

Considerations for Implementing Downside Risk in Medicaid Accountable Care Organizations

Value-Based Payment and Financial Simulations Technical Assistance

In July 2014, the Centers for Medicare & Medicaid Services (CMS) launched a collaborative between the Center for Medicaid and CHIP Services and the Center for Medicare & Medicaid Innovation (CMMI) called the Medicaid Innovation Accelerator Program (IAP). The goals of IAP are to improve health and health care for Medicaid beneficiaries and to reduce costs by supporting states in their ongoing payment and delivery system reforms. The Value-Based Payment and Financial Simulations functional area began in September 2016 and this resource, which was originally developed to meet state technical assistance requests, is now available to a national audience to further advance VBP efforts among state Medicaid agencies.

Background

In an effort to improve quality and reduce costs, about half of Medicaid programs have implemented or plan to implement Medicaid Accountable Care Organization (ACO) models. These Medicaid ACO models are designed to improve care coordination and delivery by holding providers financially accountable for the health of the patient population they serve. While many of these models rely on upside-only shared savings arrangements, a growing number of Medicaid ACO programs are transitioning to downside risk models to further incentivize providers to achieve cost and quality goals. State experience in designing and implementing downside risk shared savings models offer useful lessons for states exploring similar approaches.

This technical assistance resource explores several considerations and options for states contemplating how to design and implement downside risk in their Medicaid programs. Rather than include a full list of all ACO programs, this resource: examines four state Medicaid ACO programs that use a shared savings model with downside risk; identifies options for implementing downside risk; discusses the pros and cons of each option; and considers how different options may interact with each other.

The information provided in this resource is meant to highlight a subset of all possible design considerations so that states can begin to have initial conversations about the potential approaches they may want to take. There are many potential pathways for implementing downside risk, and model design decisions are informed by each state's expertise with its Medicaid population and health care stakeholders.

KEY TERMS

Shared savings: If an ACO reduces costs and maintains or improves quality, it shares the savings with its payer (the state or a managed care organization [MCO]).

Shared losses: If an ACO has an increase in costs, it must reimburse its payer (state or MCO) at least a portion of the losses.

Upside-only model: A value-based payment (VBP) approach that includes a shared savings, but not a shared losses, component.

Downside risk model: A VBP arrangement that includes a shared losses or a full risk component, where the ACO accepts 100 percent of losses.

The Centers for Medicare and Medicaid Services (CMS) Medicaid Innovation Accelerator Program (IAP) provides technical assistance for state Medicaid agencies interested in designing, developing, or implementing Value-Based Payment (VBP) approaches and financial simulations. The designs, approaches, and options described herein should be considered as a resource for state discussion and are not approved or endorsed by CMS. Developing a VBP approach with Medicaid IAP does not replace federal approval of Medicaid demonstrations, state plan amendments or waivers. To be eligible for federal financial participation, Medicaid VBP approaches must meet all federal requirements, regulations and statutes, and be submitted to, and approved by CMS's Center for Medicaid and CHIP Services (CMCS) following CMCS standard procedures.

As states consider how to implement a downside risk Medicaid ACO model, key questions include the following:

1. How much downside risk can states reasonably expect providers to take on?
2. How, if at all, should risk be phased in?
3. How should states calculate shared losses to accurately reflect performance?
4. How can states design a downside risk model that is appealing enough to retain participating providers?

To answer these questions, this technical assistance resource explores insights from four states with Medicaid ACO programs (Maine, Massachusetts, Minnesota, and Vermont) that have incorporated downside risk into one or more tracks (or iterations) of their shared savings models (in Massachusetts' case, two models). These programs, as well as corresponding upside-only models in Maine, Minnesota, and Vermont, serve as examples that may help guide other states' design decisions for their own programs. While the downside risk models in Maine and Vermont did not initially attract ACO participants as anticipated, these two state models contain design elements that may be useful to other states. For example, after the downside risk track in the Vermont Medicaid Shared Savings Program did not attract participants, Vermont designed its Medicaid Next Generation ACO model, with full risk, which did succeed in garnering interest from participants.*

Methodology

Medicaid ACO model attributes can inform a state's consideration of how to incorporate downside risk into its shared savings model. This technical resource discusses the following 14 attributes:

- Risk type
- ACO size requirements
- Scope of services included in total cost of care (TCOC)
- Attribution methodology
- Risk adjustment methodology
- Benchmarking – baseline cost calculation
- Benchmarking – baseline quality calculation
- Benchmarking – trend rate
- Minimum savings rate (MSR)
- Maximum performance limit (risk cap)
- Maximum savings/loss rates
- Truncation of cost
- Application of quality adjustment
- Reserve requirements

This technical resource focuses on several Medicaid ACO programs that, as of 2019, were provider-led, had a specific shared savings methodology, and incorporated downside risk. Medicaid ACO models from Maine[†], Massachusetts, Minnesota, and Vermont met these criteria and are referred to as “State Downside Risk Models” (DRMs) or “state DRMs.”ⁱⁱ This resource is a point in time summary of these four ACO models. More recent information on these models can be found on each state's Medicaid program website.

Approaches to Downside Risk in State Medicaid ACO Programs

Table 1 presents information on the downside risk Medicaid ACO payment models for Maine, Massachusetts, Minnesota, and Vermont, as well as these states' corresponding upside-only models; the table summarizes model details on the 14 attributes introduced in the previous section.

* Vermont's Medicaid Next Generation ACO model is part of the Vermont All-Payer ACO Model, which aligns with Medicare and commercial ACO programs.

[†] While the Maine model is a DRM, it does not require participation in VBP approaches and no ACOs have chosen to participate in the model.

Table 1: Attributes of State Downside Risk Models (as of December 2019)

State Program	Attribution Methodology	Risk Adjustment Methodology	Benchmarking – Baseline Cost Calculation	Benchmarking – Baseline Quality Calculation	Benchmarking-Trend Rate	Minimum Savings Rate & Maximum Performance Limit	Maximum Percentage of Savings/Losses	Truncation of Cost	Application of Quality Adjustment	Reserve Requirements
<p>Maine Accountable Communities (AC) Model 1ⁱⁱⁱ (2014 – Present)</p> <p>Risk Type: Upside-only</p> <p>Size Requirement: 1,000 members</p> <p>Scope of Services: Physical health, behavioral health, lab services Long-term services and supports (LTSS) optional</p>	<p>Retrospective, stepwise, projected throughout each Performance Year (PY), reconciled after PY</p> <p>Members:</p> <ol style="list-style-type: none"> Enrolled in a Health Home part of an AC Lead Entity, or Plurality of primary care services in 12 months, or Three or more emergency department (ED) visits in a year to a hospital in an AC <p>Otherwise, no attribution</p>	<p>Proprietary scoring system embedded in the Maine Medicaid Management Information System (MMIS) system using the Diagnostic Cost Group risk adjustment methodology developed by Verisk Healthcare embedded in the Truven Advantage Suite</p>	<p>Retrospective calculation based on all core and any selected optional service costs for the attributed population</p>	<p>Minimum attainment level established and published by the state</p>	<p>Trend “calculated from the Performance Year based on sub-population trends with a non-AC comparison group,” made up of members who would meet criteria, but whose providers did not participate</p>	<p>Minimum Savings Rates:</p> <ul style="list-style-type: none"> For ACs with 1,000 to 4,999 members: 2.5% For ACs with more than 5,000 members: 2.0% <p>Maximum Performance Limit:</p> <p>Upside: 10% of TCoC benchmark</p>	<p>Maximum Percentage of Savings Shared:</p> <ul style="list-style-type: none"> 50% 	<p>Members’ TCoC does not include total annual claim costs by AC size:</p> <ul style="list-style-type: none"> 1,000-1,999 members: costs in excess of \$50,000 in annual claims 2,000-4,999 members: costs in excess of \$150,000 in annual claims in PY1-4; \$155,000 in PY5 5,000+ members: costs in excess of \$200,000 in annual claims in PY1-4; \$210,000 in PY5 	<p>Shared savings rate is multiplied by the AC’s overall score on the group of quality measures for which the AC achieves a minimum attainment level</p>	<p>None for upside-only ACs</p>

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<p>Maine AC Model 2^{iv} (2014 – Present)</p> <p>Risk Type: Upside/downside</p> <p>Size Requirement: 2,000 members</p> <p>Scope of Services: Physical health, behavioral health, lab services LTSS optional</p>	<p>Retrospective, stepwise, projected throughout each Performance Year, reconciled after PY</p> <p>Members:</p> <ol style="list-style-type: none"> 1. Enrolled in a Health Home part of an AC Lead Entity, or 2. Plurality of primary care services in 12 months, or 3. Three or more ED visits in a year to a hospital in an AC <p>Otherwise, no attribution</p>	<p>Proprietary scoring system embedded in the Maine MMIS system using the Diagnostic Cost Group risk adjustment methodology developed by Verisk Healthcare embedded in the Truven Advantage Suite</p>	<p>Retrospective calculation based on all core and any selected optional service costs for the attributed population</p>	<p>Minimum attainment level established and published by the state</p>	<p>Trend “calculated from the Performance Year based on subpopulation trends with a non-AC comparison group,” made up of members who would meet criteria, but whose providers did not participate</p>	<p>Minimum Savings/Loss Rates:</p> <ul style="list-style-type: none"> • For ACs with 1,000 to 4,999 members: 2.5% • For ACs with more than 5,000 members: 2.0% <p>Maximum Performance Limits:</p> <p>Upside: 15% of TCoC benchmark</p> <p>Downside risk phases in over three years:</p> <ul style="list-style-type: none"> • Year 1: no downside risk • Year 2: 5% of total benchmark expenditures • Years 3-5: 10% of total benchmark expenditures 	<p>Maximum Percentage of Savings or Loss Shared:</p> <ul style="list-style-type: none"> • 60% 	<p>Members' TCoC does not include total annual claim costs by AC size:</p> <ul style="list-style-type: none"> • 2,000-4,999 members: costs in excess of \$150,000 in annual claims in PY1-4; \$155,000 in PY5 • 5,000+ members: costs in excess of \$200,000 in annual claims in PY1-4, \$210,000 in PY5 	<p>Shared savings rate is multiplied by the AC's overall score on the group of quality measures for which the AC achieves a minimum attainment level</p>	<p>AC Lead Entities that opt for Model II must post a performance bond in the amount of 5% of the product of its benchmark TCoC for the first year they have downside risk and 10% for the second year and beyond) times the projected number of member months for the Performance Year (with the projection based on the most recent member attribution file sent to the AC Lead Entity)</p>

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<p>Massachusetts Primary Care ACO Shared Accountability (2018 – Present)^v</p> <p>Risk Type: Upside/ downside</p> <p>Size Requirement: 10,000 members</p> <p>Scope of Services: Physical and mental health</p> <p>State may add LTSS to the scope beginning on or around Year 3</p>	<p>Prospective, stepwise:</p> <ol style="list-style-type: none"> 1. Member choice 2. In absence of a choice, the Executive Office of Health and Human Services (EOHHS) may make attribution decisions according to “if the Member has an existing relationship with one of the Contractor’s Participating [primary care clinicians]” or other factors 	<p>State provides the risk adjustment “using a generally accepted diagnosis grouper and statistically developed risk model, [which] may include adjustments for Enrollees’ health-related social needs”</p>	<p>Historic TCoC taken from a baseline period (to be published no later than 30 days prior to start of the Performance Year), adjusted for anticipated changes in health care spending for ACOs’ population of enrollees, including changes attributable to Medicaid ACO program changes; MassHealth may also adjust the benchmark retroactively to reflect other unforeseen events</p>	<p>State sets out “attainment threshold” and “goal benchmark” for each metric.</p> <p>HEDIS metrics informed by NCQA Quality Compass percentiles. Non-HEDIS metrics are benchmarked by EOHHS</p>	<p>Historic TCoC is trended “between the baseline period and the Performance Year” based on the historical costs, recent risk scoring/financial information, as well as exogenous considerations for all ACO-eligible members in the rating category</p>	<p>Minimum Savings Rate: 2% of TCoC benchmark</p> <p>Maximum Performance Limit: Upside/ downside: 10% of TCoC benchmark</p>	<p>For Shared Savings:</p> <ul style="list-style-type: none"> • If ACO has savings <=3% of TCoC benchmark: <ul style="list-style-type: none"> ○ Year 1: 50% of savings ○ Year 2: 60% ○ Year 3-5: 70% • If ACO has savings >3% of TCoC benchmark, additional payment beyond 3% of benchmark: <ul style="list-style-type: none"> ○ Year 1: 25% of additional savings ○ Year 2: 30% ○ Year 3: 35% <p>For Losses:</p> <ul style="list-style-type: none"> • If ACO has Losses <=3% of TCoC benchmark: <ul style="list-style-type: none"> ○ Years 1-3: 40% of losses ○ Years 4-5: 70% • If ACO has Losses >3% of TCoC benchmark, additional payment beyond 3% of benchmark: <ul style="list-style-type: none"> ○ Years 1-3: 20% of additional losses ○ Years 4-5: 35% 	<p>Admission-level stop-loss: EOHHS shall exclude from TCoC an amount equal to 95% of allowed expenditures as further specified by EOHHS in excess of an \$150,000 per enrollee hospital inpatient admission</p>	<p>If savings are achieved: earned savings multiplied by quality score</p> <p>If losses are calculated: 80% of shared losses are unaffected by quality score</p> <p>20% of losses contingent upon quality (multiplied times 1-quality score)</p> <p>Quality score is calculated by points assigned per quality measure, with an “attainment threshold” representing the point below which the ACO receives no points and an “excellence benchmark” above which the ACO receives maximum points, with a sliding scale between the two values</p>	<p>Primary Care ACO Contract, § 2.1C (page 17): “The Contractor shall obtain and... maintain a Risk Certificate for Risk-Bearing Provider Organizations... as defined by the Massachusetts Division of Insurance... At all times after the Operational Start Date, the Contractor shall have a Repayment Mechanism in an amount equal to or greater than the maximum amount of the Contractor’s potential Shared Losses”</p>

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<p>Massachusetts Primary Care ACO Full Accountability (2018 – Present)^{vi}</p> <p>Risk Type: Transition to full risk</p> <p>Size Requirement: 10,000 members</p> <p>Scope of Services: Physical and mental health</p> <p>State may add LTSS to the scope beginning on or around Year 3</p>	<p>Prospective, stepwise:</p> <ol style="list-style-type: none"> 1. Member choice 2. In absence of a choice, EOHHS may make attribution decisions according to “if the Member has an existing relationship with one of the Contractor’s Participating [primary care clinicians]” or other factors 	<p>State provides the risk adjustment “using a generally accepted diagnosis grouper and statistically developed risk model, [which] may include adjustments for Enrollees’ health-related social needs”</p>	<p>Historic TCoC taken from a baseline period (to be published no later than 30 days prior to start of the Performance Year), adjusted for anticipated changes in health care spending for ACOs’ population of enrollees, including changes attributable to Medicaid ACO program changes</p> <p>MassHealth may also adjust the benchmark retroactively to reflect other unforeseen events</p>	<p>State sets out “attainment threshold” and “goal benchmark” for each metric</p> <p>HEDIS metrics informed by NCQA Quality Compass benchmarks. Non-HEDIS metrics are benchmarked by EOHHS</p>	<p>Historic TCoC is trended “between the baseline period and the Performance Year” based on the historical costs, recent risk scoring/financial information, as well as exogenous considerations for all ACO-eligible members in the rating category</p>	<p>Minimum Savings Rate: 2% of TCoC benchmark</p> <p>Maximum Performance Limit: Upside/ downside: 10% of TCoC benchmark</p>	<p>For Shared Savings:</p> <ul style="list-style-type: none"> • If ACO has savings <=3% of TCoC benchmark: <ul style="list-style-type: none"> ○ Year 1: 70% of savings ○ Year 2: 85% ○ Years 3-5: 100% • If ACO has savings >3% of TCoC benchmark, additional payment beyond 3% of benchmark: <ul style="list-style-type: none"> ○ Year 1: 35% of additional savings ○ Year 2: 42.5% ○ Year 3: 50% <p>For Losses:</p> <ul style="list-style-type: none"> • If ACO has losses <=3% of TCoC Benchmark: <ul style="list-style-type: none"> ○ Years 1-3: 50% of losses ○ Years 4-5: 100% • If ACO has losses >3% of TCoC Benchmark, additional payment beyond 3% of Benchmark: <ul style="list-style-type: none"> ○ Years 1-3: 25% ○ Years 4-5: 50% 	<p>Admission-level stop-loss: EOHHS shall exclude from TCoC an amount equal to 95% of allowed expenditures as further specified by EOHHS in excess of an \$150,000 per enrollee hospital inpatient admission</p>	<p>If savings are achieved: earned savings multiplied by quality score</p> <p>If losses are calculated: 80% of shared losses are unaffected by quality score</p> <p>20% of losses contingent upon quality (multiplied times 1-quality score)</p> <p>Quality score is calculated by points assigned per quality measure, with an “attainment threshold” representing the point below which the ACO receives no points and an “excellence benchmark” above which the ACO receives maximum points, with a sliding scale between the two values</p>	<p>Primary Care ACO Contract, § 2.1C (page 17): “The Contractor shall obtain and... maintain a Risk Certificate for Risk-Bearing Provider Organizations... as defined by the Massachusetts Division of Insurance... At all times after the Operational Start Date, the Contractor shall have a Repayment Mechanism in an amount equal to or greater than the maximum amount of the Contractor’s potential Shared Losses”</p>

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<p>Minnesota Legacy Integrated Health Partnerships (IHP) Virtual Track (2014 – 2019)^{vii}</p> <p>Risk Type: Upside-only</p> <p>Size Requirement: 1,000 members</p> <p>Scope of Services: Physical health, mental health, pharmacy, home health (excluding personal care assistant services) LTSS, dental, and full mental health optional^{viii}</p>	<p>Retrospective, stepwise using claims and encounter data</p> <p>Members:</p> <ol style="list-style-type: none"> 1. Actively enrolled in a certified Health Care Home; then 2. Number of evaluation and management (E/M) visits with primary care providers (PCPs); then 3. Number of E/M visits with specialty providers 	<p>The state uses ACG risk adjustment methodology, with “category-specific risk weights” based on the aggregate claims of the IHP-eligible population</p>	<p>Baseline TCoC will be calculated on historic data of core services</p> <p>Individual patients with claims in excess of the truncation amount are capped at the rates indicated</p>	<p>First year of program is reporting only; subsequent years’ baselines are the previous years’ performance</p>	<p>Expected trend is “based on the same unit cost and utilization trend rates used to develop the annual expected cost increases for the aggregate [Medicaid] population”</p>	<p>Minimum Savings Rate: 2% of Adjusted Target TCoC</p> <p>Maximum Performance Limit: Upside: Up to 15% of TCoC benchmark</p>	<p>Savings shared equally: 50%</p>	<p>Varies by number of attributed patients:</p> <ul style="list-style-type: none"> • 1,000-1,999: \$50,000 in annual claims per patient • 2,000-4,999: \$100,000 in annual claims per patient • 5,000+: \$200,000 in annual claims per patient 	<p>Gate & ladder methodology, phased in; the greater of achievement or improvement is used</p> <p>Impact of different quality measures depends on track, with hospital vs. clinic measures weighted differently</p> <p><i>Impact of quality scores:</i></p> <p>PY 1: reporting is 25%; no impact on 75%</p> <p>PY 2: results are 25%; no impact on 75%</p> <p>PY 3: results are 50%; no impact on 50%</p>	<p>No reserve requirements for upside-only track</p>

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<p>Minnesota Legacy IHP Integrated Track (2014 – 2019)^{ix}</p> <p>Risk Type: Upside/downside</p> <p>Size Requirement: 2,000 members</p> <p>Scope of Services: Physical health, mental health, pharmacy, home health (excluding personal care assistant services) LTSS, dental, and full mental health optional^x</p>	<p>Retrospective, stepwise using claims and encounter data</p> <p>Members:</p> <ol style="list-style-type: none"> 1. Actively enrolled in a certified Health Care Home; then 2. Number of E/M visits with PCPs; then 3. Number of E/M visits with specialty providers 	<p>The state uses ACG risk adjustment methodology, with “category-specific risk weights” based on the aggregate claims of the IHP-eligible population</p>	<p>Baseline TCoC will be calculated on historic data on the cost of core services^{xi}</p> <p>Individual patients with claims in excess of the truncation amount capped at the rates indicated</p>	<p>First year of program is reporting only; subsequent years’ baselines are previous years’ performance</p>	<p>Expected trend is “based on the same unit cost and utilization trend rates used to develop the annual expected cost increases for the aggregate [Medicaid] population”</p>	<p>Minimum Savings/Loss Rate:</p> <p>2% of Adjusted Target TCoC</p> <p>Maximum Performance Limit:^{xii}</p> <p>Upside:</p> <p>Up to 15% of TCoC benchmark</p> <p>Downside: phases in over three years:</p> <ul style="list-style-type: none"> • Year 1: no downside risk • Year 2: IHP can choose downside risk, with 2:1 savings:risk limits, up to 15% of total benchmark expenditures • Year 3: IHP must have symmetrical risk, up to 15% of total benchmark expenditures 	<p>Details are negotiated with the state, within the following limits:</p> <p>Shared savings/loss rate: Up to 70% of savings/losses to IHP</p>	<p>Varies by number of attributed patients:</p> <ul style="list-style-type: none"> • 2,000-4,999: \$100,000 in annual claims per patient • 5,000+: \$200,000 in annual claims per patient 	<p>Gate & ladder methodology, phased in; the greater of achievement or improvement is used</p> <p>Impact of different quality measures depends on track, with hospital vs. clinic measures weighted differently</p> <p><i>Impact of quality scores:</i></p> <p>PY 1: reporting is 25%; no impact on 75%</p> <p>PY 2: results are 25%; no impact on 75%</p> <p>PY 3: results are 50%; no impact on 50%</p>	<p>Requires Track 2 IHPs to maintain stop-loss insurance, per Minnesota Statute § 256B.0755(e): IHPs must enter into “third-party contractual relationships for the assessment of risk and purchase of stop-loss insurance or another form of insurance risk management related to the delivery of care...”</p> <p>IHPs must also prove to the state that they have the ability to make any shared savings payments for which they might be liable (\$2.5 in 2017 IHP contract)</p>

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<p>Vermont Medicaid Shared Savings Program Track 1 (2014 – 2016)^{xiii}</p> <p>Risk Type: Upside-only</p> <p>Size Requirement: 5,000 members</p> <p>Scope of Services: Physical health (pharmacy, dental benefits, emergency transportation, substance use disorder are optional)^{xiv}</p>	<p>Retrospective, stepwise through 12 month lookback:</p> <ul style="list-style-type: none"> • If patient has claims, look at CPT codes that establish relationship with PCP (provided in standards); • Assign member to provider with most codes; • If tied, assign member to provider with most recent code; • If the patient has no codes, then assign to PCP the member has chosen or through auto-assignment 	<p>CMS-HCC risk adjustment model to calculate member risk scores to address changing case mix</p>	<p>Calculate TCoC for each attributed member over three years (BY1, BY2, BY3), adjust for changes to methodology^{xv}</p> <p>Weight the years:</p> <ul style="list-style-type: none"> • BY1: 10% • BY2: 30% • BY3: 60% <p>Combine to create a blended per member per month (PMPM)</p>	<p>For measures with national benchmarks, use national benchmarks</p> <p>For measures without national benchmarks, use Vermont benchmarks or ACOs' prior performance</p>	<p>Trend forward using the President's Budget trends, 2014-2016</p>	<p>Minimum Savings Rate:</p> <p>2.0% MSR, once MSR is met, ACO is eligible for 25% of savings if savings are between 2-5%. If savings are above 5%, ACO is eligible for 50% of savings</p> <p>Maximum Performance Limit:</p> <p>Upside risk capped at 10% of TCoC benchmark</p>	<p>50% maximum sharing rate</p>	<p>Truncates the expenditures of members whose expenditures exceed the 99th percentile of members; those member's expenditures are truncated so that their total expenditures will equal the value set at the 99th percentile</p>	<p>Gate and ladder methodology: if an ACO gets 55% of eligible quality points, it unlocks shared savings and guarantees 75% of potential savings; the remaining 25% is based on the ACO achieving up to 80% of eligible points</p>	<p>No reserve requirements for upside-only track</p>

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<p>Vermont Medicaid Shared Savings Program Track 2 (2014 – 2016)^{xvi}</p> <p>Risk Type: Upside/downside</p> <p>Size requirement: 5,000 members</p> <p>Scope of Services: Physical health, (pharmacy, dental benefits, emergency transportation, substance use disorder are optional)</p>	<p>Retrospective, stepwise through 12 month lookback:</p> <ul style="list-style-type: none"> If patient has claims, look at Current Procedural Terminology (CPT) codes that establish relationship with PCP (provided in standards); Assign member to provider with <i>most</i> codes; If tied, assign member to provider with most recent code; If the patient has no codes, then assign to PCP the member has chosen or through auto-assignment 	<p>Centers for Medicaid & Medicare Services (CMS)- Hierarchical Condition Category (HCC) risk adjustment model to calculate member risk scores to address changing case mix</p>	<p>Calculate TCOC for each attributed member over three years (BY1, BY2, BY3), adjust for changes to methodology^{xvii}</p> <p>Weight the years:</p> <ul style="list-style-type: none"> BY1: 10% BY2: 30% BY3: 60% <p>Combine to create a blended PMPM</p>	<p>For measures with national benchmarks, use national benchmarks</p> <p>For measures without national benchmarks, use Vermont benchmarks or ACOs' prior performance</p>	<p>Trend forward using the President's Budget trends, 2014-2016</p>	<p>Minimum Savings/Loss Rate: 2.0%</p> <p>Maximum Performance Limit:</p> <p>Upside risk is capped at 10% of TCOC benchmark</p> <p>Downside risk is phased in over three years:</p> <ul style="list-style-type: none"> Year 1: 5% of total benchmark expenditures Year 2: 7.5% of total benchmark expenditures Year 3: 10% of total benchmark expenditures 	<p>60% maximum sharing rate</p>	<p>Truncates the expenditures of members whose expenditures exceed the 99th percentile of members; those members' expenditures are truncated so that their total expenditures will equal the value set at the 99th percentile</p>	<p>Gate and ladder methodology: if an ACO gets 35% of eligible quality points, it unlocks shared savings and guarantees 75% of the potential savings; the remaining quality adjustment proceeds on 5% increments of eligible quality points:</p> <ul style="list-style-type: none"> 35% of points: 70% of payment 40% of points: 80% of payment 45% of points: 85% of payment 50% of points: 90% of payment 55% of points: 95% of payment 60% of points: 100% of payment 	<p>ACOs are required to provide a "Risk Mitigation Plan" that demonstrates the ACO can assume 1% downside risk in PY2 and 5% risk in PY3, which "may... include... stop-loss protection, reinsurance, reserves"</p>

State Program	Attribution Methodology	Risk Adjustment Methodology	Benchmarking – Baseline Cost Calculation	Benchmarking – Baseline Quality Calculation	Benchmarking- Trend Rate	Minimum Savings Rate & Maximum Performance Limit	Maximum Percentage of Savings/Losses	Truncation of Cost	Application of Quality Adjustment	Reserve Requirements
Vermont Medicaid Next Generation ACO Program (2017 – Present) ^{xviii} Risk Type: Upside/downside Size requirement: No size requirement Scope of Services: Physical health	Prospective, stepwise through 24 month (2017-2018) or 30 month (2019) lookback: 1. If patient has claims, look at CPT codes that establish relationship with primary care provider (provided in contract); 2. Assign member to provider with highest qualifying expenditure; 3. If tied, assign member to provider with <i>most recent</i> code	No risk adjustment	Calculate TCOC for each attributed member using most recent Base Year claims and applying a trend factor that combines utilization changes, rate changes, and population adjustment over three years (BY1, BY2, BY3). (Ex: for 2017, used 2015 claims and trend factor for 2013, 2014, and 2015)	For measures with national benchmarks, use national benchmarks For measures without national benchmarks, use Vermont benchmarks or ACO's prior performance	Trend forward using trend factor that combines utilization changes, rate changes, and population adjustment over three years (BY1, BY2, BY3)	Minimum Savings/Loss Rate: None Maximum Performance Limit: <ul style="list-style-type: none"> • 2017-2018: 3% maximum savings/losses rate • 2019: 4% maximum savings/losses rate 	ACO is responsible for 100% of savings/losses within maximum performance limit	No truncation of cost	Quality withhold from PMPM; a proportion of the total withhold is distributed to ACO providers based on quality measure performance; half of remainder is retained and reinvested in Quality Improvement at ACO level, half is returned to the payer	Required letter of credit for 3% of the TCOC portion exposed to risk in 2017 No formal contract requirements from 2018-2019

Discussion of ACO Model Attributes

This section analyzes the 14 ACO model attributes introduced previously and outlined in Table 1; it includes comparisons and considerations across attributes, since many of them are interdependent. States refer to their ACO entities by different names, but for clarity, we will refer to all of them as ACOs, both individually and collectively.

Risk Type

State DRMs generally use one of two types of risk: a shared accountability model or a full accountability model.

- **Shared accountability models.** Most of the DRMs listed above have a shared accountability model, where participants share a portion of financial risk up to a maximum performance limit (also known as a risk cap) with the designated payer (either an MCO or the state). This model allows ACOs and payers to work together toward a common goal, limits the amount of financial risk that ACOs take on, and allows for a smoother transition to greater risk levels. Shared accountability models generally increase their risk level over time, either through increasing the maximum risk percentage or its risk cap. For example, Minnesota's Integrated track adjusts its risk cap over time, as it requires no downside risk in year one, downside risk of at least half of the upside risk (2:1 upside to downside risk) in year two, and up to 15 percent downside risk in year three.
- **Full accountability models.** Massachusetts' full accountability model phases in risk until an ACO reaches full risk in its third year, capped at 10 percent of revenues. Vermont's Next Generation ACO model is also full accountability, as well as Massachusetts' MCO-Administered model and Oregon's Coordinated Care Organization model. All are substantially different than typical Medicaid ACO models, as Oregon's and Massachusetts' MCO-administered models are payer-led models, and Vermont's is an all-payer ACO model. New York has a unique provider-led full risk model—the VBP Innovator Program—which exists separately from its ACO program, although ACOs can participate. If a provider entity is able to meet criteria for "VBP Innovator" designation from the state, all Medicaid MCOs contracting with the Innovator must pass through 90-95 percent of premium, depending on which criteria are met.^{xix}

Key factors to consider when deciding between a shared accountability model and full accountability model are the size, sophistication, and financial viability of the ACOs in the market, which can contribute to the readiness of each organization to manage risk. ACOs that are not ready to take on downside risk can face dire financial consequences if they do so, and they may choose to drop out of a Medicaid ACO program if downside risk is required or if the level of downside risk is too great. States can help ease this transition by moving from: (1) upside-only models to (2) downside models with increasing risk to (3) full risk models, by adjusting key attributes of the model over time.

ACO Size Requirements

All Medicaid ACO models require ACOs to meet a minimum threshold of attributed members in order to participate in the program. This is because a larger population can minimize the impact of random variation in individual patient outcomes on an ACO's total costs and quality metrics, thus helping to determine whether an ACO's cost and quality results are due to improvements in patient care. In cases where there are shared savings, this random variation can result in states paying more savings to ACOs than the ACOs have created through increased care coordination or other delivery system reforms. This is even more important in state DRMs, as ACOs could sustain financial losses unrelated to their activities due to random variation. Most Medicaid ACO models require a minimum of 5,000 attributed members, though some require fewer, and one requires more.

- **Fewer than 5,000 attributed members.** Both Maine and Minnesota allow an attribution threshold of 1,000 in their upside-only models and 2,000 attributed members in their DRMs. This is done primarily to encourage low-volume or rural providers to participate in the program. To mitigate the risk of random variation impacting calculations due to the smaller attributed population size, Maine raises its minimum savings/loss rate for its ACOs with under 5,000 members by 0.5 percent, and Minnesota reduces the claims cap amount to \$50,000.
- **Minimum of 5,000 attributed members.** Most Medicaid ACO models rely on the standard of 5,000 attributed members used by the Medicare Shared Savings Program (MSSP). It is thought that this number of patients is the minimum population necessary to accurately attribute cost and quality improvements to the actions of the ACO. Vermont's Medicaid Shared Savings Program (VMSSP) relies on the 5,000 patient threshold.
- **More than 5,000 attributed members.** While 5,000 is the generally accepted standard for ACO minimum membership, some experts argue that an even larger population (10,000 or even 30,000) is needed.^{xx} Massachusetts requires 10,000 members for participation in its model, as does the Medicare Next Generation ACO model. Both of these models focus on achieving broad population health goals, and having large membership is consistent with this approach. These models are also designed for large organizations or networks to take on significant financial risk that smaller organizations may not be willing or able to absorb.

It is generally accepted that ACOs that serve fewer than 5,000 members have a greater potential for random variations in costs and quality due to a smaller population size. However, in states that have many small or rural providers, it might be necessary to lower this threshold to allow providers to participate. Considerations for avoiding misallocating savings or losses to ACOs as a result of random variation include: raising the minimum savings/loss rate, lowering the percentage of savings/losses allotted, or lowering the risk cap for these ACOs. Alternatively, small providers could join together to form virtual ACO coalitions capable of meeting a 5,000 member threshold.

Scope of Services Included in TCoC

Medicare ACO programs only include physical health services in their TCoC calculations; however, most Medicaid ACO models include services beyond those for physical health.

- **Behavioral health services.** Given the prevalence of behavioral health conditions in the Medicaid population and the importance of behavioral health for health outcomes and overall wellness, most Medicaid ACO programs, and all state DRMs, include these services in their TCoC calculations.
- **Services beyond physical health and behavioral health.** Three of four states DRMs include services beyond physical health and behavioral health in their TCoC calculations. Maine's model includes lab services, pharmacy, and emergency transportation; Minnesota's model includes pharmacy and home health services; and VMSSP model includes dental benefits and emergency transportation, should an ACO opt to include them. Maine, Minnesota, and Massachusetts are considering inclusion of LTSS in their models; Maine and Minnesota have LTSS as an optional model component—though no ACO has opted in to date—and Massachusetts is considering implementation for year three of its program. Minnesota also included dental services as an optional component.
- **Physical health services only.** Vermont's Next Generation ACO model only includes physical health services in its TCoC. Services were aligned in its TCoC between its ACO models to ease the transition from the shared accountability model in the VMSSP to the Next Generation ACO program's full accountability model. The Vermont model believes its ACOs could help manage behavioral health and other services; however, the state did not believe the ACOs were ready to take on full risk.

When deciding whether to include services in the TCoC for a shared savings model, states should consider:

1. The level of integration among ACO providers (e.g., is the physical health provider community coordinating services sufficiently with the behavioral health community?)
2. Whether the ACO should have responsibility over those areas (e.g., should the ACO manage transportation for its patients?)

3. The effect on the rest of the T CoC calculations [e.g., since LTSS costs are very expensive, will including LTSS in T CoC dilute ACOs' ability to earn savings for emergency department (ED) and inpatient diversion?]

These decisions are particularly important for DRMs, as the greater risk for individual organizations may lead ACOs to not participate in models with a scope of services that appear to be out of their control.

Attribution Methodology

Medicaid ACO programs use a wide variety of attribution methodologies. These generally fall into two categories that may also be combined:

- **Retrospective attribution.** The most popular method of member assignment in Medicaid ACO programs. Retrospective models are used largely in upside-only models, though they are also found in some downside risk models. Under this approach, members, including those members added throughout the year, are attributed at the conclusion of a program year based on actual utilization during the program year. The primary benefit of this approach is that members attributed to the ACO are those that it actually served. However, this approach makes it difficult to identify these members during the course of the performance year, and reconciliation of cost and quality metrics generally takes longer than with under other models.
- **Prospective assignment.** In prospective assignment methodologies, members are assigned at the beginning of a program year through patient choice, primary care provider (PCP) selection, MCO assignment, based on prior utilization patterns, or a combination of these approaches. The benefit of this model is that ACOs know which patients they are responsible for at the beginning of the year. However, if patient utilization changes over the course of the year, due to a patient changing PCPs or MCOs, moving to another area, or just going to other providers, the ACO is usually still responsible for this patient's cost and quality. A frequent complaint from ACOs with prospective assignment is that they are unable to contact patients who are assigned to them, and thus, cannot effectively manage their care.

Sometimes states want to align other delivery system initiatives, such as a patient-centered medical homes (PCMH) or health homes programs, with an ACO model and its shared savings program. States that choose this approach typically add a layer to the early part of the attribution process, before other prospective or retrospective attribution occurs. For example, Minnesota's first step in its attribution process relies on the member's attribution to a provider participating in the state's PCMH program. Conversely, some states choose to exclude those members from ACO attribution who participate in other state programs, preferring to let those programs manage those patients.

Most Medicaid ACO models use a combination of retrospective attribution and participation in other state programs in their attribution methodology. However, states incorporating DRMs are increasingly looking to prospective assignment, especially those that encompass PCP selection, as a way to give ACOs more control over managing their patients—something most providers appreciate. When contemplating an attribution methodology, states must consider whether their ACOs will have the capacity to track and manage patients for whom they are responsible under a prospective attribution arrangement, as well as how often the average member switches PCPs or MCOs, or uses multiple providers for care. If much of this is variable, a retrospective model may ensure more accurate attribution than a prospective model.

Risk Adjustment Methodology

States have taken a variety of approaches to risk adjustment in their Medicaid ACO programs. These approaches can be divided into two categories: (1) using a well-established model without modification or (2) modifying a well-established model to better fit a program's requirements. Risk adjustment is essential to an effective ACO model: if members are not scored accurately, cost and quality results could differ across ACOs due largely to differences in the complexity of their patient populations, and perverse incentives may motivate ACOs to avoid high-risk patients.^{xxi}

- **Use a well-established risk adjustment methodology.** Many states use an established risk adjustment model with a proven track record, such as the Centers for Medicaid & Medicare Services (CMS)-Hierarchical Condition Category (HCC) risk adjustment model (Vermont) or the Johns Hopkins Adjusted Clinical Groups (ACG) model (Minnesota). While any established risk adjustment model can be improved, states generally trust these established models and deploy the HCC, ACG, or a similar model.
- **Modify a well-established risk adjustment methodology.** Massachusetts and Maine decided to risk adjust using their own methodologies based on generally accepted models that the states have substantially modified. For example, Massachusetts incorporates social determinants of health in its risk adjustment methodology through a neighborhood stress score developed for its ACO program.^{xxii}

While any established risk adjustment methodology can be improved, testing an unproven methodology as part of an ACO program includes some risk of its own. An inaccurate model could significantly impact ACO performance and patient access. Therefore, if a state sets out to improve an existing methodology, it may be wise to test the model (perhaps in parallel to an established model utilized for cost and quality calculations during the first years of the program or retrospectively versus prior program years) before using it to determine performance.

Benchmarking—Baseline Cost Calculation

Baseline cost calculations determine the cost benchmark for each ACO. Benchmarks are generally calculated based on historical costs and one or more other factors. Listed below are some, not all factors, for states to consider:

- **Historical costs.** All Medicaid ACOs have some measure of historical costs incorporated into their cost benchmark. Like Medicare ACO models, Medicaid ACO models typically look at a three-year period, and some weight the most recent year more heavily. For example, Vermont's Shared Savings Program weighted its members' cost over three years with 60% for the most recent year, 30% for the year before that, and 10% for the first year. Often, these costs can be truncated to remove high cost outliers, discussed in more detail later.
- **Other factors.** If a state wants to adjust a benchmark beyond historical costs, it can consider incorporating other criteria such as weighting for geographic region (like the MSSP does), performance versus peers, or anticipated changes in costs based on ACO activity. Massachusetts' model allows for assumptions pertaining to model performance to be factored into the benchmark. Massachusetts also reserves the right to retroactively adjust a benchmark if "unforeseen events" occur. While no state DRM currently uses an ACO versus ACO cost comparison, such models have been implemented in pay-for-performance and episode of care models. It is not hard to see how such a model could be adapted to a Medicaid ACO model.
- **Upfront payments.** Minnesota's second iteration of its Integrated Health Partnership (IHP) program, IHP 2.0 (began in 2018), like the first, offers two tracks to participating organizations, one of which (Track 2) includes a shared savings component with downside risk. The IHP 2.0 model also includes an upfront, risk-adjusted, population-based payment (PBP). Essentially, the PBP is an upfront payment of a portion of anticipated shared savings for its attributed patients, which is paid on a quarterly basis.^{xxiii} These upfront payments are later factored into the ACO's baseline cost calculation, and therefore, its shared savings and loss calculations. Massachusetts also offers an Accountable Care Partnership track in its ACO program that offers upfront per member per month (PMPM) payments and shared savings/losses, but the ACO is constructed as a provider/MCO partnership rather than a provider-led ACO.^{xxiv}

While states could design a cost benchmark using many different factors, historical cost forms the basis of almost all benchmarks. For instance, a state could potentially incorporate other factors such as anticipated performance changes or geographic factors. However, such adjustments may be unpopular with ACO providers, and leave them wondering whether those changes will disproportionately benefit certain ACOs or provider types. Further, significantly adjusting the cost benchmark methodology at the same time as incorporating downside risk could make ACOs more hesitant to participate in such models.

Benchmarking—Baseline Quality Calculation

In Medicaid ACO models, quality benchmarks are set in a variety of ways, but can generally be grouped into three categories. States could also consider using a hybrid approach that incorporates more than one of these categories:

- **Minimum attainment.** Shared savings/risk models with minimum attainment thresholds use statewide benchmarks that are generally judged in a pass/fail manner, and these benchmarks can be risk-adjusted for the patient population served by the ACO. If the ACO meets or exceeds the statewide target, it receives credit for meeting this milestone and that success is applied to the shared savings/losses. The benchmark is usually calculated based on a statewide average or a low percentage level, for example, above the 25 percent range of statewide performance. Maine uses a minimum attainment approach in its ACO program.
- **Historical performance.** The most common quality benchmarking model used in Medicaid ACO models is historical performance. Similar to historical cost benchmarks discussed above, this model measures past performance during a lookback period for each ACO. The period is often a three-year weighted average, though Minnesota uses a single year lookback period. These models are typically risk-adjusted to reflect the patient population served by the ACO.
- **Tiered performance models.** Some states choose to have multiple benchmarks and tier those targets. For example, Massachusetts establishes an “attainment threshold” and “goal benchmark” for each ACO. ACOs that meet the attainment threshold get points for shared savings distribution, but those that meet the goal benchmark get more points. States using this methodology would still have to use either a minimum attainment and/or a historical performance calculation to set the benchmark.

When considering how to benchmark quality performance for a shared savings/risk model, states can begin by assessing the goals of its program. A minimum threshold model may be appropriate for states that want to focus on cost savings and ensure quality is not decreasing, or for states that want to see low-performing providers improve to a minimum standard. However, such benchmarks may discourage historically low-performing providers from participating or continuously reward high-performing providers even if their quality scores fall. If states want to spur quality improvement for all levels of providers, a historical model or tiered performance model based on historical performance may be a better fit.

Benchmarking—Trend Rate

How cost and quality benchmarks are trended forward over time is a critical element of a shared savings/risk program. Most Medicaid ACO models assume some sort of continuously increasing performance improvement on cost and quality over time. These trends are based on programmatic assumptions about the model, including how much the model is expected to save or improve quality from program inception through a specific timeframe. Other factors that may be incorporated into trend rates include historical performance, national and regional trends, and patient populations.

While there are no distinct options for this particular category, the trend level that states select is extremely important to the overall success of the model. For example, if a state sets the quality trend too high, some ACOs will not be able to achieve their targets over time and may not participate in the program. Conversely, if a quality trend rate is set too low, ACOs may not push themselves as hard to improve quality or lower costs, or may receive savings that do not reflect improved care. Unlike trends related to quality, cost trend rates that are too high may be too easy for ACOs to attain and savings payments may be higher than expected. That said, states transitioning into a DRM may consider adjusting some trend levels as ACOs transition into downside risk to offer a little bit of financial cushion to participants.

Minimum Savings Rate

The minimum savings rate (MSR) dictates the minimum percentage of savings/losses that must be achieved to trigger a payout of savings/losses. If the MSR is not met, savings/losses are not distributed/collected. The MSR is typically determined by an actuarial calculation based on the size of the population served by the ACO, and usually falls between 2-4 percent of revenues. Once this threshold is met, the ACO usually receives/pays “first dollar” savings/losses, meaning that if the MSR is 2 percent and the ACO achieves 2.1 percent savings, the savings are calculated as a portion of the full 2.1 percent, rather than the 0.1 percent above the MSR. While it is possible to have a model without first dollar savings/losses, it may be less appealing to ACOs to join such a program. States have set the MSR in one of two ways:

- **Absolute MSR.** Minnesota has a specific MSR based on population size threshold. ACOs in this model have a 2 percent MSR regardless of size, as long as they meet program size requirements.
- **Multiple MSR levels.** Maine selected two population thresholds to determine its MSR. If an ACO has between 1,000 and 4,999 members, its MSR is 2.5 percent. ACOs with more than 5,000 members have an MSR of 2 percent. This distinction provides Maine’s smaller ACOs and the state with more protection against random fluctuations, and creates more assurance that savings distributed/losses collected are truly deserved. A state could opt for even more detailed tiers; the MSSP model has MSR tiers for every 1,000 members above 5,000 members, and every 5,000 members above 10,000.^{xxv}

Whether a state selects an absolute MSR level or multiple MSR levels largely depends on the desired level of precision. An absolute MSR is straightforward and prevents some random fluctuation. However, if this level is not set high enough, it may not capture all fluctuations from small ACOs. Also, if the level is set too high, larger ACOs may not have a payment applied, even though they have legitimately earned savings or owe due to losses. While the simplicity of the absolute MSR may be appealing, a multiple MSR is more accurate.

Maximum Performance Limit (Risk Cap)

The maximum performance limit rate, also known as the risk cap, determines the uppermost percentage of revenue that ACOs participating in the program will be asked to place at risk. Along with shared savings/loss percentage, this element dictates the full amount of risk the ACO is exposed to. In Medicaid models, risk caps typically range from 5-15 percent of ACO revenue.

- **Phasing in downside risk.** All current state DRMs increase the downside risk cap over time, with most aiming for symmetrical risk (where the upside and downside loss caps are the same) at the end of the process. Often, the upside risk cap is increased as downside risk is incorporated to incentivize participation. Maine’s Track 2 model moves from no downside risk in year one, to 5 percent in year two, and 10 percent in years three through five; VMSSP starts with 5

Downside Risk for Federally Qualified Health Centers (FQHCs)-Led ACOs

FQHC participation in state DRMs is an open question. FQHCs are paid by encounter through the Prospective Payment System (PPS) and federal statute requires FQHCs to be paid no less than PPS rates.^{xxv} Without a waiver of the PPS—a step that no state has taken—FQHCs cannot be at risk for the total cost of care of their patients, below the PPS rate. However, states that make additional payments to their FQHCs in excess of the PPS rate can enter into arrangements where that additional payment is at risk, with a payment floor being the PPS.

While Minnesota and Massachusetts each have a Medicaid ACO led by FQHCs (Vermont also did at one point), there is no specific ACO guidance nor regulations about FQHC-led ACOs in any of these models; only the FQHC-led ACO in Massachusetts is currently accepting downside risk. Some non-ACO programs in Washington, Oregon, and Colorado have incorporated downside risk into their FQHC payment reform models by paying rates above PPS levels and then putting that portion of revenue at risk. California also worked on a waiver to establish a VBP program for FQHCs, but talks stalled after CMS made clear that FQHCs would need to waive PPS entirely, which the FQHCs were not willing to do.^{xxvi}

percent in year one, 7.5 percent in year two, and 10 percent in year three. Minnesota's Integrated approach has no downside risk in year one and offers ACOs the opportunity to select from downside risk models (2-to-1 savings-to-risk ratio or symmetrical risk with higher upside) in year two of its model, before requiring symmetrical risk at up to 15% in year three.

- **Firm downside risk levels with multiple tracks.** States could hypothetically set a static downside risk cap and not transition it over time. Similar to the MSSP model, states could also offer multiple tracks with different risk caps, thus allowing ACOs to select which level of risk they are comfortable with and allowing ACOs that would want to quickly move to advanced risk arrangements, the opportunity to do so.

States look at many factors when determining the risk cap for their programs, including the experience of ACO providers and the level of risk a provider can realistically accept (too high of a maximum performance limit on downside risk could discourage participation). Increasing a downside risk cap over time is a popular approach among states and allows ACOs time to become familiar with downside risk. Multiple tracks could allow ACOs to select the level of risk they are comfortable with, although models like the MSSP ACO tracks are still designed to transition to greater risk over time.

The maximum performance limit is inextricably linked with the maximum savings and loss rates. Options for regulating these models simultaneously are discussed below.

Maximum Savings/Loss Rates

The maximum savings/loss rates determine the percentage of savings/losses the ACO earns/owes for each dollar below the risk cap. In Medicaid ACO models, this amount varies from 50-100 percent of savings/losses, and quality scores are usually factored into the percentage to determine the final rate. A model with maximum savings of 50 percent is typically reserved for upside-only models, and states generally reward ACOs willing to take on downside risk with a higher upside potential. Like the maximum performance limit, states may choose to phase in these percentages over time as ACOs take on more risk, although this approach is less common. Many states, such as Maine and Vermont, have one maximum savings/loss rate per track. Also similar to maximum performance limit, symmetrical savings/loss rates are the typical goal of Medicaid ACO models, although these are likely to be phased in over time as well. Massachusetts has a complex model in which the savings/loss percentage increases over time, but it is also based on the percent of revenue achieved. Details of this model are shown in Table 1.

States have a number of options to narrow or expand the level of risk exposure for ACOs using maximum savings/loss rates in conjunction with the maximum performance limit. The following are some of these options:

- **Low performance limit, low savings/loss rate.** This approach limits the risk for participants in both parameters. While truly low performance limits (five percent performance limit and 50 percent savings rate, respectively) are generally not seen, a state may choose to gradually expose its ACOs to downside risk by using this approach in the initial years of program participation.
- **Low performance limit, high savings/loss rate.** This approach is atypical, but still possible in Medicaid ACO models. A low performance limit and high savings/loss rate create a narrow risk corridor in which ACOs are significantly accountable for a certain portion of savings. Massachusetts' full accountability model has a similar approach for savings/losses above/below 3 percent of benchmark, though additional savings/losses feature a lower savings/loss rate.
- **High performance limit, low savings/loss rate.** A model like this allows sizeable gains/losses in revenue, but limits the risk ACOs are exposed to through that revenue. MSSP Track 1+ is an example of this approach, as are early years of downside risk implemented by Maine and Minnesota's models.
- **High performance limit, high savings/loss rate.** These models approach or achieve full risk. The ACO is taking on a large percentage of upside/downside risk for a large percentage of revenue. Only the most advanced ACOs are willing to tackle this model. Vermont's Next Generation ACO model and, to a lesser extent, Minnesota's Integrated track, are examples of this approach.

States can also choose to allow flexibility for Medicaid ACOs to negotiate the terms of their agreement. Minnesota's Integrated ACOs negotiate a maximum savings/loss rate and maximum performance limit with the state. In the state's most recent IHP 2.0 model (2018-present), more favorable terms can be given if the ACO engages in formal partnerships with Track 1 ACOs or community partners.^{xxvi} States with Medicaid managed care could also allow ACOs and MCOs to negotiate their own terms, as New York does.

Truncation of Cost

Another way states can reduce the risk exposure for ACOs is truncation of cost. In any population there are certain individuals whose proper care requires extreme amounts of resources, such as severely handicapped children or individuals with hemophilia. To avoid penalizing ACOs for caring for these individuals, most states truncate total cost for individual patients. New Jersey, however, recommended a model that did not truncate costs, because it could disadvantage programs that focused on high users. However, in practice, no ACOs in New Jersey earned savings in the program's first year. Some ACOs blamed the lack of truncation as a barrier, since the highest cost patients were very difficult to impact.^{xxvii} Medicaid ACO models that do truncate costs do so in one of two ways:

- **Percentage of high cost patients.** States that choose this method exclude the high end expenditures for the top 1-2 percent of Medicaid members. For example, Vermont's Shared Savings Program truncates the costs of the top 1 percent of members, and calculates their costs at the value of the 99th percentile.
- **Cost cap.** States that choose this method set a dollar threshold for all members and calculate their cost at that level, even if they exceeded it. Maine and Minnesota use this approach and tie it to ACO size. Both states set thresholds at \$50,000 for ACOs that are from 1,000-1,999 members. Maine sets its threshold at \$150,000 for 2,000-4,999 members and \$200,000 for ACOs above 5,000 members, though the state raised these numbers to \$155,000 and \$210,000, respectively, for year five of the program. Minnesota sets thresholds of \$100,000 for ACOs with 2,000-4,999 members and \$200,000 for ACOs at or above 5,000 members. Massachusetts truncates based on individual inpatient admissions, excluding 95 percent of allowed expenditures in excess of \$150,000 per admission.

Application of Quality Adjustment

In shared savings models, as in all VBP models, performance on quality measures is required to be tied to payment in some way. Outside of pay-for-reporting introductory periods, all Medicaid ACO programs require their ACOs to meet a minimum overall quality threshold (which is typically quite low) in order to receive any shared savings. For ACOs that surpass that threshold, states use a number of different approaches, some of which can be combined:

- **Gate and ladder.** Gate and ladder approaches are by far the most popular quality application. After the ACO meets the minimum quality threshold (the gate), it can earn a greater percentage of savings for higher quality scores (the ladder), up to the maximum savings rate. Maine, Massachusetts, Minnesota, and Vermont all employ this model in some way.
- **Phasing in quality scoring.** Often coupled with a gate and ladder approach, some states choose to give ACOs points for reporting beyond their first year, opting instead to set the quality multiplier as a blend of a percentage of pay-for-reporting and its quality score.
- **Quality reducing losses owed.** Some states, as well as the MSSP, allow ACOs that have shared losses to significantly reduce the amount owed if quality scores are improved or exceptional.

While the approach to ACO quality scoring and its application to savings/losses are fairly consistent across programs, the quality benchmarking and levels of attainment that states can set may vary significantly. Choosing how quality applies is certainly important, but benchmarking of quality scores and levels of attainment are typically the key variants between models.

Reserve Requirements

ACOs that participate in state DRMs are universally required to meet some kind of reserve requirement in order to participate in the program. Some approaches used by states include:

- **Re-insurance or stop-loss insurance.** Minnesota requires its Integrated ACOs to purchase stop-loss insurance or another form of insurance risk management to cover potential losses.^{xxviii}
- **Performance bond.** Maine requires its ACOs in downside risk arrangements to post a performance bond covering the full percentage of risk exposure (maximum shared loss percentage × T CoC benchmark number × member months from previous year).^{xxix}
- **Risk mitigation plan.** Vermont requires its ACOs in downside risk arrangements to submit a risk mitigation plan outlining how they will pay for any shared losses, though it does not set or recommend a specific dollar level or approach.^{xxx}
- **Certification.** Massachusetts requires ACOs to obtain a risk-bearing provider organization certificate, including how reserve requirements will be met, through the Massachusetts Department of Insurance.^{xxxi} This amount must be equal or greater than the maximum amount of shared losses. New York uses a similar approach through its application process.^{xxxii}

Maine is the only state that explicitly mentions a dollar amount or specific level of re-insurance an ACO must obtain, but it is conceivable that a state using other methods may take that approach as well.

Conclusion

Many factors contribute to the success of a state DRM. Success depends on creating a model that not only challenges ACOs to improve on cost and quality, but is also realistic in its benchmarking and targets. The balance of the maximum performance limit and savings/loss rates can be adjusted by program year to allow ACOs to phase in higher levels of risk exposure over time, by limiting their losses initially. Despite all the potential technical approaches and variations, a state DRM design must be able to attract ACOs to participate and put them in the best position to improve quality and reduce costs.

As noted earlier, a state considering options for its DRM should think through several key questions such as:

1. How much downside risk can the state reasonably expect providers to take on?

The answer to this question depends on at least four considerations, including the sophistication of ACO providers, ACO size, attractiveness of the program to providers, and whether the state requires ACOs to participate in the program. The state can use a variety of mechanisms—such as cost and quality benchmarking, MSR, maximum savings/loss rate, maximum performance limit, and truncation of costs—to create a palatable level or levels of risk that best positions ACOs to succeed and incentivizes cost and quality improvement.

2. How, if at all, should risk be phased in?

Every existing state DRM has phased in downside risk, to allow the ACOs to become familiar with managing such risk while having relatively limited risk exposure. Generally, states have chosen a three-year timeframe to move toward symmetrical risk. However, a state could also choose to take a cue from the MSSP and have multiple tracks with different risk levels from which ACOs can choose.

3. How should shared losses be calculated to accurately reflect performance?

There is no clear or consistent process for calculating losses across state DRMs; however, accuracy is clearly the goal. Scope of services, risk adjustment, and benchmarking are the key components to calculation and

scoring, although there are many different ways to operationalize these attributes. Generally, states have used pre-established criteria to calculate losses, with modifications such as Massachusetts incorporating social risk factors into its risk adjustment model. Much of the decision-making process depends on program goals, so each state must consider the following:

- a. Does the state want many ACOs, or fewer, more sophisticated ACOs in the program?
- b. Does the state want to set a “high bar” to achieve savings or a “low bar” that may not be as effective but would allow ACOs to reinvest earned savings and build capacity for future efforts?
- c. Are there any specific target populations (e.g., complex populations with substance use disorder, high cost patients) that could be better served through an expanded scope of services or a broader risk adjustment methodology?

The answers to these three questions should be kept in mind when designing a shared losses model.

4. **How can the state design a downside risk model that is palatable enough to keep ACOs participating in the program?**

Ultimately, no matter how well-designed the state DRM, it will fail if ACOs do not participate in the program. For example, the state DRM in Maine and VMSSP did not require participation over time, and no ACO volunteered to participate. One way to avoid this is to require participation or a transition to risk over time. In absence of a requirement, the model must be sufficiently palatable for ACOs to participate. Providers will likely want to participate if there is a successful balance of the attributes discussed in this technical assistance resource in a way that assures accuracy, addresses program goals, incentivizes good care, and provides significant benefits to the ACO, MCO, state, and patients.



Additional information on the Value-Based Payment and Financial Simulations functional area can be found at <https://www.medicaid.gov/resources-for-states/innovation-accelerator-program/functional-areas/value-based-payment-financial-simulations/index.html>.

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- ⁱ The Center for Health Care Strategies. Medicaid Accountable Care Organizations: State Update. February, 2018. Available at <https://www.chcs.org/media/ACO-Fact-Sheet-02-27-2018-1.pdf>.
- ⁱⁱ Many of these states have had multiple versions of Medicaid ACO programs over the years. To provide the most targeted and helpful information possible, we will present information from Maine's AC program from 2014-present; Massachusetts' Primary Care ACO program from 2018-present; and Minnesota and Vermont's programs from 2014-2017.
- ⁱⁱⁱ Information on Maine Accountable Communities model obtained from Program Resource documents and interviews with state personnel.
- ^{iv} Maine Accountable Communities model, Ibid.
- ^v Information on Massachusetts Primary Care ACO Model obtained from Primary Care ACO Model Contract, available at <https://www.mass.gov/lists/primary-care-aco-model-contract-and-model-appendices>. Additional information obtained from state interviews.
- ^{vi} Massachusetts Primary Care ACO Model, Ibid.
- ^{vii} The IHP programs specified here are the shared savings approaches from 2014-2017. Information on Minnesota's IHP program was obtained from 2014 RFP, model contract, and interviews with state officials. RFP and model contract can be found on Minnesota's IHP webpage, available at <https://mn.gov/dhs/partners-and-providers/grants-rfps/integrated-health-partnerships/>.
- ^{viii} In its 2016 RFP, Minnesota offered IHPs the chance to receive a greater proportion of savings (2:1) if they included LTSS, dental, or full mental health services in its TCoC. In the state's IHP 2.0 model, which began in 2018, there is an option for (2:1) savings ratio with participation in an Accountable Care Partnership (ACP). Full mental health and dental services are now part of the TCoC, and LTSS is excluded.
- ^{ix} Minnesota IHP model, Ibid.
- ^x In its 2016 RFP, Minnesota offered IHPs the chance to receive a greater proportion of savings if they included LTSS, dental, or full mental health coverage in its total cost of care. However, this option was subsequently removed in the state's IHP 2.0 model which began in 2018.
- ^{xi} Minnesota's current model that includes downside risk includes an upfront Population Based Payment, which is factored into shared savings or loss calculations. More information on this program is detailed in the Benchmarking – Baseline Cost Calculation section.
- ^{xii} In Minnesota's IHP 2.0 model (2018-present) Track 2 IHPs enter into downside risk immediately.
- ^{xiii} Information on Vermont Medicaid Shared Savings Program, which ran from 2014-2017, available from "Overview of Shared Savings Programs (SSPs) and Accountable Care Organizations (ACOs) in Vermont." State of Vermont. July 8, 2014. Available at https://healthcareinnovation.vermont.gov/sites/hcinnovation/files/SSP_and_ACO_FAQ_and_Chart_7.8.14.pdf. Additional information was obtained from state resource documents, RFPs, and interviews with state personnel.
- ^{xiv} Vermont listed behavioral health and LTSS services were as "non-core services" that could have been offered, but each year the state explored selected services for incorporation into the ACO, and we were not able to feasibly incorporate them at the time. Additionally, the state did extensive work done from 2016-present on a new payment model for behavioral health services in Vermont, and made the choice as an agency to keep behavioral health services separate from services in the ACO payment model for the time being.
- ^{xv} Vermont changed its Resource Based Relative Value Scale methodology and level of payments during the benchmark period, and so it normalized the claims.
- ^{xvi} Vermont Medicaid Shared Savings Program, Ibid.
- ^{xvii} Vermont changed its Resource Based Relative Value Scale methodology and level of payments during the benchmark period, and so they normalize the claims.
- ^{xviii} Vermont Medicaid Next Generation ACO model from 2017-present, available from "Vermont Medicaid Next Generation ACO Program 2019 Performance". State of Vermont. October 12, 2020. Available at <https://dvha.vermont.gov/sites/dvha/files/VMNG%202019%20Report%20FINAL%2010-12-2020.pdf>. Additional information was obtained from the state resource documents, RFPs, and interviews with state personnel.
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