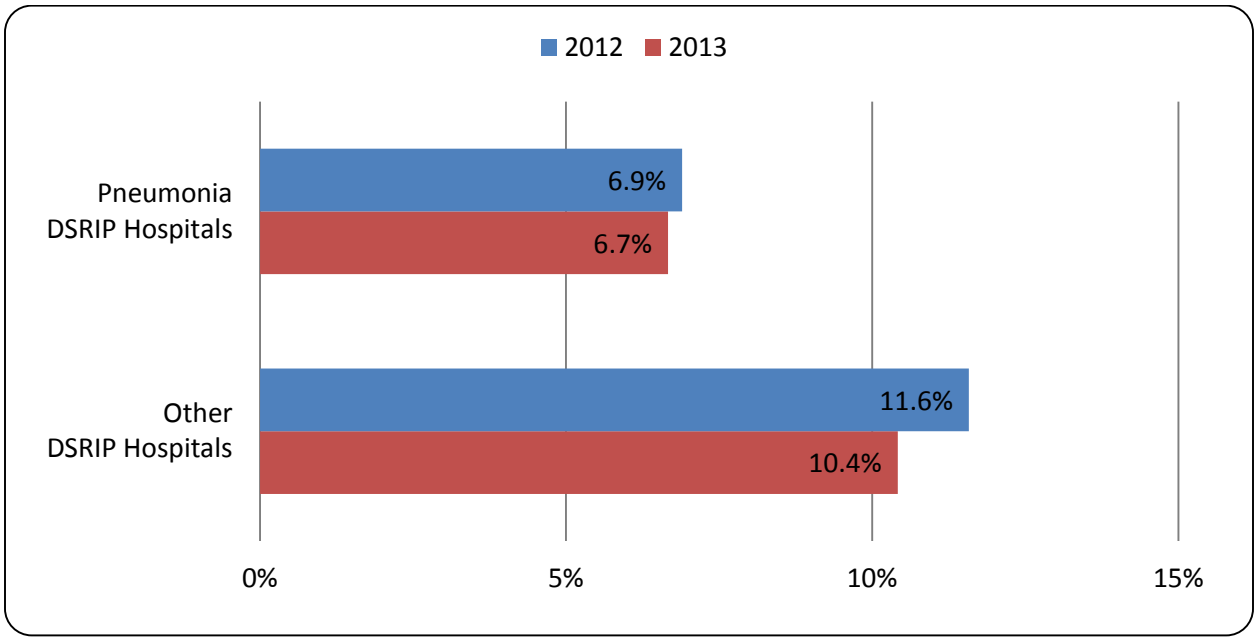
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Discharge-level analysis.

Table 3.6: DSRIP Cardiac Program's Impact on 30-Day Readmissions for Heart Failure and Acute Myocardial Infarction

	DSRIP Cardiac Program Impact Estimate
HF Readmissions *(n=4,526)*	-0.031
	(0.024)
AMI Readmissions *(n=1,685)*	0.016
	(0.024)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Discharge-level regression analysis with hospital fixed effects.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1
See Appendix G for full model results.

Figure 3.12: Pneumonia Readmission Rates by DSRIP Hospital Participation in the Pneumonia Program



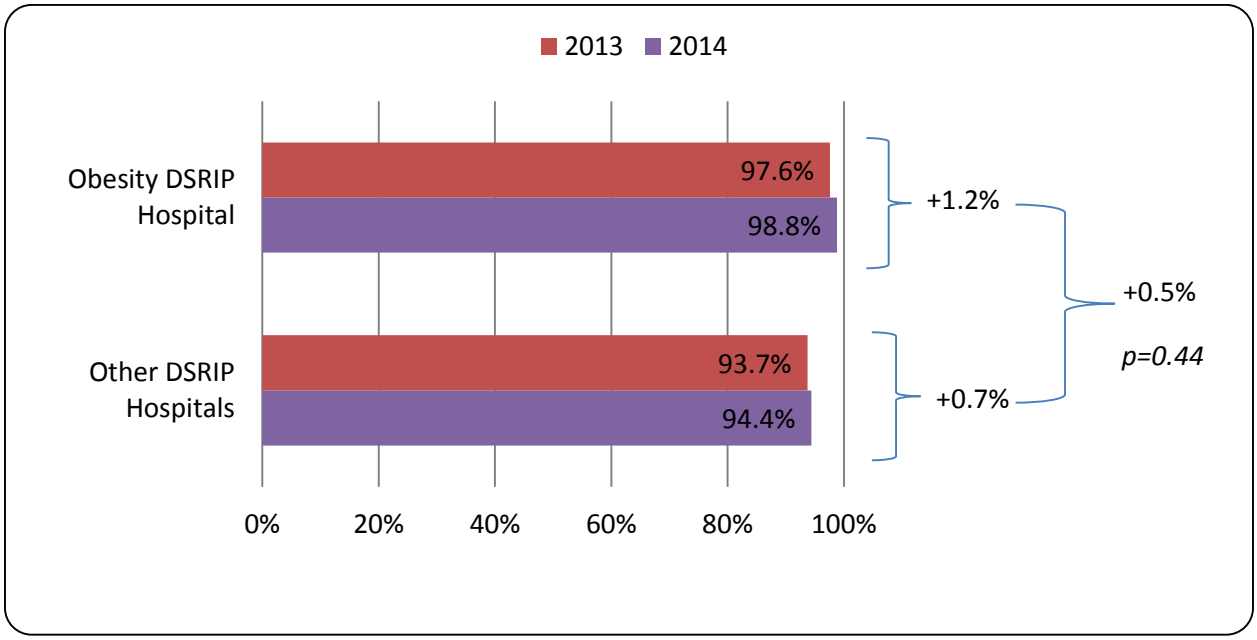
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Discharge-level analysis.

Table 3.7: DSRIP Pneumonia Program's Impact on 30-Day Readmissions for Pneumonia

(n=4,362)	DSRIP Pneumonia Project Impact Estimate
Pneumonia Readmissions	0.003
	(0.013)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Discharge-level regression analysis with hospital fixed effects.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1
See Appendix G for full model results.

Figure 3.13: Children and Adolescents' Access to Primary Care Physicians (Ages 7-11) by DSRIP Hospital Participation in the Obesity Program



Source: 2015 New Jersey DSRIP Metrics Analysis 2013 and 2014, Rutgers Center for State Health Policy.
Notes: Hospital-level analysis weighted by hospitals' attributed population ages 7-11 years.

Impact of DSRIP Program Overall

30-Day Readmissions: Figures 3.14-3.17 and Table 3.8 are based on 30-day readmission rates that are used to assess the overall effect of the DSRIP program. Figures 3.14-3.17 report average readmission rates for patients in hospitals distinguished by participation in the DSRIP program for the baseline 2012 calendar year and 2013, which is the first DSRIP program year. Readmission rates for pneumonia and COPD improved (decreased in magnitude) for both groups of hospitals from 2012 to 2013 (see Figures 3.16 and 3.17).

For HF and AMI, readmission rates decreased in magnitude (HF), or remained unchanged (AMI) for participating hospitals and worsened (increased in magnitude) for hospitals not participating in the DSRIP program (see Figures 3.14 and 3.15).

Regression analyses reveal that the overall effect of the DSRIP program measured in terms of changes in any of the four readmission rates was not statistically significant. In terms of magnitude the effect ranges from a 3.0 percentage point decrease in heart failure readmissions to a 2.0 percentage point increase in COPD readmissions.

Inpatient Mental Health Utilization: Figure 3.18 reports mental health utilization rates for beneficiaries in zip codes distinguished by whether the area hospitals participated in the DSRIP program. The utilization rates were less than 1%. Zip codes with DSRIP-participating hospitals had slightly lower rates in each year. The regression analysis shows a zero effect of DSRIP on inpatient mental health utilization (see Table 3.9).

Avoidable Hospital (Inpatient and ED) Utilization: Figures 3.19 and 3.20 report rates of avoidable hospitalizations aggregated across zip codes distinguished by their exposure to the DSRIP program. Rate of avoidable hospitalizations decreased over time in the zip codes where at least one hospital participated (see Figure 3.19) and zips where the hospitals accounting for the majority of discharges participated in DSRIP (See Figure 3.20). This trend was opposite to that in zip codes where area hospitals did not take part in the program where the rate of avoidable hospitalizations increased from the baseline period to 2013 (see Fig 3.19).

Figure 3.21 reveals that the rate of avoidable ED visits remained virtually unchanged in the group of zip codes which had at least one hospital participating in the DSRIP program. It increased in the remaining zip codes. The ED visit rate also remained unchanged in the zip codes that had high DSRIP exposure and decreased in those with low DSRIP exposure (see Figure 3.22).

Table 3.10 reports regression analyses examining the effect of the DSRIP program on avoidable inpatient hospitalizations and ED visits. The effect of the DSRIP program is reflected in a

statistically significant decrease in avoidable hospitalizations. On average, as a zip code goes from 0% to 100% exposure to DSRIP, rates of avoidable hospitalizations decreased by 36.8 per 10,000 Medicaid beneficiary years ($p<0.05$). The corresponding avoidable ED visit rate however increased by 97.2, but this was not statistically significant.[5]

Avoidable Hospital Costs: Figures 3.23-3.26 report rates of costs associated with avoidable hospital use, both inpatient and ED, aggregated across zip codes distinguished by their exposure to the DSRIP program. The costs are reported per 10,000 Medicaid beneficiary-years.

These costs are higher in both the baseline and first DSRIP program year for zip codes with some (compared to none) or high (compared to low) exposure to the DSRIP program.

Avoidable inpatient costs decrease from the baseline period to the first program year for all categories of zip codes except those with no participating hospitals in the DSRIP program. For avoidable ED costs, we see an increasing trend except for zip codes with no exposure to DSRIP. Table 3.11 reports regression analyses examining the effect of the DSRIP program on avoidable inpatient hospitalization and ED visit costs. The effect of the DSRIP program on costs (measured as the effect of a zip code going from zero to full DSRIP exposure) is not statistically significant and results in virtually no change (<$1 per 10,000 beneficiary-years) in avoidable hospitalization costs. The result for avoidable ED costs indicates that on average, as a zip code goes from 0% to 100% exposure to DSRIP, the costs increase by 7 cents per 10,000 beneficiary-years ($p<0.05$).

Table 3.12 shows avoidable hospital costs per 10,000 Medicaid beneficiary-year for DSRIP exposed and non-exposed zip codes stratified by race/ethnicity and gender. Costs associated with preventable inpatient hospitalizations decreased across all racial/ethnic and gender groups from the baseline to the first program year in DSRIP zips. In contrast, those same zips over the same time period and within each of these population subgroups experienced an increase in the costs associated with avoidable ED visits.

The highest costs for both avoidable inpatient hospitalizations and ED visits are for blacks, and this population subgroup shows different trends when examining non-DSRIP zips across the study period. Specifically, costs per beneficiary-year for avoidable hospitalizations decrease from the baseline to the first DSRIP program year for the black population in zips with no participating DSRIP. However, we see increases in their avoidable ED costs from the baseline to the first DSRIP program year (2013) in those zip codes.

[5] The impact estimate gets larger (125.6 avoidable ED visits per 10,000 Medicaid beneficiary-years) and is significant at the 10% level when basing DSRIP exposure on a choice set with a 90% threshold.

Racial/Ethnic Disparities in Hospital Readmissions: Figures 3.27-3.30 report changes in readmission rates for HF, AMI, pneumonia and COPD from the baseline to the first year of the DSRIP program separately for whites, blacks, Hispanics and other race/ethnicity. Rates are compared between hospitals participating in the DSRIP program and those that did not. Several of these estimates were not reported due to insufficient sample sizes that raise reliability as well as identifiability concerns.

We find that HF readmission rates decreased for whites and blacks in DSRIP-participating hospitals, and this decrease was greater than in the comparison group of non-participating hospitals.

AMI readmission rates in DSRIP-participating hospitals decreased over time for blacks and Hispanics, but increased for whites and patients belonging to the other race/ethnicity category. For both pneumonia and COPD, readmission rates in DSRIP-participating hospitals remained virtually unchanged for whites, decreased for patients who were black or belonged to the other race/ethnicity category, and increased for Hispanics.

Table 3.13 reports findings from analysis of racial disparities in readmission rates with separate estimates for patients belonging to each of the racial/ethnic categories (when sample size is adequate), and for minorities overall. The analysis compares changes in readmission rates over time for DSRIP participating hospitals relative to a comparison group of hospitals.

Considering minorities overall, racial/ethnic disparities based on HF, AMI and pneumonia readmission rates decreased, but the changes were not statistically significant. Based on COPD readmissions, there was a 7.9 percentage point increase in disparities which was statistically significant at the 5% level.

We also see that based on pneumonia readmissions, there was a substantial decrease in disparities for black patients reflected in a 13.7 percentage point reduction in readmission rates ($p<0.01$), but this result is based on insufficient sample size and cannot be deemed reliable. All other changes were not statistically significant.

Gender Disparities in Hospital Readmissions: The decrease in readmission rates for females in DSRIP participating hospitals was greater than the decrease for males when it came to HF (Figure 3.31), pneumonia (Figure 3.33), and COPD (Figure 3.34). For AMI readmissions, readmission rates for females increased by 1.6 percentage points in DSRIP-participating hospitals, but the increase was substantially higher (6.4 percentage points) for hospitals that did not participate in the program (see Figure 3.32).

Table 3.14 reports findings from the regression analysis. Genders-based disparities decreased when measured in AMI and pneumonia readmissions, and increased marginally based on heart failure and COPD readmissions. None of these estimates were statistically significant.

Racial/Ethnic and Gender Disparities in Avoidable Inpatient Hospitalizations: Figure 3.35 reveals that when we considered all zip codes with at least one hospital participating in the DSRIP program, the difference in avoidable inpatient hospitalizations per 10,000 Medicaid beneficiary-years between blacks and whites decreased by 26 from baseline to the first year of the DSRIP program. The difference in this rate between Hispanics and whites however, increased by 23 over the same period.

The difference in rates of avoidable hospitalizations between females and males for zip codes with DSRIP participating hospitals remained virtually unchanged – it decreased by 1 hospitalization per 10,000 beneficiary-years.

Table 3.15 reports the extent to which racial/ethnic and gender disparities in avoidable hospitalizations were impacted by the DSRIP program. The coefficient estimates reported here represent the average effect of a 1% increase in DSRIP exposure on the difference in rates of avoidable hospitalizations between any minority group and whites, or correspondingly, the difference in rates of avoidable hospitalizations between females and males. We see that compared to a zip code with zero exposure to DSRIP, a zip code with 100% exposure to DSRIP (100% exposure means that all hospitals, and zero exposure means none of the hospitals serving a zip code, took part in the DSRIP program) had 130 fewer hospitalizations by black patients relative to hospitalizations by white patients, per 10,000 Medicaid beneficiary-years. Similarly the difference in hospitalization rates between Hispanics and whites decreased by 85.1. However, neither of these two estimates were statistically significant. There was a marginally significant ($p<0.1$) decrease in the difference in hospitalization rates between Medicaid beneficiaries belonging to other racial/ethnic category and those who were whites amounting to 90.1 hospitalizations per 10,000 beneficiary-years.

We also found that females had higher rates of hospitalizations compared to males (difference in rates increased by 9.8 hospitalizations per 10,000 beneficiaries), but the magnitude of this change was not statistically significant.

Racial/Ethnic and Gender Disparities in Avoidable ED Visits: The difference in the rate of avoidable ED visits between each minority group and whites increased in zip codes where there was at least one DSRIP participating hospital from baseline to the first DSRIP program year (see

Figure 3.37). The corresponding difference in rates between females and males decreased by 70 hospitalizations over the same period (see Figure 3.38).

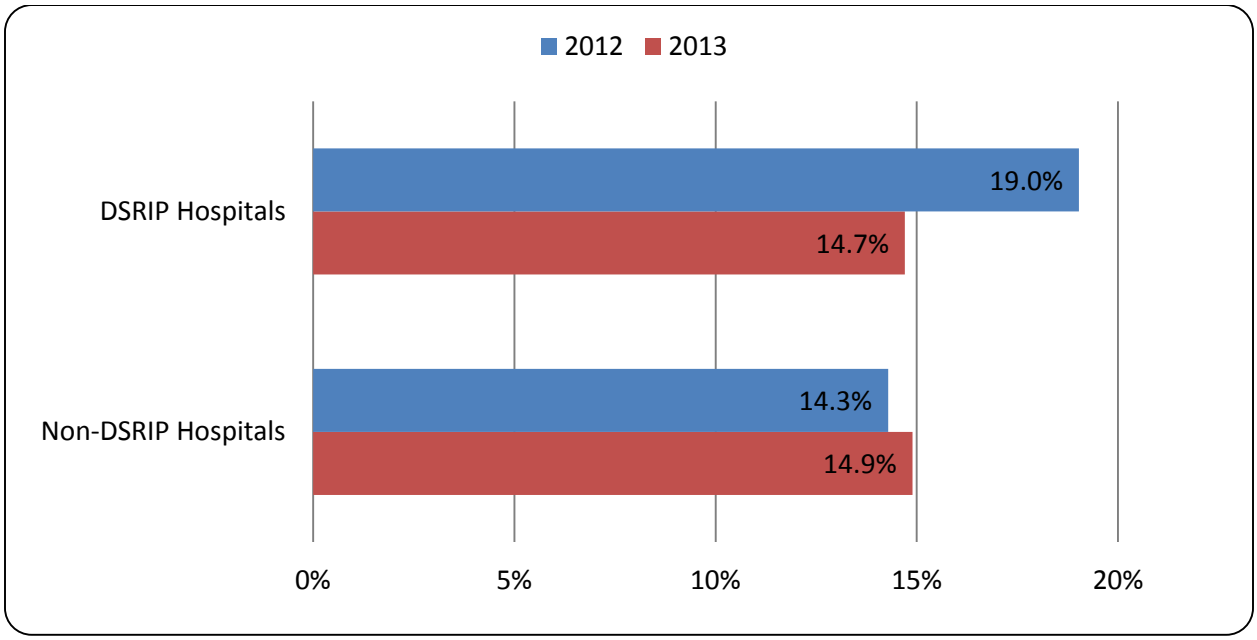
Table 3.16 reports the effect of the program on racial/ethnic and gender disparities in avoidable ED visits based on a regression analysis. The difference in rates of ED visits between blacks and whites decreased. Compared to a zip code with no DSRIP exposure, in a zip code with full DSRIP exposure, the difference in rates of avoidable ED visits (per 10,000 Medicaid beneficiary-years) between blacks and whites decreased by 86.5. Similarly, the difference indicating disparities increased for Hispanics, Medicaid beneficiaries belonging to other race/ethnicity groups, and females, but these changes were not statistically significant.

All-Payer Comparisons: Table 3.17 compares all-payer and Medicaid beneficiary rates of avoidable hospitalizations per 10,000 population. Statewide, both these rates decreased from the baseline period to the first year of the DSRIP program. The trends were also similar for zip codes where at least one hospital participated in the program, and also those zip codes which had high exposure to the program. Rates of avoidable hospitalizations were higher among Medicaid beneficiaries compared to all patients.

Table 3.18 reports similar comparisons based on rates of avoidable ED visits. In zip codes that had at least one hospital participating in the DSRIP program, the rate increased for the entire population, but went down marginally for the Medicaid population. The trends were similar for zip codes with high exposure to DSRIP.

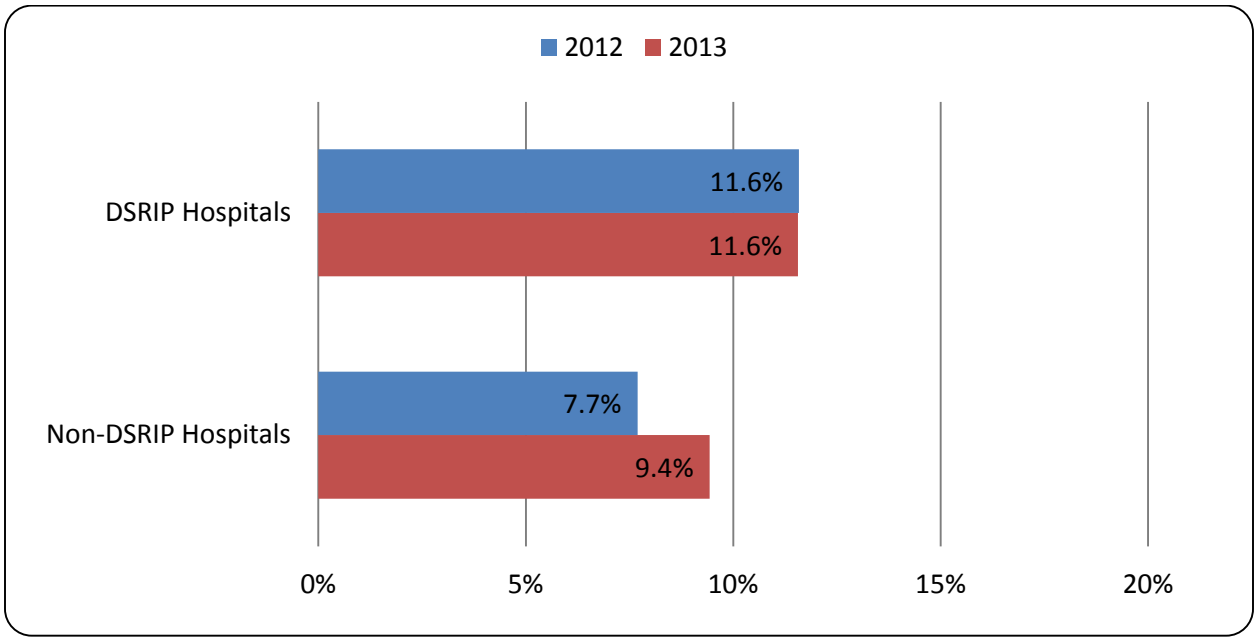
Hospital Finances: Figures 3.39 and 3.40 examine the effects of the DSRIP program on hospital financial performance measured by total margin and operating margin. Based on either metric, the effect after the first year of the program was positive, a 0.8 percentage point increase based on total margins and a 0.9 percentage point increase based on operating margins. It is worth noting that operating margins that reflect hospital financial performance that is directly related to patient care worsened for DSRIP participating hospitals. However the worsening was higher for the comparison group of hospitals that did not take part in the program.

Figure 3.14: Heart Failure Readmission Rates by Hospital Participation in the DSRIP Program



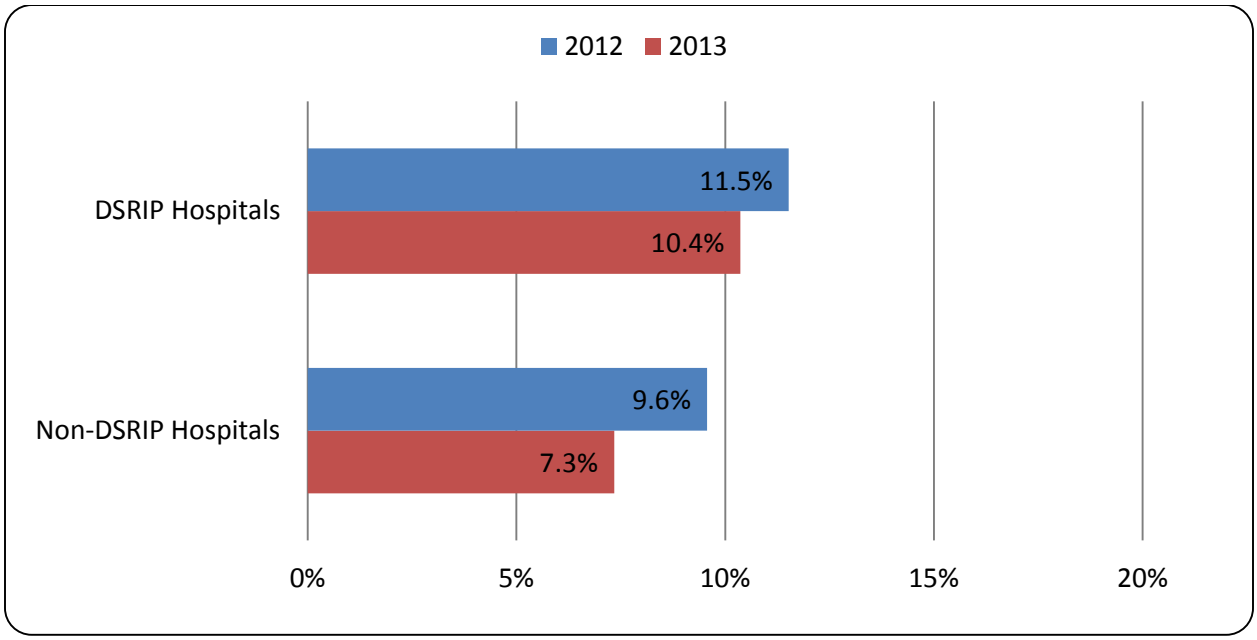
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Discharge-level analysis.

Figure 3.15: Acute Myocardial Infarction (AMI) Readmission Rates by Hospital Participation in the DSRIP Program



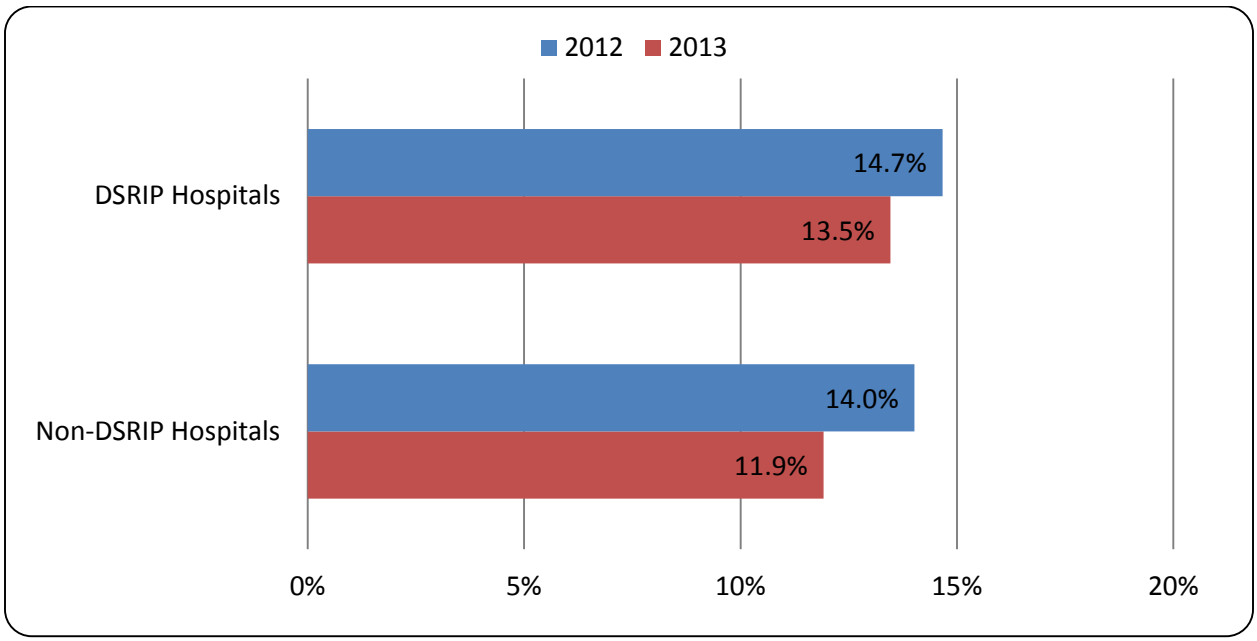
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Discharge-level analysis.

Figure 3.16: Pneumonia Readmission Rates by Hospital Participation in the DSRIP Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Discharge-level analysis.

Figure 3.17: Chronic Obstructive Pulmonary Disease (COPD) Readmission Rates by Hospital Participation in the DSRIP Program



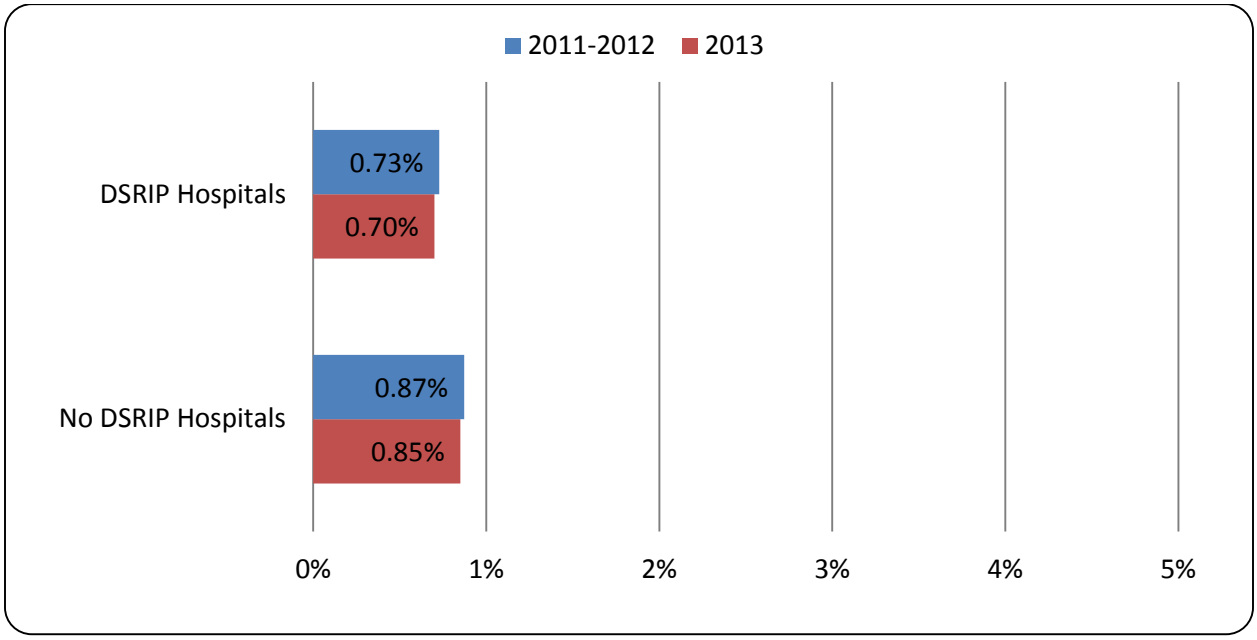
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Discharge-level analysis.

Table 3.8: Overall DSRIP Program Impact on 30-Day Readmissions for Heart Failure, Acute Myocardial Infarction, Pneumonia, and Chronic Obstructive Pulmonary Disease

	Overall DSRIP Impact Estimate
Heart Failure *(n=4,896)*	-0.030
	(0.030)
Acute Myocardial Infarction *(n=1,816)*	0.005
	(0.072)
Pneumonia *(n=4,810)*	0.019
	(0.037)
COPD *(n=6,475)*	0.020
	(0.026)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: COPD=Chronic Obstructive Pulmonary Disease.
Discharge-level regression analysis with hospital fixed effects.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1
See Appendix G for full model results.

Figure 3.18: Inpatient Mental Health Utilization by Hospital Participation in the DSRIP Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Note: Bars reflect percentage of Medicaid beneficiaries with one or more inpatient mental health stays during the year. Percentages in the 'DSRIP Hospitals' category represent patients in zip code areas where at least one hospital took part in the DSRIP program.

Table 3.9: Overall DSRIP Program Impact on Inpatient Mental Health Utilization

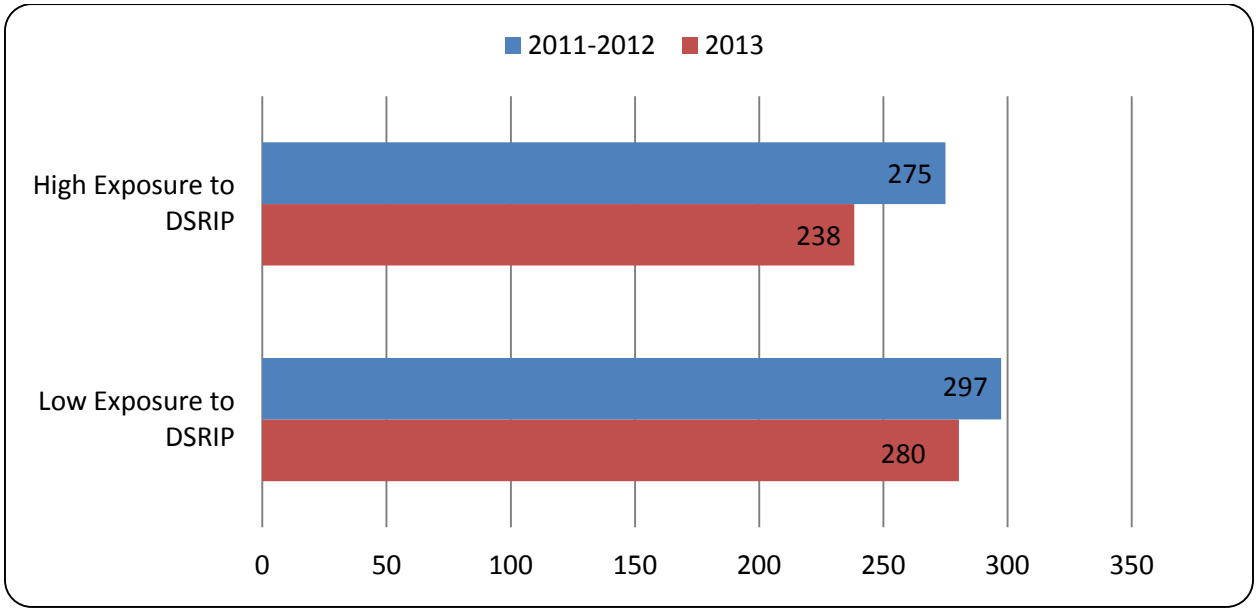
(n=4,199,977)	**Overall DSRIP Impact Estimate**
Mental Health Utilization - Inpatient	-0.00000
	(0.00000)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, Analysis by Rutgers Center for State Health Policy.
Notes: Person-level regression analysis with zip code fixed effects.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1
See Appendix G for full model results.

Figure 3.19: Rates of Avoidable Inpatient Hospitalizations by Hospital Participation in the DSRIP Program

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Each bar represents a weighted average of zip code-level rates of avoidable hospitalizations per 10,000 Medicaid beneficiary-years relating to beneficiaries of age 18 and above. The 'DSRIP Hospitals' category represents those zip codes that have at least one hospital participating in the DSRIP program.

Figure 3.20: Rates of Avoidable Inpatient Hospitalizations by Hospital High/Low Participation in the DSRIP Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Each bar represents a weighted average of zip code-level rates of avoidable hospitalizations per 10,000 Medicaid beneficiary-years relating to beneficiaries of age 18 and above. Rates are reported separately for zip code areas with high and low exposure to the DSRIP program (see Methods).

Figure 3.21: Rates of Avoidable Emergency Department Visits by Hospital Participation in the DSRIP Program

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Each bar represents a weighted average of zip code-level rates of avoidable ED visits per 10,000 Medicaid beneficiary-years relating to beneficiaries of all ages. The 'DSRIP Hospitals category represents those zip codes that have at least one hospital participating in the DSRIP program.

Figure 3.22: Rates of Avoidable Emergency Department Visits by Hospital High/Low Participation in the DSRIP Program

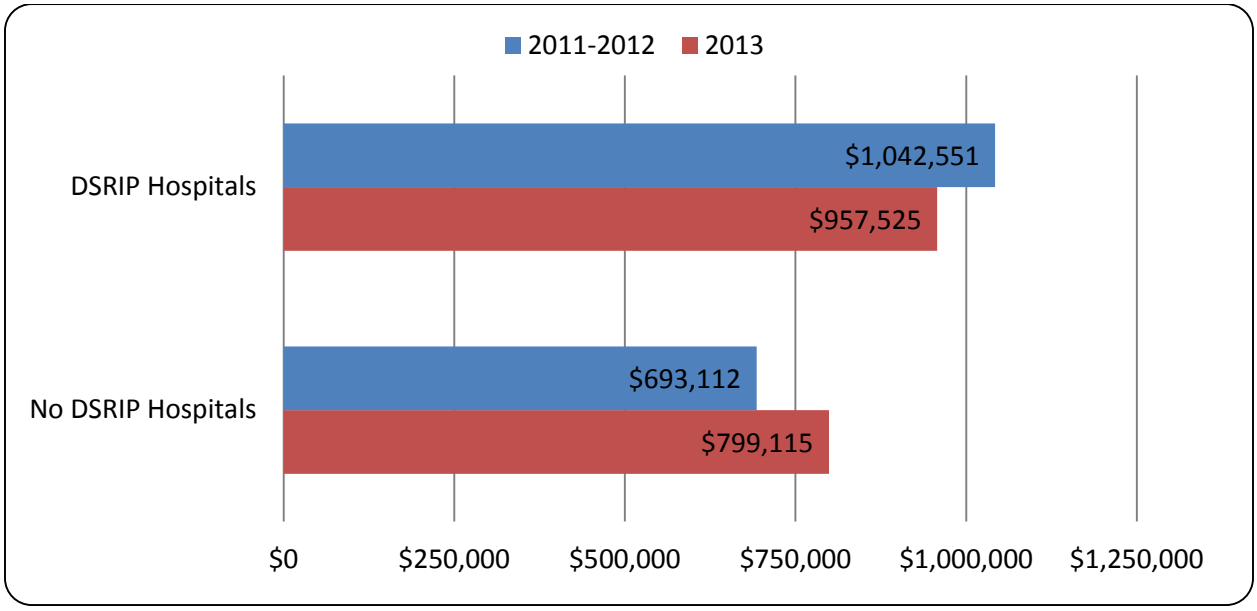
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Each bar represents a weighted average of zip code-level rates of avoidable ED visits per 10,000 Medicaid beneficiary-years relating to beneficiaries of all ages. Rates are reported separately for zip code areas with high and low exposure to the DSRIP program (see Methods).

Table 3.10: Overall DSRIP Program Impact on Rates of Avoidable Inpatient Hospitalizations and Emergency Department Visits

	DSRIP Overall Program Impact Estimate
Preventable IP Hospitalizations *(n=1,770)*	-0.368**
	(0.179)
Avoidable ED Visits *(n=1,773)*	0.972
	(0.615)

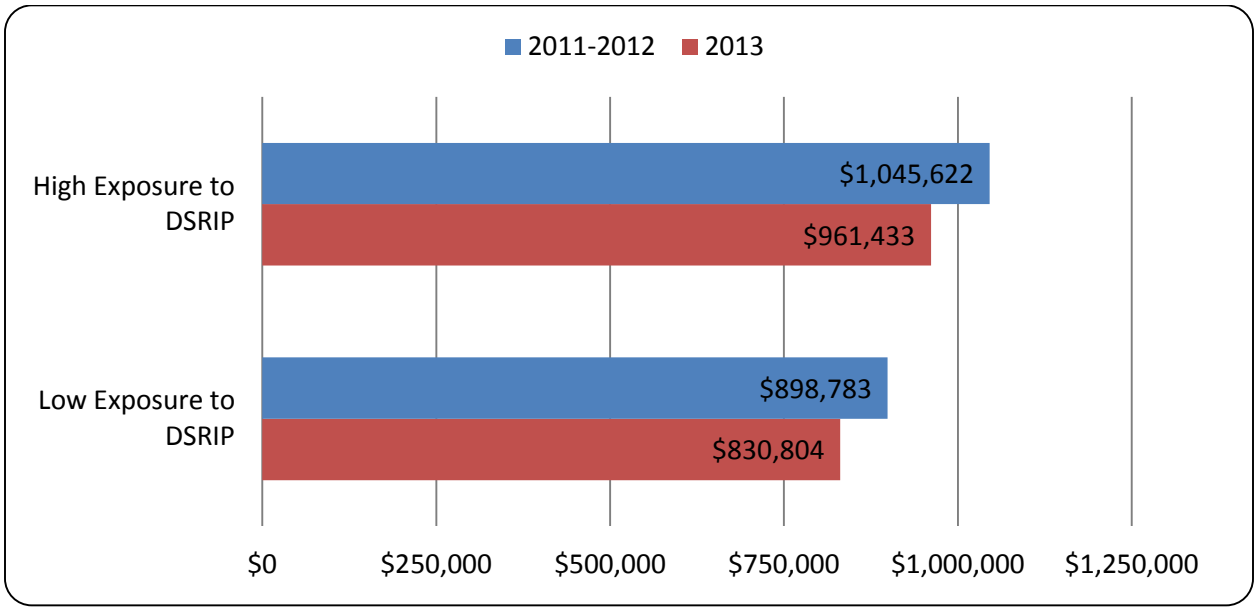
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: IP=Inpatient; ED=Emergency Department.
Zip-level regression analysis with zip code fixed effects.
Rates are per 10,000 Medicaid beneficiary-years.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1
See Appendix G for full model results.

Figure 3.23: Avoidable Inpatient Hospitalization Costs by Hospital Participation in the DSRIP Program



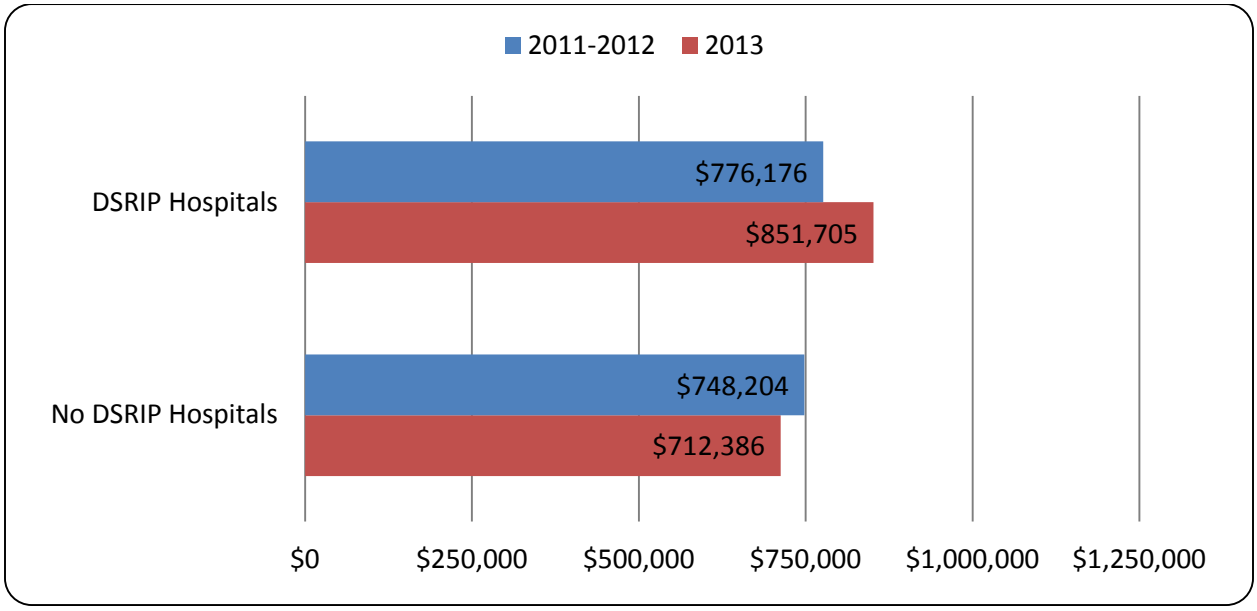
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Each bar represents a weighted average of zip code-level rates of avoidable hospitalization costs per 10,000 Medicaid beneficiary-years relating to beneficiaries of age 18 and above. The 'DSRIP Hospitals' category represents those zip codes that have at least one hospital participating in the DSRIP program.

Figure 3.24: Avoidable Inpatient Hospitalization Costs by Hospital High/Low Participation in the DSRIP Program



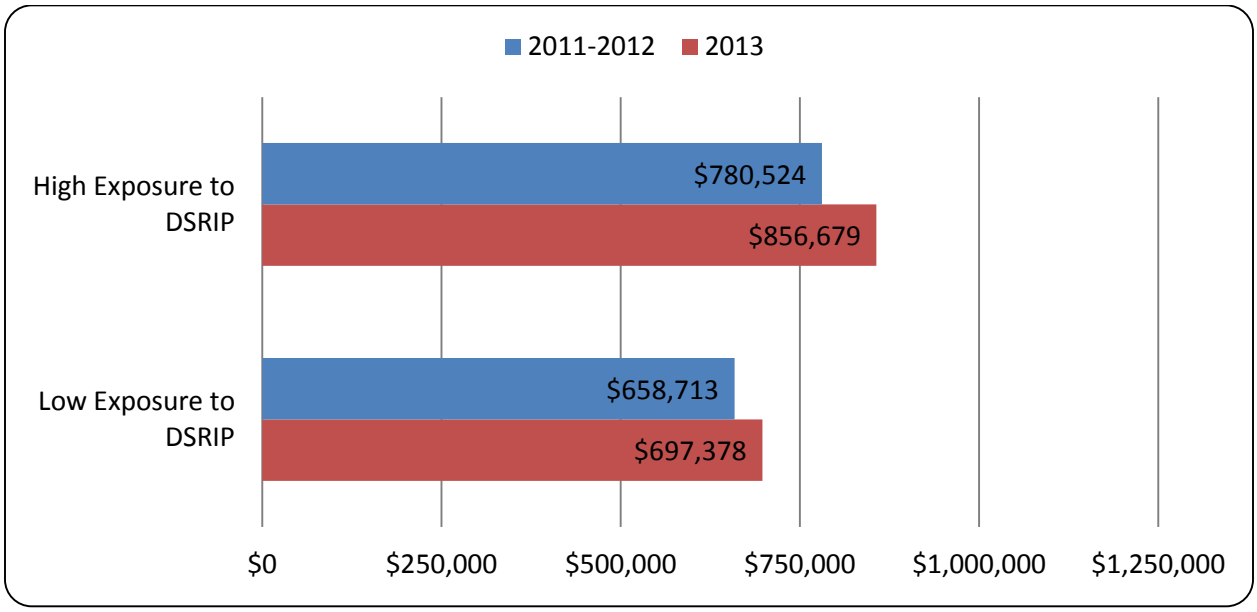
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Each bar represents a weighted average of zip code-level rates of avoidable hospitalization costs per 10,000 Medicaid beneficiary-years relating to beneficiaries of age 18 and above. Rates are reported separately for zip code areas with high and low exposure to the DSRIP program (see Methods).

Figure 3.25: Avoidable Emergency Department Visit Costs by Hospital Participation in the DSRIP Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Each bar represents a weighted average of zip code-level rates of avoidable ED costs per 10,000 Medicaid beneficiary-years relating to beneficiaries of all ages. The 'DSRIP Hospitals' category represents those zip codes that have at least one hospital participating in the DSRIP program.

Figure 3.26: Avoidable Emergency Department Visit Costs by Hospital High/Low Participation in the DSRIP Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Each bar represents a weighted average of zip code-level rates of avoidable ED costs per 10,000 Medicaid beneficiary-years relating to beneficiaries of all ages. Rates are reported separately for zip code areas with high and low exposure to the DSRIP program (see Methods).

Table 3.11: Overall DSRIP Impact on Avoidable Inpatient Hospitalization and Emergency Department Visit Costs

	DSRIP Overall Program Impact Estimate
Preventable IP Hospitalization Costs *(n=1,770)*	0.00042
	(0.00148)
Avoidable ED Visit Costs *(n=1,773)*	0.00072**
	(0.00032)

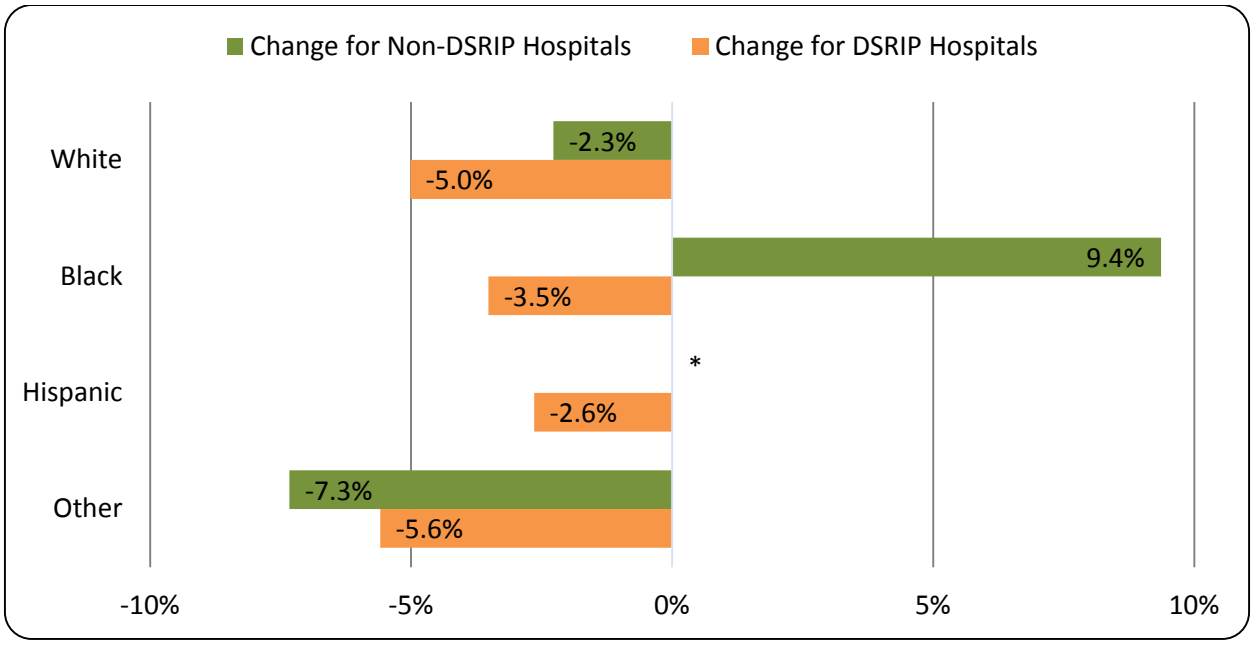
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: IP=Inpatient; ED=Emergency Department.
Estimates based on a zip-level generalized linear model with gamma log link.
Costs are per 10,000 Medicaid beneficiary-years.
Standard errors in parentheses adjusted for clustering.
*** p<0.01, ** p<0.05, * p<0.1
See Appendix G for full model results.

Table 3.12: Avoidable Inpatient Hospitalization and Emergency Department Visit Costs by Race/Ethnicity, Gender, and Hospital Participation in the DSRIP Program

		White	Black	Hispanic	Other	Male	Female
Preventable IP Hospitalizations							
DSRIP	**2011-2012**	$826,849	$1,499,229	$676,881	$1,173,853	$1,126,216	$996,415
	2013	$774,424	$1,375,578	$626,753	$1,050,188	$1,048,611	$907,258
No DSRIP	**2011-2012**	$678,509	$1,022,556	$354,997	$588,347	$647,368	722,334
	2013	$794,233	$871,059	$321,623	$935,042	$1,122,353	$603,350
Avoidable ED Visits							
DSRIP	**2011-2012**	$706,793	$1,027,315	$777,437	$441,364	$621,686	$899,734
	2013	$770,607	$1,139,327	$860,171	$482,219	$692,130	$980,092
No DSRIP	**2011-2012**	$715,922	$1,231,877	$812,742	$323,128	$596,991	$780,038
	2013	$657,273	$1,353,459	$714,455	$362,626	$566,390	$812,007

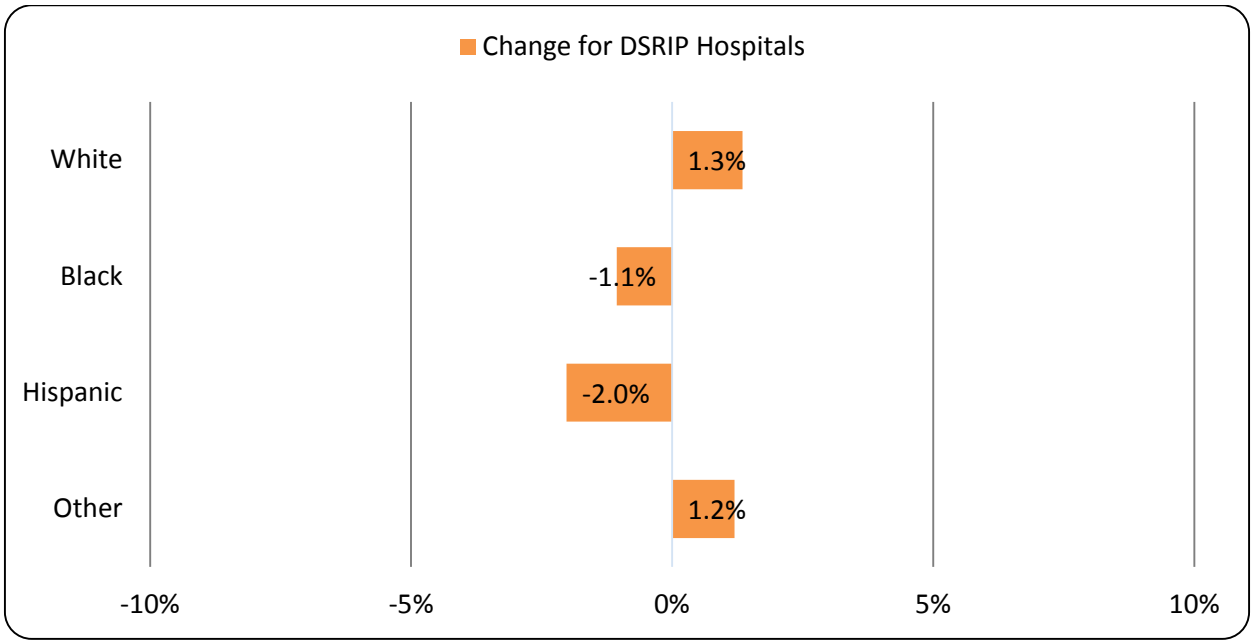
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: IP=Inpatient; ED=Emergency Department.
Each estimate represents a weighted average of zip code-level rates of avoidable IP costs per 10,000 Medicaid beneficiary-years for the population ages 18+ or avoidable ED Costs per 10,000 Medicaid beneficiary years for the population of all ages. The DSRIP category represents zip codes with at least one hospital participating in the DSRIP program

Figure 3.27: Change in Heart Failure Readmission Rates by Race/Ethnicity over 2012-2013



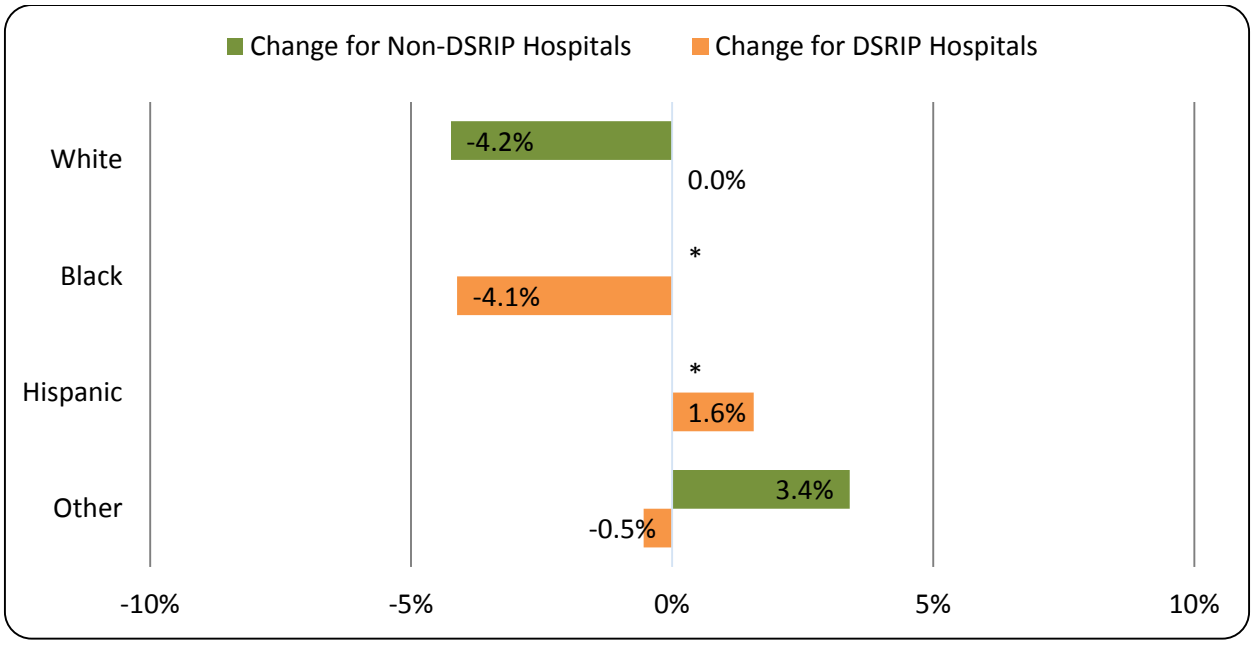
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Units of change are percentage points.
Discharge-level analysis.
*Estimate suppressed due to insufficient sample size.

Figure 3.28: Change in AMI Readmission Rates by Race/Ethnicity over 2012-2013



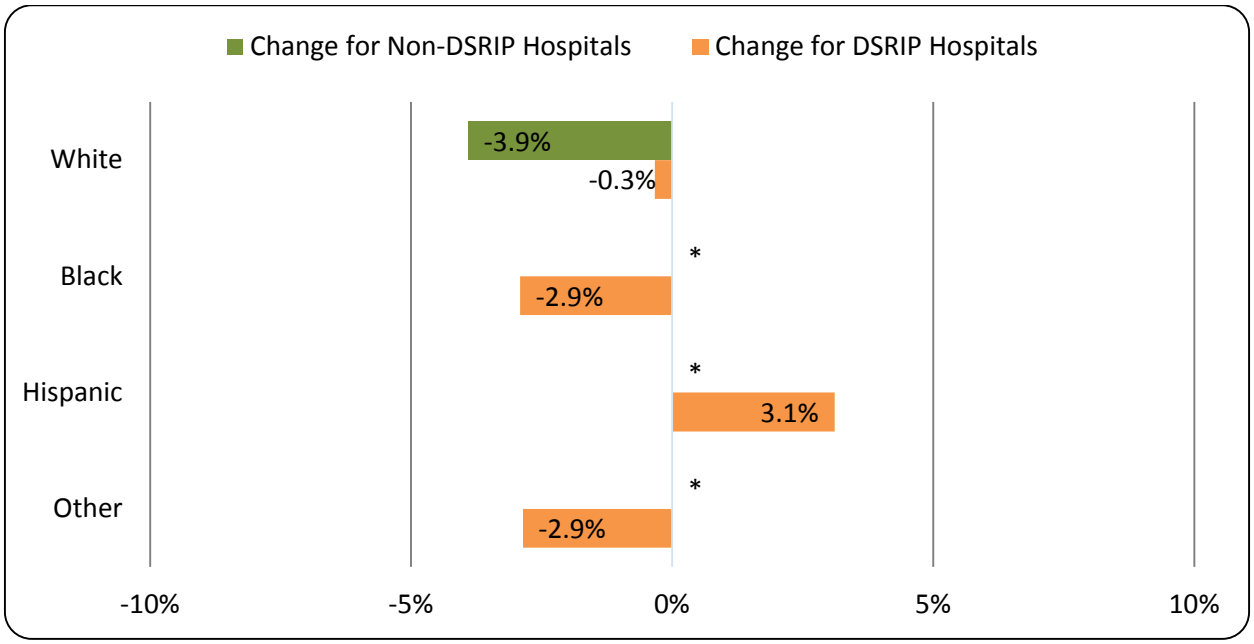
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Units of change are percentage points.
Discharge-level analysis.
Estimates for non-DSRIP hospitals suppressed due to insufficient sample size.

Figure 3.29: Change in Pneumonia Readmission Rates by Race/Ethnicity over 2012-2013



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Units of change are percentage points.
Discharge-level analysis.
*Estimate suppressed due to insufficient sample size.

Figure 3.30: Change in COPD Readmission Rates by Race/Ethnicity over 2012-2013



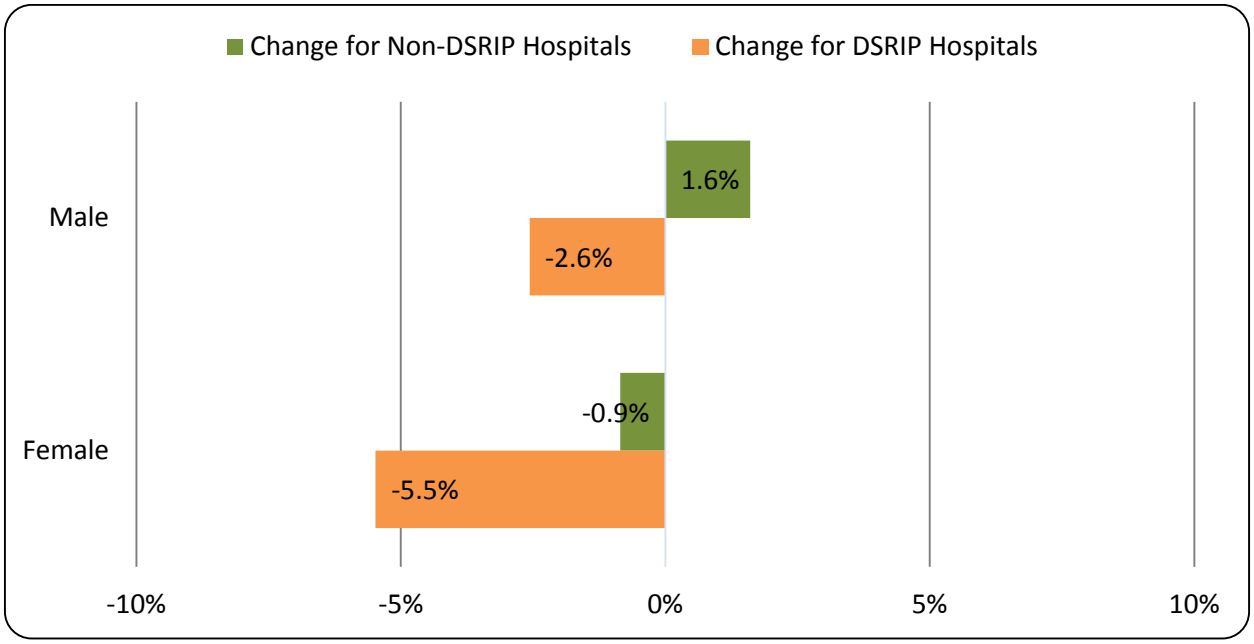
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Note: Units of change are percentage points.
Discharge-level analysis.
*Estimate suppressed due to insufficient sample size.

Table 3.13: Overall DSRIP Impact on Racial/Ethnic Disparities in 30-Day Readmission Rates for Heart Failure, Acute Myocardial Infarction, Pneumonia, and Chronic Obstructive Pulmonary Disease

	Combined Impact Estimate	Individual Impact Estimates		
	Minority Disparities	Black Disparities	Hispanic Disparities	Other Disparities
Heart Failure *(n=4,896)*	-0.031	-0.060	-0.055	0.002
	(0.061)	(0.096)	(0.146)	(0.050)
AMI *(n=1,816)*	-0.010			
	(0.080)			
Pneumonia *(n=4,810)*	-0.055	-0.137***	0.118	-0.089
	(0.057)	(0.042)	(0.132)	(0.063)
COPD *(n=6,475)*	0.079**			
	(0.032)			

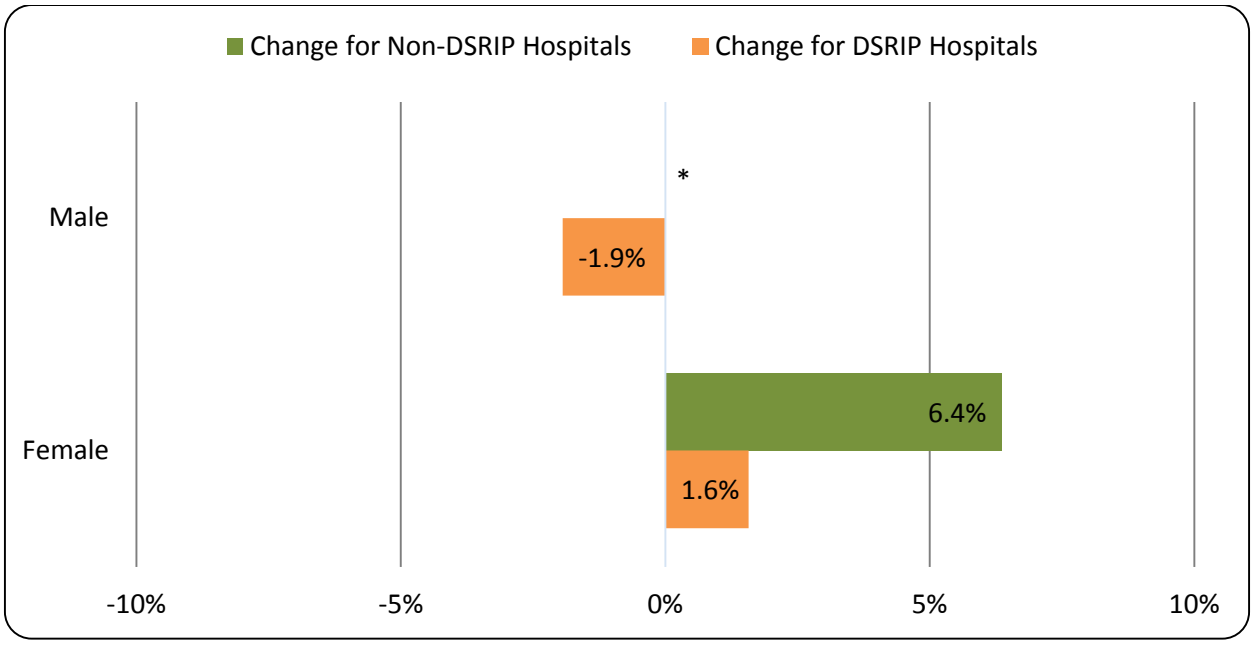
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: AMI=Acute Myocardial Infarction; COPD=Chronic Obstructive Pulmonary Disease.
Discharge-level regression analysis with hospital fixed effects.
Shaded estimates are based on small sample sizes that may affect the reliability of these estimates.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1
See Appendix G for full model results.

Figure 3.31: Change in Heart Failure Readmission Rates by Gender over 2012-2013



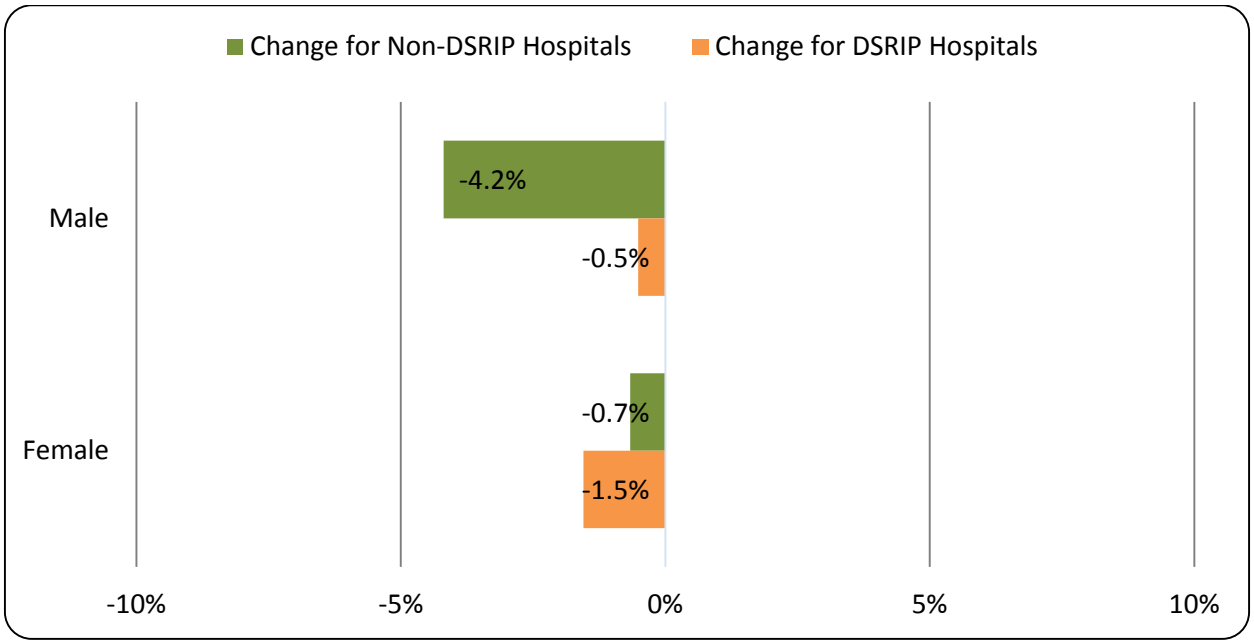
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Note: Units of change are percentage points.
Discharge-level analysis.

Figure 3.32: Change in AMI Readmission Rates by Gender over 2012-2013



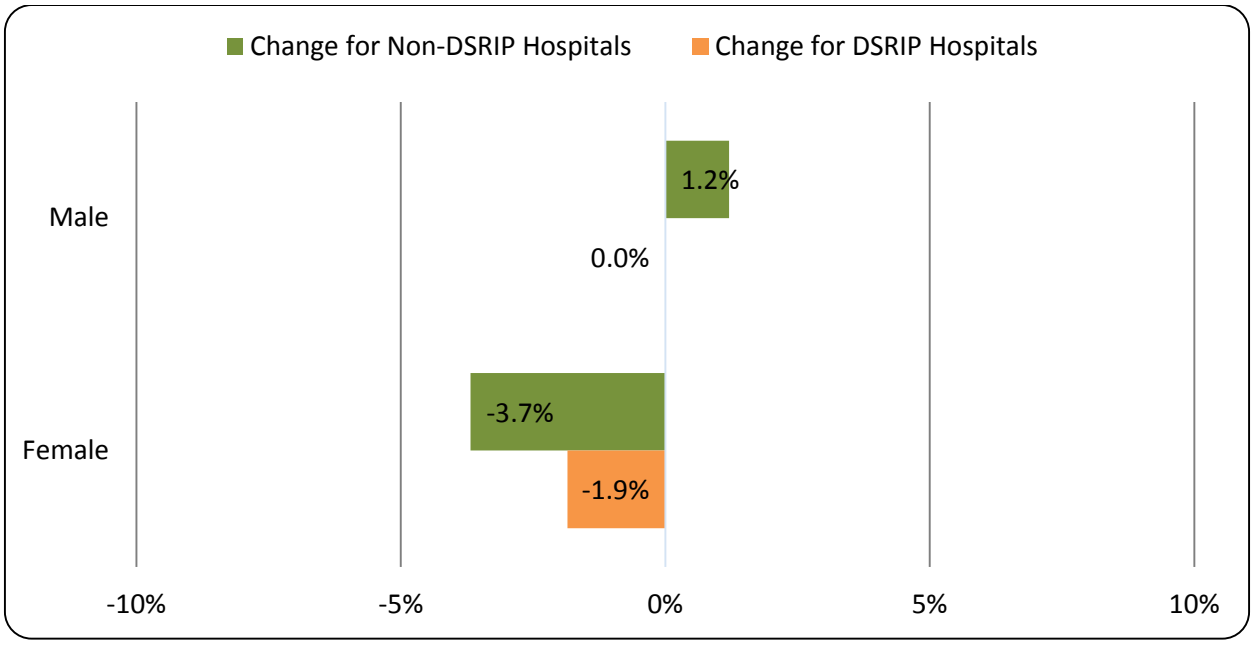
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Note: Units of change are percentage points.
Discharge-level analysis.
*Estimate suppressed due to insufficient sample size.

Figure 3.33: Change in Pneumonia Readmission Rates by Gender over 2012-2013



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Note: Units of change are percentage points.
Discharge-level analysis.

Figure 3.34: Change in COPD Readmission Rates by Gender over 2012-2013



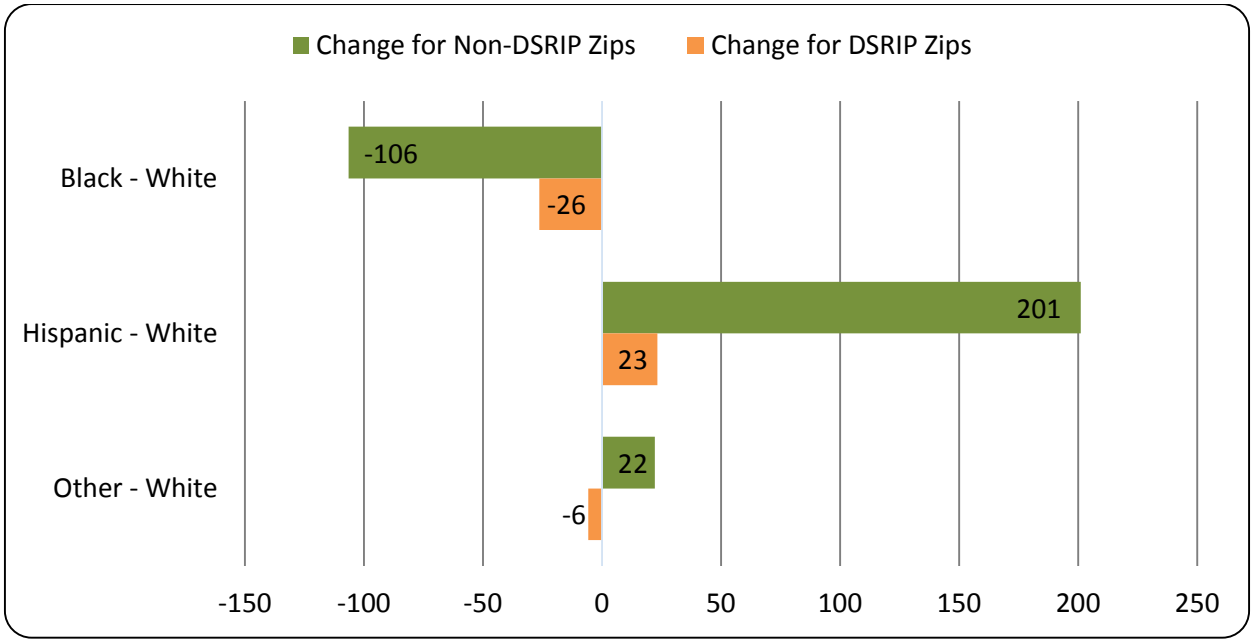
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Note: Units of change are percentage points.
Discharge-level analysis.

Table 3.14: Overall DSRIP Impact on Gender Disparities in 30-Day Readmission Rates for Heart Failure, Acute Myocardial Infarction, Pneumonia, and Chronic Obstructive Pulmonary Disease

	Gender Disparities Impact Estimate
Heart Failure *(n=4,896)*	0.010
	(0.048)
AMI *(n=1,816)*	-0.062
	(0.129)
Pneumonia *(n=4,810)*	-0.054
	(0.048)
COPD *(n=6,475)*	0.022
	(0.052)

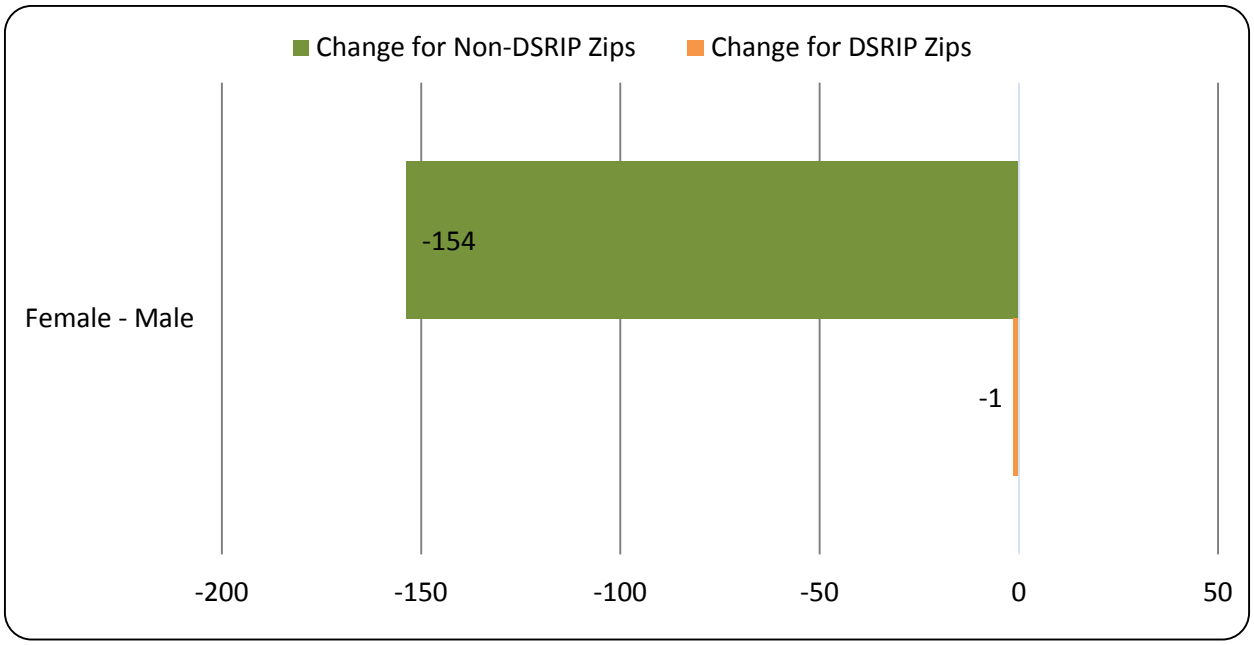
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: AMI=Acute Myocardial Infarction; COPD=Chronic Obstructive Pulmonary Disease.
Discharge-level regression analysis with hospital fixed effects.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1
Shaded estimates are based on small sample sizes that may affect the reliability of these estimates.
See Appendix G for full model results.

Figure 3.35: Change in Avoidable Inpatient Hospitalization Rate Differences between Minority Populations and Whites over 2011/2012-2013



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Note: Units of change are avoidable hospitalizations per 10,000 Medicaid beneficiary-years for the population age 18+. Zip-level analysis.

Figure 3.36: Change in Avoidable Inpatient Hospitalization Rate Differences between Females and Males over 2011/2012-2013



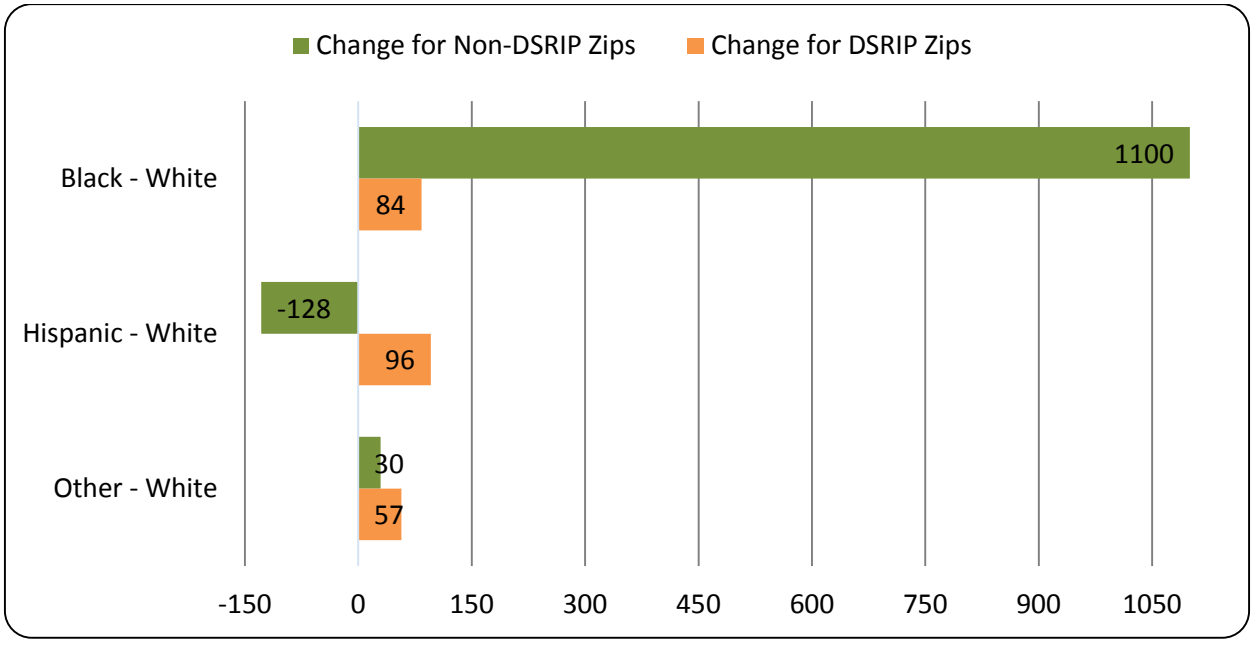
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Note: Units of change are avoidable hospitalizations per 10,000 Medicaid beneficiary-years for the population age 18+. Zip-level analysis.

Table 3.15: Overall DSRIP Impact on Racial/Ethnic and Gender Disparities in Preventable Inpatient Hospitalization Rates

	DSRIP Overall Impact Estimate
Black - White *(n=1,641)*	-1.303
	(0.861)
Hispanic - White *(n=1,611)*	-0.851
	(0.631)
Other - White *(n=1,704)*	-0.901*
	(0.490)
Female - Male *(n=,1764)*	0.098
	(0.337)

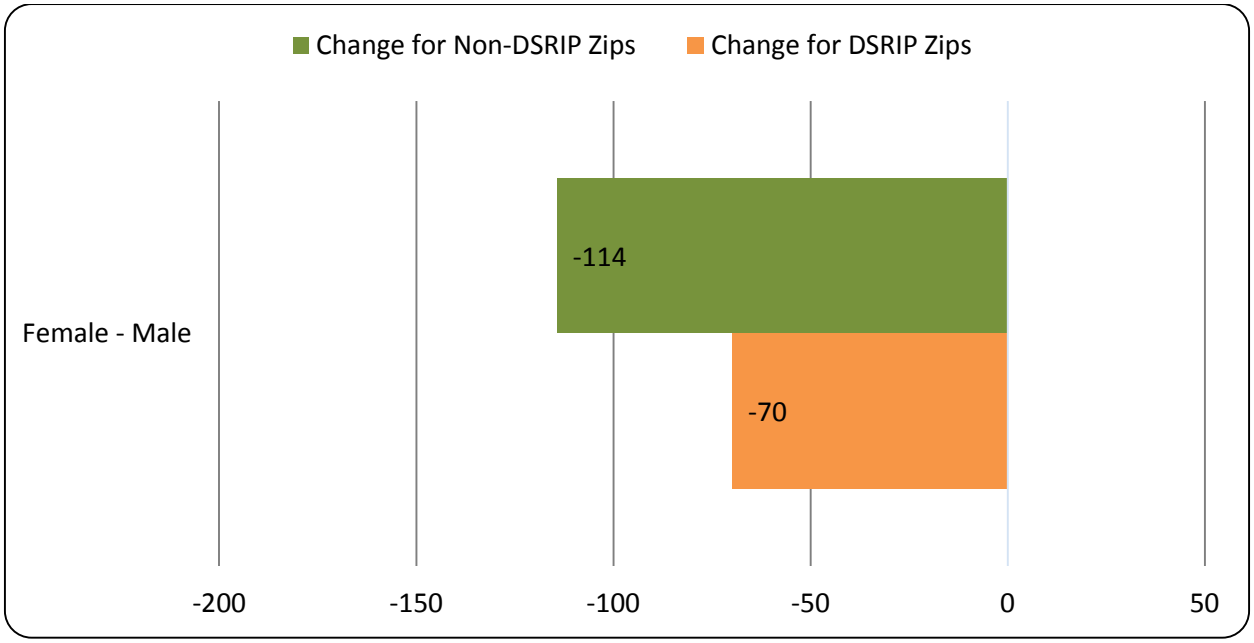
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, Analysis by Rutgers Center for State Health Policy.
Notes: Zip-level regression analysis with zip fixed effects.
Rates are per 10,000 Medicaid beneficiary-years for beneficiaries age 18 and up.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1
See Appendix G for full model results.

Figure 3.37 Change in Avoidable Emergency Department Visit Rate Differences between Minority Populations and Whites over 2011/2012-2013



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Note: Units of change are avoidable ED visits per 10,000 Medicaid beneficiary-years.
Zip-level analysis.

Figure 3.38: Change in Emergency Department Visit Rate Differences between Females and Males over 2011/2012-2013



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Note: Units of change are avoidable ED visits per 10,000 Medicaid beneficiary-years.
Zip-level analysis.

Table 3.16: Overall DSRIP Impact on Racial/Ethnic and Gender Disparities in Avoidable Emergency Department Visit Rates

	DSRIP Overall Impact Estimate
Black - White *(n=1,695)*	-0.865
	(1.987)
Hispanic - White *(n=1,695)*	1.109
	(1.502)
Other - White *(n=1,725)*	1.498
	(1.386)
Female - Male *(n=,1773)*	0.348
	(0.865)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, Analysis by Rutgers Center for State Health Policy.
Notes: Zip-level regression analysis with zip fixed effects.
Rates are per 10,000 Medicaid beneficiary-years.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1
See Appendix G for full model results.

Table 3.17: All-Payer and Medicaid Rates of Avoidable Inpatient Hospitalizations by Hospital Participation in the DSRIP Program

	All Payers		Medicaid	
	2011-2012	2013	2011-2012	2013
No DSRIP Hospitals	147	141	282	295
DSRIP Hospitals	169	160	276	240
Low Exposure to DSRIP	143	140	297	280
High Exposure to DSRIP	171	161	275	238
NJ Overall	**169**	**160**	**276**	**240**

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data and Uniform Billing Hospital Discharge Data; Analysis by Rutgers Center for State Health Policy.

Notes: Each estimate represents a weighted average of zip code-level rates of avoidable hospitalizations. All-payer rates are per 10,000 population age 18 and above. Medicaid rates are per 10,000 Medicaid beneficiary-years for beneficiaries age 18 and above. The 'DSRIP Hospitals' category represents those zip codes that have at least one hospital participating in the DSRIP program. Rates are also reported separately for zip code areas with high and low exposure to the DSRIP program (see Methods).

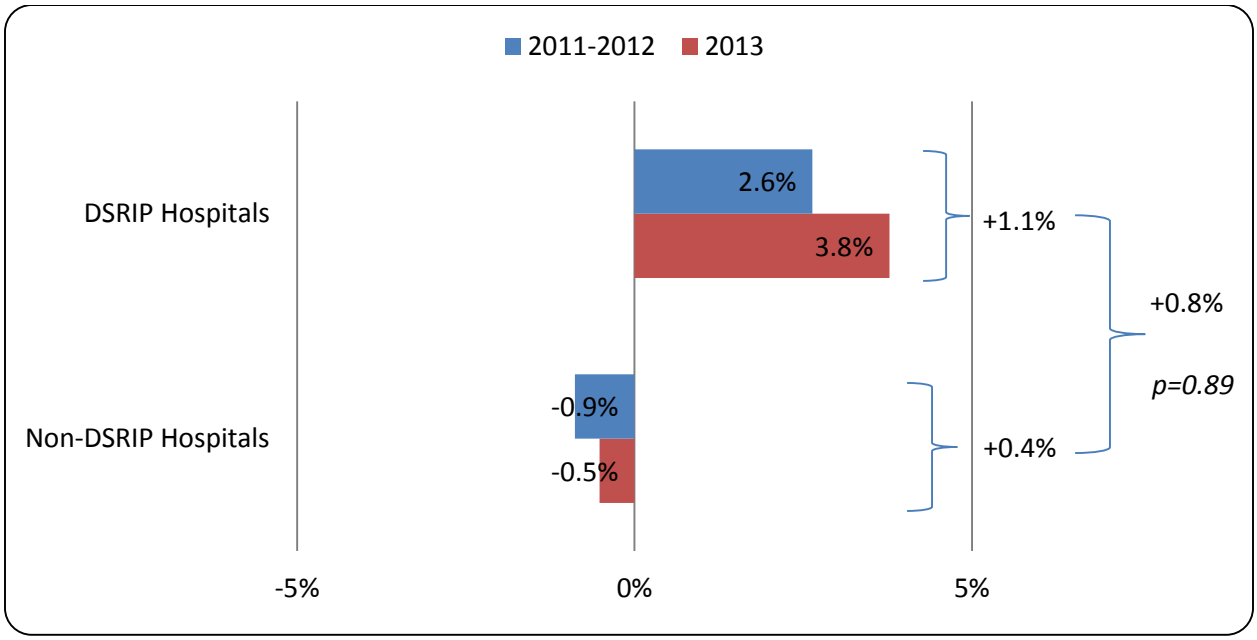
Table 3.18: All-Payer and Medicaid Rates of Avoidable Emergency Department Visits by Hospital Participation in the DSRIP Program

	All Payers		Medicaid	
	2011-2012	2013	2011-2012	2013
No DSRIP Hospitals	1,056	1,062	3,103	3,152
DSRIP Hospitals	1,535	1,565	3,151	3,149
Low Exposure to DSRIP	1,069	1,062	3,072	3,050
High Exposure to DSRIP	1,561	1,594	3,153	3,153
NJ Overall	**1,529**	**1,559**	**3,150**	**3,149**

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data and Uniform Billing Hospital Discharge Data; Analysis by Rutgers Center for State Health Policy.

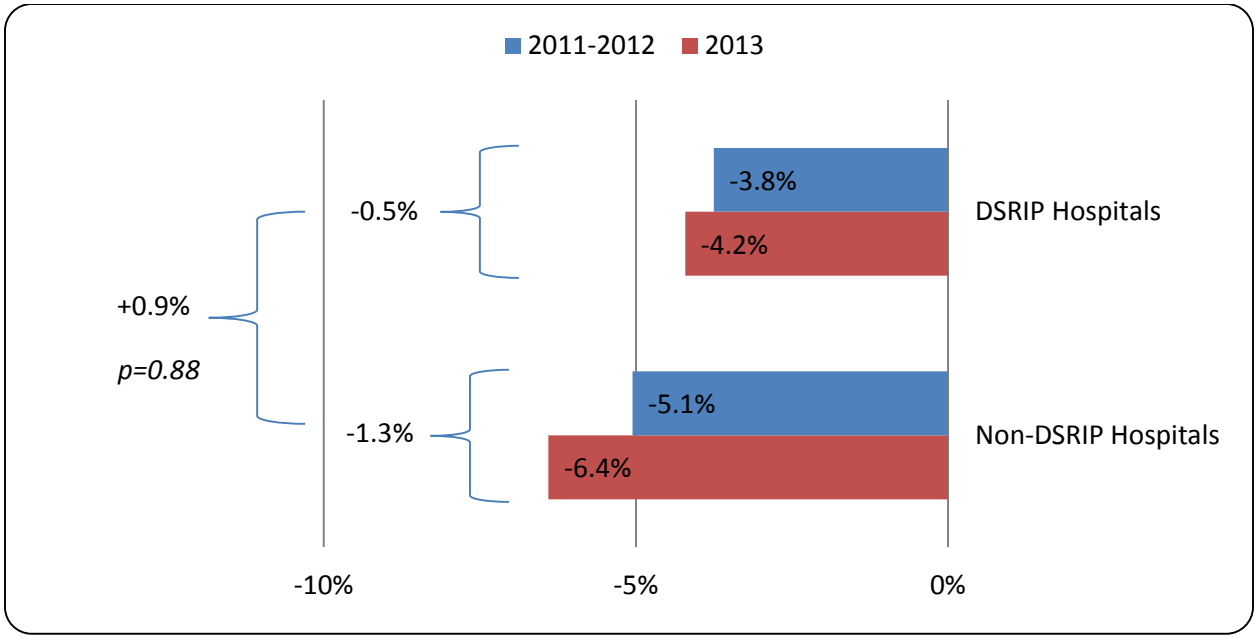
Notes: Each estimate represents a weighted average of zip code-level rates of avoidable ED visits. All-payer rates are per 10,000 population of all ages. Medicaid rates are per 10,000 Medicaid beneficiary-years for beneficiaries of all ages. The 'DSRIP Hospitals' category represents those zip codes that have at least one hospital participating in the DSRIP program. Rates are also reported separately for zip code areas with high and low exposure to the DSRIP program (see Methods).

Figure 3.39: Hospitals' Total Margin by DSRIP Participation



Source: CMS Hospital Cost Reports; Analysis by Rutgers Center for State Health Policy.
Notes: Units of change are percentage points.
Hospital-level analysis.

Figure 3.40: Hospitals' Operating Margin by DSRIP Participation



Source: CMS Hospital Cost Reports; Analysis by Rutgers Center for State Health Policy.
Notes: Units of change are percentage points.
Hospital-level analysis.

Table D summarizes the direction and statistical significance of computed DSRIP effects based on all of the metrics analyzed in this chapter. This representation of results organized by each hypothesis, helps determine the presence or absence of evidence in support of each hypothesis for the first DSRIP program year.

Hypothesis 1: DSRIP hospital projects improve related care and outcomes.

- There were statistically significant improvements reflected in decreasing rates of avoidable asthma and diabetes hospitalizations attributable to the respective disease management programs, but also a worsening in other areas reflected in increasing rates of emergency department visits for asthma among adults. Quality indicators for other chronic diseases showed no significant changes attributable to DSRIP activities.

Hypothesis 2: The DSRIP program improves the quality of ambulatory care, both recommended and preventive, with positive effects on population health.

- As a geographic area's exposure to DSRIP-participating hospitals increased, rates of avoidable inpatient hospitalizations improved (decreased in magnitude) from baseline to the first DSRIP program year, and this change was statistically significant. At the same time, there was a significant worsening (i.e., an increase) of costs associated with avoidable emergency department (ED) visits, although the corresponding negative impact on avoidable ED visits (reflected in an increase in rates) was not statistically significant. Results for readmission rates and inpatient mental health utilization were mixed and none were statistically significant.

Hypothesis 3: The DSRIP program will reduce racial/ethnic and gender disparities in avoidable hospital admissions, treat-and-release ED visits, and hospital readmissions.

- Changes in racial/ethnic disparities in 30-day readmissions or avoidable hospital use that could be attributed to DSRIP generally showed a reduction in disparities, but most of these improvements were not statistically significant. There was a statistically significant ($p<0.05$) worsening of disparities in readmissions for COPD for minority populations (as a group) compared to whites that could be attributable to DSRIP activities. There were no significant changes in gender disparities for any of the quality metrics examined.

Hypothesis 4: Hospitals receiving incentive payments do not experience adverse financial impacts.

- There was no evidence of an adverse impact of DSRIP activities on hospitals' total or operating margins through the first program year.

Table D: Summary of Results by Hypothesis

Hypothesis 1	
Metric	**+/-**
FU Hospitalization for MI – 7 days	-
FU Hospitalization for MI – 30 days	-
Initiation AOD	+
Age 13-17	+
Age 18+	+
Engagement AOD	+
Age 13-17	-
Age 18+	+
ED Asthma (0-17)	-
ED Asthma (18+)	-
Asthma Hospitalizations	+
Diabetes Hospitalizations	+
HF Readmissions	+
AMI Readmissions	-
PN Readmissions	-
Child Access to PCP	+

Hypothesis 2[(1)]	
Metric	**+/-**
HF Readmissions	+
AMI Readmissions	-
PN Readmissions	-
COPD Readmissions	-
MH IP Utilization	+
Avoidable IP	+
Avoidable ED	-
Avoidable IP $	-
Avoidable ED $	-

Hypothesis 3		
Metric	**Race/Eth.**	**Gender**
	+/-	**+/-**
HF Readmissions	+	-
AMI Readmissions	+	+
PN Readmissions	+	+
COPD Readmissions	-	-
Avoidable IP	+ [(2)]	-
Avoidable ED	+/- [(3)]	-

Hypothesis 4	
Metric	**+/-**
Financial Margins	+

Notes: "+" means direction of the estimated impact indicates either no effect or an improvement; "-" means direction of the estimated impact indicates a worsening; $p<0.1$; $p<0.05$

[1] Metrics pertaining to preventive care are reported in Chapter 4.

[2] $p<0.1$ for change in Other-White rate difference.

[3] Impact estimates indicate improvement in Black-White rate difference, but worsening of Hispanic-White and Other-White rate differences.

Conclusions

Our analysis of quality metrics related to patient care, health outcomes, costs, and hospital finances neither fully supports nor refutes any of our hypotheses regarding the success of the DSRIP program in achieving its stated goals. It is important to remember the program effects reported in this chapter are computed based on only the first year when none of the DSRIP activities had fully initiated and the hospitals were still in their application phase. As a result, these effectively reflect effects on outcomes as a result of potential DSRIP-preparatory activities by hospitals. As we incorporate data pertaining to later demonstration years when hospitals fully implement their chronic disease management projects, these same statistical techniques applied on additional years of data will allow measurement of full DSRIP program effect. As of now, the only patterns evident through the first program year are improvements in rates of avoidable inpatient hospitalizations (overall, and for asthma and diabetes short-term complications), and indication of increasing ED use and associated costs.

Our assessment is limited to examining DSRIP impact for the Medicaid population whose utilization is captured in the Medicaid claims and managed care encounter data. We do not include charity care patients, who are part of the DSRIP program low-income population and are included in the attributed population algorithm used for calculating pay-for-performance metrics. As we add later years of data to our evaluation, more of this low-income population will be captured in Medicaid claims and encounter data as they become newly eligible for Medicaid subsequent to the 2014 expansion. In the summative evaluation plan that is based on data through 2017, we will control for this change in the composition of the Medicaid beneficiary population compared to the baseline period.

We utilized CMS cost reports for the years 2011–2013 for examining hospital financial performance related to hypothesis 4. Since the pay for performance/reporting had not started in 2013, we could not yet assess whether hospital financial performance varied by performance in DSRIP program. The financial data are for universe of NJ hospitals (DSRIP-participating and non-participating) in the baseline and post-DSRIP periods. So the estimated effects reflect the impact of the first year of DSRIP program on hospital financial performance.

Limitations

The Medicaid data available to us contained beneficiaries' zip code of residence as of February 2015. We assumed this was the zip code of residence at the time of utilization in 2011–2013 as a criterion for restricting our cohorts to NJ residents for population-based metrics. Since we do not expect relocation across zip codes by Medicaid beneficiaries to be associated with hospitals' anticipated participation in DSRIP in 2011–2013, this potential misclassification creates no bias.

In future years of claims data, we will have information on beneficiaries' zip code of residence at more regular intervals for accurate assignment across time.

As described in detail in Appendix F, we use the ACS zip code tabulation areas (ZCTAs) as a source of NJ zip codes having non-zero population; however, this creates a problem when smaller zip codes are subsumed within the larger ZCTA and are not reported. As a result, for our analysis we are not able to include approximately 9000 Medicaid beneficiaries in these smaller zip codes amounting to 0.6% of the total number of Medicaid beneficiaries. We do not believe that this biases our findings since this exclusion is independent of the effects of the DSRIP program. For our summative evaluation, we will reconcile zip code changes over time, so we continue to capture and accurately characterize the NJ Medicaid population in our analyses.

The Medicaid claims and encounter data available to us for this assessment also present specific limitations related to the dual eligible population. Duals in managed care plans may not always have all of their utilization captured in the Medicaid claims data. Sometimes a claim related to specific utilization may not be generated depending on individual MCO policies and operations. This may underestimate utilization and also inaccurately measure health status and co-morbidities when these measures are derived from claims (e.g., as is done for the CDPS and hospital readmission risk factors). We believe that the effect of these factors on our findings should be minimal. First, the dual eligible population comprises only 20% of the overall Medicaid population (KFF 2015) and this mismeasurement is limited to services that are not paid for by Medicaid MCOs. In addition, the last expansion in the managed care dual population occurred in NJ in 2011 and 2012 (relating to acute care services), prior to the implementation period of our evaluation. As a result our pre-post analysis should mitigate these effects to a large extent. Finally, our summative evaluation report will explore ways to account for this by comparing hospital utilization by dual-eligibles in claims and all-payer data to assess the magnitude of under-reporting.

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Appendix A: Description of Measures

Ambulatory Care Sensitive (ACS) Inpatient Hospitalizations and Avoidable/Preventable Emergency Department Visits: We calculate rates of ACS inpatient (IP) hospitalizations and avoidable treat-and-release ED visits that may occur due to inadequate ambulatory/primary care within communities. Avoidable hospitalizations have been widely used in previous research to measure access to primary care, and disparities in health outcomes (Basu, Friedman, and Burstin 2004; Billings et al. 1993; Bindman et al. 1995; Howard et al. 2007). The federal Agency for Healthcare Research and Quality (AHRQ) provides validated programming algorithms to calculate rates of avoidable ACS hospitalizations which are used in this analysis. These are known as the Prevention Quality Indicators (PQI) for adults (ages 18 and above) and Pediatric Quality Indicators for children (ages 6-17). Appendix B gives a list of ACS conditions that constitute a composite index that measures the overall rate of avoidable IP hospitalizations per unit of population. We also report two of the individual PQI rates that are specific to two of the chronic disease focus areas of the DSRIP program: PQI #01 Diabetes short-term complications admission rate and PQI #15 Adult asthma admissions rate. These two PQI component metrics are also part of the Medicaid Adult Core Set of Health Care Quality Measures.

We calculate avoidable treat-and-release ED visits based on the methodology provided by the New York University, Center for Health and Public Service Research (Billings, Parikh, and Mijanovich 2000), which are part of AHRQ's Safety Net Monitoring Toolkit. These comprise three categories of avoidable ED visits that could have been treated in an outpatient primary care setting or could have been prevented with timely access to primary care. Detailed definitions of these classifications are provided with examples in Appendix C.

Readmissions: Because hospital readmissions can result from poor quality of care or inadequate transitional care, 30-day readmissions metrics are used to broadly measure the quality of care delivered by hospitals (Benbassat and Taragin 2000; Jencks, Williams, and Coleman 2009). Such 'potentially preventable' readmissions are defined as readmission for any cause within 30 days of the discharge date for the index hospitalization, excluding a specified set of planned readmissions. While readmissions rates have been most heavily utilized to assess quality for the Medicare population, calculating these measures among the Medicaid population has received growing attention (Trudnak et al. 2014). The readmissions metrics we calculate (heart failure, pneumonia, acute myocardial infarction, and chronic obstructive pulmonary disease) are endorsed by the National Quality Forum (NQF) and are adapted from the federal Centers for Medicare and Medicaid Services methodology available at QualityNet (2015).

ED Visits for Asthma: Visits to the ED for asthma can result from inefficient or improper symptom management. This metric assesses the percent of patients who had a visit to an Emergency Department for asthma. It is based off a quality metric developed by the Health Resources and Services Administration's Asthma Collaborative which was designed to help providers improve the care they provide to people with asthma and is part of an effort to reduce disparities in the treatment of chronic diseases. In our calculation of this metric we look at whether individuals had any visit in the year (the HRSA metric looks at 6 months) and we do not include visits to urgent care offices since these cannot be identified in claims data. We use the National Committee of Quality Assurance's 2014 value sets to define ED visits and to define asthma diagnoses as done for the ED discharge component of the NCQA metric "Relative Resource Use for People with Asthma" (NCQA 2014).

Mental Health Utilization - Inpatient: This measure of inpatient utilization assess the extent to which individuals receive inpatient hospital treatment for a mental health condition. Like general measures of hospital utilization, this measure of service use gathers information about the provision of care to individuals and how organizations managing that care use and allocate resources. Use of inpatient services is affected by many member characteristics such as age, sex, health, and socioeconomic status. We followed the National Committee of Quality Assurance's specifications for the calculation of this metric (NCQA 2014).

Follow-up after Hospitalization for Mental Illness: Following a hospitalization for mental illness, it is recommended that patients have an outpatient visit with a mental health practitioner to ensure appropriate and regular follow-up therapy and medication monitoring (AHRQ 2015b). This measure is used to assess the percentage of discharges for members hospitalized for the treatment of selected mental health disorders that were followed by a qualifying visit with a mental health practitioner within 7 and 30 days. This measure is endorsed by the NQF and is part of the Medicaid Adult Core and Child Core Sets of Health Care Quality Measures. We followed the National Committee of Quality Assurance's specifications for the calculation of this metric (NCQA 2014).

Initiation and Engagement in Alcohol and Other Drug Treatment: After identification of alcohol or drug (AOD) dependence, initiation and engagement in treatment for the condition is important for reducing illness and disability from substance abuse (AHRQ 2015a). The AOD initiation metric assesses the percentage of individuals ages 13 and older with a new episode of alcohol or other drug dependence who have an inpatient AOD admission, outpatient visit, intensive outpatient encounter, or partial hospitalization within 14 days of their diagnosis. The engagement AOD metric taps an intermediate point in care after initiation, but prior to completion of a full course of treatment. It measures the percentage of individuals with an AOD diagnosis who initiated

treatment and also had 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. Both of these measures are endorsed by the NQF and are part of the Medicaid Adult Core Set of Health Care Quality Measures. We followed the National Committee of Quality Assurance's specifications for the calculation of this metric (NCQA 2014).

Table E enumerates the measure stewards, measure collections, and National Quality Forum numbers for all evaluator-calculated metrics used in this report.

Table E: Reference Information for Evaluator-Calculated Metrics

	Evaluation	Metric	Measure Steward; [1] Measure Collection(s)	NQF#[2] (if available)
1	Behavioral Health	Follow-up after Hospitalization for Mental Illness 7 Days Post Discharge	NCQA; HEDIS; Medicaid Adult Core #13; Medicaid Child Core	0576
2	Behavioral Health	Follow-up after Hospitalization for Mental Illness 30 Days Post Discharge		
3	Chemical Addiction/ Substance Abuse	Initiation of Alcohol and Other Drug Treatment	NCQA; HEDIS; Medicaid Adult Core #10	0004
4	Chemical Addiction/ Substance Abuse	Engagement of Alcohol and Other Drug Treatment		
5	DSRIP Overall & Cardiac Care	30-Day All-Cause Readmission Rate Following Heart Failure (HF) Hospitalization	CMS; Joint Commission National Hospital Inpatient Quality Measures	0330
6	DSRIP Overall & Cardiac Care	30-Day All-Cause Readmission Rate Following Acute Myocardial Infarction (AMI) Hospitalization		0505

[1] CMS = Center for Medicare & Medicaid Services; AHRQ = Agency for Healthcare Research and Quality; NCQA = National Committee for Quality Assurance; HEDIS=Healthcare Effectiveness Data and Information Set; NYU = New York University; HRSA = Health Resources and Services Administration.

[2] NQF=National Quality Forum (http://www.qualityforum.org/Home.aspx).

[3] HRSA metric includes visits to urgent care offices which cannot be identified in MC data.

Table D: Reference Information for Evaluator-Calculated Metrics (continued)

	Evaluation	Metric	Measure Steward;[1] Measure Collection(s)	NQF#[2] (if available)
7	DSRIP Overall & Pneumonia	30-Day All-Cause Readmission Rate Following Pneumonia (PN) Hospitalization	CMS; Joint Commission National Hospital Inpatient Quality Measures	0506
8	DSRIP Overall	30-Day All-Cause Readmission Rate Following Chronic Obstructive Pulmonary Disease (COPD) Hospitalization		1891
9	Asthma	Emergency Department (ED) Visits for Asthma	HRSA[3]	—
10	DSRIP Overall	Mental Health Utilization - Inpatient	NCQA; HEDIS	—
11	Asthma	Younger Adult Asthma Admission Rate (PQI-15)	AHRQ; Prevention Quality Indicators; PQI #15 and #1 also part of Medicaid Adult Core	0283
12	Diabetes	Diabetes Short-Term Complications Admission Rate (PQI-01)		0272
13	DSRIP Overall	Preventable Inpatient Hospitalizations (PQI-90)		
14	DSRIP Overall	Preventable/Avoidable Treat-and-Release ED Visits	NYU	—
15	DSRIP Overall	Hospital Costs Related to Avoidable Inpatient Stays and Treat-and-Release ED Visits	—	—
16	DSRIP Overall	Hospital Total and Operating Margin	—	—

[1] CMS = Center for Medicare & Medicaid Services; AHRQ = Agency for Healthcare Research and Quality; NCQA = National Committee for Quality Assurance; HEDIS=Healthcare Effectiveness Data and Information Set; NYU = New York University; HRSA = Health Resources and Services Administration.

[2] NQF=National Quality Forum (http://www.qualityforum.org/Home.aspx).

[3] HRSA metric includes visits to urgent care offices which cannot be identified in Medicaid claims data.

Appendix B: AHRQ Prevention Quality Indicators – Composites and Constituents

Overall Composite (PQI #90)	
PQI #01 Diabetes Short-Term Complications Admission Rate	PQI #11 Bacterial Pneumonia Admission Rate
PQI #03 Diabetes Long-Term Complications Admission Rate	PQI #12 Urinary Tract Infection Admission Rate
PQI #05 Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate	PQI #13 Angina without Procedure Admission Rate
PQI #07 Hypertension Admission Rate	PQI #14 Uncontrolled Diabetes Admission Rate
PQI #08 Congestive Heart Failure (CHF) Admission Rate	PQI #15 Asthma in Younger Adults Admission Rate
PQI #10 Dehydration Admission Rate	PQI #16 Rate of Lower-Extremity Amputation Among Patients With Diabetes
Acute Composite (PQI #91)	
PQI #10 Dehydration Admission Rate	PQI #12 Urinary Tract Infection Admission Rate
PQI #11 Bacterial Pneumonia Admission Rate	
Chronic Composite (PQI #92)	
PQI #01 Diabetes Short-Term Complications Admission Rate	PQI #13 Angina without Procedure Admission Rate
PQI #03 Diabetes Long-Term Complications Admission Rate	PQI #14 Uncontrolled Diabetes Admission Rate
PQI #05 Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate	PQI #15 Asthma in Younger Adults Admission Rate
PQI #07 Hypertension Admission Rate	PQI #16 Rate of Lower-Extremity Amputation Among Patients With Diabetes
PQI #08 Congestive Heart Failure (CHF) Admission Rate	

Source: Prevention Quality Indicators Technical Specifications - Version 4.4, March 2012; http://www.qualityindicators.ahrq.gov/Modules/PQI_TechSpec.aspx.

Appendix C: Classification of Emergency Department Visits

Type Description	Diagnoses
Non-Emergent: The patient's initial complaint, presenting symptoms, vital signs, medical history, and age indicated that immediate medical care was not required within 12 hours.	Headache, Dental disorder, Types of migraine
Emergent, Primary Care Treatable: Conditions for which treatment was required within 12 hours, but care could have been provided effectively and safely in a primary care setting. The complaint did not require continuous observation, and no procedures were performed or resources used that are not available in a primary care setting (e.g., CAT scan or certain lab tests)	Acute bronchitis, Painful respiration, etc.
Emergent, ED Care Needed, Preventable/Avoidable: Emergency department care was required based on the complaint or procedures performed/resources used, but the emergent nature of the condition was potentially preventable/avoidable if timely and effective ambulatory care had been received during the episode of illness	Flare-ups of asthma, diabetes, congestive heart failure, etc.
Emergent, ED Care Needed, Not Preventable/Avoidable: Emergency department care was required and ambulatory care treatment could not have prevented the condition	Trauma, appendicitis, myocardial infarction

The first three categories are considered to be avoidable/preventable.
Type descriptions taken from http://wagner.nyu.edu/faculty/billings/nyued-background.php.

Appendix D: Cost Report Data Elements and Calculations

Medicare-certified institutional providers are required to submit an annual cost report. The cost report information includes facility level utilization statistics, costs, charges, Medicare payments, and financial information. CMS maintains the cost report data in the Healthcare Provider Cost Reporting Information System (HCRIS). HCRIS includes subsystems for the Hospital Cost Report (CMS-2552-96 and CMS-2552-10), Skilled Nursing Facility Cost Report (CMS-2540-96), Home Health Agency Cost Report (CMS-1728-94), Renal Facility Cost Report (CMS-265-94), Health Clinic Cost Report (CMS-222-92) and Hospice Cost Report (CMS-1984-99). Detailed information on CMS cost reports and links to download the data by provider type and year are available at: http://www.cms.gov/Research-Statistics-Data-and-Systems/Files-for-Order/CostReports/index.html.

Hospitals' total margins and operating margins were extracted from CMS Hospital Cost Reports in order to evaluate whether participation in DSRIP has negatively affected hospital finances. Elements from Worksheet G-3: Statement of Revenues and Expenses were used to calculate total margin and operating margin for each general acute care hospital in NJ for years 2011–2013. The following are the CMS Cost Report items we used to produce estimates for hospitals' total and operating margins:

Total Margin			
Form	**Worksheet**	**Item Description(s)**	**Formula**
2552-10	**G-3** Statement of Revenues and Expenses	Line 3: Net patient revenues Line 25: Total other income Line 29: Net income (or loss) for the period	$\frac{\text{Net income (line 29)}}{\text{Total revenue (line 3 + line 25)}}$
Operating Margin			
2552-10	**G-3** Statement of Revenues and Expenses	Line 3: Net patient revenues Line 4: Total operating expenses	$\frac{\text{Total operating revenue (line 3) – operating expenses (line 4)}}{\text{Total operating revenue (line 3)}}$

Appendix E: Risk-Adjustment Variables for Readmissions Metrics

For the 30-day readmission metrics, control variables for health status come from a full year of data prior to the index admission date and encompass clinically relevant comorbidities (not complications) that have strong relationships with readmission for the specific condition being analyzed.

Heart Failure Readmissions

• Age • Sex • History of Coronary Artery Bypass Graft • History of Percutaneous Transluminal Coronary Angioplasty • Diabetes Mellitus (DM) or DM Complications • Disorders of Fluid/Electrolyte/Acid-Base • Iron Deficiency or Other Unspecified Anemias and Blood Disease • Cardio-Respiratory Failure or Shock • Congestive Heart Failure • Vascular or Circulatory Disease • Chronic obstructive pulmonary disease • Pneumonia • Renal Failure • Other Urinary Tract Disorders • Decubitus Ulcer or Chronic Skin Ulcer • Other Gastrointestinal Disorders • Acute Coronary Syndrome • Valvular or Rheumatic Heart Disease	• Specified Arrhythmias • Asthma • Peptic Ulcer, Hemorrhage, Other Specified Gastrointestinal Disorders • Cancer • Drug/Alcohol Abuse/Dependence/Psychosis • Major Psychiatric Disorders • End-Stage Renal Disease or Dialysis • Severe Hematological Disorders • Nephritis • Liver or Biliary Disease • Metastatic Cancer or Acute Leukemia • Stroke • Dementia or Other Specified Brain Disorders • Coronary Atherosclerosis or Angina • Other or Unspecified Heart Disease • Other Psychiatric Disorders • Fibrosis of Lung or Other Chronic Lung Disorders • Hemiplegia, Paraplegia, Paralysis, Functional Disability • Depression

Acute Myocardial Infarction (AMI) Readmissions

• Age • Sex • History of Coronary Artery Bypass Graft • History of Percutaneous Transluminal Coronary Angioplasty	• Vascular or Circulatory Disease • Disorders of Fluid/Electrolyte/Acid-Base Coronary Atherosclerosis • History of infection • Cerebrovascular Disease

Acute Myocardial Infarction (AMI) Readmissions (continued)

• Diabetes Mellitus (DM) or DM Complications • Iron Deficiency or Other Unspecified Anemias and Blood Disease • Congestive Heart Failure • Valvular or Rheumatic Heart Disease • Chronic obstructive pulmonary disease • End-Stage Renal Disease or Dialysis • Other Urinary Tract Disorders • Specified Arrhythmias • Pneumonia • Renal Failure	• Metastatic Cancer or Acute Leukemia • Cancer • Decubitus Ulcer or Chronic Skin Ulcer • Dementia or Other Specified Brain Disorders • Angina Pectoris/Old Myocardial Infarction • Stroke • Asthma • Acute Coronary Syndrome • Hemiplegia, Paraplegia, Paralysis, Functional Disability • 'Protein-Calorie Malnutrition; • Anterior Myocardial Infarction • Other Location of Myocardial Infarction

Pneumonia Readmissions

• Age • Sex • History of Coronary Artery Bypass Graft • History of Percutaneous Transluminal Coronary Angioplasty • History of infection • Septicemia/Shock • Metastatic Cancer or Acute Leukemia • Lung, Upper Digestive Tract, and Other Severe Cancers • Other Major Cancers • Diabetes Mellitus (DM) or DM Complications • Disorders of Fluid/Electrolyte/Acid-Base • Other Gastrointestinal Disorders • Severe Hematological Disorders • Iron Deficiency or Other Unspecified Anemias and Blood Disease • Dementia or Other Specified Brain Disorders • Drug/Alcohol Abuse/Dependence/Psychosis • Major Psychiatric Disorders • Other Psychiatric Disorders • Hemiplegia, Paraplegia, Paralysis, Functional Disability	• Protein-Calorie Malnutrition • Cardio-Respiratory Failure or Shock • Congestive Heart Failure • Acute Coronary Syndrome • Coronary Atherosclerosis or Angina • Valvular or Rheumatic Heart Disease • Specified Arrhythmias • Stroke • Vascular or Circulatory Disease • Chronic obstructive pulmonary disease • Fibrosis of Lung or Other Chronic Lung Disorders • Asthma • Pneumonia • Pleural Effusion/Pneumothorax • Other Lung Disorders • End-Stage Renal Disease or Dialysis • Renal Failure • Urinary Tract Infection • Other Urinary Tract Disorders • Decubitus Ulcer or Chronic Skin Ulcer • Vertebral fractures • Other Injuries

Chronic Obstructive Pulmonary Disease (COPD) Readmissions

• Age • Fibrosis of Lung or Other Chronic Lung Disorder • Other Digestive and Urinary Neoplasms • Renal Failure • Decubitus Ulcer or Chronic Skin Ulcer • Cellulitis, Local Skin Infection • Vertebral Fractures • Protein-Calorie Malnutrition • Other Endocrine/Metabolic/Nutritional Disorders • Pancreatic Disease • Peptic Ulcer, Hemorrhage, Other Specified Gastrointestinal Disorders • Other Gastrointestinal Disorders • Severe Hematological Disorders • Iron Deficiency or Other Unspecified Anemia and Blood Disease • Depression • Anxiety Disorders • Other Psychiatric Disorders • Metastatic Cancer or Acute Leukemia • Cardio-Respiratory Failure or Shock • Lung, Upper Digestive Tract, and Other Severe Cancers	• Polyneuropathy • Congestive Heart Failure • Hypertensive Heart and Renal Disease or Encephalopathy • Specified Arrhythmias • Other or Unspecified Heart Disease • History of Infection • Vascular or Circulatory Disease • Pneumonia • Diabetes Mellitus (DM) or DM Complications • Disorders of Fluid/Electrolyte/Acid-Base • Dementia or Other Specified Brain Disorders • Drug/Alcohol Abuse/Dependence/Psychosis • Major Psychiatric Disorders • Quadripelgia, Paraplegia, Functional Disability • Respirator Dependence/Respiratory Failure • Acute Coronary Syndrome • Chronic Atherosclerosis or Angina • Lymphatic, Head and Neck, Brain, and Other Major Cancers Breast, Colorectal and Other Cancers and Tumors; Other Respiratory and Heart Neoplasms • Stroke • Sleep Apnea • History of Mechanical Ventilation

Appendix F: Zip Code Identification Methods

All analyses by zip code are based on a 591 NJ zip universe. These 591 zips are an intersection of the zip codes present in our three data sources. They are non-zero population zips identified using the zip code tabulation areas (ZCTAs) in the 2008–2012 ACS data, they occur as zips of residence for Medicaid beneficiaries in the recipient file accompanying the claims data, and they are also zips of residence on Medicaid discharge records in the UB data, which was our source for creating the hospital choice sets and DSRIP exposure variables. Using this intersection of zips helps us discard erroneous zips present in either UB or Medicaid data and was necessary for assuring non-missing exposure variables in zip-level analyses and a consistent geography for all-payer comparisons. Nevertheless, the ZCTA definition in the ACS results is not identical to the postal zip code definition. The implications of this for our analysis are discussed in the limitations section.

Appendix G: Full Model Results

Appendix Table 3.G1: DSRIP Behavioral Health Program's Impact on Follow-up after Hospitalization for Mental Illness – Full Model Results

VARIABLES	7-Day Follow-up	30-Day Follow-up
DSRIP BH Program	-0.01468	-0.01491
	(0.011)	(0.013)
Male	-0.00829	-0.00910
	(0.007)	(0.007)
Age ≥ 65	-0.01274	-0.03952**
	(0.016)	(0.017)
CDPS Risk Category 2	-0.00113	0.00070
	(0.012)	(0.015)
CDPS Risk Category 3	-0.00243	0.00738
	(0.013)	(0.014)
CDPS Risk Category 4	0.00513	0.01809
	(0.011)	(0.016)
CDPS Risk Category 5	-0.01058	-0.01036
	(0.014)	(0.017)
Year 2012	-0.00329	-0.00600
	(0.005)	(0.008)
Year 2013	-0.00742	-0.01498*
	(0.007)	(0.008)
Constant	0.16939***	0.28243***
	(0.010)	(0.014)
Observations	*20,108*	*20,108*
R-squared	*0.00055*	*0.00102*
# of Hospital FE	*52*	*52*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: BH=Behavioral Health; CDPS=Chronic Illness and Disability Payment System; FE=Fixed Effects.
For CDPS risk categories, higher category numbers indicate higher health risk.
Discharge-level regression analysis with hospital fixed effects.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G2: DSRIP Chemical Addiction/Substance Abuse Program's Impact on Initiation and Engagement in Alcohol and Other Drug Treatment – Full Model Results

	Initiation			Engagement		
VARIABLES	**Ages 13-17**	**Ages 18+**	**Overall**	**Ages 13-17**	**Ages 18+**	**Overall**
DSRIP CA/SA Program Impact	0.00011	0.00009	0.00013	-0.00001	0.00002	0.00004
	(0.00048)	(0.00014)	(0.00014)	(0.00026)	(0.00008)	(0.00008)
Male	0.03998***	-0.01104***	-0.00620**	0.03474***	-0.02048***	-0.01414***
	(0.01409)	(0.00286)	(0.00315)	(0.01143)	(0.00206)	(0.00234)
CDPS Risk Category 2	-0.06145***	0.04261***	0.03851***	-0.03006**	-0.00283	-0.00377
	(0.01741)	(0.00445)	(0.00429)	(0.01415)	(0.00290)	(0.00293)
CDPS Risk Category 3	0.04742***	0.04780***	0.04846***	0.03221**	-0.00734**	-0.00346
	(0.01781)	(0.00582)	(0.00563)	(0.01399)	(0.00359)	(0.00354)
CDPS Risk Category 4	0.08035***	0.03851***	0.05156***	0.06184***	-0.01432***	0.00448
	(0.01980)	(0.00551)	(0.00572)	(0.01808)	(0.00323)	(0.00504)
CDPS Risk Category 5	0.10275***	0.03854***	0.05649***	0.04613***	-0.03350***	-0.01293***
	(0.01755)	(0.00671)	(0.00620)	(0.01457)	(0.00332)	(0.00420)
Year 2012	0.02120	0.00023	0.00468	0.01197	-0.00117	0.00317
	(0.01311)	(0.00372)	(0.00353)	(0.01000)	(0.00240)	(0.00236)
Year 2013	-0.02704*	0.04794***	0.04449***	-0.01732	0.03673***	0.03571***
	(0.01598)	(0.00469)	(0.00432)	(0.01322)	(0.00321)	(0.00302)
Constant	0.16719***	0.13989***	0.13843***	0.08438***	0.06588***	0.06263***
	(0.01568)	(0.00471)	(0.00460)	(0.01317)	(0.00323)	(0.00332)
Observations	*5,902*	*64,721*	*70,623*	*5,902*	*64,721*	*70,623*
R-squared	*0.022*	*0.006*	*0.005*	*0.013*	*0.010*	*0.006*
# of Zip Code FE	*466*	*557*	*559*	*466*	*557*	*559*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: CA/SA=Chemical Addiction/Substance Abuse; CDPS=Chronic Illness and Disability Payment System; FE=Fixed Effects.
For CDPS risk categories, higher category numbers indicate higher health risk.
Patient-level regression analysis with zip fixed effects.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G3: DSRIP Asthma Program's Impact on Emergency Department Visits for Asthma – Full Model Results

	ED Visit for Asthma	
VARIABLES	**Ages 0-17**	**Ages 18+**
DSRIP Asthma Program Impact	0.00002	0.00003**
	(0.00001)	(0.00001)
Male	0.00873***	-0.01524***
	(0.00053)	(0.00082)
CDPS Risk Category 2	0.04334***	0.02573***
	(0.00206)	(0.00111)
CDPS Risk Category 3	0.04473***	0.03676***
	(0.00248)	(0.00155)
CDPS Risk Category 4	0.03499***	0.03970***
	(0.00171)	(0.00166)
CDPS Risk Category 5	0.06857***	0.03308***
	(0.00271)	(0.00156)
Year 2012	0.00010	0.00521***
	(0.00045)	(0.00049)
Year 2013	-0.00308***	0.00244***
	(0.00049)	(0.00044)
Constant	0.01722***	0.01919***
	(0.00075)	(0.00053)
Observations	*2,186,925*	*1,983,210*
R-squared	*0.015*	*0.010*
# of Zip Code FE	*577*	*578*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: CDPS=Chronic Illness and Disability Payment System; FE=Fixed Effects.
For CDPS risk categories, higher category numbers indicate higher health risk.
Person-level regression analysis with zip code fixed effects.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G4: DSRIP Asthma Program's Impact on Asthma in Younger Adults Admission Rate – Full Model Results

VARIABLES	**Younger Adult Asthma Admission Rate**
DSRIP Asthma Program Impact	-0.08326**
	(0.039)
Average CDPS Risk Score in Zip Code	11.22458
	(9.353)
Year 2012	4.39072
	(4.779)
Year 2013	3.23118
	(4.693)
Constant	4.98199
	(10.892)
Observations	*1,722*
R-squared	*0.01915*
# of Zip Code FE	*575*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: CDPS=Chronic Illness and Disability Payment System; FE=Fixed Effects.
Increasing CDPS scores indicate increasing health risk.
Zip-level regression analysis with zip code fixed effects.
Rates are per 10,000 Medicaid beneficiary-years for beneficiaries ages 18-39.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G5: DSRIP Diabetes Program's Impact on Diabetes Short-term Complications Admission Rate - Full Model Results

VARIABLES	**Diabetes Short-term Complications Admission Rate**
DSRIP Diabetes Program Impact	-0.04752**
	(0.019)
Average CDPS Risk Score in Zip Code	5.54470*
	(3.295)
Year 2012	5.37119**
	(2.507)
Year 2013	6.57605**
	(2.684)
Constant	2.00572
	(5.972)
Observations	*1,731*
R-squared	*0.00948*
# of Zip Code FE	*577*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: CDPS=Chronic Illness and Disability Payment System; FE=Fixed Effects.
Increasing CDPS scores indicate increasing health risk.
Zip-level regression analysis with zip code fixed effects.
Rates are per 10,000 Medicaid beneficiary-years for beneficiaries ages 18+.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G6: DSRIP Cardiac Program's Impact on 30-Day Readmissions for Heart Failure and Acute Myocardial Infarction – Full Model Results

VARIABLES	30-Day HF Readmissions	30-Day AMI Readmissions
DSRIP Cardiac Program Impact	-0.031	0.016
	(0.024)	(0.024)
Year 2013	-0.027	-0.003
	(0.018)	(0.017)
Male	-0.010	-0.010
	(0.011)	(0.020)
Age 65-74	-0.080***	-0.056***
	(0.017)	(0.018)
Age 75-84	-0.051***	-0.041**
	(0.013)	(0.020)
Age 85+	-0.036*	-0.056*
	(0.020)	(0.030)
Constant	0.094**	0.039
	(0.039)	(0.027)
Observations	*4,526*	*1,685*
R-squared	*0.079*	*0.054*
# of Hospital FE	*55*	*55*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: HF=Heart Failure; AMI=Acute Myocardial Infarction; FE=Fixed Effects.
Discharge-level regression analysis with hospital fixed effects.
Models adjusted for all condition-specific risk factors listed in Appendix E.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G7: DSRIP Pneumonia Program's Impact on 30-Day Readmissions for Pneumonia – Full Model Results

VARIABLES	**30-Day Pneumonia Readmissions**
DSRIP Pneumonia Program Impact	0.003
	(0.013)
Year 2013	-0.010
	(0.011)
Male	-0.002
	(0.011)
Age 65-74	-0.058***
	(0.010)
Age 75-84	-0.062***
	(0.012)
Age 85+	-0.073***
	(0.017)
Constant	-0.001
	(0.013)
Observations	*4,362*
R-squared	*0.107*
# of Hospital FE	*55*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: FE=Fixed Effects.
Discharge-level regression analysis with hospital fixed effects.
Models adjusted for all condition-specific risk factors listed in Appendix E.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G8: Overall DSRIP Program Impact on 30-Day Readmissions for Heart Failure, Acute Myocardial Infarction, Pneumonia, and Chronic Obstructive Pulmonary Disease - Full Model Results

	30-Day Readmissions			
VARIABLES	**HF**	**AMI**	**PN**	**COPD**
DSRIP Overall Program Impact	-0.030	0.005	0.019	0.020
	(0.030)	(0.072)	(0.037)	(0.026)
Year 2013	-0.011	-0.001	-0.029	-0.033
	(0.027)	(0.070)	(0.035)	(0.025)
Male	-0.009	-0.018	-0.000	
	(0.010)	(0.020)	(0.011)	
Age 65-74	-0.083***	-0.062***	-0.058***	-0.059***
	(0.016)	(0.017)	(0.010)	(0.012)
Age 75-84	-0.054***	-0.046**	-0.059***	-0.049***
	(0.012)	(0.020)	(0.012)	(0.015)
Age 85+	-0.040**	-0.066**	-0.066***	-0.063***
	(0.019)	(0.030)	(0.016)	(0.015)
Constant	0.073**	0.043	-0.005	0.020
	(0.035)	(0.026)	(0.013)	(0.018)
Observations	*4,896*	*1,816*	*4,810*	*6,475*
R-squared	*0.082*	*0.060*	*0.104*	*0.078*
# of Hospital FE	*64*	*64*	*65*	*65*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: HF=Heart Failure; AMI=Acute Myocardial Infarction; PN=Pneumonia; COPD=Chronic Obstructive Pulmonary Disease; FE=Fixed Effects.

Discharge-level regression analysis with hospital fixed effects.

Models adjusted for all condition-specific risk factors listed in Appendix E.

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G9: Overall DSRIP Program Impact on Inpatient Mental Health Utilization- Full Model Results

VARIABLES	**Mental Health Utilization - Inpatient**
DSRIP Overall Program Impact	-0.00000
	(0.00000)
Male	0.00053***
	(0.00015)
CDPS Risk Category 2	0.01850***
	(0.00070)
CDPS Risk Category 3	0.02126***
	(0.00083)
CDPS Risk Category 4	0.02768***
	(0.00106)
CDPS Risk Category 5	0.02764***
	(0.00089)
Age 65-74	-0.00703***
	(0.00041)
Age 75-84	-0.01270***
	(0.00054)
Age 85+	-0.01566***
	(0.00070)
Year 2012	0.00202***
	(0.00012)
Year 2013	0.00208***
	(0.00049)
Constant	-0.00004
	(0.00029)
Observations	*4,199,977*
R-squared	*0.014*
# of Zip FE	*591*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: CDPS=Chronic Illness and Disability Payment System; FE=Fixed Effects.
For CDPS risk categories, higher category numbers indicate higher health risk.
Person-level regression analysis with zip fixed effects.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G10: Overall DSRIP Program Impact on Rates of Avoidable Inpatient Hospitalizations and Emergency Department Visits - Full Model Results

VARIABLES	Preventable IP Hospitalizations	Avoidable ED Visits
DSRIP Overall Program Impact	-0.36838**	0.97202
	(0.179)	(0.615)
Average CDPS Risk Score in Zip Code	83.40510***	215.39122*
	(18.038)	(112.038)
Year 2012	58.42653***	152.86623***
	(12.587)	(50.746)
Year 2013	59.69625***	20.23152
	(21.662)	(64.113)
Constant	126.86524***	2,799.75156***
	(32.078)	(168.298)
Observations	*1,770*	*1,773*
R-squared	*0.14258*	*0.03293*
# of Zip Code FE	*590*	*591*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: IP=Inpatient; ED=Emergency Department; CDPS=Chronic Illness and Disability Payment System; FE=Fixed Effects.
Increasing CDPS scores indicate increasing health risk.
Zip-level regression analysis with zip code fixed effects.
Rates are per 10,000 Medicaid beneficiary-years.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G11: Overall DSRIP Impact on Avoidable Inpatient Hospitalization and Emergency Department Visit Costs - Full Model Results

VARIABLES	**Preventable IP Hospitalizations**	**Avoidable ED Visits**
DSRIP Overall Program Impact	0.00042	0.00072**
	(0.00148)	(0.00032)
Zip DSRIP Exposure	0.00391***	0.00377***
	(0.00138)	(0.00139)
Average CDPS Risk Score in Zip Code	0.58562***	-0.23980
	(0.14906)	(0.25045)
Year 2012	0.42556***	0.01776
	(0.10659)	(0.08385)
Year 2013	0.30322*	-0.00794
	(0.17647)	(0.08967)
Constant	12.41948***	13.49504***
	(0.28728)	(0.38479)
Observations	*1,770*	*1,773*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: IP=Inpatient; ED=Emergency Department.
Estimates based on a zip-level generalized linear model with gamma log link.
Costs are per 10,000 Medicaid beneficiary-years.
Standard errors in parentheses adjusted for clustering.
*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G12: Overall DSRIP Impact on Racial/Ethnic Disparities in 30-Day Readmission Rates for Heart Failure, Acute Myocardial Infarction, Pneumonia, and Chronic Obstructive Pulmonary Disease - Full Model Results for Combined Impact on Minorities

	30-Day Readmissions			
VARIABLES	**HF**	**AMI**	**PN**	**COPD**
DSRIP Overall Program Impact on Minority Disparities	-0.031	-0.010	-0.055	-0.053
	(0.061)	(0.080)	(0.057)	(0.059)
Minority*DSRIP Hospital	0.050	-0.002	0.059	0.079**
	(0.052)	(0.085)	(0.045)	(0.032)
Minority*Year 2013	0.051	-0.006	0.041	0.038
	(0.058)	(0.074)	(0.053)	(0.057)
Minority	-0.033	0.015	-0.023	-0.056*
	(0.050)	(0.080)	(0.043)	(0.029)
DSRIP Hospital* Year 2013	-0.017	0.013	0.044	0.044
	(0.048)	(0.078)	(0.030)	(0.039)
Year 2013	-0.037	0.000	-0.046*	-0.048
	(0.045)	(0.075)	(0.027)	(0.038)
Male	-0.008	-0.018	-0.001	
	(0.010)	(0.020)	(0.011)	
Age 65-74	-0.082***	-0.063***	-0.058***	-0.059***
	(0.017)	(0.017)	(0.010)	(0.012)
Age 75-84	-0.054***	-0.047**	-0.061***	-0.049***
	(0.012)	(0.020)	(0.012)	(0.015)
Age 85+	-0.037*	-0.067**	-0.066***	-0.062***
	(0.019)	(0.030)	(0.016)	(0.015)
Constant	0.063*	0.036	-0.020	0.008
	(0.034)	(0.032)	(0.015)	(0.021)
Observations	*4,896*	*1,816*	*4,810*	*6,475*
R-squared	*0.083*	*0.060*	*0.106*	*0.079*
# of Hospital FE	*64*	*64*	*65*	*65*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: HF=Heart Failure; AMI=Acute Myocardial Infarction; PN=Pneumonia; COPD=Chronic Obstructive Pulmonary Disease; FE=Fixed Effects.
Discharge-level regression analysis with hospital fixed effects.
Models adjusted for all condition-specific risk factors listed in Appendix E.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G13: Overall DSRIP Impact on Racial/Ethnic Disparities in 30-Day Readmission Rates for Heart Failure and Pneumonia - Full Model Results

	30-Day Readmissions	
VARIABLES	**HF**	**PN**
DSRIP Overall Program Impact on Black-White Disparities	-0.060	-0.137***
	(0.096)	(0.042)
DSRIP Overall Program Impact on Hispanic-White Disparities	-0.055	0.118
	(0.146)	(0.132)
DSRIP Overall Program Impact on Other-White Disparities	0.002	-0.089
	(0.050)	(0.063)
Black*DSRIP Hospital	0.044	0.168***
	(0.061)	(0.030)
Hispanic*DSRIP Hospital	0.088*	-0.057
	(0.046)	(0.102)
Other*DSRIP Hospital	0.058	0.057
	(0.077)	(0.044)
Black*Year 2013	0.087	0.104***
	(0.095)	(0.033)
Hispanic*Year 2013	0.081	-0.099
	(0.143)	(0.128)
Other*Year 2013	-0.003	0.090
	(0.037)	(0.057)
Black	-0.045	-0.133***
	(0.058)	(0.024)
Hispanic	-0.069	0.096
	(0.043)	(0.099)
Other	-0.011	-0.025
	(0.074)	(0.041)
DSRIP Hospital* Year 2013	-0.017	0.045
	(0.048)	(0.030)
Year 2013	-0.038	-0.047*
	(0.045)	(0.027)
Male	-0.009	-0.002
	(0.010)	(0.011)
Age 65-74	-0.085***	-0.061***
	(0.017)	(0.010)
Age 75-84	-0.059***	-0.065***
	(0.012)	(0.012)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: HF=Heart Failure; PN=Pneumonia; FE=Fixed Effects.
Discharge-level regression analysis with hospital fixed effects.
Models adjusted for all condition-specific risk factors listed in Appendix E.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G13: Overall DSRIP Impact on Racial/Ethnic Disparities in 30-Day Readmission Rates for Heart Failure and Pneumonia - Full Model Results (continued)

	30-Day Readmissions	
VARIABLES	**HF**	**PN**
Age 85+	-0.042**	-0.069***
	(0.020)	(0.016)
Constant	0.068*	-0.017
	(0.034)	(0.015)
Observations	*4,896*	*4,810*
R-squared	*0.084*	*0.108*
# of Hospital FE	*64*	*65*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: HF=Heart Failure; PN=Pneumonia; FE=Fixed Effects.
Discharge-level regression analysis with hospital fixed effects.
Models adjusted for all condition-specific risk factors listed in Appendix E.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G14: Overall DSRIP Impact on Gender Disparities in 30-Day Readmission Rates for Heart Failure, Acute Myocardial Infarction, Pneumonia, and Chronic Obstructive Pulmonary Disease - Full Model Results

	30-Day Readmissions			
VARIABLES	**HF**	**AMI**	**PN**	**COPD**
DSRIP Overall Program Impact on Gender Disparities	0.010	-0.062	-0.054	0.022
	(0.048)	(0.129)	(0.048)	(0.052)
Female*DSRIP Hospital	0.028	-0.088	0.040	-0.022
	(0.031)	(0.065)	(0.042)	(0.027)
Female*Year 2013	-0.029	0.107	0.041	-0.037
	(0.043)	(0.127)	(0.045)	(0.049)
Female	-0.009	0.077	-0.032	-0.000
	(0.028)	(0.063)	(0.040)	(0.023)
DSRIP Hospital* Year 2013	-0.033	0.044	0.050	0.004
	(0.043)	(0.044)	(0.038)	(0.053)
Year 2013	0.004	-0.066	-0.052	-0.007
	(0.039)	(0.041)	(0.035)	(0.051)
Age 65-74	-0.083***	-0.062***	-0.058***	-0.059***
	(0.017)	(0.017)	(0.010)	(0.012)
Age 75-84	-0.054***	-0.047**	-0.059***	-0.048***
	(0.012)	(0.019)	(0.012)	(0.015)
Age 85+	-0.040**	-0.066**	-0.067***	-0.059***
	(0.019)	(0.029)	(0.016)	(0.015)
Constant	0.059	0.038	-0.007	0.030
	(0.038)	(0.024)	(0.015)	(0.019)
Observations	*4,896*	*1,816*	*4,810*	*6,475*
R-squared	*0.082*	*0.064*	*0.104*	*0.080*
# of Hospital FE	*64*	*64*	*65*	*65*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: HF=Heart Failure; AMI=Acute Myocardial Infarction; PN=Pneumonia; COPD=Chronic Obstructive Pulmonary Disease; FE=Fixed Effects.
Discharge-level regression analysis with hospital fixed effects.
Models adjusted for all condition-specific risk factors listed in Appendix E.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G15: Overall DSRIP Impact on Racial/Ethnic and Gender Disparities in Preventable Inpatient Hospitalization Rates - Full Model Results

	Preventable IP Hospitalization Rate Differences			
VARIABLES	**Black-White**	**Hispanic-White**	**Other-White**	**Female-Male**
DSRIP Overall Program Impact on Disparities	-1.30328	-0.85100	-0.90087*	0.09804
	(0.861)	(0.631)	(0.490)	(0.337)
Average CDPS Risk Score in Zip Code	82.42129	-123.27266**	-32.28529	-41.04983
	(83.650)	(57.028)	(44.864)	(29.128)
Year 2012	69.46943	-79.03115**	-19.70580	-40.56900*
	(59.302)	(40.214)	(35.312)	(21.523)
Year 2013	163.96152*	19.81261	56.02259	-47.61264
	(99.501)	(73.771)	(58.752)	(39.310)
Constant	-117.56907	144.08573	112.12346	77.88152
	(147.492)	(100.343)	(82.576)	(52.149)
Observations	*1,641*	*1,611*	*1,704*	*1,764*
R-squared	*0.01878*	*0.01997*	*0.00395*	*0.00455*
# of Zip Code FE	*547*	*537*	*568*	*588*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: IP=Inpatient; FE=Fixed Effects.
Zip-level regression analysis with zip fixed effects.
Rates are per 10,000 Medicaid beneficiary-years for beneficiaries age 18 and up.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G16: Overall DSRIP Impact on Racial/Ethnic and Gender Disparities in Avoidable Emergency Department Visit Rates- Full Model Results

	Avoidable ED Visit Rate Differences			
VARIABLES	**Black-White**	**Hispanic-White**	**Other-White**	**Female-Male**
DSRIP Overall Program Impact on Disparities	-0.86482	1.10907	1.49758	0.34832
	(1.987)	(1.502)	(1.386)	(0.865)
Average CDPS Risk Score in Zip Code	417.93088*	-137.32082	-117.25448	121.59599
	(224.216)	(174.093)	(135.205)	(96.696)
Year 2012	127.81783	-21.72147	-40.44544	69.30448*
	(89.457)	(71.496)	(63.323)	(36.455)
Year 2013	306.32694	-45.78176	-126.82717	-47.34176
	(199.419)	(150.698)	(139.311)	(91.475)
Constant	-162.52	-133.23	-876.50***	809.82***
	(320.738)	(252.901)	(204.836)	(139.831)
Observations	*1,695*	*1,695*	*1,725*	*1,773*
R-squared	*0.01516*	*0.02434*	*0.00802*	*0.02358*
# of Zip Code FE	*565*	*565*	*575*	*591*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: ED=Emergency Department; FE=Fixed Effects.
Zip-level regression analysis with zip fixed effects.
Rates are per 10,000 Medicaid beneficiary-years.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Chapter 4: Analysis of Stage 4 Hospital-level Reported Metrics to Examine Trends in Preventive Care

Introduction

In this chapter, we examine the results from an analysis of the 2013 and 2014 Stage 4 Metrics for all DSRIP participating hospitals in New Jersey. These Stage 4 Metrics are derived from Medicaid Management Information System (MMIS) administrative claims data and include measures such as child and adolescent access to primary care practitioners, hospital admission rates for COPD and heart failure, CD4 T-cell counts for HIV, preventive screenings for cervical cancer and chlamydia, a number of childhood vaccination combinations, and well-child visits for infants. One additional measure for hospital acquired potentially preventable venous thromboembolism is derived from each hospital's medical chart or electronic health record (EHR) and was available only for the year 2014. A general description of each metric is provided in the Findings section below; a detailed description of each metric including exclusions can be found in the *DSRIP Performance Measurement Databook* (Myers and Stauffer LC 2015).

Methods

In this analysis, paired t-tests to assess change over time from 2013 to 2014 were conducted for each of the metrics across all 50 New Jersey hospitals participating in the DSRIP program. Some measures are reported as percentages and others as rates per 1,000. Averages for each metric for both 2013 and 2014 are shown in Table 4.1 at the end of this chapter. Significant changes over time are indicated at the $p<.05$ level. Changes in mean levels from 2013 to 2014 are also marked as to whether the metric improved or worsened, and charts are displayed indicating what percentage of hospitals improved for each metric.

Findings

Children and Adolescents' Access to Primary Care Practitioners

These metrics indicate what percentage of each hospital's eligible attributed children or adolescents visited a primary care practitioner (PCP) during each measurement year (or prior year for the two older age groups) and are reported at four age levels:

- 12 to 24 months, percentage with 1+ visits during measurement year
- 25 months to 6 years, percentage with 1+ visits during measurement year

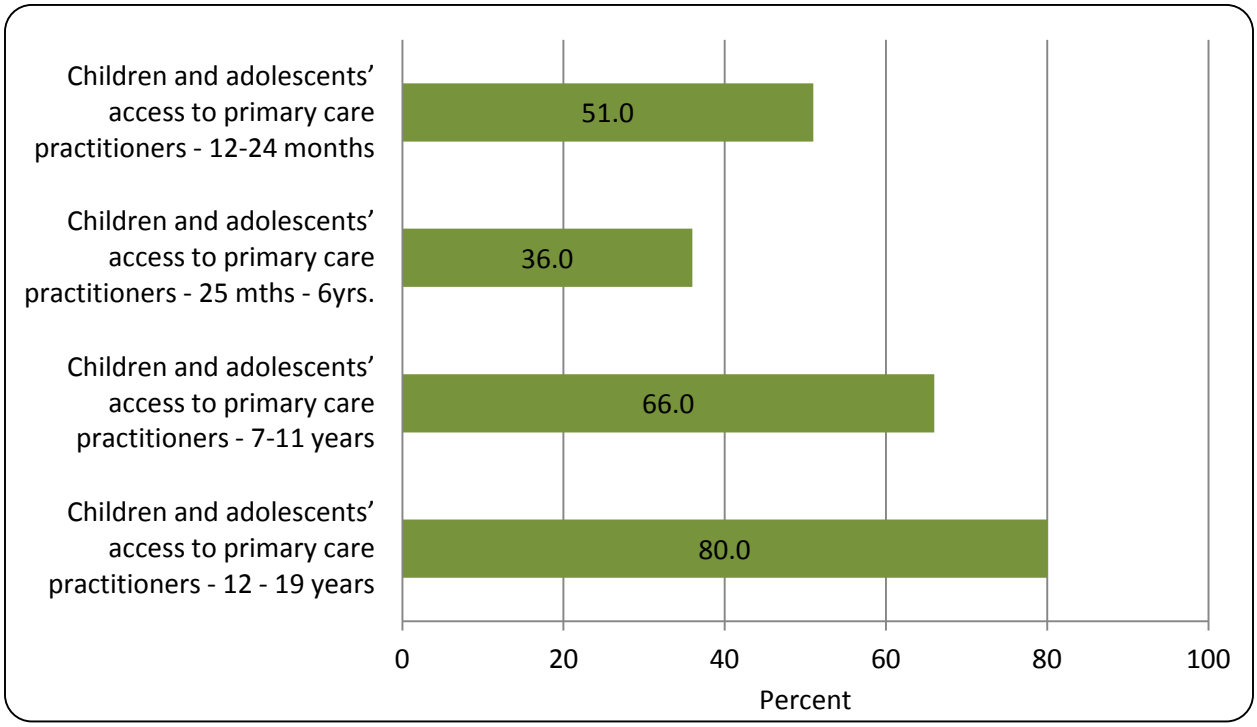
- 7 to 11 years, percentage with 1+ visits during measurement year or year prior
- 12 to 19 years, percentage with 1+ visits during measurement year or year prior

A PCP is defined to include physicians, nurse practitioners, or physician assistants in the following specialties:

- Family practice
- NP Family
- Internal Medicine
- Pediatrics
- NP Pediatric
- NP Community Health
- NP Adult Health

Significant improvements over time were reported for children ages 7 years to 11 years (2013 mean percentage: 93.37%, 2014 mean percentage: 94.45%, p=.010) and for adolescents ages 12 years to 19 years (2013 mean percentage: 89.74%, 2014 mean percentage: 91.16%, p=.000). Four out of every five hospitals (80%) showed improved PCP access from 2013 to 2014 for adolescents (ages 12 years to 19 years), whereas only 36% of hospitals showed improved PCP access for children ages 25 months to 6 years over the same time period (see Figure 4.1).

Figure 4.1: DSRIP Metrics, Percent of Hospitals That Improved from 2013 to 2014, Part 1



Source: 2015 New Jersey DSRIP Metrics Analysis 2013 and 2014, Rutgers Center for State Health Policy.

Hospital Admission Rates

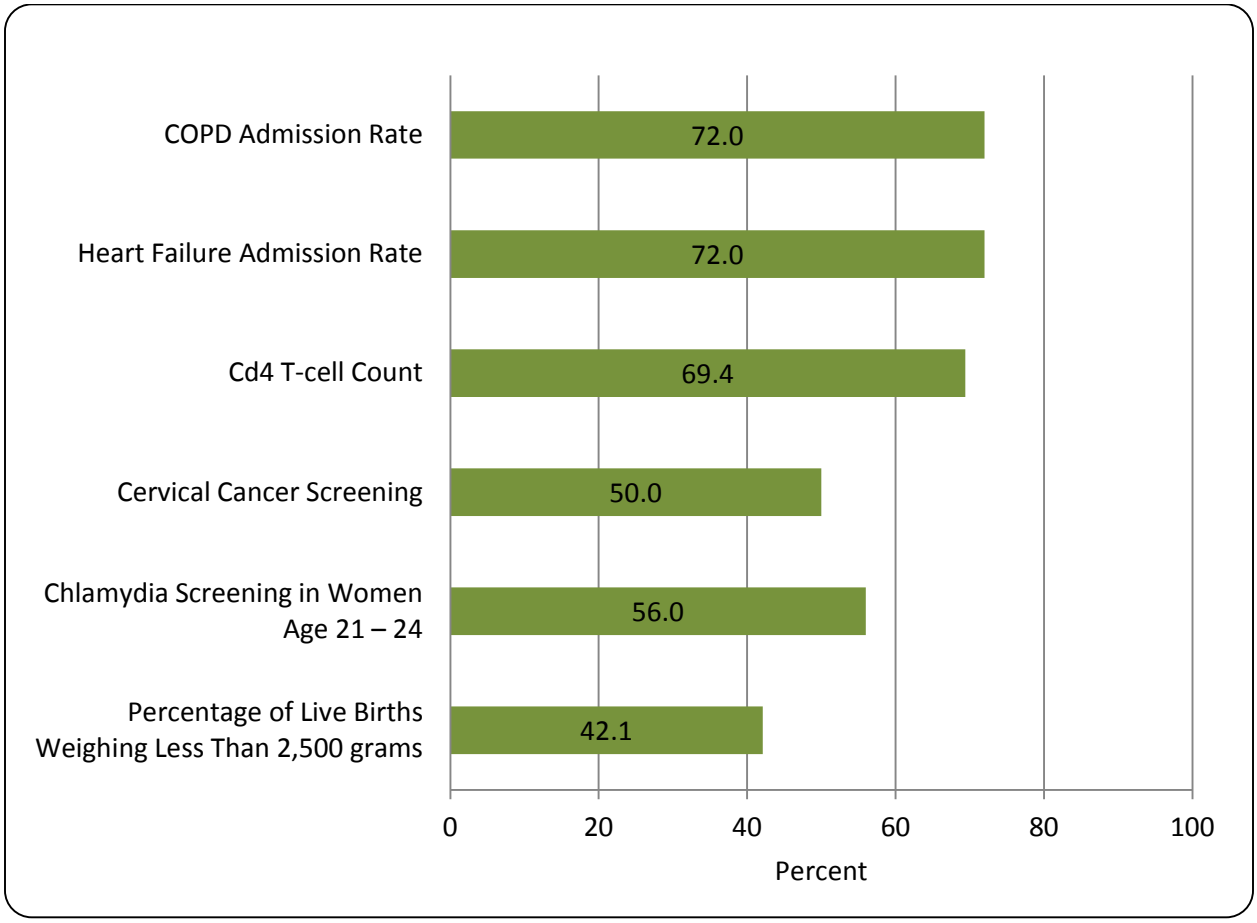
The Stage 4 Metrics included hospital admission rates for the following two conditions in each hospital's attributed patients ages 18 years and older:

- Chronic obstructive pulmonary disease (COPD)
- Heart failure

Both rates are expressed as number of admissions per 1,000 attributable population for each hospital. Certain exclusions such as transfers from other facilities apply.

Hospital admission rates for both conditions significantly improved (decreased in magnitude) from 2013 to 2014. For COPD, the average admission rate across hospitals decreased from 3.10 in 2013 to 2.37 in 2014 (p=.001). For heart failure, the admission rate decreased from 3.88 in 2013 to 3.10 in 2014 (p=.000). For both conditions, nearly 3 out of 4 hospitals (72% for both) showed improved admission rates (see Figure 4.2, top 2 bars).

Figure 4.2: DSRIP Metrics, Percent of Hospitals That Improved from 2013 to 2014, Part 2



Source: 2015 New Jersey DSRIP Metrics Analysis 2013 and 2014, Rutgers Center for State Health Policy.

CD4 T-cell Count for HIV-infected Patients

This metric assesses the percentage of each hospital's attributed patients who are infected with HIV that had two or more CD4 T-cell counts taken during each measurement year, and is calculated for all HIV-infected attributed patients who had at least one primary care visit with a physician or nurse practitioner during the year.

This metric significantly improved from 2013 to 2014. In 2013, 38.1% of HIV-infected patients had 2+ CD4 T-cell counts taken; that percentage improved to 46.9% in 2014 (P=.003). About seven in 10 hospitals (69.4%) showed an improvement in this metric from 2013 to 2014 (also see Figure 4.2, 3rd bar).

Preventive Screening

Preventive screening metrics were assessed for the following two conditions in women:

- Cervical cancer
- Chlamydia

For cervical cancer screening, the metric represents the percentage of women ages 24-64 years who received one or more PAP tests in the measurement year or the year prior, and is assessed as a percentage of all women ages 24-64 in each hospital's attributable population. The chlamydia screening metric represents the percentage of sexually active women ages 16-24 who had one or more chlamydia tests during the measurement year.

Both metrics improved slightly from 2013 to 2014, but the changes were not statistically significant. From 2013 to 2014, the cervical cancer screening percentage improved from 41.95% to 42.06%, and the chlamydia screening improved from 42.36% to 42.46%. Half of the hospitals showed an improvement in cervical cancer screening from 2013 to 2014, while 56% of hospitals showed an improvement in chlamydia screening (also see Figure 4.2, 4th and 5th bars).

Low Birth Weight Infants

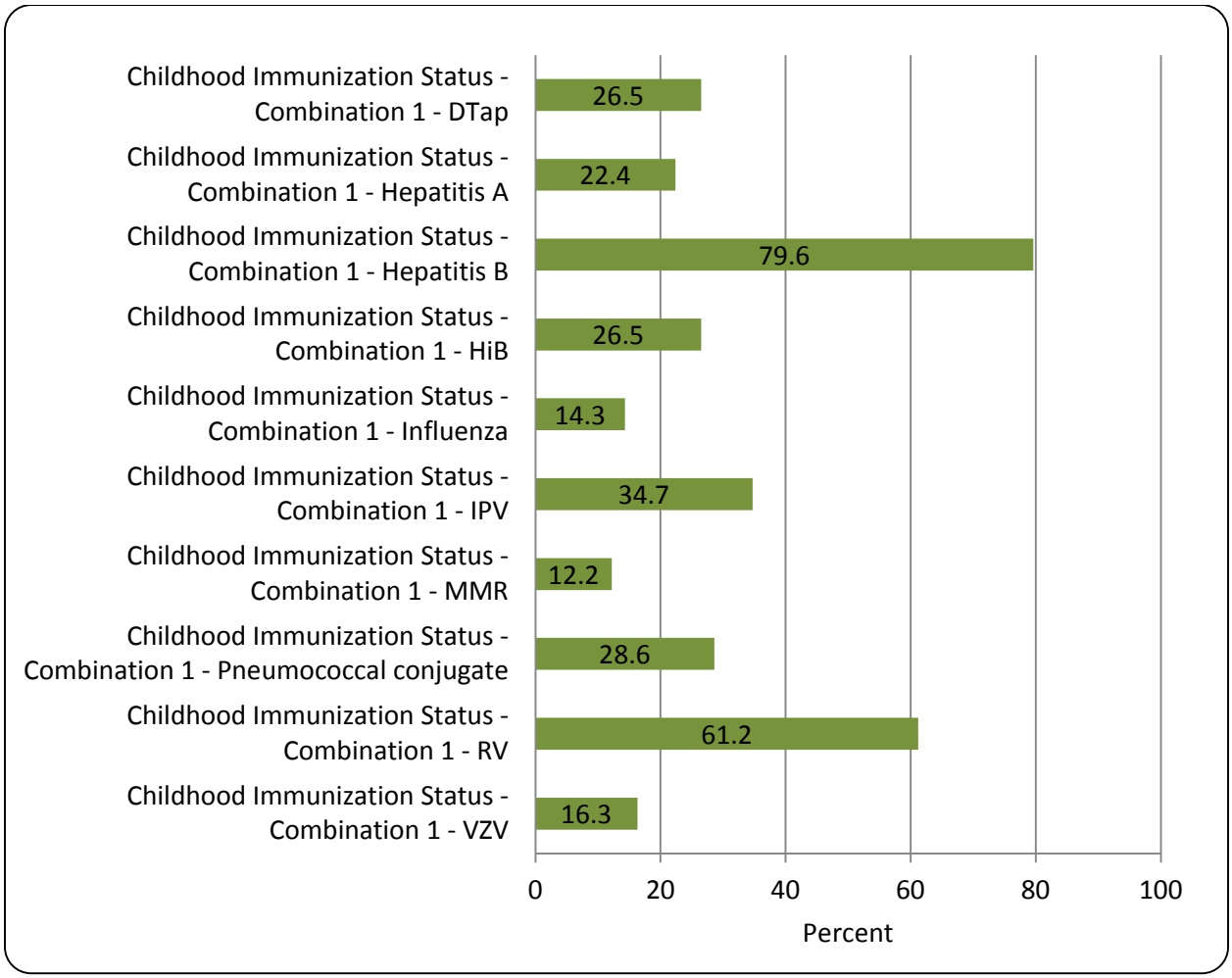
This metric represents the percentage of newborn infants attributed to each hospital who weigh less than 2,500 grams. There was a slight improvement in low birth weight from 2013 to 2014, but the change was not statistically significant. In 2013, 6.68% of newborns weighed less than 2,500 grams, while in 2014, 6.53% of newborns weighed less than 2,500 grams. Just over four in 10 hospitals (42.1%) showed an improvement in this metric from 2013 to 2014 (also see Figure 4.2, last bar).

Childhood Immunization Status

These metrics represent the percentage of two-year-old attributable children for each hospital who received each of the following vaccines:

- four diphtheria, tetanus and acellular pertussis (Dtap)
- three polio (IPV)
- one measles, mumps and rubella (MMR)
- three H influenza type B (HiB)
- three hepatitis B (HepB)
- one chicken pox (VZV)
- four pneumococcal conjugate (PCV)
- one hepatitis A (HepA)
- two or three rotavirus (RV)
- two influenza (flu)

Figure 4.3: DSRIP Metrics, Percent of Hospitals That Improved from 2013 to 2014, Part 3

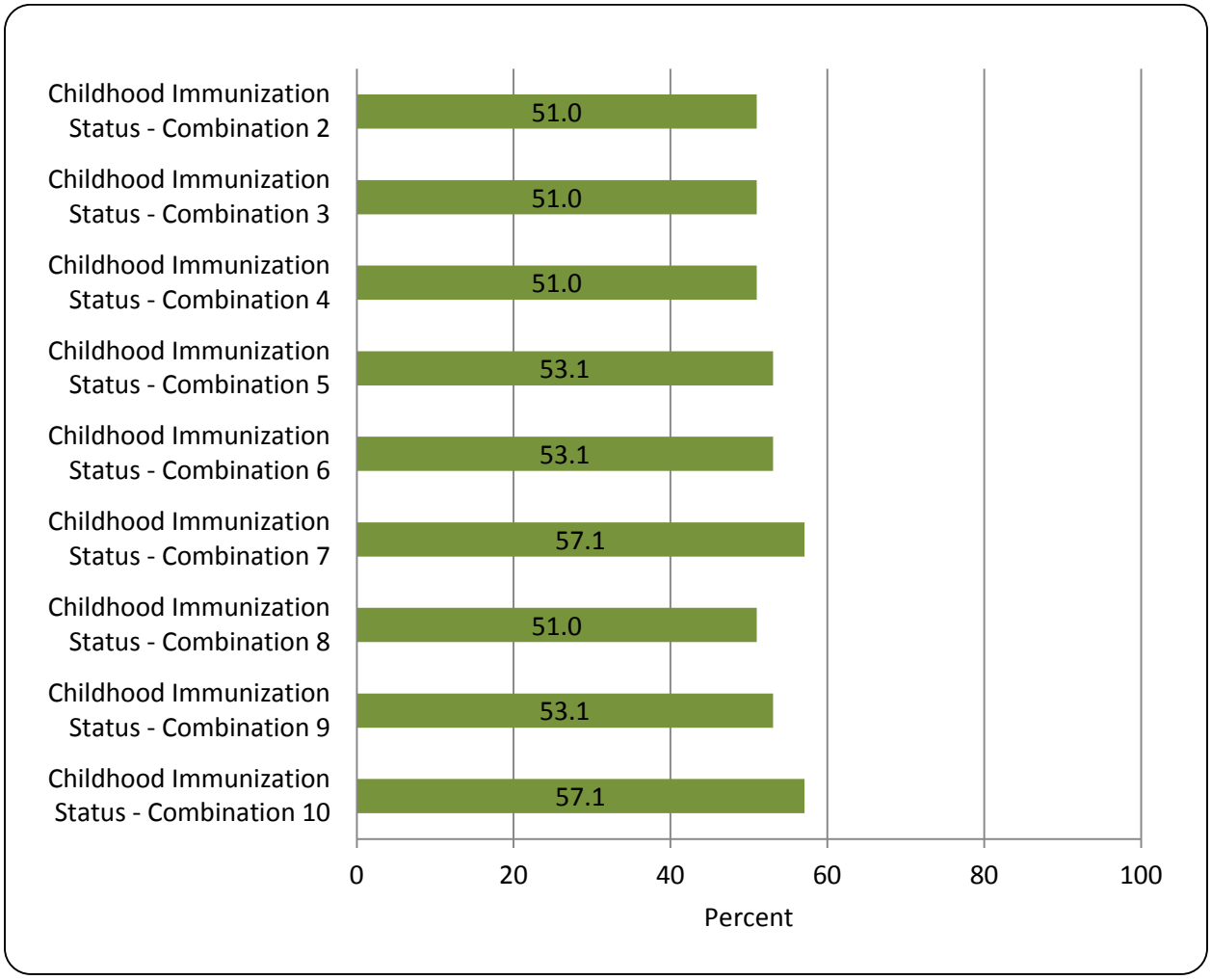


Source: 2015 New Jersey DSRIP Metrics Analysis 2013 and 2014, Rutgers Center for State Health Policy.

The rate for the HepB vaccines improved significantly from 2013 to 2014 (2013 average rate: 5.76, 2014 average rate, 8.21, p=.000). The RV vaccine rate improved slightly from 2013 to 2014, but it was not a statistically significant increase. About eight in 10 hospitals (79.6%) showed an improvement for the HepB vaccine rate from 2013 to 2014, and about six in 10 hospitals (61.2%) showed an improvement for the RV vaccine rate (see Figure 4.3).

Rates for all the remaining vaccines significantly decreased from 2013 to 2014. These decreases were particularly large for the MMR (2013 average rate: 35.09, 2014 average rate: 25.54, p=.000), VZV (2013 average rate: 35.08, 2014 average rate: 26.16, p=.000), and HepA vaccines (2013 average rate: 32.22, 2014 average rate: 24.92, p=.000). Only 12.2% of the hospitals showed an improvement for the MMR vaccine rate from 2013 to 2014. Also, only 14.3% of the hospitals showed an improvement for the influenza vaccine rate and only 16.3% of the hospitals showed an improvement for the VZV vaccine rate from 2013 to 2014 (see Figure 4.3).

Figure 4.4: DSRIP Metrics, Percent of Hospitals That Improved from 2013 to 2014, Part 4



Source: 2015 New Jersey DSRIP Metrics Analysis 2013 and 2014, Rutgers Center for State Health Policy.

The remaining vaccine metrics were different combinations of the above vaccines. For example, "Childhood Immunization Status – Combination 2" represents the rate for receiving all of the first six vaccines listed above, and "Childhood Immunization Status – Combination 10" represents the rate for receiving all 10 of the vaccines listed above. Combinations 3-9 represent the rate for receiving different combinations of seven to nine of the vaccines listed above. Five of these combination vaccine metrics decreased slightly from 2013 to 2014, two of these combination vaccine metrics increased slightly from 2013 to 2014, and two more remained at the same rate. However, none of these changes were statistically significant. For all the combination vaccine metrics, roughly half of the hospitals showed improved rates from 2013 to 2014 (see Figure 4.4).

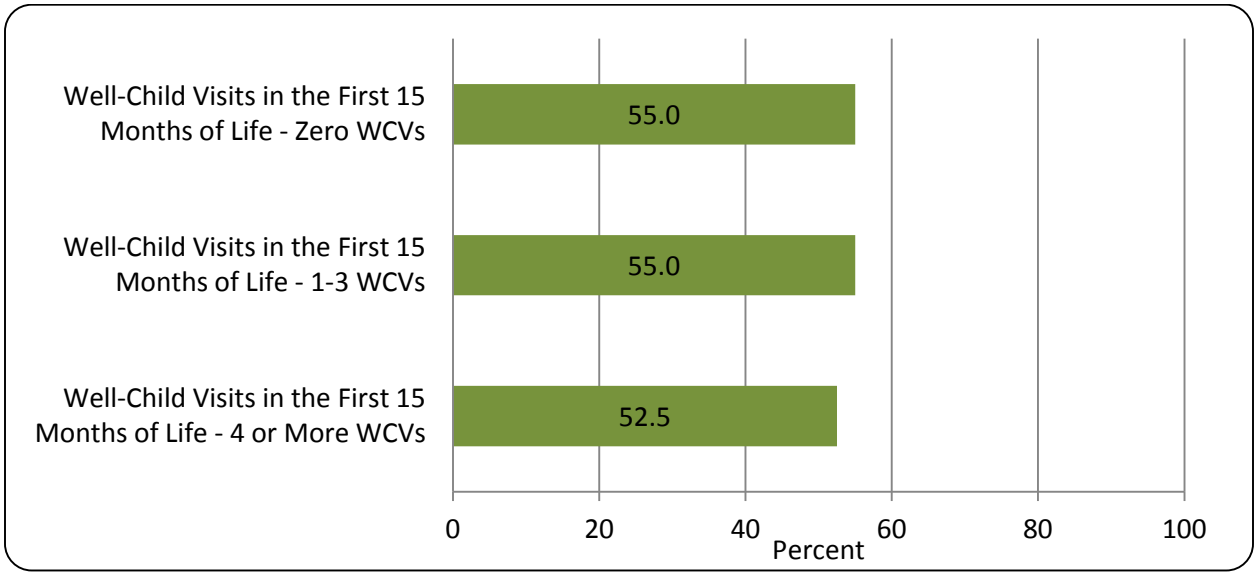
Well-Child Visits in the First 15 Months of Life

These metrics represent the percentage of children out of all of the hospital's attributable children who had a well-child visit with a primary care provider during their first 15 months of life during the measurement year. Three different metrics were calculated:

- Percentage of children with zero well-child visits
- Percentage of children with one to three well-child visits
- Percentage of children with four or more well-child visits

A primary care provider could be a physician, nurse practitioner, or physician assistant with a primary care specialty.

Figure 4.5: DSRIP Metrics, Percent of Hospitals That Improved from 2013 to 2014, Part 5



Source: 2015 New Jersey DSRIP Metrics Analysis 2013 and 2014, Rutgers Center for State Health Policy.

All three metrics improved slightly from 2013 to 2014 (i.e., during the first 15 months of life, the percentage of children with zero well-child visits decreased from 2013 to 2014, while the

percentage of children with one to three or four or more well-child visits increased from 2013 to 2014). However, none of these changes were statistically significant. Just over half of the hospitals showed improved rates from 2013 to 2014 (see Figure 4.5).

Hospital Acquired Potentially Preventable Venous Thromboembolism

This metric represents the percentage of each hospital's admitted patients who did not receive venous thromboembolism prophylaxis before being diagnosed with venous thromboembolism out of all of each hospital's attributable patients who developed venous thromboembolism following admission to the hospital. This is the only Stage 4 metric derived from the medical chart or EHR, and was collected by the hospitals for the year 2014 only. The mean percentage for this metric across the 29 DSRIP participating hospitals who reported it was 9.69%.

Conclusions

The hospitals showed improvement from 2013 to 2014 in many Stage 4 Metrics with the exception of the Combination 1 vaccination rates, which generally decreased, and the Combination 2-10 vaccination rates, which showed little change. About half of the improved metrics were statistically significant, as were the majority of the decreases in Combination 1 vaccine rates. None of the slight changes in Combination 2 vaccine rates were significant.

Specifically, from 2013 to 2014, access to primary care significantly improved for older children (ages 7-11 years) and adolescents (ages 12-19 years), hospital admission rates improved (decreased) for COPD and heart failure, and the percentage of HIV-infected patients receiving regular CD4 T-cell counts improved. Access to primary care for younger children (ages 12-24 months) and well-child visits for infants both improved from 2013 to 2014, but these were not statistically significant changes. For the Combination 1 vaccine rates, the only rate that showed a statistically significant improvement was for the HepB vaccines. The RV vaccine rate also improved slightly, but it was not statistically significant. The remaining Combination 1 vaccine rates showed statistically significant decreases from 2013 to 2014.

References

Myers and Stauffer LC. 2015. *DSRIP Performance Measurement Databook, v1.0*. Trenton: New Jersey Department of Health. https://dsrip.nj.gov/Documents/NJ%20DSRIP%20Databook_Standard%20Workbook_%20Jan%202015_v1.0.zip.

Table 4.1: Means of Reported Metrics, 2013 and 2014

	N	2013	2014	p-value	Sig.	Improved
Children and adolescents' access to primary care practitioners - 12-24 months						
Percentage	49	93.57	93.86	.532		Yes
Children and adolescents' access to primary care practitioners - 25 months - 6yrs.						
Percentage	50	88.93	88.59	.463		No
Children and adolescents' access to primary care practitioners - 7-11 years						
Percentage	50	93.37	94.45	.010	*	Yes
Children and adolescents' access to primary care practitioners - 12 - 19 years						
Percentage	50	89.74	91.16	.000	*	Yes
COPD admission rate						
Rate per 1,000	50	3.10	2.37	.001	*	Yes
Heart Failure Admission Rate						
Rate per 1,000	50	3.88	3.10	.000	*	Yes
Cd4 t-cell count						
Percentage	49	38.10	46.88	.003	*	Yes
Cervical cancer screening						
Percentage	50	41.95	42.06	.849		Yes
Chlamydia Screening in Women Age 21 – 24						
Percentage	50	42.36	42.46	.872		Yes
Percentage of Live Births Weighing Less Than 2,500 grams						
Percentage	38	6.68	6.53	.805		Yes
Childhood Immunization Status - Combination 1 - DTap						
Rate per 1,000	49	13.87	9.51	.000	*	No
Childhood Immunization Status - Combination 1 - Hepatitis A						
Rate per 1,000	49	32.22	24.92	.000	*	No
Childhood Immunization Status - Combination 1 - Hepatitis B						
Rate per 1,000	49	5.76	8.21	.000	*	Yes
Childhood Immunization Status - Combination 1 - HiB						
Rate per 1,000	49	27.11	22.05	.000	*	No
Childhood Immunization Status - Combination 1 - Influenza						
Rate per 1,000	49	20.32	14.62	.000	*	No
Childhood Immunization Status - Combination 1 - IPV						
Rate per 1,000	49	20.53	18.42	.029	*	No
Childhood Immunization Status - Combination 1 - MMR						
Rate per 1,000	49	35.09	25.54	.000	*	No
Childhood Immunization Status - Combination 1 - Pneumococcal conjugate						
Rate per 1,000	49	14.31	10.50	.000	*	No

Source: 2015 New Jersey DSRIP Metrics Analysis 2013 and 2014, Rutgers Center for State Health Policy.
Based on DSRIP-participating hospitals; * implies significance at p<0.05

Table 4.1: Means of Reported Metrics, 2013 and 2014 (continued)

	N	2013	2014	p-value	Sig.	Improved
Childhood Immunization Status - Combination 1 - RV						
Rate per 1,000	49	14.17	14.50	.667		Yes
Childhood Immunization Status - Combination 1 - VZV						
Rate per 1,000	49	35.08	26.16	.000	*	No
Childhood Immunization Status - Combination 2						
Rate per 1,000	49	3.01	3.14	.774		Yes
Childhood Immunization Status - Combination 3						
Rate per 1,000	49	2.45	2.45	.999		Same
Childhood Immunization Status - Combination 4						
Rate per 1,000	49	2.16	2.16	.988		Same
Childhood Immunization Status - Combination 5						
Rate per 1,000	49	1.81	1.72	.791		No
Childhood Immunization Status - Combination 6						
Rate per 1,000	49	1.55	1.43	.699		No
Childhood Immunization Status - Combination 7						
Rate per 1,000	49	1.60	1.59	.990		No
Childhood Immunization Status - Combination 8						
Rate per 1,000	49	1.38	1.28	.750		No
Childhood Immunization Status - Combination 9						
Rate per 1,000	49	1.14	1.06	.755		No
Childhood Immunization Status - Combination 10						
Rate per 1,000	49	1.00	1.01	.986		Yes
Well-Child Visits in the First 15 Months of Life - Zero WCVs						
Percentage	40	6.59	5.18	.107		Yes
Well-Child Visits in the First 15 Months of Life - 1-3 WCVs						
Percentage	40	5.40	6.51	.073		Yes
Well-Child Visits in the First 15 Months of Life - 4 or More WCVs						
Percentage	40	88.01	88.31	.701		Yes
A4Hospital acquired potentially-preventable venous thromboembolism						
Percentage	29	n/a	9.69	n/a		

Source: 2015 New Jersey DSRIP Metrics Analysis 2013 and 2014, Rutgers Center for State Health Policy.
Based on DSRIP-participating hospitals; * implies significance at p<0.05

Chapter 5: Discussion

This report examines various sources of information to identify the effects of the NJ DSRIP program using a combination of qualitative and quantitative research techniques. The study periods differ across the different components, but collectively span the period from the first DSRIP program year (calendar year 2013) until the spring of 2015.

All of these findings thus relate to the period prior to the full implementation of the DSRIP hospital projects that occurs in Demonstration Year 4, and will not capture the effects (or lack thereof) of these specific disease management activities on access, quality and efficiency of care, and more generally overall population health, which are the ultimate goals of the DSRIP program. Our summative evaluation that will be released in 2018 and based on analysis of information relating to future years will be able to identify these effects.

The primary value of the findings in this report, however, lies in documenting stakeholder experiences during the application and early implementation phases and in examining their perceptions relating to the potential of the program to achieve its stated objectives. In addition, detailed analyses of DSRIP quality metrics based on Medicaid fee-for-service claims and managed care encounter data provide useful baseline estimates for the summative evaluation and also estimates of any first-year program effects that may arise from preparatory/anticipatory activities by the hospitals. In that same vein, analysis of hospital reported metrics for the years 2013 and 2014 provide trends in preventive or recommended care that may be attributed to early DSRIP impact, but will provide more conclusive evidence when additional years of data become available.

While all of the findings have been discussed in detail in the individual chapters, we identify below some common themes across these different components.

The information from stakeholder interviews relating to specific hospital experiences in the initial years of the DSRIP program as well as emerging perceptions relating to program components and their potential were also echoed in the responses from the hospital survey. Both these sources identified common issues and challenges that included lack of clarity on program specifications (many of these issues were subsequently resolved); enthusiasm relating to the chronic disease management programs; the significant burden of the reporting requirements that increased over time; and program requirements that did not take into account differing capabilities across

hospitals such as EHR capability or lack of interoperability with reporting partners that caused disproportionate burden on some.

Stakeholders also highlighted the lack of planning and resource allocation to meaningfully engage and incorporate participation by outpatient partners who were crucial not only to fulfill the reporting requirements, but also with regard to the broader delivery system-related goal of treatment continuity and care coordination across providers in inpatient and outpatient settings.

Some of the interviewees were unsure as to which chronic disease programs offered the greatest opportunity for improvements in population health, and our quantitative analyses offer some insights into these issues. Based on the first program year there was some evidence of improvements in diabetes care reflected in decreasing rates of ambulatory care sensitive diabetes-related hospitalizations in areas where hospitals planned to implement diabetes programs. On similar metrics we found mixed results in the case of asthma care. There was a decrease in avoidable asthma inpatient admissions during 2013 reflecting an improvement in community-level care in areas where hospitals planned to implement DSRIP asthma projects, but a small, concurrent increase in ED visits for asthma. These two apparently contradictory findings may reflect differing impacts of hospital activities across the distinct patient groups that characterize the inpatient and ED treatment settings. Overall, these were the only two conditions for which there was some evidence for an early and significant impact attributable to DSRIP. These findings may foreshadow greater impact at the end of the DSRIP demonstration period for asthma and diabetes projects, or it may be that gains for other chronic diseases take a longer time to become apparent. There were improvements in several hospital reported metrics for preventive and recommended care over 2013-2014 that reflected stakeholder expectations that the program will improve care.

In summary, the range of methods and related findings from this report vary in the nature of their contribution to the assessment of the DSRIP program. Many are valuable in their own right such as those that detail stakeholder and hospital experiences in the early phase of the DSRIP program which can guide continued implementation. Others, such as the results from the quantitative analysis, in addition to assessing very early impacts from the first program year, provide valuable information relating to baseline year estimates and measurement techniques that will guide analyses conducted in the summative evaluation.

RUTGERS

Center for State Health Policy

Center for State Health Policy
Rutgers, The State University of New Jersey
112 Paterson Street, 5th Floor
New Brunswick, NJ 08901

p. 848-932-3105 f. 732-932-0069
cshp_info@ifh.rutgers.edu
www.cshp.rutgers.edu

1115 Demonstration Renewal - Attachment D

Budget Neutrality Monitoring Spreadsheet

Part of Public Notice - Calculated **5/9/2016**

TOTAL COMPUTABLE

Budget Neutrality Test	Authority Citation	Five Year Demonstration Forecasted Expenditures		Difference	
		No Waiver	With Waiver		
Main Test	STC #128	$ 70,024,130,413	$ 50,866,732,127	*$ 19,157,398,286*	a
Supplemental Test #1	STC #129	3,215,122,450	2,582,136,018	*632,986,432*	b
Supplemental Test #2	STC #129	23,628,548,977	19,454,568,248	*4,173,980,728*	c
				$ 19,157,398,286	d = a

Savings from Supps Test cannot be used to offset Main Test

FEDERAL SHARE

Budget Neutrality Test	Authority Citation	Five Year Demonstration Forecasted Expenditures		Difference	
		No Waiver	With Waiver		
Main Test	STC #128	$ 35,187,043,762	$ 25,640,236,979	*$ 9,546,806,783*	a
Supplemental Test #1	STC #129	1,608,784,700	1,291,231,632	*317,553,068*	b
Supplemental Test #2	STC #129	21,675,418,747	17,846,458,271	*3,828,960,476*	c
				$ 9,546,806,783	d = a

Savings from Supps Test cannot be used to offset Main Test

Budget Neutrality Monitoring Spreadsheet

Main Budget Neutrality Test

Budget Neutrality "Without Waiver" Caps based on Current Demo caps Established in STC #128

TOTAL COMPUTABLE

	DY6	DY7	DY8	DY9	DY10	5-Yr Renewal Total
NO WAIVER						
Title XIX	4,169,003,625	4,528,133,989	4,918,200,911	5,341,869,357	5,802,033,861	*24,759,241,743*
ABD	4,021,181,943	4,242,414,310	4,475,818,162	4,722,063,137	4,981,855,709	*22,443,333,261*
LTC	3,933,852,484	4,162,298,453	4,404,010,696	4,659,759,608	4,930,360,325	*22,090,281,566*
HCBS state plan	130,756,466	138,083,419	145,820,938	153,992,030	162,620,990	*731,273,843*
	$ 12,254,794,518	$ 13,070,930,171	$ 13,943,850,707	$ 14,877,684,131	$ 15,876,870,885	*$ 70,024,130,413*

	DY6	DY7	DY8	DY9	DY10	5-Yr Renewal Total
WITH WAIVER						
Title XIX	3,317,394,957	3,603,165,220	3,913,552,582	4,250,677,635	4,616,843,641	*19,701,634,035*
ABD/LTC	5,219,665,646	5,506,856,565	5,607,961,952	5,710,923,224	5,815,774,447	*27,861,181,833*
HCBS state plan	264,130,189	278,930,753	294,560,667	311,066,406	328,497,045	*1,477,185,060*
HOLD DDD Supports-PDN	28,605,745	29,463,917	30,347,835	31,258,270	32,196,018	*151,871,785*
Hospital Subsidies	293,872,727	293,872,727	293,872,727	293,872,727	293,872,727	*1,469,363,635*
CNOMS	40,509,244	40,795,483	41,090,309	41,393,981	41,706,762	*205,495,779*
	$ 9,164,178,508	$ 9,753,084,665	$ 10,181,386,073	$ 10,639,192,242	$ 11,128,890,640	*$ 50,866,732,127*
Difference	**3,090,616,010**	**3,317,845,507**	**3,762,464,634**	**4,238,491,889**	**4,747,980,246**	***19,157,398,286***

Notes:

1. Member-months based on MMIS report with last actual reported as of Dec 31, 2015.
2. "With Waiver" pmpm's based on calculations using Sch C expenditures and MMIS eligibility actual member-months reported through Sept 2015 as reported in Dec 2015.
3. CNOMs (costs not otherwise matchable) include Severe Emotionally Disturbed children (SED at risk), MATI population, DDD non-disabled adult children and CCW Supports Equalization
4. Hospital Subsidies Include GME state plan, HRSF & GME, HRSF Transition Payments and DSRIP as reported on the CMS64 Sch C
5. The DDD Supports-PDN population, pending waiver amendment approval, is represented as a separate line item

FEDERAL SHARE

	DY6	DY7	DY8	DY9	DY10	5-Yr Renewal Total
NO WAIVER						
Title XIX	2,092,937,165	2,273,228,994	2,469,051,696	2,681,743,148	2,912,756,475	*12,429,717,477*
ABD	2,021,867,241	2,133,103,808	2,250,460,249	2,374,273,261	2,504,898,062	*11,284,602,622*
LTC	1,977,957,621	2,092,821,218	2,214,355,153	2,342,946,784	2,479,005,966	*11,107,086,741*
HCBS state plan	65,378,233	69,041,709	72,910,469	76,996,015	81,310,495	*365,636,921*
	$ 6,158,140,260	$ 6,568,195,728	$ 7,006,777,567	$ 7,475,959,209	$ 7,977,970,998	*$ 35,187,043,762*

	DY6	DY7	DY8	DY9	DY10	5-Yr Renewal Total
WITH WAIVER						
Title XIX	1,665,409,729	1,808,873,073	1,964,694,777	2,133,939,425	2,317,763,310	*9,890,680,314*
ABD/LTC	2,624,469,901	2,768,870,707	2,819,706,922	2,871,476,284	2,924,195,921	*14,008,719,735*
HCBS state plan	132,065,095	139,465,376	147,280,334	155,533,203	164,248,523	*738,592,530*
HOLD DDD Supports-PDN	14,302,873	14,731,959	15,173,917	15,629,135	16,098,009	*75,935,893*
Hospital Subsidies	165,815,154	165,390,911	164,542,427	163,906,063	163,906,063	*823,560,618*
CNOMS	20,254,622	20,397,742	20,545,155	20,696,990	20,853,381	*102,747,889*
	$ 4,622,317,373	$ 4,917,729,768	$ 5,131,943,531	$ 5,361,181,100	$ 5,607,065,206	*$ 25,640,236,979*
Difference	**1,535,822,886**	**1,650,465,960**	**1,874,834,036**	**2,114,778,109**	**2,370,905,792**	***9,546,806,783***

Budget Neutrality Monitoring Spreadsheet

Supplemental Test #1

Budget Neutrality "Without Waiver" Caps based on Current Demo caps Established in STC #129

TOTAL COMPUTABLE

	DY6	DY7	DY8	DY9	DY10	5-Yr Renewal Total
NO WAIVER						
HCBS 217-like	536,142,689	566,185,502	597,911,767	631,415,817	666,797,270	2,998,453,045
Adults w/o Depend. Children	-	-	-	-	-	-
SED 217-like	316,044	341,156	368,264	397,525	429,111	1,852,100
Former XIX Chip Parents	-	-	-	-	-	-
IDD/MI	36,656,644	39,569,282	42,713,350	46,107,237	49,770,793	214,817,305
	$ 573,115,377	$ 606,095,940	$ 640,993,380	$ 677,920,579	$ 716,997,174	$ 3,215,122,450

	DY6	DY7	DY8	DY9	DY10	5-Yr Renewal Total
WITH WAIVER						
HCBS 217-like	492,090,913	501,214,890	510,506,347	519,968,357	529,604,051	2,553,384,557
Adults w/o Depend. Children	-	-	-	-	-	-
SED 217-like	3,845	4,151	4,481	4,837	5,221	22,534
Former XIX Chip Parents	-	-	-	-	-	-
IDD/MI	4,902,333	5,291,860	5,712,336	6,166,223	6,656,175	28,728,927
	$ 496,997,091	$ 506,510,900	$ 516,223,164	$ 526,139,417	$ 536,265,446	$ 2,582,136,018
Difference	**76,118,286**	**99,585,039**	**124,770,217**	**151,781,162**	**180,731,728**	**632,986,432**

Notes:

1. Federal share is calculated using Composite Federal Share Ratios (source data is CMS 64 Schedule C as reported in QE Sept2015 with a run date of Jan 14, 2016).
2. Member-months based on MMIS report with last actual reported as of December 2015.
3. "With Waiver" pmpm's based on calculations using Sch C expenditures and MMIS eligibility actual member-months reported through Sept 2015 as reported in December 2015.

FEDERAL SHARE

	DY6	DY7	DY8	DY9	DY10	5-Yr Renewal Total
NO WAIVER						
HCBS 217-like	268,071,344	283,092,751	298,955,884	315,707,909	333,398,635	1,499,226,523
Adults w/o Depend. Children	-	-	-	-	-	-
SED 217-like	158,022	170,578	184,132	198,762	214,556	926,050
Former XIX Chip Parents	-	-	-	-	-	-
IDD/MI	18,537,097	20,010,005	21,599,945	23,316,219	25,168,862	108,632,128
	$ 286,766,464	$ 303,273,334	$ 320,739,961	$ 339,222,890	$ 358,782,053	$ 1,608,784,700

	DY6	DY7	DY8	DY9	DY10	5-Yr Renewal Total
WITH WAIVER						
HCBS 217-like	246,045,456	250,607,445	255,253,173	259,984,178	264,802,025	1,276,692,278
Adults w/o Depend. Children	-	-	-	-	-	-
SED 217-like	1,923	2,075	2,240	2,418	2,610	11,267
Former XIX Chip Parents	-	-	-	-	-	-
IDD/MI	2,479,088	2,676,069	2,888,702	3,118,231	3,365,997	14,528,087
	$ 248,526,466	$ 253,285,590	$ 258,144,116	$ 263,104,827	$ 268,170,633	$ 1,291,231,632
Difference	**38,239,997**	**49,987,744**	**62,595,845**	**76,118,062**	**90,611,420**	**317,553,068**

Budget Neutrality Monitoring Spreadsheet

Supplemental Test #2

Budget Neutrality "Without Waiver" Caps based on Current Demo caps Established in STC #129

TOTAL COMPUTABLE

	DY6	DY7	DY8	DY9	DY10	5-Yr Renewal Total
NO WAIVER						
New Adult Group	$ 4,114,743,578	$ 4,399,787,232	$ 4,704,576,924	$ 5,030,480,536	$ 5,378,960,708	$ 23,628,548,977
WITH WAIVER						
New Adult Group	$ 3,387,874,552	$ 3,622,565,273	$ 3,873,513,897	$ 4,141,846,670	$ 4,428,767,856	$ 19,454,568,248
Difference	**726,869,027**	**777,221,959**	**831,063,026**	**888,633,865**	**950,192,852**	**4,173,980,728**

Notes:

1. Federal share is calculated using Composite Federal Share Ratios (source data is CMS 64 Schedule C as reported in QE Sept2015 with a run date of Jan 14, 2016).
2. Member-months based on MMIS report with last actual reported as of December 2015.
3. "With Waiver" pmpm's based on calculations using Sch C expenditures and MMIS eligibility actual member-months reported through Sept 2015 as

FEDERAL SHARE

	DY6	DY7	DY8	DY9	DY10	5-Yr Renewal Total
NO WAIVER						
New Adult Group	$ 3,888,432,681	$ 4,113,801,062	$ 4,304,687,885	$ 4,527,432,482	$ 4,841,064,637	$ 21,675,418,747
WITH WAIVER						
New Adult Group	$ 3,201,541,451	$ 3,387,098,530	$ 3,544,265,216	$ 3,727,662,003	$ 3,985,891,070	$ 17,846,458,271
Difference	**686,891,230**	**726,702,531**	**760,422,669**	**799,770,479**	**855,173,566**	**3,828,960,476**

		DY4	DY5	Demo Period	DY6	DY7	DY8	DY9	DY10	Demo-Renewal Period	
Title XIX	MMs	9,110,382	9,352,720		9,601,504	9,856,905	10,119,101	10,388,270	10,664,600		2.7%
	Pmpm	$308.66	$326.57		$345.51	$365.55	$386.75	$409.18	$432.91		5.8%
	Spend	$2,812,050,962	$3,054,289,391	**$12,477,721,322**	$3,317,394,957	$3,603,165,220	$3,913,552,582	$4,250,677,635	$4,616,843,641	**$19,701,634,035**	
ABD	MMs	3,356,375	3,417,404		3,104,054	3,161,044	3,219,080	3,278,182	3,338,369		1.8%
	Pmpm	$1,566.73	$1,623.13		$1,681.56	$1,742.10	$1,742.10	$1,742.10	$1,742.10		3.6%
	Spend	$5,258,531,003	$5,546,896,671	**$25,225,751,670**	$5,219,665,646	$5,506,856,565	$5,607,961,952	$5,710,923,224	$5,815,774,447	**$27,861,181,833**	
LTC	MMs										1.8%
	Pmpm										3.9%
	Spend	$0	$0	**$0**	$0	$0	$0	$0	$0	**$0**	
HCBS State Plan	MMs	36,472	47,314		48,183	49,067	49,968	50,885	51,819		1.8%
	Pmpm	$5,097.63	$5,286.24		$5,481.83	$5,684.66	$5,894.99	$6,113.11	$6,339.29		3.7%
	Spend	$185,919,948	$250,114,970	**$642,684,036**	$264,130,189	$278,930,753	$294,560,667	$311,066,406	$328,497,045	**$1,477,185,060**	

		DY4	DY5	Demo Period	DY6	DY7	DY8	DY9	DY10	Demo-Renewal Period	
HCBS 217-Like	MMs	149,479	192,563		196,134	199,770	203,474	207,245	211,085		1.8%
	Pmpm	$2,419.44	$2,508.96		$2,508.96	$2,508.96	$2,508.96	$2,508.96	$2,508.96		3.7%
	Spend	$361,654,017	$483,131,395	**$1,658,939,774**	$492,090,913	$501,214,890	$510,506,347	$519,968,357	$529,604,051	**$2,553,384,557**	
AWDC	MMs	0	0		0	0	0	0	0		
	Pmpm				$0.00	$0.00	$0.00	$0.00	$0.00		
	Spend	$0	$0	**$2,203,790**	$0	$0	$0	$0	$0	**$0**	
SED 217-Like	MMs	101	103		105	107	109	111	113		1.8%
	Pmpm	$32.55	$34.50		$36.58	$38.77	$41.10	$43.56	$46.18		6.0%
	Spend	$3,300	$3,562	**$64,222**	$3,845	$4,151	$4,481	$4,837	$5,221	**$22,534**	
XIX Chip Parents	MMs	0	0		0	0	0	0	0		
	Pmpm				$0.00	$0.00	$0.00	$0.00	$0.00		
	Spend	$0	$0	**$126,863,031**	$0	$0	$0	$0	$0	**$0**	
IDD/MI - 217-Like	MMs	2,684	2,734		2,784	2,835	2,887	2,940	2,994		1.8%
	Pmpm	$1,567.24	$1,661.28		$1,760.95	$1,866.61	$1,978.61	$2,097.32	$2,223.16		6.0%
	Spend	$4,207,188	$4,541,480	**$9,896,139**	$4,902,333	$5,291,860	$5,712,336	$6,166,223	$6,656,175	**$28,728,927**	
New Adult Group	MMs	6,988,078	7,116,351		7,246,978	7,380,003	7,515,470	7,653,424	7,793,909		1.8%
	Pmpm	$432.26	$445.23		$467.49	$490.86	$515.41	$541.18	$568.23		5.0%
	Spend	$3,020,658,278	$3,168,388,452	**$9,799,786,481**	$3,387,874,552	$3,622,565,273	$3,873,513,897	$4,141,846,670	$4,428,767,856	**$19,454,568,248**	

	DY6	DY7	DY8	DY9	DY10	Demo-Renewal Period		
Title XIX	9,601,504	9,856,905	10,119,101	10,388,270	10,664,600		2.7%	ORIGINAL STC APPROVED GROWTH PERCENTAGES FOR BUDGET NEUTRALITY
	$434.20	$459.39	$486.03	$514.22	$544.05		5.8%	
	$4,169,003,625	**$4,528,133,989**	**$4,918,200,911**	**$5,341,869,357**	**$5,802,033,861**	**$24,759,241,743**		
ABD	3,104,738	3,161,728	3,219,764	3,278,866	3,339,053		1.8%	
	$1,295.18	$1,341.80	$1,390.11	$1,440.15	$1,492.00		3.6%	
	$4,021,181,943	**$4,242,414,310**	**$4,475,818,162**	**$4,722,063,137**	**$4,981,855,709**	**$22,443,333,261**		
LTC	376,093	382,996	390,027	397,186	404,477		1.8%	
	$10,459.79	$10,867.72	$11,291.56	$11,731.93	$12,189.48		3.9%	
	$3,933,852,484	**$4,162,298,453**	**$4,404,010,696**	**$4,659,759,608**	**$4,930,360,325**	**$22,090,281,566**		
HCBS State Plan	48,183	49,067	49,968	50,885	51,819		1.8%	
	$2,713.76	$2,814.17	$2,918.29	$3,026.27	$3,138.24		3.7%	
	$130,756,466	**$138,083,419**	**$145,820,938**	**$153,992,030**	**$162,620,990**	**$731,273,843**		

	DY6	DY7	DY8	DY9	DY10	Demo-Renewal Period	
HCBS 217-Like	198,114	201,750	205,454	209,225	213,065		1.8%
	$2,706.24	$2,806.37	$2,910.20	$3,017.88	$3,129.54		3.7%
	$536,142,689	**$566,185,502**	**$597,911,767**	**$631,415,817**	**$666,797,270**	**$2,998,453,045**	
AWDC	0	0	0	0	0		
	$0.00	$0.00	$0.00	$0.00	$0.00		
	$0	**$0**	**$0**	**$0**	**$0**	**$0**	
SED 217-Like	105	107	109	111	113		1.8%
	$3,006.15	$3,186.52	$3,377.71	$3,580.37	$3,795.19		6.0%
	$316,044	**$341,156**	**$368,264**	**$397,525**	**$429,111**	**$1,852,100**	
XIX Chip Parents	0	0	0	0	0		
	$0.00	$0.00	$0.00	$0.00	$0.00		
	$0	**$0**	**$0**	**$0**	**$0**	**$0**	
IDD/MI	2,784	2,835	2,887	2,940	2,994		1.8%
	$13,167.32	$13,957.36	$14,794.80	$15,682.49	$16,623.44		6.0%
	$36,656,644	**$39,569,282**	**$42,713,350**	**$46,107,237**	**$49,770,793**	**$214,817,305**	
New Adult Group	7,246,978	7,380,003	7,515,470	7,653,424	7,793,909		1.8%
	$567.79	$596.18	$625.99	$657.29	$690.15		5.0%
	$4,114,743,578	**$4,399,787,232**	**$4,704,576,924**	**$5,030,480,536**	**$5,378,960,708**	**$23,628,548,977**	

Hospital Subsidy Summary

Total Computable					
Program	DY6	DY7	DY8	DY9	DY10
HRSF & GME	$ -	$ -	$ -	$ -	$ -
HRSF Transition Payments					
GME State Plan	127,272,727	127,272,727	127,272,727	127,272,727	127,272,727
DSRIP	166,600,000	166,600,000	166,600,000	166,600,000	166,600,000
	$ 293,872,727	*$ 293,872,727*	*$ 293,872,727*	*$ 293,872,727*	*$ 293,872,727*

Composite Federal Share Percentage

Program	DY6	DY7	DY8	DY9	DY10
HRSF & GME					
HRSF Transition Payments	0.00%	0.00%	0.00%	0.00%	0.00%
GME State Plan	64.83%	64.50%	63.83%	63.33%	63.33%
DSRIP	50.00%	50.00%	50.00%	50.00%	50.00%

Federal Share					
Program	DY6	DY7	DY8	DY9	DY10
HRSF & GME	$ -	$ -	$ -	$ -	$ -
HRSF Transition Payments	-	-	-	-	-
GME State Plan	82,515,151	82,090,909	81,242,424	80,606,060	80,606,060
DSRIP	83,300,003	83,300,003	83,300,003	83,300,003	83,300,003
	$ 165,815,154	*$ 165,390,911*	*$ 164,542,427*	*$ 163,906,063*	*$ 163,906,063*

DY6-10: Total Computable amounts tie to the amounts budgeted in SFY2016.
DY6-10: Federal Share amounts = Total Computable amounts multiplied by the Federal Composite Share Percentage (estimate for DY4/DY5)

Costs Otherwise Not Matchable (CNOM) Summary

Total Computable										
Program	DY1	DY2	DY3	DY4	DY5	DY6	DY7	DY8	DY9	DY10
SED at Risk	$ 24,366,856	$ 34,048,823	$ 32,545,949	$ 30,967,938	$ 30,967,938	$ 30,967,938	$ 30,967,938	$ 30,967,938	$ 30,967,938	$ 30,967,938
MATI at Risk	4,069,775	3,429,158	-	-	-	-				
DDD non-Disabled Adult Children	-	-	-	1,748,900	6,995,600	7,205,468	7,421,632	7,644,280	7,873,609	8,109,817
DDD Community / Supports Equalization	-	-	-	566,951	2,267,804	2,335,838	2,405,914	2,478,091	2,552,434	2,629,007
	$ 28,436,631	*$ 37,477,981*	*$ 32,545,949*	*$ 33,283,789*	*$ 40,231,342*	*$ 40,509,244*	*$ 40,795,483*	*$ 41,090,309*	*$ 41,393,981*	*$ 41,706,762*

Composite Federal Share Percentage

Program	DY1	DY2	DY3	DY4	DY5	DY6	DY7	DY8	DY9	DY10
SED at Risk	52.00%	52.00%	52.00%	50.50%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%
MATI at Risk	50.50%	52.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
DDD non-Disabled Adult Children				50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%
DDD Community / Supports Equalization				50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%

Federal Share										
Program	DY1	DY2	DY3	DY4	DY5	DY6	DY7	DY8	DY9	DY10
SED at Risk	$ 12,670,764	$ 17,705,386	$ 16,923,894	$ 15,638,809	$ 15,483,969	$ 15,483,969	$ 15,483,969	$ 15,483,969	$ 15,483,969	$ 15,483,969
MATI at Risk	2,055,322	1,783,162	-	-	-	-	-	-	-	-
DDD non-Disabled Adult Children	-	-	-	874,450	3,497,800	3,602,734	3,710,816	3,822,140	3,936,804	4,054,909
DDD Community / Supports Equalization	-	-	-	283,476	1,133,902	1,167,919	1,202,957	1,239,045	1,276,217	1,314,503
	$ 14,726,086	*$ 19,488,548*	*$ 16,923,894*	*$ 16,796,734*	*$ 20,115,671*	*$ 20,254,622*	*$ 20,397,742*	*$ 20,545,155*	*$ 20,696,990*	*$ 20,853,381*

Notes: SED at Risk and MATI at Risk

DY6-10: Total Computable = DY5 estimate in the QE Dec 15 Report for current demonstration

DY6-10 Federal Share amounts = Total Computable amounts multiplied by the Federal Composite Share Percentage in accordance with current STC #130.

Notes: DDD programs

DY6-10: Total Computable = DY5 estimate in the QE Dec 15 Report for current demonstration increased by 3% annually

DY6-10: Federal Share amounts = Total Computable amounts multiplied by the Federal Composite Share Percentage (estimate for DY4/DY5)

DDD Waiver Ammendment Annual Cost Estimate

DY4 = 9 months
DY5 = 12 months

		People	Cost PMPM	Gross Cost DY4	Gross Cost DY5	Fed Share DY4	Fed Share DY5	
#1 non-DAC	Supports	182	$ 1,891	$ 1,032,395	$ 4,129,580	$ 516,198	$ 2,064,790	CNOM
	State Plan	182	$ 1,312	$ 716,504.88	$ 2,866,020	$ 358,252	$ 1,433,010	
				$ 1,748,900	$ 6,995,600	$ 874,450	$ 3,497,800	
#2 CCW/Supports Equalization	Supports	59	$ 1,891	$ 334,677.50	$ 1,338,710	$ 167,339	$ 669,355	CNOM
	State Plan	59	$ 1,312	$ 232,273.56	$ 929,094	$ 116,137	$ 464,547	
				$ 566,951	$ 2,267,804	$ 283,476	$ 1,133,902	
TOTAL				$ 1,367,073	$ 5,468,290	$ 683,536	$ 2,734,145	
				$ 948,778	$ 3,795,114	$ 474,389	$ 1,897,557	
				$ 2,315,851	$ 9,263,404	$ 1,157,925	$ 4,631,702	

#3 DDD Supports - PDN Group

	DY4	DY5	DY6	DY7	DY8	DY9	DY10
Projected Monthly Clients	195	222	222	222	222	222	222
Months	3	12	12	12	12	12	12
Projected MMs	*585*	*2,664*	*2,664*	*2,664*	*2,664*	*2,664*	*2,664*
Monthly cost of DD Supports	$1,890.83	$1,947.56	$2,005.99	$2,066.16	$2,128.15	$2,191.99	$2,257.75
Hcbs Non-dual cap rate	$8,230.66	$8,477.58	$8,731.91	$8,993.86	$9,263.68	$9,541.59	$9,827.84
Total PMPM Cost	*$10,121.49*	*$10,425.14*	*$10,737.89*	*$11,060.03*	*$11,391.83*	*$11,733.58*	*$12,085.59*
Total Annual Cost	**$5,921,074**	**$27,772,568**	**$28,605,745**	**$29,463,917**	**$30,347,835**	**$31,258,270**	**$32,196,018**
Federal Share	***$2,960,537***	***$13,886,284***	***$14,302,873***	***$14,731,959***	***$15,173,917***	***$15,629,135***	***$16,098,009***

Member-months removed from following MEGs beginning DY4:
without waiver

	DY4	DY5
ABD	29	52
HCBS 217-Like	161	165
LTC	5	5

Notes:

For non-DAC and CCW Supports, the state plan service cost PMPM = ABD Non-dual cap rate
For non-DAC and CCW Supports, the DDD Supports cost PMPM was provided by DDD.
For non-DAC and CCW Supports,the estimated clients were provided by DDD
For DD Supports-PDN Group, the HCBS Non-dual cap rate is used for medical/LTC costs
For DD Supports-PDN Group, the DDD Supports cost PMPM was provided by DDD.
For DD Supports-PDN Group, the estimated clients were found using DMAHS Office of Managed Health Care analysis

NJ Comprehensive Waiver: 1115 Demonstration

Demonstration Year 3 (SFY15): Major Medicaid Eligibility Group

Expenditure Completion Percentage through 9/30/2015

	CMS64 Sch C: Total Computable Expenditures				
	QE Sept 14	QE Dec 14	QE Mar 15	QE Jun 15	**QE Sept 15**
Title XIX	$434,928,859	$1,123,432,957	$1,776,674,891	$2,421,649,657	**$2,553,436,009**
ABD (w/ LTC)	$959,799,916	$2,238,665,986	$3,502,700,629	$4,800,030,515	**$5,061,934,434**
HCBS state plan	$17,444,346	$40,534,851	$67,115,872	$98,437,031	**$98,879,627**
HCBS 217-like	$79,660,649	$164,047,547	$247,004,147	$327,788,341	**$328,690,304**
New Adult Group	$544,696,512	$1,223,823,248	$1,853,884,815	$2,660,505,457	**$2,751,130,881**

	CMS64 Sch C: Percent Completion				
	QE Sept 14	QE Dec 14	QE Mar 15	QE Jun 15	**QE Sept 15**
Title XIX	17.03%	44.00%	69.58%	94.84%	**100.00%**
ABD (w/ LTC)	18.96%	44.23%	69.20%	94.83%	**100.00%**
HCBS state plan	17.64%	40.99%	67.88%	99.55%	**100.00%**
HCBS 217-like	24.24%	49.91%	75.15%	99.73%	**100.00%**
New Adult Group	19.80%	44.48%	67.39%	96.71%	**100.00%**

Budgent Neutrality Monitoring Sheet Notes

Enrollment Trends

DY6-10 QE Dec 15 Report projected member-months increased by CMS-approved Budget Neutrality growth factors in current STC #128.

No Waiver Spending

DY6-10 Total Computable = MM's multplied by DY5 PMPM caps per STCs #128 and #129 (increased annually by CMS approved growth factors in current STC #128).

DY6-10 Federal Share = Total Computable multiplied by composite federal share ratio in accordance with current Demo's STC #130

With Waiver Spending

DY6-10 = projected MM's multiplied by PMPMs. PMPM calculated by using the DY5 PMPMs from the QE Dec 15 Report and increasing them annually by CMS approved growth factors in current STC #128 and #129

DY6-10 Federal Share = Total Computable multiplied by composite federal share ratio in accordance with STC #130

Schedule C
CMS 64 Waiver Expenditure Report
Cumulative Data Ending Quarter/Year : 4/2015

State: New Jersey

Summary of Expenditures by Waiver Year
Waiver: 11W00279

MAP Waivers

Total Computable

Waiver Name	A	01	02	03	04
ABD	0	3,962,330,365	5,396,059,196	5,061,934,434	997,076,845
ACCAP – 217 Like	0	630,539	880,454	0	0
ACCAP – SP	0	900,000	966,297	0	0
AWDC	0	1,529,772	674,018	0	0
Childless Adults	0	27,844,394	48,216,389	0	0
CRPD – 217 Like	0	11,803,536	16,894,842	0	0
CRPD –SP	0	10,672,842	15,247,535	0	0
DSRIP	0	0	83,304,870	166,600,001	0
GME State Plan	0	0	100,000,001	100,000,000	31,818,183
GO – 217 Like	0	181,068,236	221,682,839	0	0
GO – SP	0	23,869,092	33,606,671	0	0
HCBS – 217 Like	0	260,071	21,131,357	328,690,304	87,649,661
HCBS – State Plan	0	63,682	5,621,330	98,879,627	45,059,144
HRSF & GME	0	192,443,637	0	0	0
HRSF Transition Paym	0	0	83,302,681	0	0
IDD/MI – 217 Like	0	0	0	1,147,471	701,198
MATI at Risk	0	4,069,775	3,429,158	0	0
New Adult Group	0	7,233,460	859,608,870	2,751,130,881	629,303,808
SED – 217 Like	0	0	50,267	7,093	550
SED at Risk	0	24,366,856	34,048,823	32,545,949	5,161,323
TBI – 217 Like	0	13,673,932	17,438,251	0	0
TBI – SP	0	7,457,114	9,364,928	0	0
Title XIX	0	1,660,070,623	2,397,874,337	2,553,436,009	478,978,957
XIX CHIP Parents	0	0	126,863,031	0	0
Total	**0**	**6,130,287,926**	**9,476,266,145**	**11,094,371,769**	**2,275,749,669**

Composite Federal Share %

Waiver Name	01	02	03	04	05	06	07	08	09	10
ABD	50.15%	50.31%	50.25%	50.28%	50.28%	50.28%	50.28%	50.28%	50.28%	50.28%
AWDC	50.83%	51.11%								
Childless Adults	52.85%	51.39%								
DSRIP		50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%
GME State Plan		55.64%	66.80%	*67.00%*	*65.83%*	*64.83%*	*64.50%*	*63.83%*	*63.33%*	*63.33%*
HCBS – 217 Like	50.67%	51.55%	51.36%	51.42%	51.42%	50.00%	50.00%	50.00%	50.00%	50.00%
HCBS – State Plan	50.79%	51.58%	51.36%	51.43%	51.43%	50.00%	50.00%	50.00%	50.00%	50.00%
HRSF & GME	50.00%									
HRSF Transition Payments		50.00%								
IDD/MI – 217 Like			50.53%	50.61%	50.57%	50.57%	50.57%	50.57%	50.57%	50.57%
MATI at Risk	50.50%	52.00%								
New Adult Group	100.00%	100.00%	100.00%	*100.00%*	97.50%	94.50%	93.50%	91.50%	90.00%	90.00%
SED – 217 Like		50.00%	50.35%	50.50%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%
SED at Risk	52.00%	52.00%	52.00%	50.50%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%
Title XIX	50.20%	55.36%	54.91%	*50.20%*	50.20%	50.20%	50.20%	50.20%	50.20%	50.20%
XIX CHIP Parents		51.04%								

Federal Share

Waiver Name	A	01	02	03	04
ABD	0	1,987,068,554	2,714,880,462	2,543,818,610	501,334,443
ACCAP – 217 Like	0	319,151	446,869	0	0
ACCAP – SP	0	454,312	489,362	0	0
AWDC	0	777,617	344,491	0	0
Childless Adults	0	14,715,147	24,778,164	0	0
CRPD – 217 Like	0	6,026,151	8,740,654	0	0
CRPD –SP	0	5,447,877	7,899,121	0	0
DSRIP	0	0	41,652,435	83,300,003	0
GME State Plan	0	0	55,642,502	66,797,499	21,477,274
GO – 217 Like	0	91,709,982	114,209,771	0	0
GO – SP	0	12,108,906	17,304,835	0	0
HCBS – 217 Like	0	133,048	10,939,493	168,822,274	45,068,156
HCBS – State Plan	0	32,850	2,914,220	50,788,804	23,173,620
HRSF & GME	0	96,221,820	0	0	0
HRSF Transition Paym	0	0	41,651,341	0	0
IDD/MI – 217 Like	0	0	0	579,776	354,895
MATI at Risk	0	2,055,322	1,783,162	0	0
New Adult Group	0	7,233,460	859,608,870	2,751,130,881	629,303,808
SED – 217 Like	0	0	25,134	3,571	286
SED at Risk	0	12,670,764	17,705,386	16,923,894	2,683,888
TBI – 217 Like	0	6,928,494	8,987,060	0	0
TBI – SP	0	3,776,704	4,819,278	0	0
Title XIX	0	833,394,215	1,327,364,107	1,402,204,557	241,871,573

DY1 & DY2 HCBS expenditures	DY1	DY2
	total computable	
HCBS – 217 Like	207,436,314	278,027,743
HCBS – State Plan	42,962,730	64,806,761
	Federal share	
HCBS – 217 Like	105,116,826	143,323,847
HCBS – State Plan	21,820,649	33,426,816

Schedule C

CMS 64 Waiver Expenditure Report

Cumulative Data Ending Quarter/Year : 4/2015

XIX CHIP Parents	0	0	64,746,159	2,148	0
Total	**0**	**3,081,074,374**	**5,326,932,876**	**7,084,372,017**	**1,465,267,943**

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CMS 64 - MEDICAID ELIGIBILITY GROUPS AS OF JUNE 2014

Actuals through 9/30/2015 (as of 12/31/2015)

	DEFINITIONS:	DY1	DY2	DY3	DY4	DY5
1	TITLE XIX	5,773,180	7,850,901	8,708,066	2,233,046	0
2	ABD (Excluding HCBS and LTC SPC 61)	2,486,117	3,342,730	3,344,952	827,724	0
3	Childless Adults	385,740	225,208			
4	Adults W/O Dependent Children	6,057	2,774			
5	SED	26,729	43,160	38,408	9,657	0
6	HCBS (State Plan)	13,594	18,860	26,218	11,506	47,314
7	HCBS (217 Like)	96,351	127,895	122,851	32,259	194,543
8	LTC			282,986		
9	SED (217 Like)	113	145	116	25	0
10	IDD/MI (217 Like)	0	0	579	662	0
11	XIX CHIP Parents *(10/01/2013 - 12/31/2013 Only)*		456,761	0	0	0
12	New Adult Group *(01/01/2014 Onwards)*		2,399,241	6,536,725	1,723,295	0

Source = CMS64 MEG report from Dec 2015

	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15
1	643,208	641,115	641,945	643,840	643,718	645,054	645,116	635,183	634,001	633,251	632,536	631,012	628,743	625,874	623,702	661,241	667,292	678,653	683,673	689,180	693,744	698,873	705,756	712,044	716,575	718,388	721,906	727,770	733,443	738,174	741,632	745,614	747,891
2	274,854	274,540	274,471	275,897	276,304	276,808	277,259	277,750	278,234	278,390	278,697	279,521	279,906	279,461	278,818	276,842	277,127	278,134	278,326	278,535	278,973	280,262	280,382	280,535	280,202	279,951	278,126	278,248	277,951	277,637	277,579	277,274	276,805
3	45,455	44,363	43,494	43,024	42,618	42,563	41,976	41,588	40,659	39,738	39,242	38,278	37,737	34,678	35,535																		
4	772	750	713	682	670	663	644	610	553	503	491	460	453	442	425	145,207	160,725	203,473	221,698	235,947	248,452	261,467	275,824	285,009	293,721	303,876	320,550	332,617	349,081	355,931	362,741	364,478	366,300
5	2,560	2,618	2,677	2,907	3,029	3,110	3,181	3,313	3,334	3,271	3,291	3,154	3,364	3,566	3,531	3,769	3,856	4,162	4,191	3,551	3,454	3,185	3,028	2,810	2,886	2,923	3,039	3,163	3,261	3,408	3,516	3,625	3,564
6	1,518	1,520	1,504	1,467	1,474	1,493	1,511	1,543	1,564	1,553	1,555	1,540	1,567	1,586	1,586	1,596	1,583	1,580	1,576	1,573	1,565	1,492	1,546	1,624	1,829	2,022	2,222	2,210	2,325	2,419	2,587	2,802	3,140
7	11,219	11,225	11,221	10,428	10,396	10,420	10,456	10,480	10,506	10,556	10,577	10,645	10,726	10,752	10,751	10,758	10,742	10,606	10,604	10,577	10,601	9,863	9,926	9,994	10,310	10,499	10,540	10,296	10,237	10,216	10,256	10,319	10,401
8																0	0	0	0	0	0	24,537	24,150	23,794	23,313	22,974	22,725						
9	15	13	14	15	15	10	7	9	15	14	11	15	15	16	13	9	9	11	15	10	7	14	18	11	6	8	10	9	5	7	9	11	8
10																		0	0	0	0	0	0	0	0	0	0	0	0	114	132	144	189
11													152,428	152,087	152,246																		
12																181,112	186,389	198,362	203,220	205,870	208,786	211,485	214,061	216,647	218,763	220,033	223,400	225,656	227,874	228,426	227,301	226,117	225,369

BN caps should be as of 3-27-14

Meg =	Title XIX		as appears on march 27 2014 PMPM	Should appear on 3/27/14 STCs PMPM
		DY2	$346.00	$346.69
		DY3	$366.07	$366.74
		DY4	$387.30	$387.95
		DY5	$409.76	$410.40

Meg =	ABD		original PMPM	after CMS approve $10m addl GME PMPM
		DY2	$1,123.36	$1,124.49
		DY3	$1,163.80	$1,164.91
		DY4	$1,205.69	$1,206.78
		DY5	$1,249.10	$1,250.17

Meg =	LTC		original PMPM	after CMS approve $10m addl GME PMPM
		DY2	$8,973.64	$8,975.89
		DY3	$9,323.62	$9,325.83
		DY4	$9,687.24	$9,689.41
		DY5	$10,065.04	$10,067.17

Meg =	HCBS State Plan		original PMPM	after CMS approve $10m addl GME PMPM
		DY2	$2,340.19	$2,347.84
		DY3	$2,426.78	$2,434.29
		DY4	$2,516.57	$2,523.94
		DY5	$2,609.68	$2,616.93

	Duals	Non-duals	Combo
	79399	89399	
SFY15	*$ 2,707.96*	*$ 7,666.80*	***$ 3,099.46*** *wt avg, net of patient liability*
SFY16	$ 2,789.20	$ 7,896.80	$ 3,378.41
SFY17	$ 2,872.87	$ 8,133.71	$ 3,479.77

sfy16 & 17 reflect 3% rate increase

	93.4%	6.6%			19.6%	80.4%	As Reported on the MEG Report Mar'15	
	Duals	Non-duals	Total		HCBS-SP	HCBS-217	HCBS-SP	HCBS-217
Jul-14	10,374	730	*11,104*	*actual*	2,172	8,932	*1,492*	*9,863*
Aug-14	10,370	744	*11,114*	*actual*	2,174	8,940	*1,546*	*9,920*
Sep-14	10,502	773	*11,275*	*actual*	2,206	9,069	*1,624*	*9,994*
Oct-14	10,773	850	*11,623*	*actual*	2,274	9,349	*1,829*	*10,310*
Nov-14	10,948	910	*11,858*	*actual*	2,320	9,538	*2,022*	*10,499*
Dec-14	11,201	990	*12,191*	*actual*	2,385	9,806	*2,222*	*10,540*
Jan-15	11,057	947	*12,004*	*actual*	2,348	9,656	2,210	10,296
Feb-15	11,002	962	*11,964*	*actual*	2,341	9,623	2,325	10,237
Mar-15	11,035	1,020	*12,055*	*actual*	2,358	9,697	2,419	10,216
Apr-15	10,921	997	*11,918*	*actual*	2,332	9,586	2,587	10,256
May-15	11,387	1,104	*12,491*	*actual*	2,444	10,047	2,802	10,319
Jun-15	11,793	1,233	*13,026*	*actual*	2,548	10,478	3,140	10,401
Jul-15	12,150	1,226	*13,376*	*actual*	2,617	10,759	3,506	10,677
Aug-15	12,455	1,309	*13,764*	*actual*	2,693	11,071	3,868	10,744
Sep-15	12,751	1,529	*14,280*	*actual*	2,794	11,486	4,132	10,838
Oct-15	13,018	1,577	*14,595*	*actual*	2,855	11,740		
Nov-15	13,267	1,704	*14,971*	*actual*	2,929	12,042		
Dec-15	13,671	1,790	*15,461*	*actual*	3,025	12,436		
Jan-16	13,763	1,809	*15,572*		3,046	12,526		
Feb-16	14,128	1,912	*16,041*		3,138	12,903		
Mar-16	14,480	2,015	*16,495*		3,227	13,268		
Apr-16	14,813	2,121	*16,934*		3,313	13,621		
May-16	15,078	2,211	*17,289*		3,382	13,907		
Jun-16	15,352	2,304	*17,656*		3,454	14,202		
Jul-16	15,636	2,405	*18,041*		3,529	14,511		
Aug-16	15,928	2,489	*18,417*		3,603	14,814		
Sep-16	16,225	2,565	*18,790*		3,676	15,114		
Oct-16	16,525	2,660	*19,184*		3,753	15,431		
Nov-16	16,824	2,749	*19,572*		3,829	15,743		
Dec-16	17,115	2,845	*19,961*		3,905	16,056		
Jan-17	17,428	2,945	*20,373*		3,986	16,388		
Feb-17	17,709	3,034	*20,743*		4,058	16,685		
Mar-17	17,994	3,122	*21,116*		4,131	16,985		
Apr-17	18,285	3,211	*21,497*		4,205	17,291		
May-17	18,585	3,302	*21,887*		4,282	17,605		
Jun-17	18,883	3,393	*22,276*		4,358	17,918		

ties to the DMAHS Budget Office capitation projection usi

ng Dec 15 actual enroll as reported 1-22-2015

MMX Member Mo	Count(dist) Recip Idn
10/1/2012	29,421.
11/1/2012	29,355.
12/1/2012	29,273.
1/1/2013	29,167.
2/1/2013	28,826.
3/1/2013	28,849.
4/1/2013	28,778.
5/1/2013	28,674.
6/1/2013	28,726.
7/1/2013	28,847.
8/1/2013	29,024.
9/1/2013	29,058.
10/1/2013	29,102.
11/1/2013	29,138.
12/1/2013	29,189.
1/1/2014	29,066.
2/1/2014	28,831.
3/1/2014	28,862.
4/1/2014	28,784.
5/1/2014	28,765.
6/1/2014	28,732.
7/1/2014	30,066.
8/1/2014	29,953.
9/1/2014	29,784.
10/1/2014	29,547.
11/1/2014	29,203.
12/1/2014	28,973.
1/1/2015	28,959.
2/1/2015	28,644.
3/1/2015	28,386.
4/1/2015	28,231.
5/1/2015	28,070.
6/1/2015	28,201.
7/1/2015	28,177.

Member-Months	
As of 9/30/2015	
DY1	261,069.
DY2	347,398.
DY3	348,017.
DY4	84,549.
DY5	

8/1/2015	28,254.
9/1/2015	28,118.
10/1/2015	28,014.
11/1/2015	27,827.
12/1/2015	27,474.
1/1/2016	24,417.
2/1/2016	24,383.

MMX Member Month Date	Count(dist) Recip Idn
10/1/2012	2,376.
11/1/2012	2,353.
12/1/2012	2,332.
1/1/2013	2,322.
2/1/2013	2,302.
3/1/2013	2,291.
4/1/2013	2,270.
5/1/2013	2,242.
6/1/2013	2,220.
7/1/2013	2,195.
8/1/2013	2,177.
9/1/2013	2,157.
10/1/2013	2,130.
11/1/2013	2,109.
12/1/2013	2,076.
1/1/2014	2,047.
2/1/2014	2,032.
3/1/2014	2,017.
4/1/2014	1,970.
5/1/2014	1,930.
6/1/2014	1,876.
7/1/2014	1,845.
8/1/2014	1,823.
9/1/2014	1,811.
10/1/2014	1,791.
11/1/2014	1,769.
12/1/2014	1,744.
1/1/2015	1,724.
2/1/2015	1,711.
3/1/2015	1,695.
4/1/2015	1,679.
5/1/2015	1,665.
6/1/2015	1,651.
7/1/2015	1,639.

Member-Months	
As of 9/30/2015	
DY1	20,708.
DY2	24,716.
DY3	20,908.
DY4	4,884.
DY5	

8/1/2015	1,633.
9/1/2015	1,612.
10/1/2015	1,584.
11/1/2015	1,580.
12/1/2015	1,556.

Attachment E

Summary of Public Comments

To ensure widespread stakeholder participation and encourage input statewide, the state established an email address specifically to accept public comment of the Waiver Renewal. This email address was included in all slide presentations, and in the public notice that was published statewide. DMAHS received over 190 written comments from stakeholders representing hospitals, Federally Qualified Health Centers (FQHCs), mental health providers, aging and disability advocates and private citizens.

The majority of the respondents expressed much praise, accolade and appreciation for the opportunity to provide comment and for the concepts included in the Waiver Renewal application. The top three topics commented on were the integrated enrollment option and seamless conversion option for dual eligibles, the managed organized delivery system for behavioral health and the addition of a supportive housing benefit for the Medicaid population. Additional comment detail on all of the proposals is noted below.

Managed Long Term Services and Supports

Stakeholders are commending the state for its support and the continued commitment to creating a fully-integrated managed delivery system by continuing MLTSS and adding behavioral health. In addition, stakeholders would like to see the development of a consumer-focused value-based payment system. New Jersey is also being encouraged to include additional resources for MLTSS. Lastly, it was stated that providers would like to see more data that illustrates transparency and an effective delivery system. DMAHS is working through its MLTSS Steering Committee to identify specific issues or areas of focus to provide data through its existing stakeholder process. Additionally, DMAHS is reviewing the Medicaid Managed Care and CHIP Final Rule and working with stakeholders on ways to increase the transparency of managed care plan reported data.

Behavioral Health and Substance Use Disorder (SUD) Continuum

The majority of comments received from stakeholders applaud the efforts to integrate mental health and substance use services. In addition, New Jersey received positive feedback regarding the effort to expand Behavioral Health Homes (BHH) statewide. Respondents also commend the state for the decision to increase funds for Medicaid and state-funded clients, including both increased Medicaid rates as well as the parity represented by the "true-up" of Medicaid services. Providers are suggesting creating a cohesive regulatory/licensing framework to facilitate and operationalize integrated care or provide waivers to address barriers in care. DMAHS is participating in the Medicaid Innovator Accelerator Program (IAP) Integrating Physical and Mental Health initiative and is receiving technical assistance through this opportunity to facilitate an integrated licensure framework. The Department of Human Services is also working with Seton Hall University Law Center to address specific licensing and reimbursement barriers and opportunities in New Jersey.

Comprehensive Supports to Individuals with Disabilities

The majority of the comments received support the proposed changes to the developmental disabilities (DD) system. The state received many positive comments supporting the proposed pilot program that will address the needs of individuals with intellectual and developmental disabilities and a co-occurring mental illness. The commenters gave several suggestions in terms of case management, the transition of youth into the adult system and provider requirements. The state is going to take these suggestions into consideration as it builds the pilot and moves forward

with its other initiatives for the DD population. The state is also being encouraged to give serious consideration to include access to Applied Behavior Analysis (ABA) for adults through the Supports Program. It has been brought to the State's attention that there has been some misinformation regarding moving the authority for the Community Care Waiver under the Comprehensive Waiver. The state will be providing additional on-going education sessions regarding the proposals to ensure stakeholders understand what is being proposed under the Waiver, how the changes will or will not impact them, and what changes are federally or legally required.

Integrating Care for Dual Eligibles

The majority of respondents, especially parents of dual eligible adults, oppose the integrated enrollment option which requested the authority to auto-assign any dual eligible individual enrolling in New Jersey's Medicaid plan into one of the State's Fully Integrated Dual Eligible (FIDE) Special Needs Plan (SNP). The majority of the comments were from families who were concerned about provider access to established Original Medicare Doctors and the misconception that dual-eligible individuals would not have the choice to opt-out of the program for a specified period pre-and post-program enrollment.

After careful and thoughtful consideration, and given the concerns around access to Medicare providers, DMAHS has decided to remove the integrated enrollment option from the Waiver Renewal application. As noted in the draft application, DMAHS understands the importance of choice for dual-eligible individuals and is actively pursuing access to Medicare data and specifically Enhanced Coordination of Benefits Agreement (COBA) data, to enhance our ability to see a dual-eligible in a holistic way. New Jersey believes it will be better positioned to revisit this concept as an amendment in the coming years, once we have had an opportunity to review the final evaluation reports from the states currently participating in the Financial Alignment Demonstration and have completed additional data analysis.

Transitioning Individuals into the Community Upon Re-entry

The feedback received on the proposal to transition individuals into the community upon re-entry has been strongly supportive. Stakeholders support the overall goal of providing individuals access to health care quickly and ensuring care is accessible and available upon release. The state has been advised to consider extending some of the proposals in the application currently targeted at former inmates for those with mental health or addiction issues, and to individuals with intellectual and developmental disabilities (I/DD). Lastly, it has also been suggested that the state pursue a robust and transparent process with input from a broad array of stakeholders to ensure operational and clinical success of the proposal. DMAHS is taking these suggestions under consideration and is working to identify stakeholders to participate in a re-entry workgroup.

Housing

Comments regarding housing were extremely supportive and commend the state for their commitment to individuals who are homeless or at-risk of being homeless. Stakeholders are also very supportive of the proposal to expand the High-Fidelity Housing First Model to meet the needs of individuals. New Jersey is being urged to consider providing rental and utility subsidies as part of a benefit included in the Waiver. Lastly, stakeholders would also like to see employment support and non-medical transportation coordination assistance as part of the

services provided through the Waiver. New Jersey added additional detail around the possibility of reinvesting a portion of the savings from the Waiver back into the housing concept of the Waiver. We are continuing to work with other state partners such as the Department of Community Affairs (DCA) on how to increase the availability and leverage the existing of high opportunity housing stock to meet the needs of the target population. Additionally, there is an internal Housing Partnership Workgroup tasked with developing the service benefit and defining which services should be incorporated into the benefit including training on housing counseling services to providers, families, and consumers so they can access and maintain supportive housing. Additionally, there was a suggestion to add employment support and non-medical transportation was shared with the workgroup.

DSRIP

The comments received for the DSRIP program were largely positive as many stakeholders support the program. Stakeholders would like to see the DSRIP program move to a more performance-based program based on population health and are encouraged with the results that are starting to be realized by the hospitals. The state is currently meeting internally and with CMS regarding the future of DSRIP.

Population Health

While many of the comments pertaining to the population health section supported the idea of population health, there was an expressed desire for additional detail around the proposal. In turn, we worked to provide an expanded definition of population health, articulated our goal of reduced hospital admissions, and explained how this goal furthers goals outlined in our state health improvement plan, Healthy New Jersey 2020. We also included a description of the work already underway by the Population Health Action Team, the composition of the team, and its governing principles.

Attachment F
STC Compliance

STC	Description	Compliance Status
	Section I	**Preface**
	Section II	**Historical Description of the Demonstration**
	Section III	**General Program Requirements**
1	Federal Non-Discrimination Statutes	In compliance
2	Medicaid and CHIP Law	In compliance
3	Changes in Medicaid and CHIP Law	In compliance
4	Changes in Federal Law	In compliance
5	State Plan Amendments	In compliance
6	Changes subject to the amendment process	In compliance
7	Amendment process	In compliance
8	Extension of the Demonstration	Documentation required is provided through the renewal application.
9	Demonstration phase-out	Not applicable
10	CMS Right to Terminate or Suspend	Not applicable
11	Finding of Non-Compliance	Not applicable
12	Withdrawal of Waiver Authority	Not applicable
13	Submission of Amendments and Transition Plan re: ACA	In compliance
14	Adequacy of Infrastructure	In compliance
15	Public Notice	In compliance
16	FFP	Not applicable
	Section IV	**Eligibility**
17	Eligibility groups affected by the demonstration	In compliance
18	Expansion Groups	In compliance
19	Demonstration Population Summary	In compliance
20	Eligibility/Post-eligibility Treatment of Income and Resources for Institutionalized Individuals	In compliance
21	Transfer of Assets	In compliance
	Section V	**Benefits**
22	Alternative Benefit Plan	In compliance
23	MLTSS benefits	In compliance
24	Supports Program benefits	In compliance
25	ASD Program benefits	The state is currently developing a package of services to include in the Medicaid State Plan through EPSDT under guidance from CMS. The benefit package will include the services offered under the ASD Pilot.
26	ID/DD-MI benefits	In compliance
27	IDD/OOS benefits	Not operationalized

Attachment F
STC Compliance

STC	Description	Compliance Status
28	SED Program benefits	In compliance
29	MATI benefits	In compliance
30	Short-term NF Stays	In compliance
31	Cost Sharing	In compliance
	Section VII	**Managed Care Requirements**
32	Benefits Excepted from Managed Care	In compliance
33	Care Coordination & Referral under Managed Care	In compliance
34	Managed Care Contracts	In compliance
35	Public Contracts	In compliance
36	Network Requirements	In compliance
37	Demonstrating Network Adequacy	In compliance
38	Provider Credentialing	In compliance
39	EPSDT Compliance	In compliance
40	Advisory Committee	In compliance
41	Mandatory Enrollment	In compliance
42	Choice of MCO	In compliance
43	MCO Selection	In compliance
44	Notice for Change in MCO Network	In compliance
	Section VIII	**HCBS & MLTSS Requirements**
45	Administrative Authority	In compliance
46	Home and Community-based Characteristics	In compliance
47	Health and Welfare of Enrollees	In compliance
48	Demonstration Participant Protections	In compliance
49	Critical Incident Management System	In compliance
50	Managed Care Grievance/Complaint System	In compliance
51	Fair Hearings	In compliance
52	Plan of Care	52(d): In a focus study done by the EQRO and released in draft to the State this spring, it was determined that not all POCs had a back-up plan as required by the STC and MCO contract. Reeducation was done by the state and the EQRO will be reviewing for compliance with the next audit.
53	Option for Participant Direction of certain HCBS and MLTSS	In compliance
	Section IX	**Behavioral Health**
54	Behavioral Health Organization	Children's BHO was operationalized and is in compliance
55	Behavioral Health for Children	In compliance
56	Behavioral Health for Adults	Not operationalized

Attachment F
STC Compliance

STC	Description	Compliance Status
57	Behavioral Health Home	The Behavioral Health Home is provided through a FFS Model
58	Services Provided by the BHO/ASO	In compliance
59	Duplication of Payment	In compliance
	Section X	**Managed Long Term Services and Supports**
60	Transition of Existing 1915c Programs	In compliance
61	Notice of Transition to Program Participants	In compliance
62	Transition from FFS to Managed Care	In compliance
63	Readiness Review Requirements	In compliance
64	Steering Committee	In compliance
65	Transition of Care Period	In compliance
66	Money Follows the Person	In compliance
67	Nursing Facility Diversion	In compliance
68	Nursing Facility Transition to Community Plan	In compliance
69	Level of Care Assessment	In compliance
70	Participant Protections under MLTSS	In compliance
71	Institutional & Community-based MLTSS	In compliance
72	Care Coordination for MLTSS	In compliance
	Section XI	**Special Targeted HCBS Programs**
73	HCBS Programs	In compliance
74	Network and Adequacy Requirements	In compliance
75	Provider Credentialing	In compliance
76	Non-duplication of Services	In compliance
77	Supports Program	In compliance
78	ASD Pilot Program	The state is currently revising its ASD Pilot program to come into compliance with the CMS bulletin released in July 2014 regarding providing Autism services through EPSDT.
79	ID/DD-MI Pilot Program	In compliance
80	IDD-OOS Program	Not operationalized
81	SED Program	In compliance
82	MATI	In compliance
	Section XII	**Premium Assistance Programs**
83	Premium Support Program	In compliance
	Section XIII	**Quality**
84	Administrative Authority	In compliance
85	Quality for Managed Care/MLTSS	In compliance
86	Quality for Fee-for-Service HCBS Programs	In compliance

Attachment F
STC Compliance

STC	Description	Compliance Status
87	Content of Quality Strategies	In compliance
88	Oversight Process: Monitoring Activities by State/EQRO	In compliance
89	Revision of Quality Strategies/Reporting	In compliance
	Section XIV	**Funding Pools**
90	Terms and Conditions Applying to Pools Generally	In compliance
91	Transition Payments	In compliance
92	DSRIP Pool	In compliance
93	FFP for DSRIP	In compliance
94	Life Cycle of Five-Year Demonstration	In compliance
95	Limits on Pool Payments	In compliance
96	Transition Plan for Funding Pools	Due to CMS by June 30, 2016
	Section XV	**General Reporting Requirements**
97	General Financial Requirements	In compliance
98	MLTSS Data Plan for Quality	In compliance
99	Monthly Enrollment Report	In compliance
100	Monthly Monitoring Calls	The state has not had monthly calls with CMS due to scheduling issues on both sides. The state has made itself available when CMS has had any questions.
101	Quarterly Progress Reports	In compliance
102	Annual Report	In compliance
	Section XVI	**Administrative Requirements**
103	General Administrative Requirements	In compliance
	Section XVII	**General Financial Requirements Under Title XIX**
104	Reporting Expenditures	In compliance
105	Expenditures Subject to Budget Agreement	In compliance
106	Administrative Costs	In compliance
107	Claiming Period	In compliance
108	Reporting Member Months	In compliance
109	Standard Medicaid Funding Process	In compliance
110	Extent of FFP for the Demonstration	In compliance
111	Sources of Non-Federal Share	In compliance
112	State Certification of Funding Conditions	In compliance
	Section XVIII	**General Financial Requirements Under Title XXI**
113	Quarterly Expenditure reports under CMS-21	In compliance
114	Reporting requirements for Title XXI	In compliance

Attachment F
STC Compliance

STC	Description	Compliance Status
115	Timeframe for submitting claims under the Demonstration	In compliance
116	Standard CHIP Funding Process	In compliance
117	Certify Non-Federal Share	In compliance
118	Title XXI Funding limit	In compliance
119	Total Federal title XXI Funding	In compliance
120	Expenditures for Outreach and Admin	In compliance
121	Exhaustion of Title XXI Funds	In compliance
122	Notice of Title XIX drawdown for Medicaid Expansion	In compliance
123	Continuance of Federal Rules	In compliance
	Section XIX	**Monitoring Budget Neutrality for the Demonstration**
124	Limit on Title XIX Funding	In compliance
125	Risk	In compliance
126	Calculation and Application of Budget Neutrality Limit	In compliance
127	Impermissible DSH, Taxes or Donations	In compliance
128	Trend Rates for PMPMs	In compliance
129	Supplemental Tests	In compliance
130	Composite Federal Share Ratios	In compliance
131	Exceeding Budget Neutrality	Budget Neutrality has not been exceeded.
132	Enforcement of Budget Neutrality	In compliance
	Section XX	**Evaluation of the Demonstration**
133	Submission of Draft Evaluation Design	In compliance
134	Final Evaluation Design and Implementation	In compliance
135	Evaluation Reports	The Draft Interim Evaluation report is included in the Renewal Application. The Final Evaluation report is due July 1, 2017.
136	Cooperation with Federal Evaluators	In compliance