Addressing Major Drivers of MassHealth Per-Enrollee Spending Growth: An Analytic Review and Policy Options

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Patricia Boozang
Stephanie Anthony
April Grady
Kevin McAvey
Adam Striar
Manatt Health

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Design: Madolyn Allison

Line Editing: Barbara Wallraff

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INTRODUCTION

The Massachusetts Medicaid program, MassHealth, plays a critical role as a source of health insurance coverage in Massachusetts. It covers a broad range of residents of the Commonwealth, including vulnerable populations such as seniors, people with disabilities, and children. It has also become a significant source of coverage for low-income non-disabled adults since the implementation of coverage expansions under the Affordable Care Act (ACA). In total, the program now covers approximately one in four Massachusetts residents.[1]

MassHealth coverage is provided through a number of delivery systems that serve different populations: As of July 2018, seven in 10 members receive care through several programs that deliver benefits through managed care plans, with the remaining three in ten receiving care through the MassHealth fee-for-service (FFS) system.[2,3] Most MassHealth enrollees receive coverage that is at least as generous as typical commercial coverage.[4]

MassHealth has always played a central role in Massachusetts' progressive health care reform efforts. Through incremental Medicaid expansions and longstanding support for safety-net providers, the state has used MassHealth to significantly increase insurance coverage among its residents and provide critical support to providers that care for those who remain uninsured. Since 2007, the state has had the highest insured rate in the nation.[5]

While Massachusetts has made considerable advances in health care coverage and access for residents of the Commonwealth, the state has also seen the MassHealth budget grow substantially in recent years. In state fiscal year (SFY) 2016, Medicaid was the largest expenditure category in the state's budget, accounting for nearly 40 percent of total spending and more than 90 percent of all federal revenues received by the state.[6] MassHealth per-enrollee spending grew by 5 percent from 2015 to 2016,[7] exceeding the rate of growth in the commercial market, Medicare Advantage, and Medicare FFS in the state over the same time period.[8] While MassHealth per-enrollee spending exceeded these benchmarks, this growth does reflect significant change in the population covered by the MassHealth program during this time period.[9] Still, spending per enrollee remains high relative to other states: In FY2014, spending per full-benefit enrollee on Medicaid in Massachusetts was the eighth highest in the nation.[10] It should be noted that preliminary data suggest total MassHealth spending decreased 0.2 percent from 2016 to 2017; this was driven in part by a reduction in enrollment and this data does not address per enrollee spending.[11]

The state has sought to address MassHealth spending growth through a number of channels. Chapter 224 of the Acts of 2012 aimed to shed greater light on health care cost growth broadly, and it established a number of studies and organizations such as the Health Policy Commission (HPC) and the Center for Health Information and Analysis (CHIA). Chapter 224 authorized the HPC to establish an annual cost growth benchmark across all government and commercial insurance programs. More recently, the state received authority through its Section 1115 waiver demonstration to establish Medicaid Accountable Care Organizations (ACOs). These are designed to better integrate and coordinate care, hold providers accountable for the total cost of care as well as quality, and in doing so, commit to reducing the MassHealth spending growth trajectory over time. MassHealth is relying on ACOs to invest in care management and IT infrastructure and to deploy value-based payment (VBP) methods across their delivery system partners in order to drive better quality while "bending the cost curve."[12]

The state has also implemented a number of substantial reforms to long-term services and supports (LTSS) to shift service utilization to typically lower-cost community-based settings; expand enrollment in programs that integrate physical health, behavioral health, and LTSS benefits for members; and increase oversight of FFS program spending. The state has also recently considered several aggressive measures through legislation aimed at reducing

pharmacy spending. To ensure the long-term sustainability of MassHealth, it is imperative that the state continue to explore meaningful cost-containment strategies in these and other areas.[13]

This report seeks to inform the discussion of MassHealth sustainability through an analysis of MassHealth spending and enrollment data that differentiates among the major drivers of MassHealth spending growth. These include enrollment-driven growth, per-enrollee spending growth, and spending growth across different categories of health care services. The analysis suggests that the state will increasingly need to focus on controlling per-enrollee spending as enrollment growth tied to previous coverage expansions levels off. In particular, cost-containment strategies targeted to pharmacy and LTSS—which are driving a substantial share of per-enrollee spending growth in MassHealth—will be essential. This report proposes the following series of policy options, informed by other states' strategies and best practices, aimed at addressing these key spending drivers:

POLICY OPTIONS

PHARMACY REFORMS

1. Streamline state procurement rules to allow for more robust supplemental rebate negotiation
2. Analyze the viability of participation in a multi-state purchasing pool
3. Advance additional value-based contracting for Medicaid drugs
4. Expand medication therapy management for targeted high-risk/high-need patients

LONG-TERM SERVICES AND SUPPORTS REFORMS

1. Prioritize, collect, and make public MassHealth community and institutional LTSS data to enhance policymaker and stakeholder understanding of program spending, utilization, and provider reimbursement
2. More aggressively advance value-based payment for LTSS

Each of these policy options is described in greater detail in the body of this report, including a description of available supporting evidence and implementation considerations for the Commonwealth.

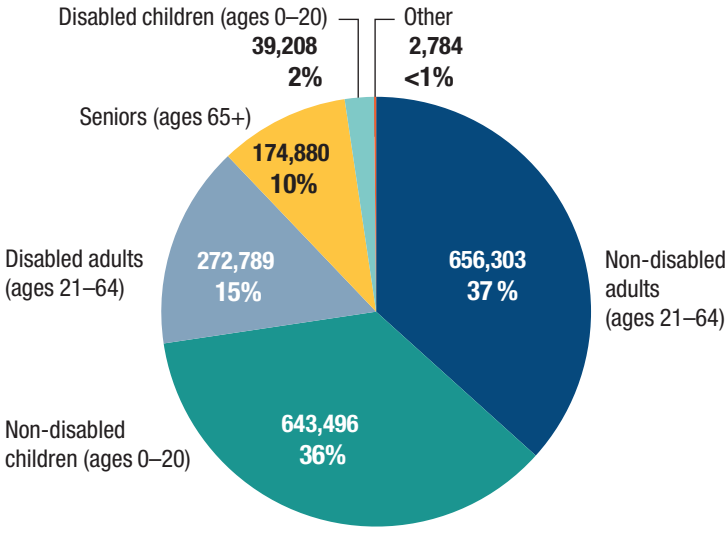
BACKGROUND

OVERVIEW OF MASSHEALTH

MassHealth is Massachusetts' combined Medicaid program and Children's Health Insurance Program (CHIP). It is the second-largest source of health care expenditures in the state after commercial coverage, and it covers approximately 1.8 million Massachusetts residents. MassHealth covers diverse populations in the Commonwealth. Four in 10 MassHealth enrollees are children, and over a quarter of enrollees are seniors and people with disabilities (see Exhibit 1).

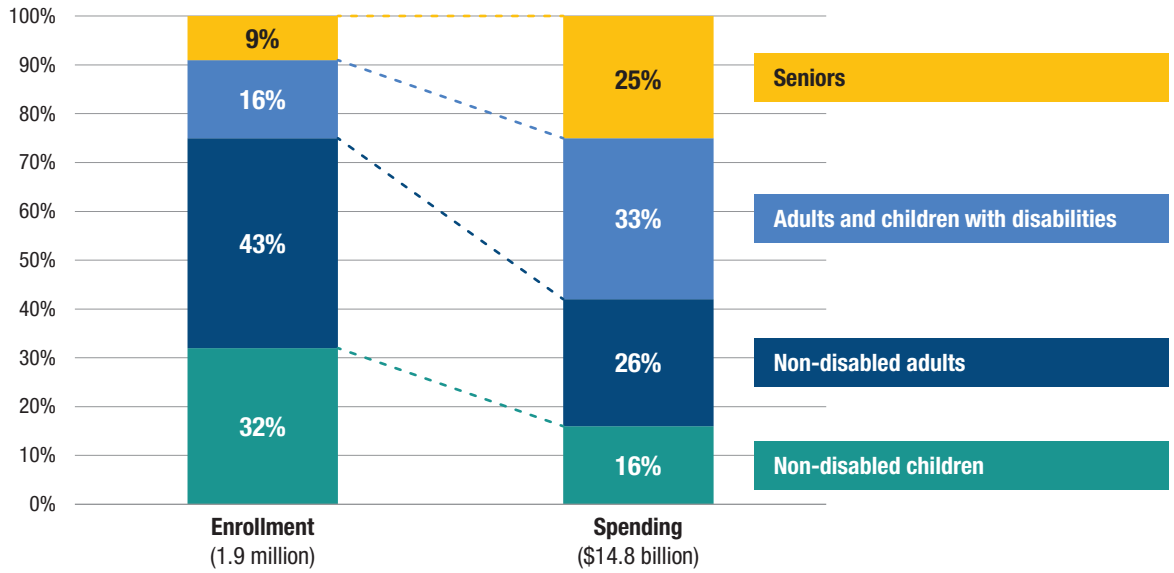
While seniors and disabled enrollees represent a relatively small share of enrollees, they accounted for nearly 60 percent of program spending in FY2016 (see Exhibit 2).

EXHIBIT 1. MASSHEALTH ENROLLMENT BY POPULATION, JULY 2018



Source: MassHealth Caseload Snapshot and Enrollment Report, July 2018.

EXHIBIT 2. DISTRIBUTION OF MASSHEALTH ENROLLMENT AND SPENDING BY POPULATION, 2016[14]



MassHealth is a critical source of reimbursement for health care providers across the state, accounting for 29.2 percent of total health care expenditures in 2016.[15] It plays a particularly important role in the state's LTSS

delivery system, accounting for 51 percent of total patient revenues for nursing homes and 43 percent of revenues for other LTSS.[16] Safety-net hospitals and community health centers that cover primarily low-income patients also rely heavily on MassHealth reimbursement.

MassHealth Programs

Massachusetts residents may qualify for one of six programs under MassHealth, depending on their eligibility category. These include:

- ***MassHealth Standard.*** Provides full health care benefits for parents and disabled adults with incomes below 133 percent of the federal poverty level (FPL), for children ages one through 18 with incomes up to 150 percent FPL, and for pregnant women and newborns up to 200 percent FPL.
- ***MassHealth CommonHealth.*** Provides full health care benefits for certain adults and children with incomes above 133 percent FPL who are eligible on the basis of a disability.
- ***MassHealth CarePlus.*** CarePlus is the state's ACA expansion plan; it provides full health care benefits to most non-disabled adults with incomes below 133 percent FPL.
- ***MassHealth Family Assistance.*** Provides full health care benefits for children of families with incomes between 150 percent and 300 percent FPL and HIV-positive individuals with incomes between 133 percent and 200 percent FPL.
- ***Premium Assistance.*** Provides assistance with premiums and cost sharing for certain individuals with a separate source of insurance coverage, such as employer-sponsored coverage or Medicare.
- ***MassHealth Limited.*** Provides coverage of emergency health care services for individuals who have an immigration status that prevents them from receiving full MassHealth benefits.

Most MassHealth programs pay for a wide range of benefits typically found in commercial plans, including hospital services, physician services, mental health/substance use disorder (SUD) treatment, prescription drugs, and vision/hearing care. They also cover a number of services not typically offered as part of commercial plans, including LTSS, diversionary behavioral health services, and dental services.[17]

In addition to the programs described above, the state's ConnectorCare program is available to individuals with incomes up to 300 percent FPL who purchase private coverage through the Health Connector (Massachusetts' state-based Marketplace). ConnectorCare is funded through the state's 1115 Medicaid waiver demonstration. Its plans offer reduced premiums and cost sharing by supplementing federal advance premium tax credits (APTCs) with state and MassHealth funding for individuals purchasing Marketplace coverage.

MassHealth Delivery Systems

MassHealth administers a number of health care delivery systems that serve different populations. As of July 2018, seven in 10 members were enrolled in managed care plans, with nearly half of those members in ACOs and another 8 percent in the state's Primary Care Clinician (PCC) plan.[18] Members under age 65 qualifying for the MassHealth Standard, Family Assistance, CommonHealth, or CarePlus coverage types may enroll in a provider-led ACO, a MassHealth-contracted private managed care organization (MCO), or the PCC Plan. MassHealth also administers several managed care programs for individuals who are dually eligible for Medicare and Medicaid, including One Care,[19] Programs of All-Inclusive Care for the Elderly (PACE),[20] and Senior Care Options (SCO).[21] These programs consolidate plan functions across Medicare and Medicaid and offer additional benefits to certain populations.

MASSHEALTH MANAGED CARE DELIVERY SYSTEMS

Provider-Led Accountable Care Organizations (ACOs): ACOs are networks of PCPs that coordinate primary care, behavioral health, and pharmacy services for assigned MassHealth members. ACOs partner with either a single MCO network (Model A: Accountable Care Partnership Plan) or with the MassHealth PCC network (Model B: Primary Care ACOs) to provide integrated and coordinated care to members, and are held accountable for total cost and quality of care by the state. MassHealth contracts with 16 provider-led ACOs to serve roughly 853,000 members.

Managed Care Organizations (MCOs): MCOs are private health plans that manage primary care, behavioral health, and pharmacy services for MassHealth members under age 65 who choose to enroll in an MCO. MassHealth contracts with two MCOs to serve approximately 171,000 members. These MCOs also contract with one MCO-administered ACO (Model C) to provide coordinated and integrated care to members.

Primary Care Clinician (PCC) Plan: The PCC Plan is a state-administered primary care case management program that uses a PCP to manage members' medical services. PCC Plan enrollees receive their behavioral health services through a separate behavioral health plan. MassHealth pays PCPs an administrative fee for providing case management services and pays for medical services on an FFS basis. Approximately 135,000 members are enrolled in the PCC Plan.

Senior Care Options (SCO): SCO plans manage comprehensive primary care, dental, behavioral health, pharmacy, LTSS, and social support services for MassHealth enrollees ages 65 and over who are eligible to receive both Medicare and MassHealth benefits (except for a small number of MassHealth-only SCO members). MassHealth contracts with five SCO plans, which serve roughly 56,000 members.

One Care: One Care plans manage comprehensive primary care, dental, behavioral health, pharmacy, LTSS, and social support services for MassHealth enrollees ages 21–64 who are eligible to receive both Medicare and MassHealth benefits. MassHealth contracts with two One Care plans, which serve roughly 21,000 members.

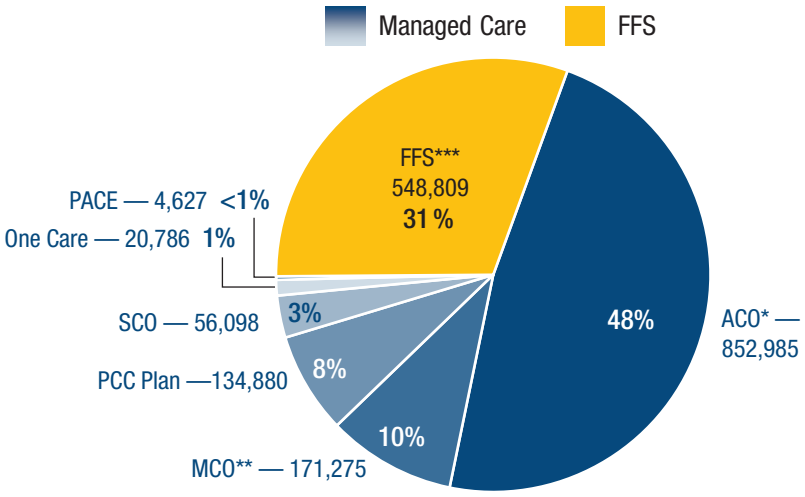
Programs of All-Inclusive Care for the Elderly (PACE): PACE plans integrate primary care, behavioral, LTSS, and social support services for individuals age 55 and over who live in the community. PACE programs are typically based in adult day health centers. Massachusetts has eight PACE plans, which serve approximately 4,600 members.

Source: MassHealth Caseload Snapshot and Enrollment Summary, July 2018.

The remaining 30 percent of MassHealth members are enrolled in FFS. MassHealth FFS includes members with Medicare not enrolled in One Care, SCO, or PACE; individuals with other third-party coverage, such as from an employer; members who receive care in institutions; individuals enrolled in MassHealth Limited; and members enrolled in the MassHealth Premium Assistance Program.[22] See Exhibit 3 for a detailed breakdown of MassHealth enrollment by delivery system.

The state is promoting enrollment in ACOs and MCOs in an effort to improve care coordination and quality of care, and to contain costs. Providers are offered finan-

EXHIBIT 3. MASSHEALTH ENROLLMENT BY DELIVERY SYSTEM, JULY 2018



Source: MassHealth Caseload Snapshot and Enrollment Report, July 2018.

* Includes both Model A (Partnership Plan) and Model B (Primary Care) ACOs.

** Includes enrollment in both CarePlus MCO and Boston Medical Center (BMC) and Tufts Health Public Plans (Tufts) MCOs.

*** Includes seniors not enrolled in SCO, PACE, or Buy-in Aged; Premium Assistance; MassHealth Limited; Third-Party Liability; and certain other groups.

Note: The state considers ACO Model B and the PCC Plan to be managed care, but benefits are administered and claims are paid on a FFS basis by the state (rather than an MCO) in these delivery systems. In the data analysis section, PCC data are often grouped with FFS data for this reason.

cial incentives to participate, and members receive access to more robust care management and care coordination services and supports.[23] For more information, see the Blue Cross Blue Shield of Massachusetts Foundation's recent publication *What to Know About ACOs: An Introduction to MassHealth Accountable Care Organizations* (available at https://bluecrossmafoundation.org/publication/what-know-about-acos-introduction-masshealth-accountable-care-organizations).

ROLE OF MASSHEALTH IN MASSACHUSETTS HEALTH CARE REFORM

MassHealth has long played a central role in Massachusetts' progressive health care reform efforts. Through incremental Medicaid expansions and longstanding support for safety-net providers, the state has used MassHealth to significantly reduce the rate of uninsurance among its residents and provide critical support to providers who care for those who remain uninsured. Critical milestones over the history of MassHealth include:

- ***Medicaid Coverage for Children.*** The state established the Children's Medical Security Plan in 1993 and gradually expanded eligibility to include most children up to age 19 living in families that were not eligible for Medicaid. Following the passage of federal legislation establishing CHIP in 1997, the state opted to establish a combination CHIP, which further expanded coverage for children and provided substantial new federal funds to the state.[24]
- ***MassHealth 1115 Waiver Demonstration.*** In 1997, the state first implemented the MassHealth Section 1115 waiver demonstration, which was a significant step along the road toward broader coverage expansions in the state. Through the waiver, MassHealth expanded Medicaid eligibility on the basis of income to certain categorically needy individuals, including pregnant women, parents and caretakers, children, and individuals with disabilities; and non-categorically needy individuals, including unemployed adults and individuals with HIV. It authorized the Insurance Partnership program to provide subsidies for small employers to purchase private coverage. Additionally, a 2005 amendment to the demonstration established the Safety Net Care Pool, which shifted funding for institutional uncompensated care to an insurance-based model.[25]
- ***Chapter 58 of the Acts of 2006.*** In 2006, Massachusetts enacted landmark legislation to achieve universal health care coverage in the state by creating a seamless and affordable coverage continuum between Medicaid and a subsidized individual insurance market, while maintaining significant support for safety-net providers. The law expanded MassHealth eligibility levels, established subsidies for individuals to purchase private health insurance coverage through the Health Connector, and established other mechanisms for small businesses and young adults to access affordable insurance coverage.[26] The law, which became the model for the ACA, also instituted a number of reforms to maintain a stable individual insurance market.[27] Chapter 58 resulted in historic coverage gains and reduced the uninsured rate in Massachusetts to a nationwide low. In 2006, prior to Chapter 58 reforms taking effect, the state's uninsured rate was 9.6 percent, the eighth-lowest rate in the nation. By the end of 2007, the number had fallen to 4.9 percent, the lowest rate in the nation.[28]
- ***ACA Coverage Expansions.*** As authorized under the ACA, Massachusetts elected to expand Medicaid eligibility to all individuals with incomes under 133 percent FPL. Additionally, the state established the ConnectorCare program, which provides MassHealth-funded state subsidies in addition to federal APTCs for individuals with incomes between 133 percent and 300 percent FPL to purchase Marketplace coverage.[29]

In recent years, the state has increasingly shifted its focus to containing MassHealth program spending while maintaining the state's long record of offering insurance coverage and robust protections to low-income and other vulnerable individuals. Key efforts include:

- ***Chapter 224 of the Acts of 2012.*** The state's initial push toward cost containment following coverage expansions under Chapter 58 culminated with Chapter 224 of the Acts of 2012, which sought to increase transparency of provider price variation and limit health care cost growth across public and private payers through a number of measures, including:
  - Establishing the HPC, a quasi-independent entity responsible for establishing an annual cost growth benchmark and monitoring progress against it.
  - Establishing CHIA, an independent state agency charged with compiling the state's annual cost trends report, maintaining the state's All-Payer Claims Database (APCD), and collecting extensive data from providers and health plans.
  - Mandating and providing incentives for wider adoption of alternative payment methodologies in MassHealth and among private payers.
  - Establishing studies, commissions, and task forces that examine health care spending, including the Behavioral Health Integration Task Force, Public Payer Commission, Price Variation Commission, and the Pharmaceutical Cost Commission.[30]
- ***ACO Program.*** In March 2018, the state launched its new ACO program, which was approved through its most recent Section 1115 waiver extension. The vision for the development of the ACO program is to ensure a strong focus on care delivery, with particular efforts to improve care coordination and integration for members. The objective is that over the long term, these changes and improvements, coupled with modifications to the payment structure, will mitigate the upward health care cost trend. ACOs will be held financially accountable for the total cost of care for their enrollees, and the state has agreed to a target of a 2.1 percent reduction in per member per month (PMPM) spending off an alternative "without waiver" PMPM trend rate developed by the federal government for the ACO-enrolled population by year five of the program.[31,32] ACO payments will also be tied to quality, and ACOs will be required to contract with community partners (CPs) to provide robust care management for individuals with complex behavioral health and LTSS needs. The waiver extension also included a new Delivery System Reform Incentive Payment (DSRIP) program, which will permit the state to invest $1.8 billion of federal and state dollars to support the development of ACOs, CPs, and statewide infrastructure such as information technology systems and workforce development.[33]

Continuing to advance the strategies described above will be critical to sustaining a robust MassHealth program over the long term. But the state must also consider ways that spending trends are shifting and consider new strategies that build on existing initiatives in response to the changing face of MassHealth spending growth. This analysis seeks to shed light on what has driven MassHealth spending in recent years and to propose a number of new policy options targeting key areas of growth.

MAJOR DRIVERS OF MASSHEALTH SPENDING

DATA ANALYSIS OVERVIEW

Massachusetts has a wealth of publicly available data on health care spending in the state through sources that include the HPC, CHIA, and the Blue Cross Blue Shield of Massachusetts Foundation.[34] However, there are no recent studies or publicly available information that systematically examines the entirety of MassHealth program spending and the factors driving its growth. For example, CHIA recently published a MassHealth data compilation with SFY2013–2014 breakouts of enrollment and aggregate spending by population group and type of service, but the analysis excludes the large number of enrollees in MCOs and focuses on MassHealth Standard program enrollees in the FFS and PCC Plan delivery systems.[35] And while CHIA publishes spending per enrollee by service category for MassHealth managed care members,[36] a similar analysis is not provided for other program enrollees.

This report builds on these existing analyses by examining spending growth across managed care and the PCC/FFS delivery systems by population group and service category. This analysis also differentiates the share of spending growth that is attributable to enrollment growth versus growth in per-enrollee spending.[37] For the PCC/FFS delivery system, the analysis further decomposes aggregate spending growth by examining the extent to which changes in spending are driven by the size and composition of the population, the share of enrollees using a given service, and average spending per service user.

While the analysis conducted for this report points to particular populations and services that account for a substantial portion of MassHealth spending growth, available data sources do not allow us to isolate additional underlying factors that play a role in that growth. For example, while we observe that average spending per user of home- and community-based services (HCBS), which include home health services, personal care, and adult day health care, is an important contributor to PCC/FFS spending growth, more granular data would be required to understand whether this reflects shifts in the volume and intensity of services, unit prices or payment rates, or some combination of these.

Analyzing the extent to which changing health care needs may be driving observed spending changes within a given delivery system also requires more granular data, as the state continues to move some enrollees with complex health conditions into managed care arrangements while keeping others in FFS. Despite these caveats, there is benefit in supplying enrollees, plans, providers, policymakers, and others with information on the basic components of MassHealth spending growth, providing context for the program changes that will support long-term sustainability of the program for all populations and programs.

SUMMARY OF KEY FINDINGS

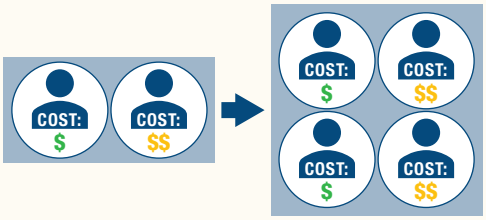
At the most basic level, changes in aggregate MassHealth spending are driven by changes in the number of people enrolled in the program and average spending per enrollee. Factors driving growth in per-enrollee spending include the mix of people enrolled in the program, types of services used, volume or intensity of the services, and prices paid for the services. This report uses available data to differentiate growth in aggregate spending due to enrollment versus spending per enrollee, examining the role of particular populations and services in MassHealth spending over time (see the Appendix for a detailed explanation of methodology).[38]

Key findings from this analysis include:[39]

- **MassHealth aggregate spending growth between 2013 and 2015 was largely attributable to an increase in enrollment driven by the ACA. A substantial portion of this growth reflected temporary MassHealth enrollees.** As of 2016, many of these individuals had transitioned to coverage through the Health Connector, leading to lower overall growth in MassHealth aggregate spending after 2015.[40]
- **With regard to delivery systems, overall PMPM spending for MassHealth benefits provided through the MCO, PCC, and FFS delivery systems remained relatively flat between 2013 and 2015**—likely influenced by significant growth in enrollment of non-disabled adults under the ACA expansion, who had lower than average costs.
- **In the MCO delivery system, the portion of PMPM spending attributable to prescription drugs increased by 40 percent between 2013 and 2016.** There was also a notable uptick in overall PMPM spending in 2016, but data are not readily available on the extent to which this was driven by such factors as the mix of enrollees, the types of services used, and the average spending per user (which in turn reflects service volume, intensity, and price).
- **In the case of PCC/FFS PMPM spending and PCC/FFS aggregate spending growth, LTSS—particularly HCBS—were notable drivers in 2016.** This partly reflects the exit of non-disabled adults with temporary coverage from MassHealth, most of whom were PCC/FFS enrollees. It also reflects the fact that among PCC/FFS enrollees, average HCBS spending per user is growing faster than per-user spending for other services (leading HCBS to account for a larger share of growth). Deliberate efforts by MassHealth to expand access to and utilization of HCBS—with the goal of off-setting utilization of inpatient or other high-cost services and enabling members to age in place rather than needing to enter nursing facilities—have also played a role in its growing share of overall LTSS spending. For MCOs, LTSS is not a driver of spending growth because the plans do not cover these services.[41]
- **Per-enrollee spending growth has consistently driven recent increases in aggregate spending for elderly and non-elderly people with disabilities enrolled in MassHealth.**[42]
  - Among disabled enrollees in the PCC/FFS delivery systems, increases in the share of enrollees using services and average spending per user accounted for more than 60 percent of PCC/FFS aggregate spending growth from 2015 to 2016.
  - Among seniors enrolled in PCC/FFS during this period, an increase in average spending per user was the largest driver of growth.

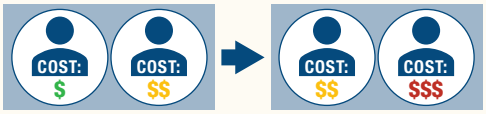
ENROLLMENT-DRIVEN SPENDING GROWTH

An increase in the number of enrollees, holding average per-enrollee spending constant, causes aggregate spending to grow.



PER-ENROLLEE SPENDING GROWTH

An increase in the average spending per enrollee, holding the number of enrollees constant, causes aggregate spending to grow.



Potential drivers of per-enrollee spending growth:

- ***Enrollment Mix.*** Increase in acuity of the average enrollee (i.e., older, sicker patients cause per-enrollee spending to increase, on average).
- ***Types of Services Used.*** Increase in the average complexity of services used by enrollees.
- ***Volume/Intensity of Services Used.*** Increase in the average number of services used by enrollees.
- ***Unit Price.*** Increase in the prices paid for the same set of services.

Overall, this analysis indicates that spending growth tilted heavily toward growth in per-enrollee spending beginning in 2015 to 2016. We believe that this trend will continue as enrollment growth related to state and federal health care reform levels off. It will be critical that future MassHealth reforms contemplate mechanisms for managing per-enrollee spending, with particular focuses on pharmacy and LTSS.

DETAILED ANALYTIC FINDINGS

From 2013 to 2015, a substantial share of MassHealth aggregate spending growth was attributable to non-elderly adults without disabilities (see Exhibit 4), many of whom became eligible for the program for the first time in January 2014 (midway through SFY2014) as a result of the ACA. This group accounted for 55 percent of the increase in total spending ($630 million of an overall increase of more than $1.1 billion) from 2013 to 2014, and 63 percent ($1.2 billion of $1.9 billion) from 2014 to 2015. In 2016, some of these individuals transitioned to Health Connector coverage,[43] leading to a decrease in both MassHealth aggregate spending and enrollment for the non-disabled adult group (see Exhibits 4 and 5).

EXHIBIT 4. MASSHEALTH AGGREGATE SPENDING GROWTH BY MAJOR POPULATION GROUP, 2013–2016 (MILLIONS)[44]

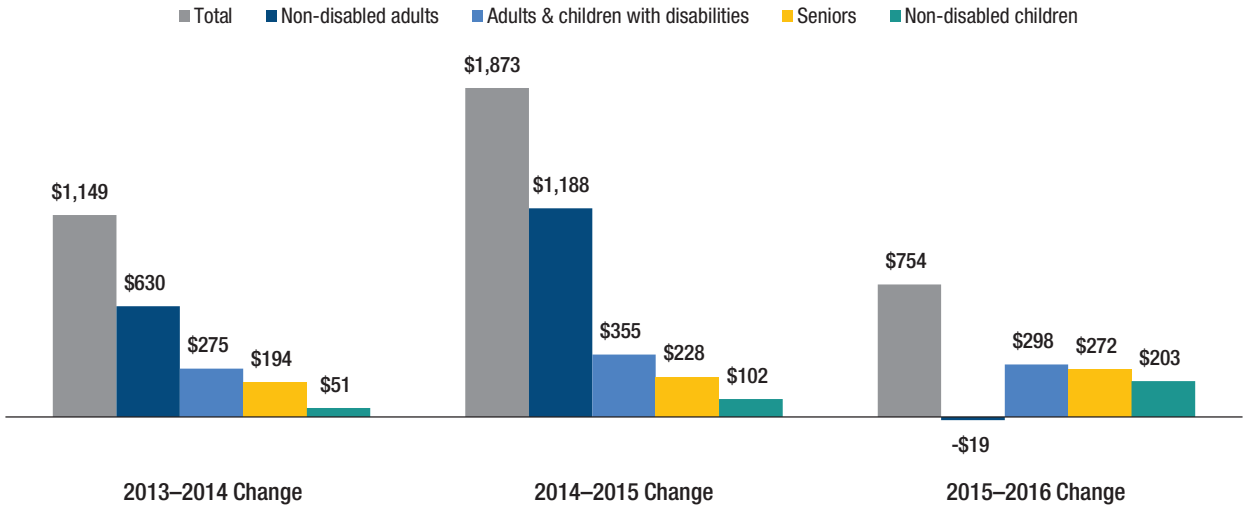
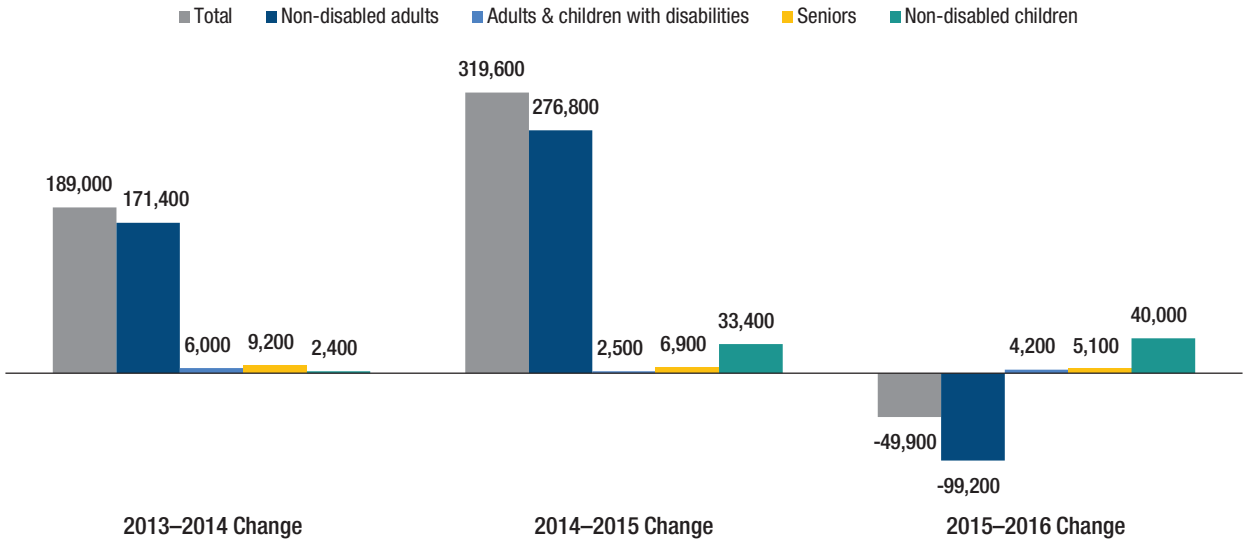


EXHIBIT 5. MASSHEALTH ENROLLMENT GROWTH BY MAJOR POPULATION GROUP, 2013–2016[45]



From 2013 to 2015, MassHealth aggregate spending growth was largely driven by changes in enrollment, in part due to rapid growth in the non-disabled adult population. For example, in 2014, $912 million of the $1.149 billion increase in MassHealth aggregate spending (79 percent) was attributable to growth in the number of people enrolled in the program. In 2016, MassHealth total enrollment decreased—leading spending per enrollee to be the key driver of aggregate spending growth for the program overall (see Exhibit 6).

Drilling down into particular MassHealth enrollee populations and delivery systems sheds additional light on sources of growth. Aggregate spending for people with disabilities, seniors, and non-disabled children has steadily increased since 2013 absent any material changes in benefits and program eligibility levels (see Exhibit 7). However, the contributors to this growth vary:

- For people with disabilities, spending per enrollee has been the predominant factor in spending growth across all years (2013–2016).
- For seniors, enrollment accounted for the majority of aggregate spending growth from 2013 to 2015 but the prime driver shifted to spending per enrollee in 2016.
- For non-disabled children, enrollment was a particularly important factor in 2015 and 2016.
- Aggregate spending decreased for non-disabled adults in 2016, and enrollment was the major contributing factor (see Exhibit 7).

EXHIBIT 6. MASSHEALTH AGGREGATE SPENDING GROWTH DUE TO CHANGES IN ENROLLMENT VERSUS SPENDING PER ENROLLEE, 2013–2016 (MILLIONS)[46]

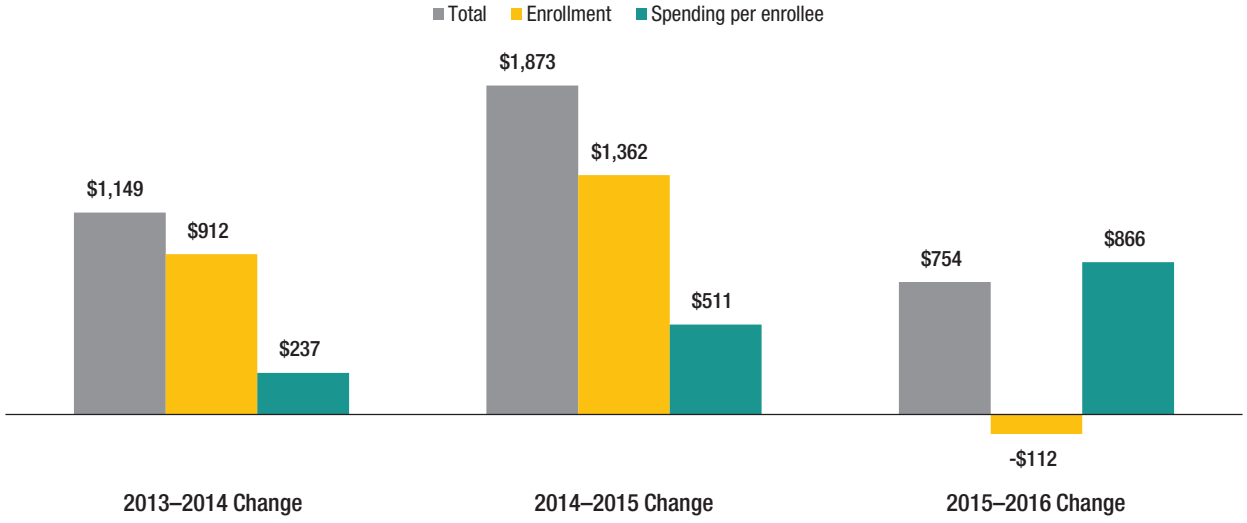


EXHIBIT 7. MASSHEALTH AGGREGATE SPENDING GROWTH DUE TO CHANGES IN ENROLLMENT VERSUS SPENDING PER ENROLLEE BY MAJOR POPULATION GROUP, 2013–2016[47]

	WITHIN GROUP, SHARE OF AGGREGATE SPENDING GROWTH DUE TO ENROLLMENT			WITHIN GROUP, SHARE OF AGGREGATE SPENDING GROWTH DUE TO SPENDING PER ENROLLEE			TOTAL GROWTH (MILLIONS)		
GROUP	2013–2014	2014–2015	2015–2016	2013–2014	2014–2015	2015–2016	2013–2014	2014–2015	2015–2016
Non-disabled children	17%	117%	72%	83%	-17%	28%	$51	$102	$203
Non-disabled adults	105%	91%	2,207%	-5%	9%	2,107%	$630	$1,188	($19)
Adults & children with disabilities	27%	9%	20%	73%	91%	80%	$275	$355	$298
Seniors	86%	57%	36%	14%	43%	64%	$194	$228	$272
Total	**79%**	**73%**	**-15%**	**21%**	**27%**	**115%**	**$1,149**	**$1,873**	**$754**

With regard to delivery systems, growth in aggregate spending for MassHealth benefits provided through MCO, PCC, and FFS arrangements was more moderate in 2016 than in prior years (see Exhibit 8). As noted above, aggregate spending growth between 2013 and 2015 was largely driven by changes in enrollment, while spending per enrollee growth played a bigger role in 2016. Consistent with this finding, overall MassHealth MCO spending PMPM remained flat through 2015—likely influenced by an influx of non-disabled adults. Notably, between 2013 and 2016, the MCO PMPM for prescription drugs increased by 40 percent, from $69 (16 percent of overall PMPM spending) to $97 (22 percent of overall PMPM spending). See Exhibit 9 for more detail.[48]

EXHIBIT 8. MASSHEALTH AGGREGATE SPENDING GROWTH BY DELIVERY SYSTEM, 2013–2016 (MILLIONS)[49]

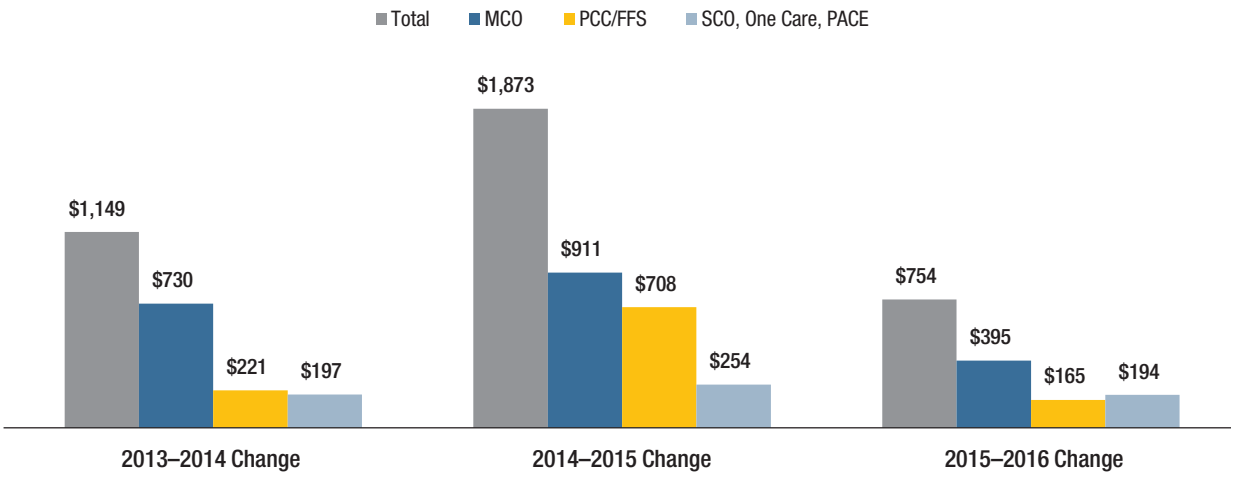
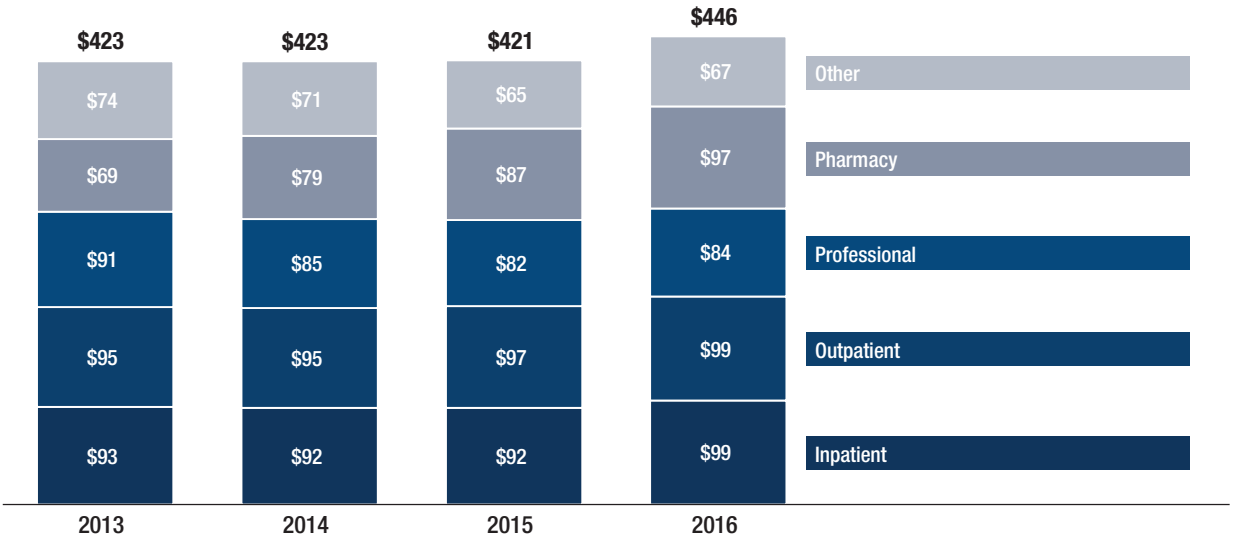


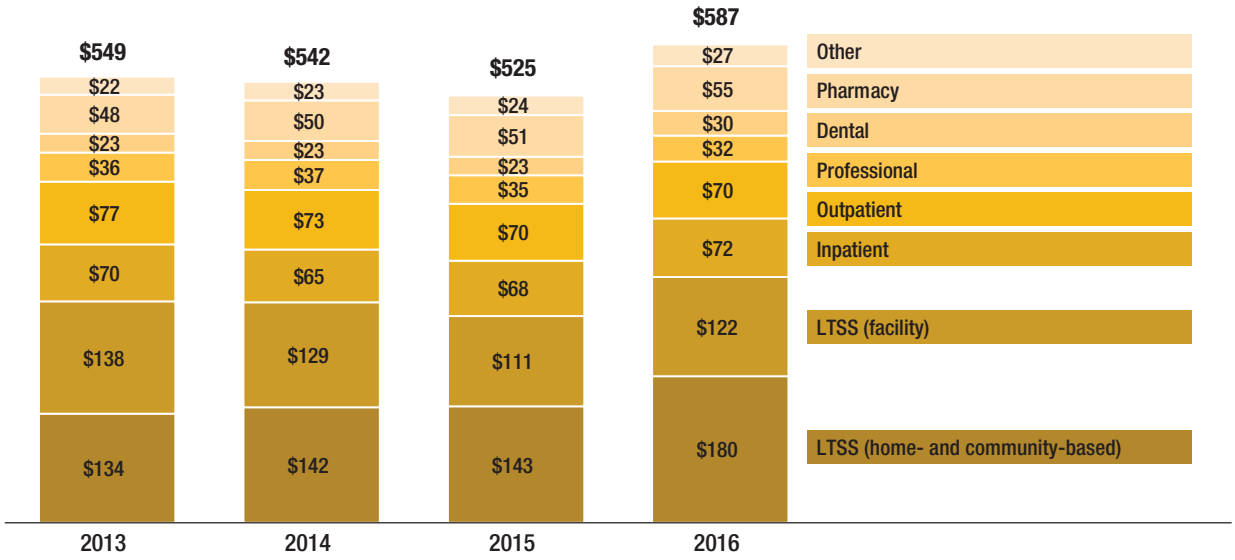
EXHIBIT 9. MASSHEALTH MCO SPENDING PMPM BY SERVICE CATEGORY, 2013–2016[50]



PMPM spending in MassHealth's PCC/FFS delivery systems also experienced an uptick in 2016. As with MCO PMPMs, an influx of non-disabled adults likely contributed to low growth through 2015.[51] Between 2013 and 2016, changes in spending on LTSS were particularly notable. The share of overall PMPM spending in the PCC/FFS delivery systems going to home- and community-based LTSS increased from 24 percent to 31 percent, and

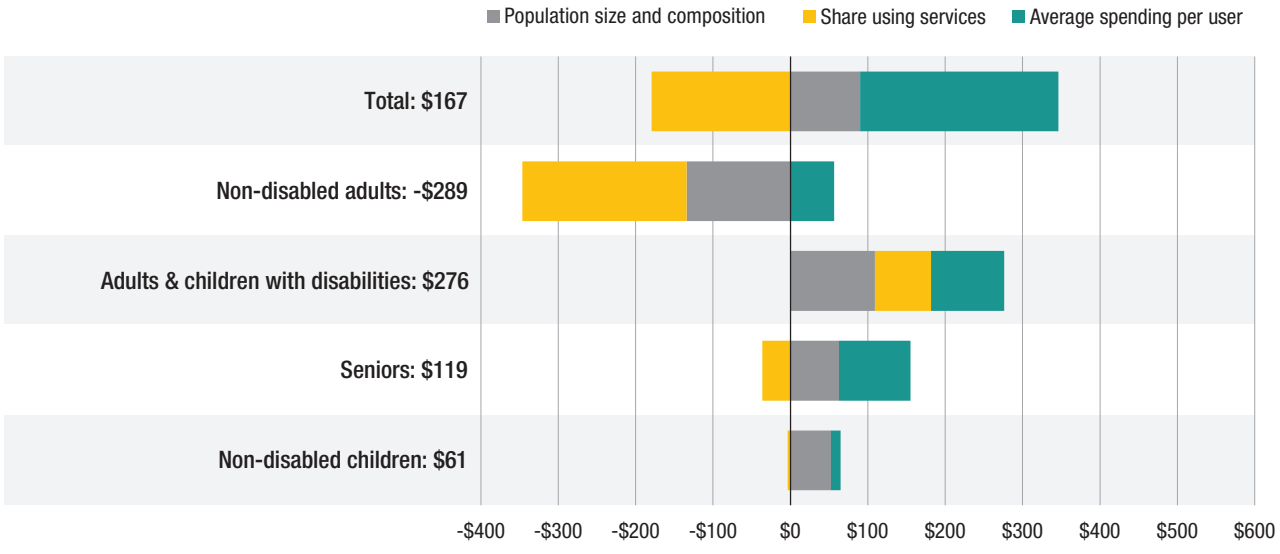
the share going to nursing homes and other facility-based LTSS decreased from 25 percent to 21 percent (see Exhibit 10). While MassHealth also provides LTSS through managed care arrangements (including SCO, PACE, and One Care—see MassHealth Managed Care Delivery Systems on page 5), a breakdown of their spending by type of service is not readily available (see Exhibit 8 for totals).

EXHIBIT 10. MASSHEALTH PCC/FFS SPENDING PMPM BY SERVICE CATEGORY, 2013–2016[52]



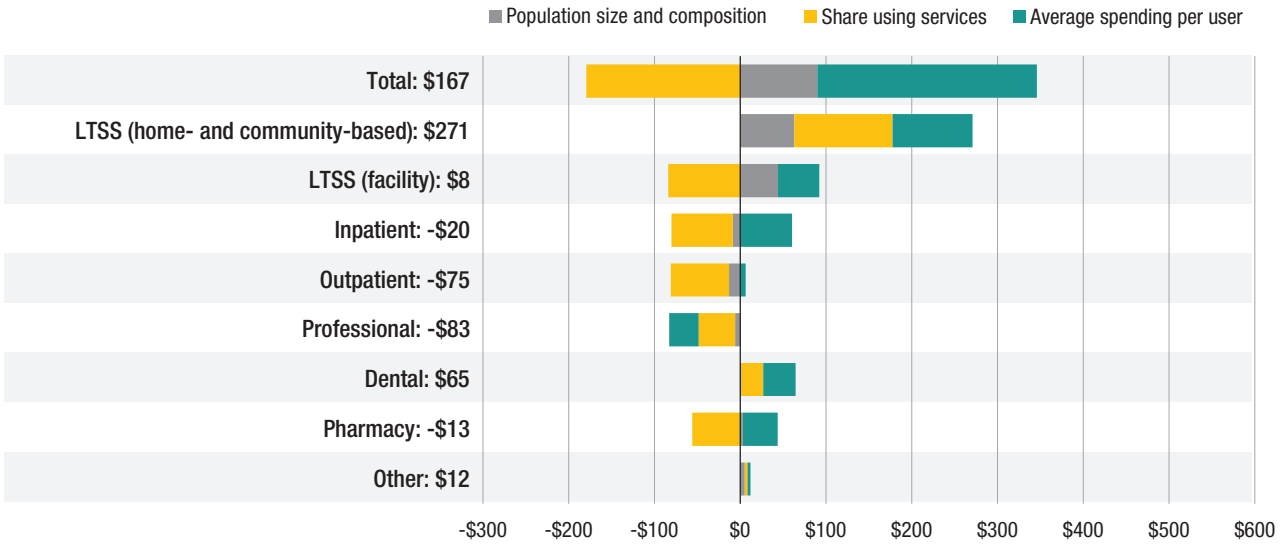
A further examination of growth in PCC/FFS spending indicates that the factors driving spending growth within population groups vary. For example, for people with disabilities, both the share of the population using one or more services and average spending per service user contributed to aggregate PCC/FFS spending between 2015 and 2016. In contrast, the share of seniors using services fell in the PCC/FFS delivery systems during this time period (see Exhibit 11).

EXHIBIT 11. CONTRIBUTIONS TO CHANGE IN MASSHEALTH PCC/FFS SPENDING BY MAJOR POPULATION GROUP, 2015–2016 (MILLIONS)[53]



Similarly, when looking at growth in aggregate PCC/FFS spending by category of service from 2015 to 2016, both the share of enrollees using services and average spending per user contributed to HCBS growth. In contrast, the share of enrollees using institutional LTSS services decreased, leading to a much smaller net increase in spending relative to HCBS (see Exhibit 12). These dynamics are expected, given the state's deliberate efforts to shift LTSS utilization and spending toward community-based services. In the case of HCBS, home health services[54] accounted for the largest share of spending growth from 2015 to 2016 (61 percent), followed by consumer-directed supports[55] (24 percent), and adult foster care/group adult foster care services (8 percent) (data not shown).

EXHIBIT 12. CONTRIBUTIONS TO CHANGE IN MASSHEALTH PCC/FFS SPENDING BY SERVICE CATEGORY, 2015–2016 (MILLIONS)[56]



IMPLICATIONS FOR POLICYMAKERS

This new analysis of available MassHealth data on spending in the MCO, PCC, and FFS delivery systems indicates that spending growth from 2013 to 2016 has shifted substantially from being driven by growth in MassHealth enrollment to being driven by increases in per-enrollee spending: from 2015 to 2016, program spending grew by $754 million even as enrollment fell by nearly 50,000. Behind this growth in per-enrollee spending, pharmacy and LTSS, particularly HCBS, emerge as major spending drivers in MassHealth. These findings are consistent with recent national analyses.[57,58,59]

While the data do not permit a more granular analysis, which would likely shed additional light on these categories of spending growth, we can draw several important inferences from the analysis that informs the proposed policy options described later in this report. It is likely that per-enrollee pharmacy spending growth has been driven, at least in part, by the introduction of new high-cost drugs. In light of this, it will be critical for any pharmacy spending reforms to address prices that MassHealth pays for an otherwise equal bundle of products. Additionally, while growth in HCBS utilization is a logical result of the state's deliberate strategy to expand access to these services, additional insight into the contribution of average HCBS spending per user (which reflects both the intensity of service use and the unit price) to overall HCBS growth is warranted.

POLICY OPTIONS FOR CONTAINING PER-ENROLLEE SPENDING GROWTH

The following sections introduce a range of policy options aimed at further understanding and addressing spending growth in the areas of pharmacy and LTSS, with a particular focus on strategies that will mitigate growth in per-enrollee spending in the key service areas described above. These recommendations include only policy options that will either improve or have no adverse impact on quality of care, access, or affordability for MassHealth enrollees. The following recommendations are informed by a review of the literature, strategies employed by other states, conversations with state officials, and discussions with other subject-matter experts.

MASSHEALTH PHARMACY REFORMS

MassHealth has a long history of aggressively managing its pharmacy program in order to ensure access to needed therapies and to contain program costs. In 2001, the state established a preferred drug list (PDL) for Medicaid drugs (referred to as the MassHealth Drug List), which specifies products that are subject to utilization management controls such as prior authorization, step therapy, and quantity limits. In the first year following the establishment of the drug list, MassHealth estimated that the program[60] resulted in $99 million in cost avoidance. In 2004, the state became an early adopter of supplemental rebate agreements (SRAs), which allow state Medicaid programs to solicit rebates in addition to those mandated under the federal Medicaid Drug Rebate Program (MDRP).[61] This allowed the state to realize savings on a number of costly brand drugs during the mid-2000s. As some of those drugs, including statins and proton pump inhibitors, lost their patent exclusivity in the late 2000s and early 2010s, the state was able to drive additional savings through policies to promote and require the use of generic substitutes.[62,63] In 2009, MassHealth's generic use rate was one of the highest in the nation at 80 percent.[64]

Beginning in 2013, many state Medicaid programs, including MassHealth, began to face a renewed imperative to control pharmacy spending following the launch of several high-cost specialty drugs for treatment of the hepatitis C virus (HCV), including Sovaldi, Harvoni, and Viekira Pak. From 2013 to

CLOSED FORMULARIES IN MEDICAID

A formulary is a list of medications that are approved to be prescribed in a particular health insurance plan or health system. Among the strategies adopted by commercial health insurers to contain rising drug costs are "restricted formularies," which limit approved drugs based on factors including cost and efficacy. Under the MDRP, state Medicaid programs are significantly limited in their ability to implement restrictive formulary designs. While prescription drug coverage is an optional benefit in the Medicaid program, states that cover drugs are obligated to comply with Section 1927 of the Social Security Act (SSA), which requires that states provide coverage for most Food and Drug Administration (FDA)-approved drugs produced by a manufacturer that has entered into a rebate agreement with the federal government. This generally prohibits states from establishing closed formularies, making it difficult for states to drive deep discounts for certain products. This is particularly true for single-source products with patent exclusivity and orphan drugs without competitors. States may restrict access to these products by subjecting them to various utilization management controls, but in general, they have little leverage to drive deep discounts on these products, since manufacturers know that they must ultimately be covered.

In September 2017, the state submitted a proposed amendment to its Section 1115 Medicaid waiver demonstration requesting authority to implement a closed formulary in MassHealth while retaining mandatory federal rebates from manufacturers. On June 27, 2018, the Centers for Medicare & Medicaid Services (CMS) denied this request, stating that it would only consider such a proposal if the state were willing to opt entirely out of Section 1927 of the SSA, thus forgoing all mandatory federal rebates. While the state may wish to further explore this proposal, mandatory federal rebates represent a substantial source of savings to the state, and it is unclear whether the state would be able to negotiate more favorable discounts on its own directly with manufacturers.

Source: Department of Health & Human Services, June 27, 2018. www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/ma/ma-masshealth-ca.pdf.

2014, nationwide Medicaid spending (net of rebates) on outpatient drugs increased from $22.4 billion to $28.0 billion, or nearly 25 percent.[65]

Massachusetts' experience has been consistent with this trend. Gross pharmacy spending in MassHealth (FFS/PCC and MCO, excluding SCO and One Care) increased from $1.3 billion to $1.6 billion, or more than 21 percent, from 2014 to 2016.[66,67] While some of this increase was likely due to enrollment growth in the program as a result of ACA-related coverage expansions, this analysis shows that per-enrollee spending continued to rise during this time as well. In the MCO delivery system, PMPM spending on pharmacy increased from $69 in 2013 to $97 in 2016, or 41 percent, while the PCC/FFS delivery systems saw an increase from $48 to $55, or 15 percent, over the same time period (see Exhibits 9 and 10).

In response to this trend, MassHealth has undertaken aggressive steps to attempt to further curb pharmacy spending in the state. These include:

- ***Expanding the use of supplemental rebates.*** In 2016, the state updated its SRA to provide for supplemental rebate collections for MCO utilization, as authorized by the ACA, and it entered into rebate agreements on a number of new products (this now applies to ACOs as well).[68] As of February 2016, the state had agreements in place for four products; by the time of publication, the number had increased to 22.[69,70]
- ***Holding ACOs accountable for pharmacy spending.*** Under the state's ACO demonstration, which launched in March 2018, ACOs are held financially accountable for the total cost and quality of care delivered to their members. Total cost of care benchmarks and performance calculations include most pharmacy spending, although the state has created exceptions for spending on HCV treatments (such as Sovaldi) and certain other high-cost specialty drugs in order to mitigate excessive financial risk for providers.[71]

During the 2018 legislative session the Massachusetts legislature considered several bills proposing health care reform initiatives, including notable provisions aimed at controlling pharmacy spending. The proposed initiatives were not passed into law by the legislature this session, but included expanding transparency requirements for manufacturers and pharmacy benefit managers (PBMs), requiring pharmacists to notify patients of lower-cost options, and giving the state attorney general authority to mandate participation by manufacturers and PBMs in the state's annual cost trends hearings.[72]

Regardless of the outcome of decisions with respect to these initiatives, Massachusetts could continue to build on its efforts to control pharmacy spending by considering targeted new strategies. The following section outlines several policy options that the state could consider.

MEDICAID DRUG REBATES

Manufacturers that provide drugs to the Medicaid program are required by federal law to give states rebates in exchange for coverage of most products. For brand drugs, the rebate amount is the greater of 23.1 percent of the Average Manufacturer's Price (AMP) or AMP minus best price, plus an additional inflationary rebate. For generic drugs, the rebate amount is 13 percent of AMP (there is no best-price provision for generic drugs). States share in any amounts collected from manufacturers with the federal government based on the state's federal medical assistance percentage (FMAP) plus a federal offset amount established under the ACA, which increased the federal minimum rebate percentage for both brand and generic drugs.

States are also permitted to pursue supplemental rebates on top of the mandatory federal rebates. States are required to share supplemental rebates with the federal government, but these agreements are not subject to the federal rebate offset established under the ACA. Manufacturers have an incentive to provide supplemental rebates to states in order to gain preferred status on a state's PDL. This confers less onerous prior authorization requirements onto these products, allowing prescribers and patients to access them more easily. Currently, 46 states and the District of Columbia have either a single-state or multi-state SRA in place, and 18 of these, including Massachusetts, collect rebates on MCO utilization.

POLICY OPTION 1.

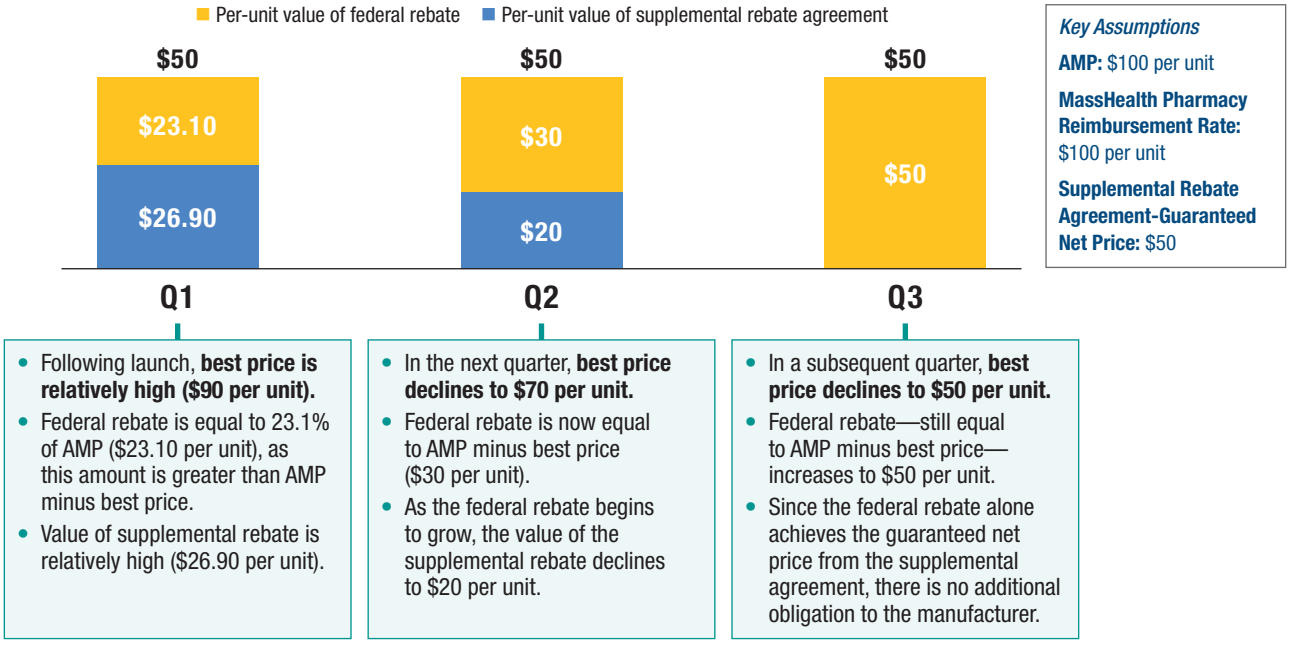
Streamline state procurement rules to allow for more robust supplemental rebate negotiation.

The MassHealth Pharmacy Program has significantly expanded its use of SRAs with manufacturers over the past several years. However, mandatory state procurement processes, which are designed to ensure competition and the integrity of state purchasing decisions, prevent the state from negotiating directly with manufacturers, and they have the effect of limiting MassHealth's ability to maximize manufacturer discounts. Through its FY2019 budget, lawmakers considered a proposal introduced in the Governor's budget that would have exempted the state's supplemental rebate negotiations from the state's competitive procurement rules, but the proposal was ultimately not included in the budget passed by the legislature and then signed by Governor Charlie Baker on July 26, 2018.[73] This proposal or a similar legislative solution could provide new opportunity for the state to generate greater return on its SRAs, and legislators may wish to reconsider the proposal.

Exempting SRAs from Massachusetts' procurement process, effectively permitting direct negotiation with manufacturers, offers MassHealth the possibility of securing larger rebates on a wider range of products. The current procurement process is time-consuming for MassHealth staff and includes layers of review by state fiscal staff, the state Drug Use Review Board, and other government entities.[74,75] Since supplemental rebates are usually established through a guaranteed net price that the manufacturer agrees to provide to the state, speed is critical: with a guaranteed net price, the value of an SRA declines proportionately with any increases to the federal rebate, which occur as manufacturers enter into deeper discount arrangements elsewhere in the market over time.[76] Permitting MassHealth to bypass the procurement process would allow the state to implement SRAs much more rapidly, thereby capturing supplemental rebates when federal rebates are worth the least (see Exhibit 13 for an illustrative example).

EXHIBIT 13. BRAND DRUG REBATE VALUE — ILLUSTRATIVE EXAMPLE OF FEDERAL REBATE "CATCH-UP"

This example assumes the following: Drug A is a brand drug; the guaranteed net price established under a supplemental rebate agreement (SRA) between the manufacturer and MassHealth is $50 per unit; Average Manufacturer's Price (AMP) remains at $100 per unit in all quarters; the amount reimbursed by MassHealth to retail pharmacies (i.e., ingredient cost plus dispensing fee) is $100 per unit in all quarters; and there is no inflationary rebate. Massachusetts is required to share any federal and supplemental rebates that it collects with the federal government at the state's regular federal match rate, subject to the ACA federal rebate offset; this example depicts only total rebate value (i.e., combined federal and state share).



SUPPORTING EVIDENCE

There is limited evidence of a state streamlining procurement rules for the purpose of negotiating supplemental rebates. However, it is reasonable to expect that the state would generate savings in such a scenario. The pharmacy program would be able to accept a greater number of discounts offered by manufacturers, which previously would have been required to go through the procurement process, thus delaying the collection of supplemental rebates.

IMPLEMENTATION CONSIDERATIONS

As noted above, exempting SRAs from Massachusetts' competitive procurement requirements will require legislative change. The state contemplated making such a change in early versions of its FY2019 budget legislation, but the provision was ultimately left out of the enacted version.

This proposal is likely to have the biggest impact on manufacturers and state staff responsible for negotiating rebate agreements. And while pharmacy program staff will likely be required to spend additional time analyzing and negotiating rebate agreements, they will be reallocating time previously spent negotiating the state's procurement process.

POLICY OPTION 2.

Analyze the viability of participating in a multi-state purchasing pool.

While MassHealth has aggressively pursued supplemental rebates in recent years, the relatively small population of the state may be limiting its ability to negotiate deeper discounts from manufacturers. Multi-state purchasing pools can drive additional savings by expanding the pool of covered lives on whose behalf the states are negotiating. They also provide states with access to a wide range of pre-negotiated contracts, which states may or may not accept but which would be burdensome for states to negotiate on their own. This cuts down on administrative costs associated with procuring rebates and increases the states' return on investment.

However, as described above, Massachusetts' competitive procurement requirements, left unchanged, may limit the potential benefits of joining a multi-state purchasing pool, as MassHealth is currently required to individually procure each agreement negotiated by any purchasing pool. Permitting MassHealth to bypass these requirements would allow the state to maximize the number of SRAs in which it is able to enter, thereby enhancing the viability of joining a purchasing pool and maximizing savings.

MEDICAID DRUG PURCHASING POOLS

There are currently three primary multi-state drug purchasing pools focusing on Medicaid drug purchasing: the National Medicaid Pooling Initiative, which includes 10 states plus Washington, DC[1]; the Top Dollar Program, which currently includes six states[2]; and the Sovereign States Drug Consortium, which currently includes 12 states.[3] There are also smaller pools that combine non-Medicaid purchasing and work with entities other than states.[4] Additionally, in 2015, 25 states entered into a separate bulk purchasing agreement for high-cost hepatitis C products.

1 AK, DC, KY, MI, MN, MT, NH, NY, NC, RI, SC
2 CT, ID, LA, MD, NE, WI
3 DE, IA, ME, MS, ND, OH, OK, OR, UT, VT, WV, WY
4 The Northwest Prescription Drug Consortium (NPDC) and the Minnesota Multistate Contracting Alliance for Pharmacy (MMCAP)

Source: National Conference of State Legislatures, "Pharmaceutical Bulk Purchasing: Multi-state and Inter-agency Plans," June 2018. Available at http://www.ncsl.org/research/health/bulk-purchasing-of-prescription-drugs.aspx.

SUPPORTING EVIDENCE

There is some evidence around savings the state should expect if it were to join a purchasing pool. Magellan, a PBM that operates two purchasing pools—Top Dollar Program (TOP$) and National Medicaid Pooling Initiative (NMPI)—reported in 2016 that states participating in its purchasing pools should expect to see increases in supplemental rebate revenue of 3 percent to 6 percent, on average. Sovereign States Drug Consortium (SSDC) re-

ported that members should expect to gain 4 percent to 5 percent of their gross pharmacy spend in supplemental rebates.[77] Other states similar in size to Massachusetts have reported FFS system savings of $1 million to nearly $30 million as a result of joining these pools.[78]

Preliminary analysis by the state suggests that a purchasing pool may not be a promising cost saving strategy here. However, this could change over time, particularly if the state were to revise its procurement rules, and the option should continually be considered and evaluated.[79]

IMPLEMENTATION CONSIDERATIONS

A decision to join a multi-state purchasing pool should come in light of a thorough analysis of potential costs and benefits. While pricing specifications are usually proprietary, MassHealth previously explored the potential costs of joining a pool and reported that membership in the SSDC would require a one-time accretion fee of $12,000 and an annual membership fee of $20,000.[80,81,82] In addition to membership fees, the state would need to consider whether the cost/benefit calculus would change based on potential changes to state procurement rules.

This proposal is likely to impact manufacturers and state staff. Manufacturers would have to shift rebate negotiations from state staff to pool administrators, and state staff would need to spend additional resources analyzing and examining potential savings associated with participation.

POLICY OPTION 3.

Advance additional value-based contracting for Medicaid drugs.

Health care finance has steadily shifted away from payment based on volume toward rewarding value. However, pharmaceutical reimbursement, due to a confluence of legal and practical considerations, has lagged other service payment models in this respect. There has been some progress in recent years in developing limited value-based payment (VBP) arrangements for drugs, and the Centers for Medicare & Medicaid Services (CMS) is actively considering a regulatory framework that would make these types of arrangements more workable for state Medicaid programs. Additionally, MassHealth already has taken significant steps toward holding ACOs accountable for pharmacy spending by including most of such spending in the total cost of care calculation.

POTENTIAL MODELS OF VALUE-BASED CONTRACTS FOR DRUGS

- ***Outcomes-based contracts.*** Such arrangements are the most common form of value-based drug contracts and have been implemented by several commercial insurers across a handful of products. These arrangements condition payment on achievement of an observed clinical outcome and generally require the purchaser to analyze relevant data to determine payment adjustments. Within this model category, there are several variations, including:
  - ***Milestone payment.*** The payer reimburses only a portion of the price of the drug upfront, and the remainder of the price is paid only if the patient achieves certain clinical outcomes.
  - ***Return payment.*** The payer reimburses the entire price of a drug upfront but requires that the manufacturer return some or all of the payment if certain clinical outcomes are not achieved.
- ***Indication-specific pricing.*** These arrangements are much less common but hold promise in that they do not require real-time outcome measurement. Indication-specific pricing arrangements provide differential reimbursement for a product depending on the prescribed indication or the population receiving the drug, with prices generally being established based on independent assessments of clinical value. Many products are indicated for multiple diagnoses but not equally effective in treating each of them. This type of arrangement could allow the state to create better alignment between reimbursement and clinical value.

Source: Institute for Clinical and Economic Review (ICER), "Indication-Specific Pricing of Pharmaceuticals in the United States Health Care System—A Report from the 2015 ICER Membership Policy Summit," March 2016. Available at https://icer-review.org/wp-content/uploads/2016/03/Final-Report-2015-ICER-Policy-Summit-on-Indication-specific-Pricing-March-2016_revised-icons.pdf.

Despite some progress, there remain significant information gaps around what types of pharmacy VBP arrangements would work best for the Commonwealth and in what circumstances. In light of recent trends, MassHealth could consider commissioning a robust analysis of therapies for which outcomes-based contracts would drive additional savings to the program. Where the state believes there are opportunities for such arrangements, it would then need to enter into conversations with CMS in order to clarify CMS's position on a number of regulatory and operational considerations.

There remain a number of obstacles to overcome before outcomes-based contracting for drugs can become more widespread in the Medicaid program. However, CMS has indicated a willingness to explore such arrangements as a potential solution to excessive drug spending. In 2016, CMS issued guidance clarifying for manufacturers a number of legal and operational issues and encouraging state Medicaid programs to consider VBP arrangements for certain high-cost treatments. The guidance indicated that to the extent VBP arrangements in Medicaid are made pursuant to a CMS-approved SRA, such an arrangement would be excluded from best price (discussed in greater detail below).[83] CMS has also stated that it is open to working with manufacturers on developing a value-based contracting template in Medicaid.[84]

Spark Therapeutics has submitted an outcomes-based payment VBP proposal to CMS for Luxturna, a gene therapy designed to treat hemophilia, which would involve reimbursement in installments and only upon achievement of specified clinical outcomes.[85] Most recently, CMS announced in June 2018 that it had approved a first-of-its-kind SRA for Oklahoma's Medicaid program that will allow Oklahoma to include value-based contracting terms into its SRAs. However, to date few specifics are known around payment terms and other details of the agreement.[86]

SUPPORTING EVIDENCE

There is currently little evidence around the effectiveness of VBP arrangements for drugs either in the Medicaid program or elsewhere, given the nascent stage of their development. Thus, an analysis of the MassHealth Drug List will be essential in identifying products that are well suited to outcomes-based or other value-based contracting arrangements.

IMPLEMENTATION CONSIDERATIONS

Value-based contracts for pharmaceuticals in Medicaid have been slow to develop for a number of reasons. MassHealth would need to grapple with these challenges before proceeding with the development of any such arrangements. Notable challenges to value-based contracting in Medicaid include:

- ***Operational challenges.*** Outcomes for many diseases are difficult to measure and may only manifest over the long term. Additionally, many value-based arrangements require considerable real-time data analytic capacity in order to appropriately measure outcomes, capture the clinical indication associated with each prescription, and direct payments appropriately. Massachusetts would need to enhance its analytic and outcome-measurement capacity in order to make broader use of these arrangements feasible.[87]
- ***Rebate timing implications.*** Federal law generally requires that manufacturers pay rebates within 30 days of the drug being dispensed and paid for, which presents a challenge under the "milestone" model since manufacturers may be required to pay the entire rebate upfront without receiving the full payment amount until clinical outcomes are observed.
- ***Average Manufacturer's Price (AMP) implications.*** Value-based arrangements could potentially impact the AMP calculation for a drug, particularly where the arrangement involves withholding upfront payment. Since rebates under the MDRP are calculated based on AMP, value-based arrangements that reduce the AMP of a

particular drug would decrease the manufacturer's initial rebate liability. Massachusetts could solve this issue by working with manufacturers to estimate AMP under the assumption that clinical outcomes will be achieved, which would require the manufacturers to pay the full expected rebate upfront. In cases where patients do not respond to treatment and the state withholds payment, the state would likely need to refund some or all of the rebate paid by the manufacturer, since it would have been paid based on a higher estimated AMP.

CMS has yet to weigh in on many of these issues, and before the state enters into VBP arrangements, it will need to seek clarification from CMS on how the arrangement would affect AMP, rebate payment, and Medicaid best price. This will be critical for providing assurances to manufacturers around reasonable levels of financial risk and ensuring the state has some level of certainty around rebate collection.

Value-based arrangements would likely have the biggest impact on manufacturers and state pharmacy program staff. Manufacturers and state staff will need to negotiate terms of contracts and reach agreement with CMS. The state will also need to revise its rebate invoicing methodology to conform with any new contract terms.

POLICY OPTION 4.

Expand medication therapy management (MTM) for targeted high-risk/high-need patients.

Care fragmentation, pill burden, regimen complexity, and a wide range of other factors can undermine medication adherence, particularly for individuals with complex health care needs who face many challenges related to maintaining an optimized medication regimen. These challenges include poor medication adherence, duplicative or unnecessary prescriptions across multiple providers, or unmet medication-related needs. Unaddressed, these challenges can lead to poor quality of care (e.g., lack of symptom improvement and chronic condition management), patient safety concerns (e.g., potentially dangerous drug interactions), and increased health care expenditures (e.g., unnecessary/duplicative prescriptions and other avoidable health care utilization from unmanaged conditions).[88] Medication therapy management (MTM), an approach that involves formalized collaboration between a patient's prescribers and a pharmacist, can help alleviate some of these challenges, potentially improving outcomes for complex patients and generating savings for the Commonwealth.

MTM consultation typically includes:

- A review by a patient's pharmacist of all prescribed medications, over-the-counter products, and any other nutritional or therapeutic supplements.
- Collaboration between the patient and their health care providers to understand the patient's current medication use and to establish a plan of action to address the patient's medication-related needs going forward.
- In-depth consultation with patients and family members/caregivers about medication-related challenges and steps to achieve proper adherence.

MTM is commonly reimbursed in Medicare Part D, as elderly individuals are much more likely to have complex health care needs or be prescribed multiple medications. But while MassHealth employs a variety of medication management strategies through its usual utilization management processes, the program does not currently reimburse pharmacists for providing MTM services. MassHealth could explore targeted areas where it may be able to drive savings and/or improved outcomes through expanding on its current portfolio of medication management practices, including pharmacy reimbursement for MTM.

SUPPORTING EVIDENCE

There is some evidence of savings associated with MTM programs in Medicaid, particularly for programs targeting the highest-need enrollees. A small MTM pilot program in North Carolina achieved savings of $107 per patient per year for Medicaid beneficiaries with 12 or more medications.[89] A community-based MTM program in Minnesota produced savings of $403 per Medicaid patient per year.[90] Several programs focusing on a more targeted subset of patients experienced much larger savings.[91]

While MassHealth does not reimburse pharmacists for MTM, it does makes use of targeted medication management strategies through its regular approach to utilization management. For example, beginning in 2013, the state implemented a targeted MTM intervention for individuals with HCV. This included dynamic prior authorization and prescriber outreach. The initiative generated substantial savings, leading to over $3.7 million in projected cost avoidance for 135 members against a total program cost of $366,827, or a return on investment of $10.28 for every dollar spent.[92,93]

In addition to cost savings, there is substantial evidence of improved clinical processes and outcomes associated with MTM interventions. Numerous studies have shown that MTM interventions can improve medication adherence and providers' prescribing habits. The evidence is more limited with respect to long-term health care outcomes, but a number of studies have shown some positive results with respect to certain biomarkers, such as stable HbA1c levels for individuals with diabetes and reduced blood pressure for individuals with hypertension.[94]

IMPLEMENTATION CONSIDERATIONS

Implementing pharmacy reimbursement for MTM services through MassHealth statewide would require legislative change.[95] Individual ACOs/MCOs could alternatively choose to deploy this approach at their discretion without legislative change, and the state already permits pharmacies to enter into "Collaborative Drug Therapy Management" agreements with practices.[96] However, pharmacists report difficulty in obtaining reimbursement and regulatory uncertainty as limiting factors to broader implementation of MTM.[97]

Before pursuing a broader approach to MTM, potentially including pharmacy reimbursement for the service, the state could consider where implementing an MTM intervention would generate the largest savings and improvements in clinical outcomes. The evidence suggests that MTM programs are most effective for targeted high-risk/high-need patient subsets, but the state could consider a more granular analysis of utilization and spending trends in order to pinpoint populations that would benefit the most.

This proposal is likely to have the biggest impact on pharmacists, providers, and patients. Pharmacists would see their responsibilities with respect to managing patient medication regimens increase. Providers would need to spend additional time coordinating with pharmacists and patients for individuals with complex regimens, but would likely spend less time dealing with adverse events due to poor adherence, duplication, or drug interactions. Patients, particularly those with complex health care needs, would benefit from greater clinical oversight of their medication regimens and would likely see a reduction in adverse events.

MASSHEALTH LTSS REFORMS

Massachusetts has long recognized the imperative of addressing the growing demand and spending for MassHealth LTSS, and providing access to LTSS in the most appropriate settings based on members' needs. Leveraging federal Money Follows the Person (MFP) dollars, as well as 1915(c) and 1115 waiver authority, the state has deliberately and dramatically expanded access to HCBS over the past decade to help delay or avoid the use of less preferred and typically higher-cost institutional services A result is that MassHealth HCBS spending grew from 49 percent of total LTSS spending in 2009 to 75 percent in 2018. In line with this analysis showing a growing share of PCC/FFS spending going to HCBS, a recent national study showed that Massachusetts had the nation's fourth-highest HCBS spending growth increase from 2013 to 2014, after New Jersey, Ohio, and Colorado.[98] The state also has incrementally implemented several care delivery models that integrate LTSS with physical and behavioral health services, including SCO, One Care, ACOs, and MCOs. The purpose is to expand access to robust care management services for both dually eligible and Medicaid-only MassHealth members who use LTSS. The state has augmented these systemic reforms with several targeted LTSS reforms, including revising its LTSS provider regulations in an effort to clarify service definitions, standardize provider reporting requirements, and enhance program oversight by the state; and procuring a third-party administrator (TPA) to improve program integrity and utilization management functions in the state's remaining FFS LTSS programs, while maintaining access to necessary services.

Longstanding programs—like SCO, which was implemented in 2004—have shown some impact on reducing institutional health care spending.[99] However, many of these efforts have not been rigorously evaluated and others have not been in place long enough to demonstrate a significant impact on LTSS spending growth. This analysis shows that LTSS spending, particularly for HCBS, remains a major driver of spending growth in the MassHealth PCC/FFS program, and that institutional spending growth is slowing. People under age 65 with disabilities account for the majority of HCBS growth, with the share of enrollees using one or more HCBS and average spending per user driving much of the increase in spending. While HCBS spending has grown, aggregate institutional spending has remained relatively flat in the PCC/FFS program. From 2015 to 2016, institutional spending increased by only $8 million (compared with $271 million for HCBS), with average spending per user being the main contributor to the change.

MONEY FOLLOWS THE PERSON REBALANCING DEMONSTRATION

The Money Follows the Person (MFP) Rebalancing Demonstration is a federal grant program that has provided funding to 43 states plus the District of Columbia to help them transition Medicaid enrollees from institutional care to the community. As of December 2016, over 75,000 Medicaid enrollees nationally have transitioned to the community.

The goals of MFP are to:

1. Increase HCBS use and reduce institution-based service use.
2. Eliminate barriers in state law, state Medicaid plans, and state budgets that restrict the use of Medicaid funds to let people get long-term care in the setting of their choice.
3. Strengthen the ability of Medicaid programs to provide HCBS to people who choose to transition out of institutions.
4. Put procedures in place to provide quality assurance and improve HCBS.

Source: Centers for Medicare & Medicaid Services, "Money Follows the Person." Available at https://www.medicaid.gov/medicaid/ltss/money-follows-the-person/index.html.

Building from its existing LTSS reforms and armed with this additional analytical information, MassHealth could consider the following policy options to further enhance its monitoring of LTSS utilization and spending, and promote access to integrated community-based, high-quality, and cost-effective care.

POLICY OPTION 1.

Prioritize, collect, and make public MassHealth community and institutional LTSS data to enhance policymaker and stakeholder understanding of program spending, utilization, and provider reimbursement.

Making MassHealth LTSS and non-LTSS data available would enable the state and its external stakeholders to better understand the factors influencing LTSS utilization and spending, and driving provider reimbursement. Making data available to stakeholders for analysis is fundamental for state policymakers to effectively and efficiently plan for the current and future needs of MassHealth members with LTSS needs.

To start, MassHealth could systematically make data available for analysis to enable broader and deeper understanding of the characteristics of members using various HCBS and receiving care in institutional settings. Public availability of these data and associated analysis would be especially useful for ACOs and MCOs as they prepare to assume financial and care management accountability for LTSS in the near future. For entities able to pursue analysis of these data, engaging a broad array of stakeholders would not only improve study design but improve transparency and buy-in for any related new policies or program changes supported by the data. Such analysis could include:

- Assessing the LTSS service utilization and spending by MassHealth subpopulations within the program's major population groups (e.g., seniors with behavioral health conditions, and adult members with intellectual and developmental disabilities).
- Assessing factors underlying the growth in Home Health, Consumer Directed Services, and Adult Foster Care/Group Adult Foster Care spending.
- Evaluating the characteristics of nursing facility residents to identify "hard-to-transition" populations and key obstacles to their community transitions, such as lack of housing, appropriate community-based services, or caregiver supports.
- Additional analyses could focus on:
  - Tracking the impact of existing LTSS reforms, such as the recent moratorium on new home health providers in the state or of the TPA's enhanced oversight of the MassHealth FFS LTSS system.
  - Evaluating the performance of key providers.

TEXAS MFP BEHAVIORAL HEALTH PILOT

After a decade of pre-MFP work to expand access to community-based services and transition people with disabilities out of nursing homes, Texas realized that some populations were harder to transition than others. Texas conducted a rigorous data analysis of people who successfully transitioned to the community and people who remained in institutional settings, and realized that nursing home residents with behavioral health conditions required focused attention and specialized services to facilitate a safe and sustainable transition to the community. This analysis led to the development of an MFP-funded Behavioral Health pilot program designed specifically for nursing facility residents with mental health conditions and substance use disorders. The program augmented the state's existing HCBS services with specialized pre- and post-transition services, and adapted the program over time based on additional analyses to add services that addressed remaining unmet needs. The state estimates that the pilot has generated over $24 million in savings to the state Medicaid program over a nine-year period (2008–2017).

Source: Manatt Health/Center for Health Care Strategies. "Strengthening Medicaid Long-Term Services and Supports in an Evolving Policy Environment: A Toolkit for States." December 2017.

Such analyses could be used to enhance the state's risk-stratification methodologies and advance the development of effective risk-adjusted FFS provider payment rates that more accurately reflect the true costs of MassHealth members in different settings and using different services. Data findings could also be useful to MCOs

and ACOs for evaluating the impacts of their care management programs and LTSS CP relationships, which could provide an evidence base for the state to replicate or scale successful program features, such as risk stratification methodologies or service interventions for specific subpopulations.

Analytic findings also could be used to inform VBP strategies, supporting innovation and adoption of best practices and new care delivery models. And the analyses could enable the state, ACOs, and MCOs to target rebalancing, transition, and integration strategies or make community investments that are tailored to particular populations.

SUPPORTING EVIDENCE

Several states are using focused data analyses to develop targeted interventions for specific populations that use LTSS. For examples, leveraging 1115 waiver authority, Washington, Vermont, and New Jersey have used comprehensive analyses of Medicare, Medicaid, and state-only data to identify populations at risk for nursing facility admission and their service needs, and then designed tailored benefit packages for these populations to prevent or delay nursing facility utilization.[100] Washington used its Department of Social Services' research and data analysis unit to conduct the analysis.

IMPLEMENTATION CONSIDERATIONS

While federal and state authority is not needed for MassHealth to make such data available, legislative support could help prioritize the effort. LTSS spending growth already is on the legislature's radar, as the 2017 Senate Working Group on Health Care Cost Containment and Reform report calls for reducing the use of institutional post-acute care and increased reporting on the role of LTSS in the MassHealth program, including its ACOs and MCOs. Additionally, the Senate (in its 2018 budget proposal) and House (in H.4617, which passed the House in June 2018) have both supported initiatives to further analyze nursing facility cost trends and financial stability to ensure quality care and jobs and plan for the future of nursing home care. MassHealth may need staff resources to prepare data for public access and provide subject matter and technical expertise for those relying on the data. Depending on its chosen approach, the state could leverage staff and data from the state's existing LTSS analytics effort at UMass Medical School (called TrendFinder LTSS) or from CHIA.

There are many stakeholders who would benefit from availability of these data and subsequent analyses including consumers and their family members, community and institutional LTSS and non-LTSS providers, legislative staff, and various state agencies (the Executive Office of Health and Human Services [EOHHS], the Executive Office of Elder Affairs [EOEA], etc.). This initiative would directly benefit ACOs and MCOs, in particular, as analysis of these data could support their care and cost management efforts. This effort could also encourage providers across the continuum and plans to share information with the state or with each other to better inform the resulting discussion and strategy development.

POLICY OPTION 2.

More aggressively advance value-based payment for LTSS.

MassHealth can leverage its DSRIP program payment principles and quality measurement and reporting infrastructure to advance VBP arrangements for LTSS providers, which are in their infancy in Massachusetts. Other than a nursing facility pay-for-performance (P4P) program in the FFS system, and capitated LTSS in its SCO, One Care, and PACE programs for dual eligibles, MassHealth has not widely adopted VBP in the LTSS arena. Through the creation of its new ACO and DSRIP programs, and a concerted effort to move enrollees—including those with LTSS needs—into managed care, most MassHealth members will be enrolled in managed care arrangements that tie a portion of ACO/MCO plan payment to accountability around service utilization, per-enrollee spending, quality, and care integration.

TENNESSEE QUALITY IMPROVEMENT IN LONG-TERM SERVICES AND SUPPORTS (QuILTSS) PROGRAM

Tennessee has operated a nursing facility pay-for-performance (P4P) program in its managed LTSS program, CHOICES, since 2014. Through this program, MCOs reimburse nursing facilities at a state-established rate and make incentive payments to nursing facilities based on performance in four key areas. The performance areas, developed based on significant stakeholder input prior to implementation of the program, focus primarily on measures that impact beneficiary and family experiences rather than clinical measures.

Nursing facilities can earn up to 100 points, plus 10 bonus points, as follows:

1. **Resident/Family/Staff Satisfaction** (35 points).
2. **Culture Change/Quality of Life** (30 points), including respectful treatment (10), resident choice (10), member/resident and family input (5), and meaningful activities (5).
3. **Staffing/Staff Competency** (25 points), including certified nursing assistant hours per day (5), registered nurse hours per day (5), consistent staff assignment (5), staff retention (5), and staff training (5).
4. **Clinical Performance** (10 points), including antipsychotic medication (5) and urinary tract infection care (5).
5. **Bonus Points** (10 points) for "qualifying awards and/or accreditations" that evidence the facility's commitment to quality improvement processes, such as full participation in the National Nursing Home Quality Improvement Campaign, achievement of specified quality or performance excellence awards, or accreditation by the Commission on Accreditation of Rehabilitation Facilities (CARF) or the Joint Commission.

Each quarter, nursing facilities electronically submit information to the state on their quality improvement activities, including information from beneficiary, family, and staff surveys and input; nursing facility self-assessments on culture; and staff training exercises and staff retention efforts. The submitted data is combined with key data points from CMS' Nursing Home Compare database and evaluated by state staff to determine individual facility rate adjustments.

At its inception, the incentive payment program funding was valued at no less than the greater of $40 million or 4 percent of the total projected fiscal year nursing facility expenditures. Over time, funding will increase to and be capped at 10 percent of the total projected nursing facility expenditures. In the first few years of the program, the state's MCOs have issued more than $30 million in bonus payments to its nursing facilities.

In 2018, Tennessee made significant modifications to its nursing facility reimbursement methodology, and also to the stand-alone quality-based component (QuILTSS). The state is transitioning to a new acuity- and quality- adjusted prospective payment system for nursing facilities, as well as 1) aligning the QuILTSS scoring time frame with the state's rate-setting time frame, 2) refining the methodology through reweighting of measures, and 3) requiring standardized reporting instruments and data collection to advance the program's evolution from process-oriented to outcome-oriented performance measures. The state is in the process of incorporating HCBS into the QuILTSS program.

Sources: State of Tennessee, Department of Finance and Administration, Division of TennCare, "Implementation of New Acuity and Quality Adjusted NF Reimbursement Methodology and QuILTSS #11 (July–December 2018) Quality Measurement Period," May 2018. Available at www.tn.gov/content/dam/tn/tenncare/documents/QuILTSS11Memo.pdf; Center for Health Care Strategies, "State Trends in the Delivery of Medicaid Long-Term Services and Supports," July 2016. Available at https://www.chcs.org/media/CHCS-MLTSS-Scan-7-20-16.pdf.

With comprehensive LTSS being carved into the ACO/MCO program in the next few years, MassHealth could use this interim period to engage stakeholders in developing and implementing a comprehensive, focused LTSS VBP strategy. MassHealth already has started to develop LTSS-specific process measures that align with the quality measures it will use in its broader DSRIP system transformation effort. MassHealth could accelerate and broaden this work to include developing a manageable slate of both process- and outcomes-based LTSS quality metrics that are meaningful to members (e.g., focus on clinical and non-clinical care, safety, and workforce) and achievable by LTSS providers (e.g., the provider has the ability to actually impact the measure). The strategy could also explore various options for plan and LTSS provider performance-based payment approaches and methodologies, including bundled payment models and quality withholds. While this MassHealth effort to increase plan and provider accountability for quality and cost of LTSS would initially be tied to its DSRIP program, the principles and metrics could be adapted for its SCO and One Care programs as well as its remaining FFS LTSS program.

SUPPORTING EVIDENCE

VBP arrangements in LTSS are new to most states, although several states with longstanding managed LTSS programs, like Arizona and Tennessee, have advanced meaningful VBP programs for LTSS providers. Tennessee covers nursing facility services and HCBS through its managed LTSS program (CHOICES). In 2014, Tennessee created a quality incentive program for its nursing facilities, which rewards high performers based on metrics related to member/family/staff satisfaction, culture change/quality of life, staffing and staff competency, and clinical performance. Results to date have shown consistent improvement on scores each quarter, as well as a growing number of nursing facilities achieving higher scores.[101] The state has rolled out a similar program for its HCBS that are covered through its managed LTSS plans. Arizona requires its managed LTSS plans to have at least 35 percent of their total payments to providers in VBP models in 2018 (the program started in 2015).[102] Within some parameters set by the state, plans have flexibility to design VBP programs that are appropriate for their members and providers. Once plans meet this VBP target, they can access up to 1 percent of a withhold from their capitation rate if they also meet certain performance measures around emergency department utilization, 30-day hospital readmission, blood glucose testing, cholesterol screening, and flu shots. Early program results show significant plan innovation around VBP programs with their providers, and improved quality of care for members.

IMPLEMENTATION CONSIDERATIONS

MassHealth could harness its existing active LTSS stakeholder community and various MassHealth system transformation forums to initiate and advance this effort. Staff resources already are dedicated to LTSS quality measurement development. Ultimately, as the program design around performance metrics, VBP options, and contract requirements takes shape, MassHealth could leverage its existing DSRIP quality measurement, reporting, and oversight infrastructure to implement the program. The full extent of MassHealth oversight and implementation of the program, however, would depend on the structure of the program. MassHealth also may need 1115 waiver authority to implement the program or a waiver amendment to reflect the projected impact of the program into the waiver's budget neutrality calculation.

From an operational perspective, MassHealth and its ACOs, MCOs, and LTSS providers would be most directly impacted by implementing VBP for LTSS. Each of these entities plays a distinct and critical role in implementing a VBP program, and all are necessary for the state to achieve its DSRIP quality improvement and cost containment goals; for ACOs and MCOs to manage within total cost of care/capitation payment budgets; for providers to be rewarded for practice improvements; and, ultimately, for MassHealth members' care experiences, health, and well-being to improve.

CONCLUSION

Over the past decades, Massachusetts has been at the forefront of state-led health coverage expansions, and the state now boasts the highest insured rate in the nation. As a critical source of coverage for low-income residents of the Commonwealth, MassHealth has been a crucial driver of these coverage gains. However, as a result of recent reforms and a confluence of external factors, the state has seen MassHealth program costs grow at rates that are higher than the costs of other payers in the state: From SFY2007 through 2016, inflation-adjusted total spending on MassHealth increased by 64 percent, from $7.5 billion to $12.3 billion (2007 dollars).[103] In order to ensure that the program is able to continue to serve as a robust safety net for low-income individuals in Massachusetts, it is critical that the state continue to explore innovations to contain MassHealth spending while maintaining access to comprehensive coverage for those in need.

While the HPC and CHIA are continually analyzing spending trends in the state across all payers, to date there have been no publicly available analyses that seek to fully differentiate between key drivers of MassHealth spending across delivery systems, including whether spending is being driven by growth in enrollment or per-enrollee spending, or which populations or types of services are the biggest contributors to spending growth.[104] This analysis aims to shed light on these issues and provide tailored policy options for addressing the key drivers of spending growth—pharmacy and LTSS—in MassHealth. These and other approaches to cost containment could help to ensure the sustainability of MassHealth in a way that aligns with the state's legacy of ensuring access to care and a strong social safety net for the most vulnerable residents of the Commonwealth.

APPENDIX: DATA AND METHODS FOR COST DRIVERS ANALYSIS

Manatt reviewed and analyzed two data sources for this analysis:

- Data warehouse extracts provided by MassHealth, which included MassHealth enrollment counts by budget group (reflecting a combination of eligibility pathway and delivery system concepts); PCC and FFS spending by servicing provider type; and total spending by budget group and delivery system (PCC/FFS, MBHP, MCO, One Care, PACE, and SCO) for SFYs2013–2016. A separate extract with PCC and FFS spending by budget group and servicing provider type was provided for SFYs2015–2017.
- Total Health Care Expenditures (THCE) and Total Medical Expenditures (TME) Databooks associated with annual reports published by CHIA, which included MassHealth enrollment and spending by delivery system, and MassHealth MCO spending by service category for calendar years 2013–2016.

As noted earlier, changes in aggregate MassHealth spending are driven by changes in the number of people enrolled in the program and average spending per enrollee. Factors driving growth in per-enrollee spending include the mix of people enrolled in the program, types of services used, volume or intensity of the services, and prices paid for the services. While the data obtained for this project were not granular enough to isolate all of these factors, we used an algebraic method to perform two different decompositions of aggregate spending growth between state fiscal years:[105]

- The first calculation examined the extent to which overall MassHealth aggregate spending growth was due to changes in the number of enrollees versus changes in spending per enrollee (see Exhibits 6 and 7). Spending under all delivery systems (both FFS and managed care) was included.
- The second calculation examined the extent to which PCC/FFS aggregate spending growth was due to a change in the number of MassHealth enrollees, the mix of enrollees by eligibility group, the share of enrollees using a given service, and the average spending per user of a given service (see Exhibits 10 and 11). Figures reflect PCC/FFS spending alone because our MassHealth data extract did not include service level detail for MCO, SCO, One Care, and PACE.

The general method for all decompositions was to calculate a series of standardized spending amounts for each year, allowing one factor to vary (e.g., enrollment) while holding others constant (e.g., spending per enrollee). The sum of the differences in standardized spending amounts between years equals the actual total change in aggregate spending, with each factor contributing a varying amount to the total change. When more than two factors are involved, the number of standardized spending amounts increases (to account for all possible combinations of factors across time), but the underlying method for decomposing the total change remains the same.

For ease in displaying results, detailed eligibility groups and service types in the underlying data were aggregated into broad categories. Details on these aggregations are available upon request.

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2 MassHealth Monthly Caseload Report, July 2018. Available at www.mass.gov/doc/masshealth-caseload-snapshot-and-enrollment-summary-july-2018/download.

3 A large share of FFS beneficiaries receive assistance with private coverage premiums through MassHealth or have MassHealth as a secondary source of coverage (see Exhibit 3 on page 5).

4 "MassHealth: The Basics—Facts and Trends," prepared by The Center for Health Law and Economics, University of Massachusetts Medical School, for Blue Cross Blue Shield of Massachusetts Foundation, September 2017. Available at www.bluecrossmafoundation.org/publication/updated-masshealth-basics-september-2017.

5 United States Census Bureau, Current Population Survey, Table HI-06: Health Insurance Coverage Status by State for All People, 2007–2012. Available at www.census.gov/data/tables/time-series/demo/income-poverty/cps-hi/hi-06.html; United States Census Bureau, American Community Survey Tables for Health Insurance Coverage, 2013–2016. Available at www.census.gov/data/tables/time-series/demo/health-insurance/acs-hi.2016.html.

6 "MassHealth: The Basics—Facts and Trends," prepared by The Center for Health Law and Economics, University of Massachusetts Medical School, for Blue Cross Blue Shield of Massachusetts Foundation, September 2017. Available at www.bluecrossmafoundation.org/publication/updated-masshealth-basics-september-2017.

7 Figure includes only individuals with full coverage in the Primary Care Clinician (PCC) Plan and Managed Care Organization (MCO) delivery systems.

8 Massachusetts Health Policy Commission, "2017 Annual Health Care – Cost Trends Report," March 2018. Available at www.mass.gov/doc/2017-health-care-cost-trends-report.

9 This group was largely composed of non-disabled adults who applied for subsidized coverage through the Health Connector but were unable to enroll in the coverage due to a technical failure of the website. The state automatically enrolled these individuals in temporary MassHealth coverage. Through a redetermination process, many of these individuals were enrolled in coverage through the Health Connector or otherwise transitioned off the MassHealth caseload, changing the underlying average acuity of the remaining MassHealth population.

10 Kaiser Family Foundation, "State Health Facts—Medicaid Spending Per Full-Benefit Enrollee" (Kaiser Family Foundation, 2018). Available at www.kff.org/medicaid/state-indicator/medicaid-spending-per-full-benefit-enrollee.

11 Center for Health Information and Analysis, "Performance of the Massachusetts Health Care System," September 201. Boston, MA. Available at http://www.chiamass.gov/assets/2018-annual-report/2018-Annual-Report.pdf.

12 The ACO program is partly supported by funding through the state's Delivery System Reform Incentive Payment (DSRIP) program, which was also approved as part of the state's 2016 waiver extension.

13 In addition to these policy and programmatic measures, MassHealth has pursued and implemented other measures in an effort to address costs. These include administrative and technological initiatives related to the eligibility system and redetermination processes (e.g., automating redetermination processes and re-institutionalizing systematic data matching with the Department of Revenue) as well as introducing such things as prior authorization and utilization management for home health services.

14 "MassHealth: The Basics—Facts and Trends," prepared by The Center for Health Law and Economics, University of Massachusetts Medical School, for Blue Cross Blue Shield of Massachusetts Foundation, September 2017. Available at www.bluecrossmafoundation.org/publication/updated-masshealth-basics-september-2017.

15 Center for Health Information and Analysis, "Performance of the Massachusetts Health Care System," September 2017. Boston, MA. Available at www.chiamass.gov/assets/2017-annual-report/2017-Annual-Report.pdf.

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17 "MassHealth: The Basics—Facts and Trends," prepared by The Center for Health Law and Economics, University of Massachusetts Medical School, for Blue Cross Blue Shield of Massachusetts Foundation, September 2017. Available at www.bluecrossmafoundation.org/publication/updated-masshealth-basics-september-2017.

18 The state considers the PCC Plan to be part of the managed care delivery system. However, for the purposes of this data analysis, we consider the PCC Plan to be analogous with FFS, since it does not involve private managed care plans, and providers bill claims directly to MassHealth.

19 One Care: MassHealth+Medicare / Bringing your care together, "List of Covered services for Members Enrolled in a One Care Plan." Available at www.mass.gov/files/documents/2017/12/07/services-covered-by-one-care.pdf.

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25 MassHealth: Roadmap to 2014, "Affordable Care Act Transition Plan (Revised May 2013)." Available at www.mass.gov/files/documents/2017/12/18/aca-transition-plan-draft-05-01-13.doc.

26 Raymond A, "The 2006 Massachusetts Health Care Reform Law: Progress and Challenges After One Year of Implementation," May 2007. Available at https://masshealthpolicyforum.brandeis.edu/publications/pdfs/31-May07/MassHealthCareReformProgess%20Report.pdf.

27 Chapter 58 established a first-of-its-kind individual mandate, requiring most residents over the age of 18 to carry creditable coverage or lose their state personal income tax exemption, and it created a single risk pool for the non-group and small-group insurance markets. It required all employers with 11 or more employees to provide health insurance to their employees or pay a "fair share assessment" to the state, and to establish tax-exempt "cafeteria plans" for employees. It also increased payment rates to certain safety-net hospitals and established the Health Safety Net Trust Fund.

28 United States Census Bureau, Data, Table HI-06: Health Insurance Coverage Status by State for All People, 2002–2012. Available at www.census.gov/data/tables/time-series/demo/income-poverty/cps-hi/hi-06.2007.html.

29 MassHealth: Roadmap to 2014, "Affordable Care Act Transition Plan (Revised May 2013)." Available at www.mass.gov/files/documents/2017/12/18/aca-transition-plan-draft-05-01-13.doc.

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32 Department of Health & Human Services, June 27, 2018. Available at www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/ma/ma-masshealth-ca.pdf.

33 Department of Health & Human Services, November 4, 2016. Available at www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/ma/MassHealth/ma-masshealth-stcs-11042016.pdf.

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36 Massachusetts Health Policy Commission, "2017 Annual Health Care Cost Trends Report," March 2018. Available at www.mass.gov/doc/2017-health-care-cost-trends-report.

37 As noted earlier, MassHealth considers the PCC Plan to be part of the managed care delivery system. However, since PCC benefits are not delivered through private managed care plans, and providers bill claims directly to the state, PCC data are often aggregated with FFS data and reported separately from MCO data. For purposes of this analysis, PCC and FFS data are aggregated.

38 Figures shown in the data analysis section exclude supplemental payments to providers and administrative costs, which typically are not tracked or paid on a member-specific basis. The focus of this analysis is on enrollment and per-enrollee spending in part because these factors are responsible for the vast majority of MassHealth growth. Spending for supplemental payments has remained stable in recent years (at about $1 billion), as has the share of spending attributable to state administrative costs (at about 5 percent). See Center for Health Information and Analysis, "Performance of the Massachusetts Health Care System," September 2017. Boston, MA. Available at www.chiamass.gov/assets/2017-annual-report/2017-Annual-Report.pdf; Center for Health Information and Analysis, "Performance of the Massachusetts Health Care System," September 2016. Boston, MA. Available at www.chiamass.gov/assets/2016-annual-report/2016-Annual-Report.pdf; and Medicaid and CHIP Payment and Access Commission (MACPAC), "Medicaid Spending by State, Category, and Source of Funds, FY 2016 (millions)." Available at www.macpac.gov/wp-content/uploads/2015/01/EXHIBIT-16.-Medicaid-Spending-by-State-Category-and-Source-of-Funds-FY-2016-millions.pdf.

39 For enrollment and aggregate spending, all references to years in the data analysis section are state fiscal years; for PMPM amounts, references are to calendar years unless noted otherwise.

40 This group was largely composed of non-disabled adults who applied for subsidized coverage through the Health Connector but were unable to enroll in the coverage due to a technical failure of the website. The state automatically enrolled these individuals in temporary MassHealth coverage.

41 Information on the extent to which SCO and One Care spending is driven by LTSS versus other service types is not readily available, but these delivery systems accounted for about 20 percent of MassHealth LTSS spending in federal fiscal year 2015. Truven Health Analytics, "Medicaid Expenditures for Long-Term Services and Supports (LTSS) in FY 2015," April 14, 2017. Available at www.medicaid.gov/medicaid/ltss/downloads/reports-and-evaluations/ltssexpendituresffy2015final.pdf.

42 Data are not readily available on the extent to which growth in managed care arrangements for these populations (including SCO, One Care, and PACE) has influenced the profile of those who remain in PCC/FFS.

43 MassHealth non-disabled adult group enrollment increased by 448,000 between 2013 and 2015; of these individuals, approximately 180,000 were temporary enrollees who transitioned to Health Connector coverage in 2016. Because an additional 80,000 non-temporary adults gained MassHealth coverage in 2016, the net enrollment decrease for the non-disabled adult group overall was only 99,000 (see Exhibit 5).

44 Manatt analysis of data warehouse extracts provided by MassHealth.

45 Manatt analysis of data warehouse extracts provided by MassHealth.

46 Manatt analysis of data warehouse extracts provided by MassHealth.

47 In Exhibit 7, a positive number for "growth due to enrollment" or "growth due to spending per enrollee" means that this factor was driving the change in aggregate spending. A minus sign means that the given factor was pushing in the opposite direction of the change (i.e., that 2015–2016 aggregate spending growth for the total MassHealth population would have been larger if the enrollment pattern had differed). Manatt analysis of data warehouse extracts provided by MassHealth.

48 Data presented in Exhibit 9 excludes rebates paid by drug manufacturers, which lower the net cost of drugs financed by MassHealth. Depending on the time period and data sources examined, rebates are estimated to have reduced the gross cost of drugs covered through MCOs between 2013 and 2016 by at least 34 percent. See, for example, www.chiamass.gov/assets/2017-annual-report/2017-Annual-Report-Databooks.zip, THCE Databook, tab 7.

49 Manatt analysis of data warehouse extracts provided by MassHealth.

50 Exhibit 9 does not include LTSS spending since LTSS is paid on a FFS-basis, except in SCO, PACE, and One Care. A breakout of spending by type of service in these programs is not readily available. Manatt analysis of data from the Center for Health Information and Analysis.

51 The majority of non-disabled adults with temporary coverage were PCC/FFS enrollees; as a result, the outflow of these individuals to Health Connector coverage in 2016 would have had a particular impact on PCC/FFS PMPMs.

52 Manatt analysis of data from the Center for Health Information and Analysis.

53 Manatt analysis of data warehouse extracts provided by MassHealth.

54 Community-based, in-home supports to assist with personal care and other activities such as housekeeping, grocery shopping, and meal preparation.

55 This includes all payments for services provided by financial management services entities, or fiscal intermediaries, to MassHealth members who elect to design and direct their own community-based services, regardless of whether the services were provided under state plan or waiver authority.

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58 Pew Charitable Trusts and the John D. and Catherine T. MacArthur Foundation, "State Health Care Spending on Medicaid: A 50-state study of trends and drivers of cost," July 2014. Available at www.pewtrusts.org/~/media/data-visualizations/interactives/2014/medicaid/downloadables/state_health_care_spending_on_medicaid.pdf.

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