CENTER FOR HEALTH INFORMATION AND ANALYSIS

PERFORMANCE OF THE MASSACHUSETTS HEALTH CARE SYSTEM

ANNUAL REPORT
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CHIA.

Contents

Executive Summary

Each year, the Center for Health Information and Analysis (CHIA) reports on the performance of the Massachusetts health care system in order to monitor cost and quality trends over time and to inform policymaking. This report is the fourth annual look at these trends since the passage of the Commonwealth's 2012 cost containment legislation, Chapter 224.

Initial 2015 THCE

In 2015, Total Health Care Expenditures (THCE) in Massachusetts grew 4.1% from the prior year to $8,441 per resident ($57 billion statewide). This growth rate exceeded the target benchmark set by the Health Policy Commission (3.6%), inflation (0.6%), and per capita growth of the Massachusetts economy (3.9%). It was, however, slower growth than projected for per capita national health care expenditures (4.6%). These figures reflect CHIA's initial assessment of 2014-2015 growth, and will be finalized next year (see *2013-2014 Final THCE Analysis*, page 12, and *Understanding the Differences: Comparing Initial and Final 2014 THCE*, page 13, for updated 2013-2014 statistics).

Overall spending grew across the major categories of THCE including public coverage, commercial coverage, and the net cost of private health insurance.

Growth in spending among public payers was 3.8%, moderating from 6.8% in 2014. Most notably, MassHealth spending, which had previously risen by approximately 18% during the implementation of the Affordable Care Act (ACA) in 2014, grew by 4.6%. Because enrollment grew by a greater amount than overall spending, per member per month (PMPM) spending for members for whom MassHealth was the primary payer declined by 3.1%, excluding temporary coverage.

KEY FINDINGS

4.1%

2015 initial THCE was $57.4 billion, or $8,441 per capita, representing a 4.1% increase from 2014 and exceeding the health care cost growth benchmark by 0.5 percentage points.

PMPM spending for commercial full-claim members grew 2.7%. MassHealth Direct PMPM declined 3.1%, as enrollment outpaced medical spending. Traditional Medicare spending rose 2.0% PBPY.

After several years of increases, the proportion of commercial members whose care was paid for using alternative payment methods declined by two percentage points in 2015 to 35.1%.

10.2%

Pharmacy spending continues to grow at a substantial rate (10.2% in 2015, following 13.5% in 2014). This spending growth accounts for one-third of the overall growth in THCE.

The quality of Massachusetts providers was generally at or above national benchmarks, but there was performance variation across providers.

+90K

Individual enrollment more than doubled to 170,000 enrollees as subsidized and unsubsidized coverage became available through the Health Connector.

One in five Massachusetts commercial members (21%) were enrolled in a high deductible health plan. Membership increased by 14% to nearly one million members.

4.4%

Cost-sharing among private commercial members continued to increase faster inflation and wage growth. Members continue to bear a greater share of health care costs.

Health care spending by commercial payers in 2015 rose by 5.3%, higher than the previous year's trend (2.6%). During this time, commercial enrollment increased by 1.7% to 4.5 million members. For commercial members with a comprehensive set of benefits from one payer, spending increased 5.6% and membership grew 2.8%—a 2.7% PMPM increase. An influx of new individual purchasers entered the private market as several public programs closed and expanded forms of coverage became available for purchase through the Massachusetts Health Connector, more than doubling the size of this market segment. Reflecting this trend, the net cost of private health insurance (NCPHI), the administrative costs of commercial health insurance plans, grew by 12.6% in 2015, largely driven by the Merged and Medicaid Managed Care Organization markets.

Pharmacy Spending

Pharmacy spending continued to play a significant role in the growth of THCE. Payers reported that prescription drug spending increased by 10.2% to $8.1 billion. While this growth rate is lower than the year before (13.5%), it represents continued substantial growth and is responsible for one-third of the overall growth in THCE.

Member Cost-Sharing

Cost-sharing among private commercial members rose by 4.4%, faster than inflation, wage growth, and overall cost of insurance coverage, while average benefit levels decreased slightly. Average premiums in the fully-insured market increased by 1.6% while self-insured cost-of-claims (excluding administrative service fees) rose by 2.1%.

HDHP Enrollment

To mitigate premium increases, Massachusetts employers and members continue to adopt high deductible health plans, which by design, may subject consumers to higher out-of-pocket costs. Enrollment increased in high deductible health plans (now 21% of the

commercial market) and held steady in tiered network plans (16%). Limited Network plan enrollment increased by 8%, but remains small at 3% of the commercial market. These enrollment increases indicate continued interest by employers in alternative plan designs that provide stronger incentives for cost containment.

Alternative Payment Methods

The adoption of alternative payment methods (APMs) in payer-provider contracts fell 1.9 percentage points in the commercial market. Nearly all commercial and MassHealth MCO APM contracts continue to reflect a global payment approach, where the member's primary care physician group has incentives (including upside and downside risk) to control the total cost of care by all providers while maintaining or improving quality. Payers in Massachusetts use these kinds of contracts much more regularly than other states and the statewide adoption rate is driven by Massachusetts-based carriers.

Overall APM adoption for MassHealth MCOs was approximately 32% in 2015, up one percentage point from the previous year. The adoption of APMs for the MassHealth Primary Care Clinician Plan also increased one percentage point to 23% in 2015.

Quality of Massachusetts Providers

The quality of Massachusetts providers tends to be at or above national averages. However, there remain opportunities to improve service quality and patient outcomes, and there is variation in performance across providers, across types of measures, and across patient populations.

Next Steps

The findings of this report will help inform the Health Policy Commission's (HPC) 2016 Health Care Cost Trends Hearing, scheduled for October 17 and 18.

The annual hearing is a public examination into the drivers of health care costs which engages experts and witnesses to identify particular challenges and opportunities within the Commonwealth's health care system.

Under Chapter 224, CHIA is required to complete and submit its annual report on the Massachusetts health care system 30 days in advance of the HPC's hearing.

Later this fall, CHIA will explore many of these topics in greater depth in the *Performance of the Massachusetts Health Care System Series*. Subjects will include provider quality, changes in enrollment by product type, APMs, and provider price variation.

After the September 2016 publication of this report, Harvard Pilgrim identified a material correction to its 2015 total medical expense (TME) data submission. CHIA incorporated this corrected data into the report, revising the results of 2015 Total Health Care Expenditures, 2015 commercial TME, and accompanying service category TME trends. Initial growth in THCE was originally calculated as 3.9%. This figure has been revised to 4.1%. CHIA would like to thank Harvard Pilgrim for identifying the submission error and bringing it to our attention.

TOTAL HEALTH CARE EXPENDITURES

KEY FINDINGS

Based on the initial assessment, THCE in Massachusetts rose by $2.6 billion to $57 billion in 2015. This translates to $8,441 per capita, an increase of 4.1% from 2014, exceeding the health care cost growth benchmark of 3.6%.

Growth in overall spending among public payers was 3.8% in 2015, moderating from 6.8% in 2014.

Overall commercial spending increased 5.3%, and the net cost of private health insurance increased 12.6% in 2015.

BACKGROUND

A key provision of the Massachusetts health care cost containment law, Chapter 224 of the Acts of 2012, established a benchmark against which the annual change in health care spending growth is evaluated. The Center for Health Information and Analysis (CHIA) is charged with calculating Total Health Care Expenditures (THCE) and comparing its per capita growth with the health care cost growth benchmark, as determined by the Health Policy Commission. For 2015, this benchmark was set to 3.6%.[1]

THCE encompasses health care expenditures for Massachusetts residents from public and private sources, including (i) all categories of medical expenses and all non-claims related payments to providers; (ii) all patient cost-sharing amounts, such as deductibles and co-payments; and (iii) the costs of administering private health insurance (called the net cost of private health insurance or NCPHI).[2] It does not include out-of-pocket payments for goods and services not covered by insurance, such as over-the-counter medicines, and it also excludes other categories of expenditures such as vision and dental care.[3]

Each year, CHIA publishes an initial assessment of THCE based on data with at least 60 days of claims run-out for the previous calendar year, which includes payers' estimates for claims completion and provider quality and performance settlements. Final THCE is published the following year, based on data submitted 17 months after the end of the performance year. This report provides final results for the 2014 performance period and initial results for 2015.[4] THCE for 2015 will be updated with final data in September 2017.

2015 INITIAL ANALYSIS

Based on the initial assessment of 2015 THCE, health care expenditures in Massachusetts totaled $57 billion. THCE per capita rose 4.1% from $8,109 in 2014 to $8,441 in 2015 (Figure 1 and Figure 2). This increase exceeded the state's 2015 growth benchmark of 3.6%. THCE per capita growth fell below the projected national per capita growth in health care expenditures (4.6%),[5] but exceeded per capita growth of the Massachusetts economy (3.9%),[6] and regional inflation (0.6%) in 2015.[7]

COMPONENTS OF THCE: PUBLIC COVERAGE

MassHealth

MassHealth is the Commonwealth's public health insurance program for eligible low income residents of Massachusetts, combining Massachusetts's Medicaid program and the Children's Health Insurance Program (CHIP). In 2015, MassHealth expenditures represented 28.2% of THCE.

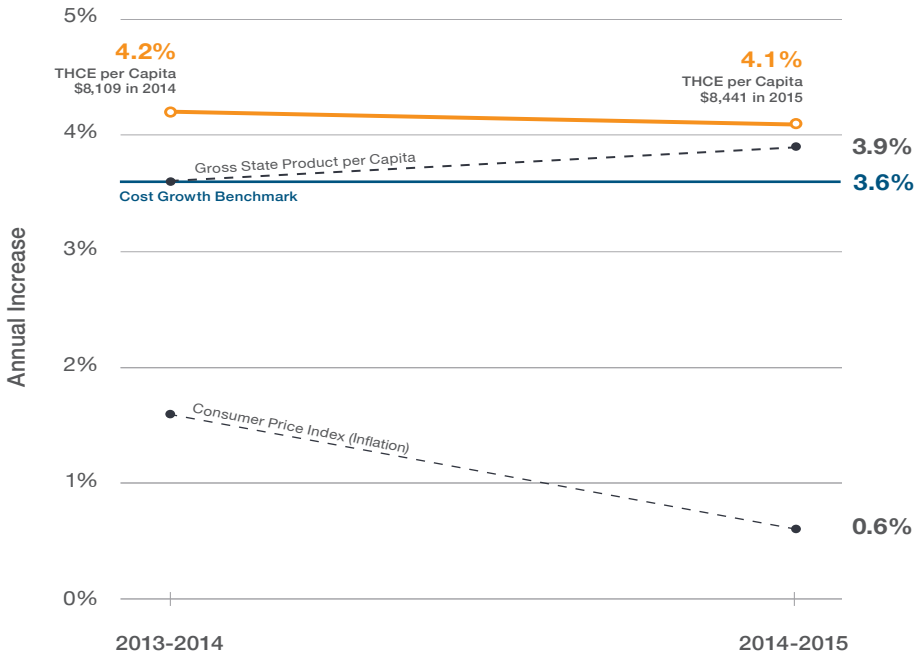
Spending for MassHealth members rose 4.6% from $15.4 billion in 2014 to $16.1 billion in 2015. This represents a notable deceleration since 2014; that year, MassHealth spending grew by 17.9%, largely because of increased enrollment as the Affordable Care Act (ACA) was implemented in the Commonwealth.[8]

In 2015, MassHealth was the primary payer for 70.4% of its membership,[9] accounting for 54.0% of total MassHealth spending.[10] MassHealth also provides coverage—and, in some cases, premium assistance—to eligible residents with other primary insurance coverage.[11] These members represented 28.3% of total MassHealth membership, and 39.4% of total payments in 2015. One percent of MassHealth members were enrolled in temporary coverage through February 2015, before transitioning to other forms of health insurance (including commercial qualified health plans [QHPs], or MassHealth programs). Spending for

1 **Total Health Care Expenditures Growth in Context, 2013-2015**

Per capita THCE growth exceeded the state growth benchmark, the growth of the Massachusetts economy, and regional inflation (Consumer Price Index) in 2015.

TOTAL HEALTH CARE EXPENDITURES PER CAPITA GREW BY 4.1%, EXCEEDING THE HEALTH CARE COST GROWTH BENCHMARK FOR 2015.



Source: Payer-reported data to CHIA and other public sources. Inflation data from Bureau of Labor Statistics: Consumer Price Index 12-Month Percent Change. Gross State Product data from U.S. Bureau of Economic Analysis: GDP by State in Current Dollars.

temporary coverage in 2015 accounted for 0.3% of total MassHealth spending. In addition to the areas mentioned above, 6.3% of total MassHealth spending consisted of non-claims based payments to providers.

In 2015, spending for members for whom MassHealth was the primary payer (excluding temporary coverage) grew by 9.4%, accompanied by a 12.9% increase in membership. MassHealth per member per month (PMPM) spending for these members declined by 3.1% from 2014 to 2015.

Spending for members for whom MassHealth was not the sole payer also grew by 9.4% in 2015, while member months increased 12.2%.[12]

MassHealth MCOs and PCC Plan

In 2015, approximately 44.1% of MassHealth members received health coverage through a MassHealth Managed Care Organization (MCO), a private health plan that manages the care of its members and contracts directly with network providers.[13] Alternatively, members may elect to participate in MassHealth's Primary Care Clinician (PCC) Plan, a managed-care plan that is administered directly by MassHealth. About 19.9% of MassHealth members were covered by the PCC Plan in 2015.

Spending by MassHealth MCOs rose by $235 million, or 6.1%, to $4.1 billion in 2015. This growth rate was significantly reduced from the growth rate of 46.0% in 2014.[14] MassHealth also made payments directly to providers on behalf of MCO members for services that were not included in the capitation rates paid to the MassHealth MCOs, totaling an additional $460 million in 2015. MCO membership grew 8.5% from 9.2 million member months to 9.9 million member months during 2015, down from 46.3% growth during 2014. On a PMPM basis, spending by MassHealth MCOs declined 2.2%, to $414 in 2015.[15]

MassHealth PCC Plan spending rose by 13.5% to $2.9 billion in 2015.[16] PCC membership grew by 673,000 member months (17.6%) to 4.5 million during this time period. This resulted in a 3.5% decline in PMPM spending, to $646 in 2015.

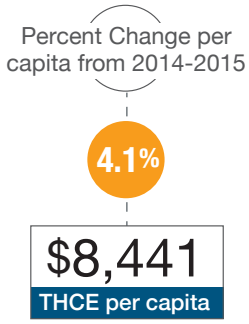
MassHealth Fee-For-Service

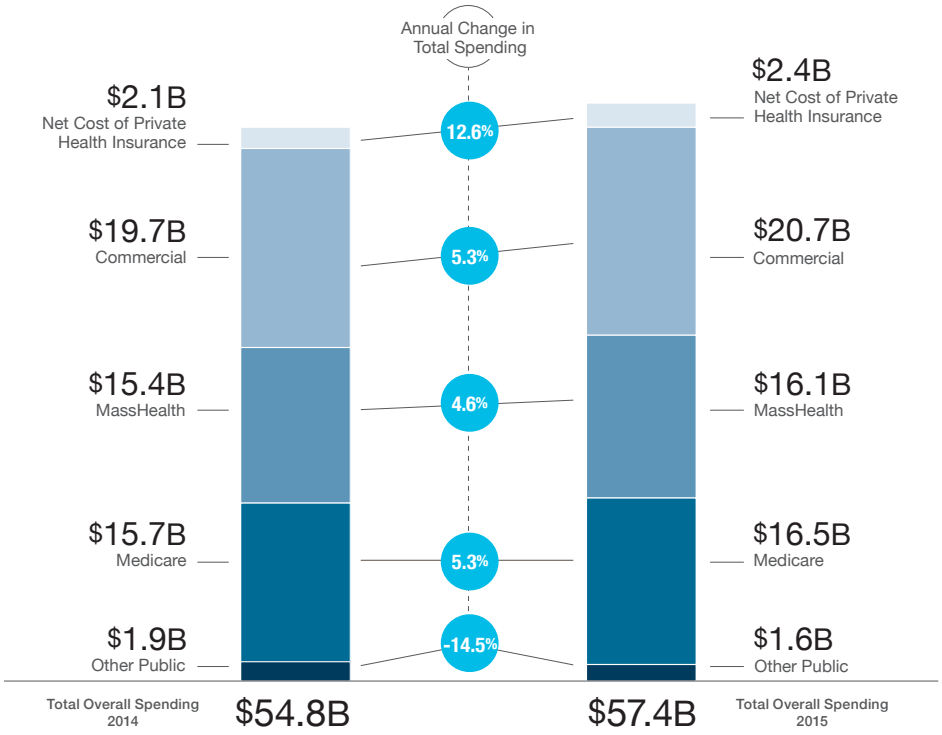
Some MassHealth members receive services on a fee-for-service (FFS) basis. In 2015, 80.0% of individuals receiving MassHealth FFS had other primary insurance, including Medicare.[17] Overall, members receiving services through FFS comprised 31.4% of the total MassHealth membership in 2015.

HEALTH CARE EXPENDITURES PER MASSACHUSETTS RESIDENT WERE $8,441 IN 2015—AN ANNUAL INCREASE OF 4.1%.

2 Components of Total Health Care Expenditures, 2014-2015

THCE represents the total amount paid by or on behalf of Massachusetts residents for insured health care services. It includes the NCPHI (non-medical spending by commercial health plans), and medical spending for commercially and publicly-insured Massachusetts residents.





Source: Payer-reported data to CHIA and other public sources. See technical appendix.

Notes: Percent changes are calculated based on non-rounded expenditure amounts. Please see databook for detailed information.

Total spending for the MassHealth FFS population grew $435 million from $5.8 billion in 2014 to $6.2 billion in 2015.[18] Among FFS members for whom MassHealth was their primary payer (about 20.0% of FFS members), PMPM spending fell by 18.6%, from $1,066 in 2014 to $867 in 2015, accompanied by a 34.3% growth in membership.

Other MassHealth Programs

While the majority of MassHealth members are enrolled in FFS, an MCO, or the PCC plan, MassHealth also operates a number of smaller programs designed primarily for populations that are dually eligible for Medicare and Medicaid. These include Senior Care Options (SCO), for members ages 65 and older; the Program of All-inclusive Care for the Elderly (PACE), for members ages 55 and older; and One Care, for members ages 21 to 64.[19, 20]

From 2014 to 2015, SCO spending increased by 12.2% to $993 million, while membership increased by 15.0% to 464,088 member months. PMPM spending declined 2.4% to $2,139 in 2015. Spending for the PACE program rose 9.8% to $146 million in 2015; enrollment grew 9.1% to 42,466 member months during this time period. On a PMPM basis, PACE spending was relatively stable, increasing by 0.7% to $3,439 in 2015.

One Care spending rose 66.2% to $230 million in 2015, accompanied by an increase in enrollment of 10.8% to 195,791 member months. This substantial spending growth reflects rate adjustments made by MassHealth and the Centers for Medicare & Medicaid Services (CMS) to account for higher-than-anticipated expenses for this high-need population.[21] On a PMPM basis, One Care spending increased 50.0%, to $1,174 in 2015.

In addition to program payments for members' health care services, MassHealth made supplemental payments to health care providers such as hospitals and nursing facilities. Overall expenditures for this category remained stable between 2014 and 2015, increasing approximately 0.1% to approximately $1 billion.

MassHealth Temporary Coverage

In 2014, MassHealth offered temporary coverage for individuals awaiting eligibility determination for subsidized coverage through the Massachusetts Health Connector website. Spending for this program fell from $635 million in 2014 to $51 million in 2015, as members transitioned to other forms of coverage.

Medicare

Overall, spending for Massachusetts residents covered by Medicare programs, including Medicare Parts A, B, C, and D, grew by $835 million (or 5.3%), from $15.7 billion to $16.5 billion in 2015. Total expenditures for Medicare programs accounted for 28.8% of THCE in 2015, representing nearly half of public program expenditures included in THCE.

Total spending for Parts A and B (inpatient and outpatient medical care) increased $418 million (3.8%) to $11.5 billion in 2015. After a slight decline the previous year (-0.4%), the number of beneficiaries grew by 1.7% to 958,000 in 2015. On a per-beneficiary basis, spending rose 2.0% to $12,000 in 2015.

The Medicare Advantage plan (Part C) is a type of Medicare managed care plan offered by commercial payers under contracts with Medicare to provide beneficiaries with all Part A and Part B benefits, sometimes accompanied by prescription drug benefits (Part D). Overall expenditures for Massachusetts residents covered by Medicare Advantage plans rose 3.6%, from $2.7 billion in 2014 to $2.8 billion in 2015. Membership increased by 3.1% to 2.4 million member months in 2015. As a result, spending PMPM grew slightly (0.5%) from $1,168 to $1,173 during this time period.

Spending for Medicare Part D prescription drug plans increased $319 million (17.2%) to $2.2 billion in 2015. The number of Part D beneficiaries increased by 5.7% to 570,000 during this period. On a per-beneficiary basis, spending grew 10.9% to $3,817 in 2015.

Other Public Programs

Department of Veterans Affairs

The Department of Veterans Affairs, through its Veterans Health Administration division, provides health care for certain eligible U.S. military veterans. Medical spending for Massachusetts veterans increased 10.6% to $1.3 billion in 2015.[22]

Health Safety Net

The Health Safety Net pays acute care hospitals and community health centers for medically necessary health care services provided to eligible low-income uninsured and underinsured Massachusetts residents up to a predetermined amount of available funding. Health Safety Net provider payments were stable at $350 million in both 2014 and 2015.

Discontinued Public Programs

THCE includes data for two discontinued public programs that were active through January 2015. Commonwealth Care was a state insurance program, administered by the Health Connector, which provided coverage to residents with incomes up to 300% of the federal poverty level (FPL), who were not eligible for MassHealth coverage. This program was to be eliminated in anticipation of ACA implementation but—because of the initial limited functionality of the state insurance exchange—Commonwealth Care was phased out gradually, and ultimately ended in January 2015.[23] Accordingly, overall expenditures for Commonwealth Care decreased by 95.0% to $20 million in 2015, and total membership declined by 95.0% from 1.1 million member months to 57,000 member months.[24]

The Medical Security Program provided health insurance coverage to certain Massachusetts residents receiving unemployment insurance benefits. This program was eliminated in 2014, though legacy enrollees remained covered by Tufts Health Public Plans through January 2015. Tufts Health Public Plans reported that these members were subsequently moved into QHPs.[25] As a

result, spending fell from $23 million in 2014 to $1.2 million in 2015 (-94.9%). Membership also declined by nearly 95.0%, from 113,000 to fewer than 6,500.[26]

COMPONENTS OF THCE: PRIVATE COMMERCIAL INSURANCE

In 2015, spending for the commercially insured population rose $1.0 billion to $20.7 billion, an increase of 5.3%, which was 2.7 percentage points higher than the 2014 growth rate of 2.6%.[27]

Between 2014 and 2015, total expenditures increased by 5.6% for members covered by a comprehensive set of benefits by a single payer ("full-claim" members) to $14.8 billion, while membership increased by 2.8%. On a PMPM basis, spending grew 2.7% to $442 in 2015.[28] For "partial-claim" members (for whom reporting payers are unable to collect and report spending information on carved-out services such as behavioral health and prescription drugs), total expenditures increased by an estimated 4.5%, and membership remained stable (0.0%).[29]

COMPONENTS OF THCE: NET COST OF PRIVATE HEALTH INSURANCE

NCPHI captures the administrative costs of health insurance plans.[30] NCPHI grew by $267 million to $2.4 billion in 2015 (12.6%). This was driven by the merged market, Medicaid MCO, and Administrative Services Only categories, which grew by 41.2%, 76.8%, and 7.0%, respectively.[31] Together, these areas accounted for slightly more than half of total NCPHI. NCPHI growth in these markets may have been influenced by increases in enrollment.[32] In contrast, NCPHI was stable within the large group market, and fell 9.4% among Medicare Advantage plans. See *A Closer Look* at the end of this chapter for more information about how pharmaceutical rebates are considered in NCPHI.

2013-2014 FINAL THCE ANALYSIS

The initial assessment of 2013-2014 THCE per capita growth, reported in September 2015, indicated an increase of 4.8%. Updated with final data reported by payers, THCE per capita growth in 2014 was revised to an increase of 4.2%.

SUMMARY

The initial assessment of 2015 THCE was $8,441 per capita, an increase of 4.1% from 2014, exceeding the health care cost growth benchmark. Overall spending increased across all categories of THCE in 2015. Commercial health care spending grew by 5.3%, public coverage rose by 3.8%, and NCPHI grew by 12.6%.

To better understand these trends, CHIA will continue to report on provider price variation, health insurance enrollment, the adoption of alternative payment methods (APMs) and other indicators of the performance of the Massachusetts health care system.

Understanding the Differences: Comparing Initial and Final 2014 THCE

In order to meet statutory deadlines, data used to calculate initial THCE is reported to CHIA with only 60-90 days of claims run-out after the close of the calendar year. As such, the initial assessment of THCE includes payer estimates for claims expenses that have been incurred but not reported, as well as projections of quality and financial performance settlements for providers. Generally, differences between preliminary and final submissions are attributable to variation in the degree of accuracy with which payers predicted finalized member eligibility, claims payments, performance-based settlements, and members' health status. These estimates are often based on historical or market trends, which may or may not accurately reflect a Massachusetts market that is evolving under ACA implementation and as payers introduce new payment arrangements. Final data, which allows for a fifteen month claims run-out period, updates the initial estimates with the actual claims and non-claims experience for the performance period. This section outlines differences between the initial and final THCE calculations for the 2013-2014 performance period.

Public Coverage

Initial THCE calculations showed a 7.1% increase in total spending for public coverage in 2014, which was revised downward to 6.7% based on the final analysis. MassHealth spending growth was initially reported as 18.5% overall, but final data indicated a trend of 17.9%. This difference was attributable mainly to lower spending reported for finalized non-claims based payments and lower spending reported by MassHealth MCOs. The initial Medicare spending trend (2.1%) was revised to 1.8% with final data. This resulted from lower spending reported by Medicare Advantage (Part C) plans. Reported spending levels for Medicare Parts A, B, and D were nearly unchanged across initial and final analyses.

Private Commercial Insurance

The initial total commercial spending estimate for 2014 was $18.9 billion, compared with a final amount of $19.4 billion. An initial trend of 2.9% growth was revised slightly downward to 2.8%. The difference is almost entirely attributable to a change in reporting by United Healthcare. In final reporting, United Healthcare updated 2013 and 2014 spending to correctly include spending for Massachusetts members covered by policies that were issued (or situsued) out of state. The increase in United Healthcare spending accounted for 84.0% of the overall increase in spending between the initial and final commercial spending.

Net Cost of Private Health Insurance

The initial 2014 NCPHI trend of 1.7% spending growth was revised with final data to a decline of 1.4%. This variation is largely attributable to the availability of more comprehensive data at the time final results are calculated.*

* CHIA's standard approach is to update the NCPHI data sources for final THCE analysis to reflect more comprehensive information that is used as the basis for actual rebates to consumers, the Massachusetts Medical Loss Ratio reports (MMLR). Because MMLR data is not available when initial NCPHI calculations are made, the Supplemental Health Care Exhibit (SHCE) from the National Association of Insurance Commissioners is used for the merged, large group fully-insured and self-insured markets. Final NCPHI is updated using the MMLR data, which may differ slightly from SHCE data.

A CLOSER LOOK

PAYMENTS TO PHARMACIES FOR PRESCRIPTION DRUGS AND PAYER REBATES IN THCE

Pharmacy Spending

Pharmacy spending growth between 2014 and 2015 accounted for approximately one-third of the overall growth in THCE per capita. In 2015, payers reported prescription drug spending for Massachusetts residents that increased by 10.2% to $8.1 billion, following a 13.5% increase in 2014.[33]

In 2015, pharmacy spending for the private commercially insured grew by 11.1%. Medicare had the highest pharmacy spending growth between 2014 and 2015 at 14.0%, while MassHealth pharmacy spending grew by 9.1%. On an PMPM basis, pharmacy spending increased 9.6% for MassHealth FFS, MCO, and PCC plan members, 8.8% for commercial plans, and 8.5% for Medicare (both FFS and Medicare Advantage).

Prescription Drug Rebates

Understanding pharmacy expenditures is complicated by prescription drug rebates that are paid by manufacturers to pharmacy benefit managers (PBMs), who may share some portion of rebates with insurers, self-funded employers, and public insurance programs. PBMs typically negotiate with manufacturers for rebates on a drug-by-drug basis, and rebates vary considerably by payer and drug.[34] Ultimately, rebates are paid to the PBM after a pharmacy has been paid for the drug, and are not included in the record of payment at the point-of-sale.[35] Because THCE reflects payments made by payers and patients to providers for health care services, prescription drug rebates transmitted outside of the payer-provider relationship are not captured in the reported prescription drug spending identified in THCE.

Prescription drug rebates are reflected in the calculation of the NCPHI component of THCE. Specifically, prescription drug rebates received by health insurers are deducted from incurred claim expenses when calculating NCPHI. Broadly, the total NCPHI amount is intended to measure the difference between payer revenues and net incurred claims expenses. By accounting for rebates received by private health insurers, NCPHI more accurately reflects the difference between payer revenues and net incurred claims.[36]

However, it is important to note that the specific amount of pharmacy spending recaptured in the form of rebates cannot be accurately identified from the data sources used to generate the NCPHI metric. For example, in the commercial insurance market, two data sources are publicly available where insurers are required to report prescription drug rebate amounts—the federal Medical Loss Ratio (MLR) and the Supplemental Health Care Exhibit (SHCE) from the National Association of Insurance Commissioners. Each report, however, is subject to significant limitations. First, while these reports reflect rebates received directly by health plans and total amounts paid for prescription drugs, they also exclude all member cost-sharing paid for prescription drugs. As a result, rebates cannot be

accurately expressed as a share of total prescription drug spending. Second, only fully-insured plans are required to report this data; any contractual price concessions received by self-insured plans or purchasers, or additional rebate dollars retained by PBMs, are not reflected in the data. Third, the instructions for reporting this data are not detailed and leave much open to interpretation by individual payers. Lastly, insurer contracts with PBMs may not be structured to pass rebates directly along to the insurer. Cost savings from rebates may be passed on to the insurer in another form and therefore may not be reflected as rebates on the MLR and SHCE reports.

As a result of these limitations, the reported share of rebates as a proportion of prescription drug spending varies widely across commercial payers. For instance, rebates reported by Massachusetts health insurers in 2015 for the commercial market ranged from 0.0% to 69.5% of the insurer pharmacy claim liability. Our review of available literature yielded no comparative national or state-level data for rebates received by commercial payers.

In contrast, data for public programs is more readily available at the national level. However, such data cannot be used to estimate rebates in other insurance categories due to statutory and regulatory requirements, among other factors. In the case of Medicaid, federal law requires that manufacturers provide a minimum rebate on prescription drug reimbursements. For example, brand drug manufacturers are required to provide the greater of a 23.1% rebate based on a metric known as Average Manufacturer Price (AMP) or the difference between AMP and the best price at which the product is available commercially.

Manufacturers can also be subject to a consumer price index penalty and may also provide supplemental rebates. As a result of these factors, Medicaid rebates often exceed the minimum requirements. MassHealth reported that it received rebates that amounted to 50.3% of total pharmacy spending in its FFS and PCC programs in 2015.[37] This share was in line with the most recent estimates of Medicaid rebates, at 47.0% of total pharmacy spending on average, across states in 2012.[38]

By comparison, CMS currently projects that rebates received for prescription drugs for Medicare Part D will total 17.0% of total pharmacy spending in 2015.[39] In the case of the Medicare program, no laws or regulations require manufacturers to provide minimum rebate amounts but the Part D benefit itself is unique in many ways. For example, Medicare Part D plans are required under CMS regulations to cover all prescription drugs in six designated "protected classes."[40] As a result, PBMs may have a more limited ability to negotiate rebates for products in these classes when covered by a Medicare plan than when covered by a plan in another insurance category.

In sum, prescription drug rebates are currently accounted for as part of health care spending attributable to health insurers as NCPHI; however, no method has yet been developed to accurately incorporate prescription drug rebates into Total Medical Expenses. Going forward, CHIA will continue to explore alternative methods to identify and account for prescription drug rebates. For additional information on how rebates are accounted for in THCE and available data for identifying rebate amounts in Massachusetts, please see the technical appendix accompanying this report.

Endnotes

[1] Pursuant to M.G.L. c.6D, §9, the benchmark is tied to the annual rate of growth in potential Gross State Product (GSP). Detailed information available at http://www.mass.gov/anf/docs/hpc/pgsp-presentation-anf.pdf.

[2] NCPHI includes administrative expenses attributable to private health insurers, which may be for commercial or publicly funded plans.

[3] MassHealth data may include vision and dental spending. Detailed methodology and data sources for THCE are available at http://www.chiamass.gov/total-health-care-expenditures/. (Last accessed: August 17, 2016.)

[4] Unless otherwise stated, 2014–2015 comparisons are based upon 2014 final data. A discussion of the differences between 2014 initial and final data can be found at the end of this chapter.

[5] "National Health Expenditure Data: Projected," Centers for Medicare and Medicaid Services, https://www.cms.gov/research-statistics-data-and-systems/statistics-trends-and-reports/nationalhealthexpenddata/nationalhealthaccountsprojected.html. Note that NHE is more comprehensive and contains some spending categories that are not incorporated in THCE, e.g., dental, government public health, and research.

[6] "Regional Economic Accounts," Bureau of Economic Analysis, http://www.bea.gov/regional/index.htm.

[7] "Consumer Price Index 12-Month Percent Change," Bureau of Labor Statistics, http://www.bls.gov/cpi/.

[8] For more information on the Affordable Care Act's changes to MassHealth and subsequent impacts on spending and membership trends, see CHIA's *Annual Report on the Performance of the Massachusetts Health Care System: September 2015*, available at http://www.chiamass.gov/assets/2015-annual-report/2015-Annual-Report.pdf. Last accessed August 17, 2016.

[9] Unless otherwise noted, membership in this chapter is measured in member months.

[10] In this report, members for whom MassHealth provides comprehensive primary coverage are referred to as "MassHealth Direct" members. The MassHealth Direct population includes members enrolled in MassHealth FFS, the PCC plan, and MassHealth MCOs.

[11] This includes members enrolled in MassHealth FFS, Senior Care Options, the Program for All-Inclusive Care for the Elderly, One Care and Commonwealth Care. Due to benefit differences, no PMPMs are included for this population.

[12] Data for MassHealth temporary coverage is excluded from the MassHealth Direct PMPM calculation because of the temporary population's rapid fluctuation in membership and spending trends in 2014. One approach to control for this anomalous factor is to compute a two year trend. This calculation results in a 2013-2015 MassHealth Direct trend of 28.8% spending growth, 37.3% membership growth, yielding a -6.2% PMPM trend.

[13] MassHealth MCOs include traditional MCOs and CarePlus MCOs, and exclude Senior Care Options and One Care plans.

[14] MassHealth MCO data was filed with CHIA directly by the following entities: BMC HealthNet Plan, Neighborhood Health Plan, Tufts Health Public Plans (f/k/a Network Health), CeltiCare, Fallon Health, and Health New England.

[15] This PMPM spending reflects only payments made by MCOs for their members. As noted earlier in this section, MassHealth also directly pays providers for certain services that were not included in the capitation rates paid to the MassHealth MCOs. Incorporating these additional payments, total PMPM spending on behalf of MCO members declined 1.4% to $460 in 2015.

[16] MassHealth PCC Plan spending includes capitation payments made by MassHealth to the Massachusetts Behavioral Health Partnership (MBHP) for behavioral health services.

[17] For more information on MassHealth PCC and FFS eligibility, enrollment and spending trends, see CHIA's May 2016 report *MassHealth Baseline Statistics from the MA APCD (SFY2013 – SFY2014)*. Available from: http://www.chiamass.gov/assets/docs/r/pubs/16/masshealth-report-2016.pdf. (Last accessed: August 17, 2016.)

[18] MassHealth FFS spending includes capitation payments made by MassHealth to the Massachusetts Behavioral Health Partnership (MBHP) for behavioral health services.

[19] Descriptions of these MassHealth programs can be found on the mass.gov website at http://www.mass.gov/eohhs/consumer/insurance/.

[20] SCO, PACE, and One Care spending reported here reflects both capitation payments made by MassHealth to managed care organizations, as well as payments made to providers directly by MassHealth or other state agencies for "wrap" services not included in the capitation rate.

[21] Note that Fallon left the OneCare Program on October 1, 2015, which contributed to PMPM increases. For more information on these changes, see One Care Capitated Rate Reports. Available from: http://www.mass.gov/eohhs/provider/guidelines-resources/services-planning/national-health-care-reform-plan/federal-health-care-reform-initiatives/integrating-medicare-and-medicaid/one-care-capitated-rate-reports.html. (Last accessed: August 17, 2016.)

[22] Data from the Veterans Administration provides a count of all veterans, including those who may not be eligible for medical benefits. Therefore, PMPM spending is not calculated for this population.

[23] Commonwealth Care was discontinued as part of the implementation of the ACA, as members with incomes below 133% of FPL would become eligible for MassHealth under the ACA's Medicaid expansion, while those with incomes between 133 and 300% of FPL were expected to transition to coverage under a QHP, accompanied by federal and state subsidies.

[24] Spending and membership in Commonwealth Care in 2015 represented legacy members who remained enrolled in this coverage for the month of January only.

[25] QHP eligibility may also include eligibility for ConnectorCare, in which members with incomes less than 300 percent of the federal poverty level are eligible for state and federal subsidies. For more information on enrollment in QHPs, please see this report's chapter on Private Commercial Contract Enrollment.

[26] The large declines in spending for the discontinued Commonwealth Care and Medical Security Plan (-95% for each) offset spending increases among all other public programs.

[27] In this chapter, commercial health insurance refers to private coverage.

[28] Please see the "Total Medical Expenses and Payment Methodologies" chapter of this report for more detailed data on payer-specific Total Medical Expenses (TME).

[29] Estimates to account for unreported data in partial-claim spending were developed for each applicable payer's partial-claim population based upon its full-claim population. Please see the technical appendix for details. PMPM spending is not calculated for the partial claim population since spending reported by payers is not inclusive of various carved-out services.

[30] NCPHI includes the net administrative costs for private commercial, Medicare Advantage, MassHealth MCO, and self-insured populations.

[31] The Medicaid MCO estimate of NCPHI includes the small portion of spending attributable to Commonwealth Care coverage, which was eliminated entirely after January 2015.

[32] For more information on enrollment trends within these market segments, see CHIA's *July 2016 Enrollment Trends*. Available from: http://www.chiamass.gov/assets/Uploads/enrollment/enrollment-trends-july-2016.pdf. (Last accessed: August 17, 2016.)

[33] This prescription drug spending includes the data for commercially insured, MassHealth (MCO, PCC, FFS), Commonwealth Care, and Medicare Part D populations. Prescription drug data is not available for the PACE, SCO, non-TME filers, Veterans Affairs, Health Safety Net, or the Medical Security Program.

[34] Rebates may be flat, volume-weighted, or performance-adjusted.

[35] See technical appendix for an illustration of the supply chain for pharmacy-dispensed prescription drugs, along with a discussion of CHIA's current approach to measuring prescription drug rebates.

[36] NCPHI includes administrative expenses attributable to private health insurers, which may be for commercial or publicly funded plans.

[37] Note that the Commonwealth does not retain all rebate dollars, as the federal share must be returned at the applicable federal financial participation (FFP) rate.

[38] Department of Health and Human Services: Office of Inspector General (OIG), *Medicaid Rebates for Brand-Name Drugs Exceeded Part D Rebates by a Substantial Margin* (April 2015), https://oig.hhs.gov/oei/reports/oei-03-13-00650.pdf.

[39] Centers for Medicare & Medicaid Services (CMS), *2016 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds* (June 22, 2016), https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/ReportsTrustFunds/Downloads/TR2016.pdf.

[40] Centers for Medicare & Medicaid Services (CMS), *Medicare Prescription Drug Benefit Manual: Chapter 6 – Part D Drugs and Formulary Requirements: Section 30.2.5: Protected Classes* (January 15, 2016), https://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovContra/Downloads/Part-D-Benefits-Manual-Chapter-6.pdf.

QUALITY OF CARE IN THE COMMONWEALTH

KEY FINDINGS

Massachusetts hospitals' performance on measures of effective clinical processes was similar to national performance.

The range of hospital scores on a patient safety composite measure narrowed from 2014 to 2015, but the number of hospitals that were lower-performing on measures of health care-associated infections increased.

Eighty-one percent of Massachusetts primary care patients who sought care for lower back pain did not receive inappropriate imaging, which is consistent with the 90th percentile nationally.

Sixty percent of hospitals exceeded the recommended target for cesarean deliveries for low-risk pregnancies, an improvement from 72.0% of hospitals in 2014, and 63.8% of hospitals reported zero elective deliveries in 2015.

BACKGROUND

CHIA monitors and reports on the quality of care provided in the Massachusetts health care system using a select set of standardized metrics from the Commonwealth's Standard Quality Measure Set (SQMS).[1]

This chapter summarizes the performance of Massachusetts acute care hospitals and primary care providers in the areas of patient safety, effectiveness, efficiency, and patient-centeredness. These areas were selected because they align with the Institute of Medicine's long-established aims for a high-quality health care system.[2]

SAFE CARE

The SQMS contains two types of patient safety measures: health care-associated infection (HAI) measures and procedure-based patient safety indicators. These HAI and patient safety measures provide a way to compare Massachusetts providers and the state's performance relative to the nation, but do not capture the full range of safety considerations for hospitalized patients.

Across the six HAI measures in 2015, the majority of acute care hospitals performed as expected based on characteristics of the hospitals and their patients. Overall, in 2015 more hospitals performed worse than expected on more measures than in 2014. However, there was substantial improvement on the measure of catheter-associated urinary tract infections; of the 51 hospitals that reported data, 14 performed better than expected, compared to only two hospitals in 2014.

The patient safety composite measure, PSI 90, analyzes 11 safety-related events, primarily related to surgical complications.[3] Massachusetts hospital performance was better than the nation in 2015 (0.7 and 0.9, respectively), an improvement from 2014 in which Massachusetts hospitals matched the national score (0.8).

EFFECTIVE AND EFFICENT CARE

Clinically Appropriate Tests and Prescriptions

The Healthcare Effectiveness Data and Information Set (HEDIS) includes measures designed to evaluate the effectiveness and efficiency of primary care. The measures in this section evaluate certain services provided and assess if care received by patients with specific conditions, diagnoses, or symptoms conformed to recommended practices.

Medical Imaging

Lower back pain is one of the most common reasons for a physician visit.[4] The use of imaging is a costly way to evaluate patients who seek care for lower back pain and is not recommended care unless the patient exhibits specific symptoms or previous diagnoses.[5,6] In 2012, imaging studies were appropriately avoided for 80.3% of patients who sought care for lower back pain.[7] In 2014, 80.9% of patients avoided inappropriate imaging studies (Figure 1). Of the 60 primary care medical groups with scores for both years, none showed improvement from 2012 to 2014. Massachusetts provider performance is just below the national 90th percentile (81.3%), indicating a high level of appropriate use of imaging studies.

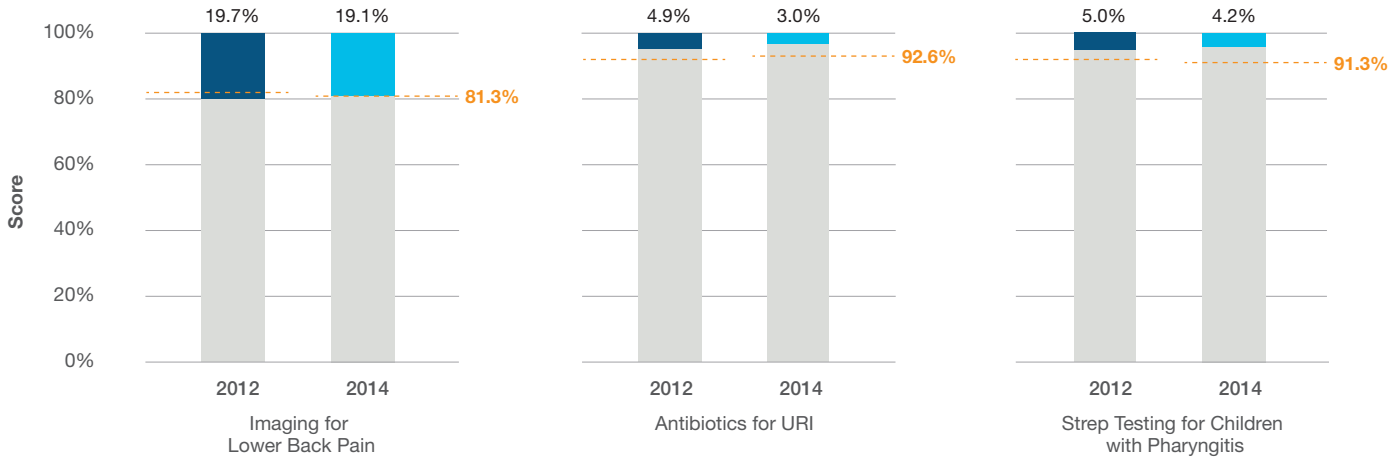
Antibiotic Use

Antibiotics are generally inappropriate for treating children with upper respiratory infection (URI), as less than 2% of URIs are bacterial.[8] Statewide, primary care physicians prescribed antibiotics for only 3.0% of children with URI, suggesting more appropriate prescribing in Massachusetts than the national 90th percentile of 7.4%. However, given that antibiotics are usually not appropriate treatment for URI, there

1 Potentially Inappropriate Use of Tests and Prescriptions, 2012 and 2014

HEDIS measures are designed to evaluate the effectiveness and efficiency of primary care services. The measures included in this section assess if services provided to patients seeking care for specific symptoms conformed to recommended diagnostic and treatment practices.

COMPARED TO THE NATION, MASSACHUSETTS PRIMARY CARE PROVIDERS MORE FREQUENTLY ADHERED TO CLINICAL RECOMMENDATIONS FOR ANTIBIOTIC AND IMAGING STUDIES USE.



Source: Massachusetts Health Quality Partners.

Notes: Commercial HMO/PPO members, ages 18+.

remains an opportunity for improvement in antibiotic prescribing practices among some Massachusetts primary care physicians.[9]

Nationally, inappropriate antibiotic prescriptions are also prevalent among pediatric patients diagnosed with pharyngitis, or sore throat. Pediatric clinical guidelines recommend that only children who receive a simple lab test and are diagnosed with Group A *Streptococcus* (strep) pharyngitis should be treated with antibiotics. Statewide, in 2014, 95.9% of children prescribed antibiotics for pharyngitis also received a strep test, a modest improvement from 95.0% in 2012. While the statewide score remains higher than the national 90th percentile (91.3%), more than 10% of medical groups analyzed scored below this benchmark.

These results indicate that Massachusetts primary care physicians generally adhered to clinical recommendations for antibiotic use, though there remain opportunities for continued improvement.

Potentially Unnecessary Maternity Care

The U.S. Department of Health and Human Services set a goal to reduce cesarean deliveries among women with low-risk pregnancies and no prior cesarean births to 23.9% by 2020.[10] In 2015, 15 Massachusetts hospitals met this goal, an improvement from 10 hospitals in 2014. However, 22 of the 37 reporting hospitals (59.4%), performed cesarean sections in excess of this target and there is still wide practice variation, with the frequency of cesarean sections for low-risk deliveries ranging from 15.8% to 44.9%. Nationally, the cesarean rate among women with low-risk pregnancies is 26.9%.[11]

Early elective deliveries—scheduled deliveries for non-medical reasons before 39 weeks gestation—can compromise a newborn's health and are not recommended by the American Congress of Obstetricians and Gynecologists.[12] In Massachusetts, providers, policymakers, and advocates called on providers to eliminate this practice; and hospitals have

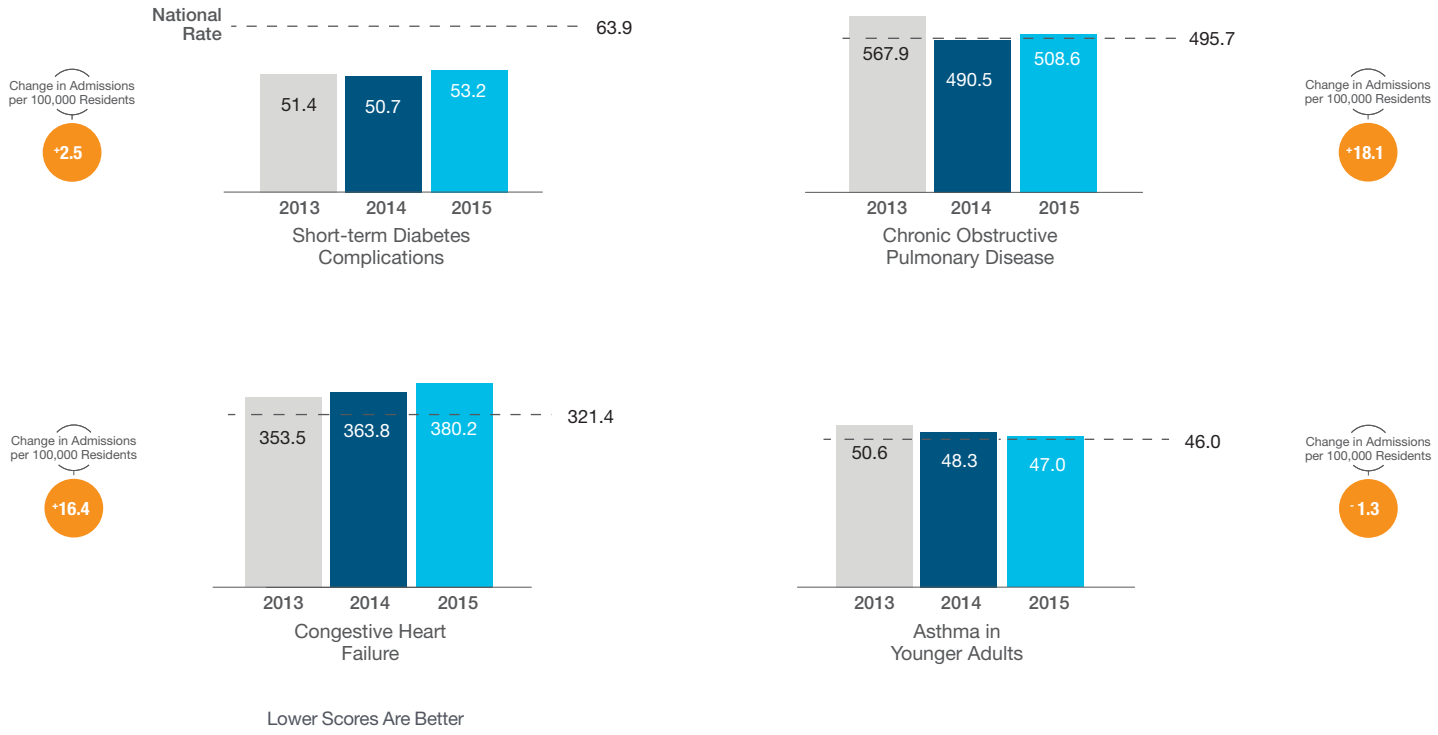
POTENTIALLY AVOIDABLE HOSPITALIZATION RATES INCREASED FROM 2014 TO 2015 FOR THREE OF FOUR CONDITIONS ANALYZED.

2 Potentially Avoidable Hospitalizations per 100,000 Residents, by Condition, 2013, 2014, and 2015

PQIs calculate the rate of potentially avoidable hospitalizations in the population that are related to certain conditions. PQIs are an indication of the effectiveness of primary care and outpatient care in preventing and reducing hospitalizations. High-quality primary care, appropriate self-care, and early interventions can prevent complications and hospitalizations for these conditions.

Source: CHIA Hospital Discharge Database; Agency for Healthcare Research and Quality.

Notes: All payers, age ranges vary by measure. Denominator for each measure is all Massachusetts residents. These are observed rates. Changes listed are for 2014-2015.



made significant improvements, with 23 of 36 hospitals reporting zero early elective deliveries in 2015.[13]

Potentially Avoidable Admissions

Prevention Quality Indicators (PQIs) are used to measure inpatient admissions that might have been avoided if individuals with chronic conditions were able to perform preventive self-care and use primary care services to help manage their diseases. The SQMS contains these measures of potentially avoidable admissions for four clinical conditions: short-term diabetes complications, asthma in younger adults, chronic pulmonary obstructive disease (COPD) or asthma in older adults, and heart failure.

From 2013 to 2015, residents of the Commonwealth were less likely to be admitted for short-term diabetes complications compared to the nation (Figure 2). After a substantial improvement in 2014 in the admissions rate for COPD or asthma in older adults, the Massachusetts rate increased in 2015 and again exceeds the national rate (508.6 vs. 495.7 per 100,000 residents, respectively).[14] Similarly, the Massachusetts rate for asthma in younger adults remains higher than the national rate, and the heart failure admission rate rose again from 2014 to 2015 and now exceeds the national rate by nearly 60 admissions per 100,000 residents.

Hospital Readmissions

Unplanned hospital readmissions have been the subject of continued analyses and prevention efforts in Massachusetts, because they may signal inadequate discharge planning and transition practices. Between

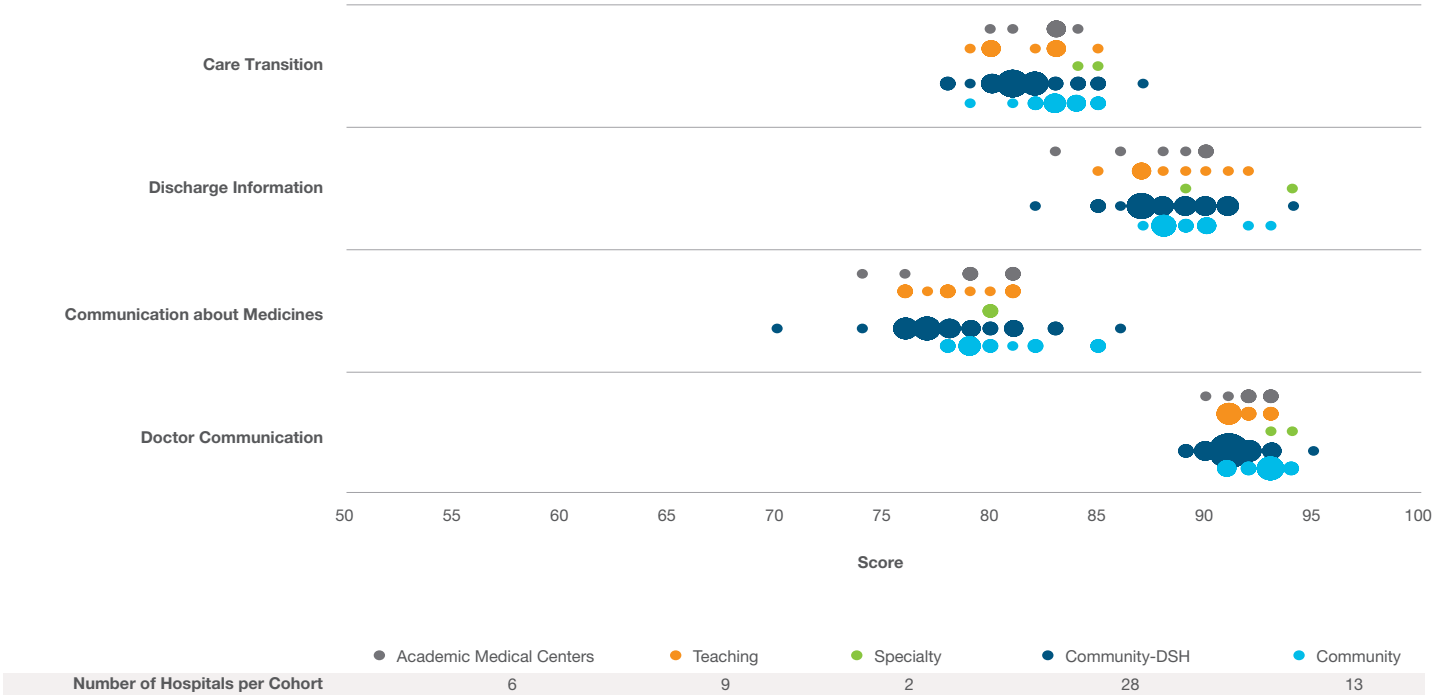
3 **Patient-Reported Experiences with a Hospital Admission, by Hospital Cohort, 2014**

The HCAHPS hospital survey is a standardized tool used to assess patients' experiences during a hospital admission. Patients report experiences on a variety of topics, from provider communication to pain management and discharge planning. Higher scores on these measures indicate better patient-reported experiences.

PATIENTS RATED OVERALL COMMUNICATION WITH PROVIDERS HIGHLY, BUT EXPERIENCES WERE LESS POSITIVE ON COMMUNICATION ABOUT MEDICATIONS.

Source: CMS Hospital Compare.

Notes: All payers, ages 18+. See the technical appendix for information about how CMS calculates linear mean scores.



Number of Hospitals per Cohort	6	9	2	28	13

Dot size corresponds to number of hospitals in the cohort with a given score

state fiscal years (SFY) 2011 and 2013, the all-payer statewide readmission rate declined from 16.1% to 15.2%. The rate for SFY 2014, the most recent year for which data is available, was 15.3% indicating no additional improvements from 2013.[15]

Frequently hospitalized patients, defined as those with four or more admissions in any 12-month period between SFY 2011 and 2014, made up only 6.8% of the Commonwealth's patient population but accounted for 24.8% of discharges, and 58.2% of readmissions.

Additionally, the readmission rate for patients with comorbid behavioral health conditions was 77.1% higher than the readmission rate for patients without any behavioral health comorbidity (20.2% vs. 11.4%).[16]

Further, Medicaid patients with comorbid co-occurring mental and substance use disorders were three times more likely to be readmitted than Medicaid patients without any behavioral health comorbidity (26.6% vs. 9.0%). These data underscore the importance of effective discharge planning and care following a hospitalization, especially for patients with complex and co-occurring health care needs, including behavioral health conditions.

PATIENT-CENTERED CARE

Patient Experience with Hospital Admission

The Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey captures patient-reported experiences during an inpatient stay on 11 dimensions of care, including communication, pain control, and discharge planning. Massachusetts

hospitals' performance on measures of patient experience measures overall, was similar to national performance on 10 of 11 dimensions.

Clear communication is a cornerstone of an effective provider-patient relationship. Positive communication is important to both patients and health care providers, and evidence suggests that effective communication may help patients stay engaged in their care and adhere to their care plan.[17] Patients reported relatively positive experiences communicating with their doctors and nurses overall during their inpatient stay (median scores of 91.5 out of 100), but for communication specifically about their medications, patients reported less positive interactions (median score of 79.0). Additionally, there was a wide range of scores (from 70.0 to 86.0 points) on this measure (Figure 3). Perhaps most notably, across the domains of patient experience captured by the HCAHPS survey, there were no meaningful differences in patient-reported experiences between different types of Massachusetts hospitals. Finally, as in 2013, Massachusetts continued to underperform compared to the national average on room noise levels, with the statewide score nine percentage points below the nation's in 2014.

Patient Experience in Primary Care Offices

Consistent with 2013 and 2014 analyses, adult patient experience ratings of Massachusetts primary care providers were high overall, especially on communication. Organizational access—a measure that assesses patients' ability to schedule an appointment when one is wanted, the promptness of provider response to medical questions, and the length of wait times—continued to be a lower scoring measure, with a statewide score of 81.9 for adult patients and 87.8 for pediatric patients.

SUMMARY

Massachusetts acute care hospitals continue to perform similarly to hospitals nationally in both effective processes of care and patient experience. Primary care providers generally adhere to a selection of recommended testing and prescribing practices and primary care patients report relatively positive experiences with their providers. Across hospitals and medical groups, there are opportunities for providers to reduce HAIs, continue reductions in the use of unnecessary interventions, improve care planning and discharges, and take further action to prevent hospital admissions for certain conditions.

In October, CHIA will provide further details on these findings in an updated edition of *A Focus on Provider Quality*. The report will also provide additional information on primary care effectiveness, as well as updated data on hospital mortality rates, hospital-based inpatient psychiatric care, and post-acute care in skilled nursing facilities and by home health agencies.

Endnotes

1 See technical appendix for further details on the SQMS.

2 Institute of Medicine (IOM), *Crossing the Quality Chasm: A New Health System for the 21st Century* (Washington, D.C: National Academy Press, 2001).

3 Performance on the PSI 90 composite measure is a weighted average of the observed-to-expected ratios for 11 risk-adjusted safety indicators. A lower score indicates fewer than expected adverse events. Patient safety indicators are developed by the Agency for Healthcare Research and Quality. National performance is based on data publicly available on CMS Hospital Compare. For both HAI and PSI 90, hospitals with more advanced data reporting capabilities may capture more infections and adverse events and appear to have higher rates.

4 Hart LG, Deyo RA, Cherkin DC, "Physician office visits for low back pain. Frequency, clinical evaluation, and treatment patterns from a U.S. national survey," *Spine* 20, no.1 (1995): 11–9.

5 "Clinical Recommendation for Imaging for Low Back Pain," American Academy of Family Physicians, accessed August 3, 2016, http://www.aafp.org/patient-care/clinical-recommendations/all/cw-back-pain.html.

6 The measure of provider use of imaging studies for low back pain calculates the percentage of patients with a primary diagnosis of low back pain who *did not* have an imaging study (plain x-ray, MRI, CT scan) within 28 days of the diagnosis. The measure specifications exclude patients for whom an imaging study is clinically appropriate.

7 Center for Health Information and Analysis, *Performance of the Massachusetts Health Care System, A Focus on Provider Quality* (Boston, January 2015), http://www.chiamass.gov/assets/docs/r/pubs/15/A-Focus-on-Provider-Quality-Jan-2015.pdf.

8 Hart, Ann Marie, "An Evidence-Based Approach to the Diagnosis and Management of Acute Respiratory Infections," *The Journal for Nurse Practitioners* (October 2007): accessed June 29, 2016, http://www.npjournal.org/article/S1555-4155(07)00543-0/fulltext.

9 The HEDIS measure *Appropriate Treatment for Children with Upper Respiratory Infection* is originally reported as an inverted rate, indicating the proportion of children who are appropriately treated, or not prescribed antibiotics.

10 "2020 Topics & Objectives: Maternal, Infant, and Child Health," US Dept. of Health and Human Services, accessed August 3, 2016, https://www.healthypeople.gov/2020/topics-objectives/topic/maternal-infant-and-child-health/objectives.

11 Michelle J.K. Osterman and Joyce A. Martin, "Trends in Low-risk Cesarean Delivery in the United States, 1990-2013," *National Vital Statistics Reports* 63, no. 6 (2014): accessed August 8, 2016, http://www.cdc.gov/nchs/data/nvsr/nvsr63/nvsr63_06.pdf.

12 "Deliveries Before 39 Weeks," American Congress of Obstetricians and Gynecologists, accessed August 3, 2016, http://www.acog.org/About-ACOG/ACOG-Departments/Deliveries-Before-39-Weeks.

13 The Massachusetts Perinatal Quality Collaborative (MPQC) was founded in 2011 and comprised of representatives from the Department of Public Health, the Massachusetts chapter of the American College of Obstetricians and Gynecologists, the March of Dimes, and 44 maternity hospitals. MPQC recommended actions to improve perinatal quality and safety in Massachusetts, including that hospitals form and enforce policies to completely eliminate the practice of medically unnecessary inductions and deliveries prior to 39 weeks gestation. More information can be found at: http://www.mapqc.org/. (Last accessed August 8, 2016.)

14 Observed rates of potentially avoidable admissions were calculated using Agency for Healthcare Research and Quality software version 5.0.3, and are not risk-adjusted for age or gender.

15 In June 2016, CHIA published *Hospital-Specific Readmissions Profiles*, which provides detailed readmissions data for each acute hospital in Massachusetts from SFY 2011-2014.

16 In August 2016, CHIA published *Behavioral Health and Readmissions in Massachusetts Acute Care Hospitals*.

17 Martin LR, Williams SL, Haskard KB, DiMatteo MR, "The challenge of patient adherence," *Journal of Therapeutics and Clinical Risk Management* 1, no. 3 (2005): 189-199.

TOTAL MEDICAL EXPENSES & PAYMENT METHODOLOGIES

KEY FINDINGS

TME PMPM among commercial payers grew by 2.7% to $442 in 2015, slowing from a 3.7% increase from 2013 to 2014.

TME PMPM for MassHealth MCO members declined by 2.2% to $414 in 2015, compared to a nearly flat trend in 2014 (-0.2%).

The proportion of members whose care was paid for using APMs in the Massachusetts commercial market declined two percentage points to 35.1%.

MassHealth MCOs reported a 0.6 percentage point increase in APM adoption to 32.0%, after declining from 2013 to 2014.

APM adoption in the MassHealth PCC plan grew to 23.0% of members in 2015, an increase of 1.3 percentage points over the prior year.

BACKGROUND

CHIA monitors health care spending by public and private payers using a metric called Total Medical Expenses (TME). TME represents the full amount paid to providers for health care services delivered to a payer's member population, expressed on a PMPM basis. TME includes the amounts paid by the payer and patient cost-sharing, and covers all categories of medical expenses and all non-claims-related payments to providers, including provider performance payments.

In addition to spending levels and trends (as represented by TME), CHIA collects information on how those payments were made. Historically, the majority of health care services were paid for using a FFS method. However, as payers increasingly look to promote coordinated, higher value care, they are shifting toward APMs, using non-FFS models. Broadly speaking, APMs are intended to give providers new incentives to control overall costs (e.g., reduce unnecessary care and provide care in the most appropriate setting) while maintaining or improving quality.

This chapter focuses on 2014 final and 2015 preliminary TME and APMs.[1, 2]

STATEWIDE TRENDS IN TOTAL MEDICAL EXPENSES

During 2015, commercial full-claim TME rose by 2.7% to $442 PMPM, down from 3.8% in 2014. Overall, commercial full-claim member months increased by 2.8% while expenditures increased by 5.6%. Both the rate of member month growth and spending growth increased in comparison to 2013-2014, when growth was -1.6% and 2.0%, respectively. The lower growth rate at the statewide level (2.7%) reflects shifts in enrollment in the commercial market away from payers with higher TME to payers with lower TME.[3]

MassHealth MCOs reported a 2.2% decline in TME in 2015 to $414, as member month growth (8.5%) outpaced spending growth (6.1%). This is the second year in a row that member growth exceeded spending growth among MCOs. However, the rate of overall growth was substantially lower in 2015 than in 2014, when ACA implementation contributed to increases in member months of 46.3% and expenditures of 46.0%.

TME by Service Category

Similar to 2014, the rates of growth in PMPM spending for hospital inpatient, hospital outpatient, and physician services were relatively low in the commercial full-claim population. Both hospital inpatient and physician services TME growth rates—at 2.2% and 1.9%, respectively—remained below overall statewide TME growth. Hospital outpatient spending growth increased from 1.8% PMPM in 2014 to 2.9% PMPM in 2015.

For MassHealth MCO members, PMPM spending growth rates for hospital inpatient, hospital outpatient, and physician services were all negative in 2015. In addition, the rate of PMPM growth in 2015 was below that in 2014 for all three service categories. In the case of professional physician services, the rate of PMPM spending growth decreased from 3.2% in 2014 to -7.1% in 2015.

Pharmacy spending grew the fastest of all service categories from 2014 to 2015 on a PMPM basis in both the commercial and MassHealth MCO populations (Figure 1). However, the PMPM growth rate slowed in 2015 for both the commercial (from 12.5% in 2014 to 8.8% in 2015) and MassHealth MCO payers (from 14.7% in 2014 to 7.1% in 2015). For MassHealth MCOs, pharmacy spending was the only service category with increased spending on a PMPM basis from 2014-2015.

1 TME PMPM Trends by Service Category, 2013-2015

Insurance Category	Service Category	% Change PMPM Spending Final 2013-2014	% Change PMPM Spending Preliminary 2014-2015
Commercial Full-Claim	Hospital Inpatient	1.3%	2.2%
	Hospital Outpatient	1.7%	2.9%
	Physician Services	1.9%	1.9%
	Pharmacy	12.5%	8.8%
MassHealth MCO	Hospital Inpatient	-1.5%	-4.4%
	Hospital Outpatient	-0.5%	-0.6%
	Physician Services	3.2%	-7.1%
	Pharmacy	14.7%	7.1%

Source: Payer-reported TME data to CHIA, 2013-2015.

Hospital inpatient, hospital outpatient, physician services, and pharmacy spending comprised 86.3% of TME in the commercial full-claim population and 78.2% of the MassHealth MCO population in 2015.[4]

PAYER TRENDS IN TOTAL MEDICAL EXPENSES

TME also can be examined on a health status adjusted (HSA) basis for each payer's member population across years, which adjusts for differences in member illness burden.[5]

2014-2015 Preliminary Health Status Adjusted TME

The three largest Massachusetts-based commercial payers, Blue Cross Blue Shield of Massachusetts (BCBSMA), Harvard Pilgrim Health Care (HPHC), and Tufts Health Plan, representing 63.2% of commercial full-claim member months, reported preliminary HSA TME growth below the 3.6% benchmark from 2014 to 2015.[6] However, five commercial payers (representing 14.8% of commercial full-claim member months) reported increases in preliminary HSA TME that exceeded the benchmark for this period (Figure 2).[7]

Overall, changes in member months, spending, and member health status adjustment scores varied substantially across insurers. In particular, all three of the largest Massachusetts-based commercial payers reported reduced member months and either stable or reduced aggregate health status adjustment scores for their commercial full-claim populations in 2015. Conversely, several smaller commercial payers—BMC HealthNet Plan, Tufts Public Plans, Minuteman Health, and CeltiCare Health Plan—all reported significant increases in member months and aggregate health status adjustment scores. Two of those four plans reported preliminary HSA TME growth rates that exceeded the benchmark in 2015.

In 2015, all MassHealth MCOs reported declines in preliminary HSA TME, in most cases accompanied by increases in the health status adjustment scores of the enrolled population, continuing growth in member months (8.5% across MassHealth MCO payers), and expenditures (6.1%) (Figure 3).[8] These trends reflect programmatic changes and eligibility expansions that were part of the ACA implementation. In particular, many members formerly enrolled in Commonwealth Care, the Medical Security Plan, and other discontinued programs became eligible for MassHealth managed care.

2013-2014 Final Unadjusted TME and Health Status Adjusted TME

In September 2015, CHIA reported preliminary HSA TME trends for payers from 2013 to 2014.[11] Final data submitted by payers in May 2016 reflects the fully settled

2 Trends in Preliminary Commercial Full-Claim Health Status Adjusted TME by Payer, 2014-2015

		Share of Member Months, 2015	Growth of Preliminary HSA TME, 2014-2015
MA-based Payers	Blue Cross Blue Shield of MA	33.7%	1.9%
	Harvard Pilgrim Health Care	20.8%	-3.2%
	Tufts Health Plan	8.6%	-2.1%
	Neighborhood Health Plan	4.1%	0.7%
	Health New England	4.0%	6.5%
	Fallon Health	3.8%	-1.8%
	Tufts Public Plans[9]	2.1%	0.5%
	BMC HealthNet	0.8%	-9.1%
	Minuteman Health	0.2%	16.0%
National Payers	United Healthcare	10.1%	11.3%
	Cigna–East	7.5%	n/a[10]
	Aetna	3.7%	-0.3%
	Cigna–West	0.4%	5.3%
	CeltiCare	0.0%	145.3%

Source: Payer-reported TME data to CHIA, 2014-2015.
Notes: Cigna-EAST risk scores are not comparable across 2014 and 2015 TME data.

3 Trends in Preliminary MassHealth MCO Health Status Adjusted TME by Payer, 2014-2015

		Share of Member Months, 2015	Growth of Preliminary HSA TME, 2014-2015
MassHealth MCOs	Neighborhood Health Plan	32.5%	-2.9%
	Tufts Public Plans	25.6%	-1.6%
	BMC HealthNet	24.4%	-6.3%
	Health New England	8.0%	-24.6%
	CeltiCare	5.8%	-9.3%
	Fallon Health	3.7%	-0.4%

Source: Payer-reported TME data to CHIA, 2014-2015.

claims and non-claims amounts for this performance period, resulting in some changes to preliminary results. Statewide, the change in unadjusted commercial full-claim TME PMPM was revised upward from 2.9% to 3.7%. This change resulted from revisions to 2013 data, as well as finalized 2014 amounts.[12] The change in unadjusted MassHealth MCO TME PMPM, on the other hand, was revised down from 2.4% to -0.2%. This decrease is largely explained by downward revisions to total expenditures in the final data submitted by Fallon and Neighborhood Health Plan (NHP) for 2014.

For commercial payer-specific HSA TME, two payers that initially reported above-benchmark growth, reported below-benchmark trends with final data incorporated: NHP (revised from 6.8% to 2.8%) and Aetna (revised from 4.2% to 1.7%). In addition, two payers that initially reported below-benchmark growth, reported above-benchmark trends with final data incorporated: Fallon Health (revised from -1.6% to 4.4%) and Cigna-East (revised from 3.2% to 8.2%). With final 2014 data, five payers, accounting collectively for 32.5% of the 2014 commercial full-claim membership, reported above-benchmark HSA TME growth: United, Tufts, Cigna-East, Fallon, and Cigna-West.

In the MassHealth MCO market, one payer that initially reported above-benchmark growth reported below-benchmark trends with final data incorporated: NHP (revised from 4.3% to -3.4%). The change in HSA TME for NHP was caused by a decrease in total expenditures in the final data submitted for 2014. With final data, only Health New England (HNE), accounting for 2.8% of 2014 MassHealth MCO membership, had above-benchmark HSA TME growth in 2014.

For additional data on changes from preliminary to final 2014 payer HSA TME growth rates, please see the databook.

COMMERCIAL MANAGING PHYSICIAN GROUP TRENDS IN TOTAL MEDICAL EXPENSES, 2013-2014

Managing physician group TME is presented here for 2013-2014 final data only. Differences between preliminary and final TME data are often more pronounced for physician groups as the patient population at the managing physician group level is much smaller than the member population used in the health plan preliminary TME analysis. Also, managing physician group preliminary HSA TME is likely to fluctuate, due to the adoption of APMs. Many APM contracts include settlements for physician group financial and quality performance, which are often not finalized until after the close of the calendar year.

Managing physician group final HSA TME for 2014 measures the total medical spending for members required by their insurance plan to select a primary care provider.[13] Under this type of plan, primary care providers are responsible for managing the health care needs of their patients. Managing physician group TME examines the cost of care, adjusted for patient health status, of the patients managed by these physician groups.

Among the ten largest physician groups,[14] members managed by Lahey Health, Mount Auburn Cambridge IPA, and Steward Network Services maintained HSA TME growth below the 3.6% health care cost growth benchmark, across all three of the largest commercial payers during 2014 (Figure 4).[15] In contrast, Baycare Health Partners, BMC Management Services, and Partners Community HealthCare had payer-reported HSA TME growth above the benchmark for members in two of the top three commercial payers' networks. However, Baycare Health Partners and BMC Management Services both had reported HSA TME levels below each payer's respective network average HSA TME in both 2013 and 2014. Similarly, all physician groups with 2014 HSA TME growth greater than 3.6% for one or more of the three largest commercial insurers had 2014 HSA TME levels below the payer's network average, with the exception of Partners Community HealthCare.

STATEWIDE TRENDS IN ALTERNATIVE PAYMENT METHODS

In the Massachusetts commercial market, the share of members whose care was paid using APMs declined two percentage points to 35.1% in 2015.

MassHealth MCOs reported APM use for 32.0% of members in 2015, a 0.6 percentage point increase

4 **Trends in Managing Physician Group Commercial Health Status Adjusted TME, CYs 2013-2014**

Physician Group	Blue Cross Blue Shield MA	Harvard Pilgrim Health Care	Tufts Health Plan	BCBSMA, HPHC, and Tufts Share of Physician Group's Total Managed Member Months
Atrius Health	-3.8%	1.2%	7.8%	62%
Baycare Health Partners, Inc.	6.5%	0.6%	6.1%	26%
Beth Israel Deaconess Care Organization	1.9%	1.6%	5.5%	70%
Boston Medical Center Management Services	5.1%	11.4%	3.1%	59%
Lahey Health	-0.6%	0.6%	2.4%	65%
Mount Auburn Cambridge IPA	0.0%	-2.6%	0.2%	86%
New England Quality Care Alliance	1.2%	2.4%	6.0%	89%
Partners Community HealthCare	2.8%	3.8%	6.5%	81%
Steward Network Services, Inc.	1.4%	-0.3%	3.4%	69%
UMass Memorial Health Care	2.0%	2.0%	8.3%	47%
All Physician Groups	**0.3%**	**0.6%**	**4.2%**	**66%**

Source: Payer-reported TME data to CHIA, 2013-2015.

from 2014. In the MassHealth PCC plan, the share of members whose care was paid using APMs grew 1.3 percentage points to 23.0% in 2015 (Figure 5).

In the 2014 and 2015 *Cost Trends Report*, the Health Policy Commission outlined two goals for APM adoption in 2016: (i) increase the use of global payment APMs to at least 60.0% of lives covered by a Health Maintenance Organization (HMO) in 2016; and, (ii) increase overall APM adoption to at least one-third of Preferred Provider Organization (PPO) members.[16] As of 2015, payers reported the use of global payment arrangements for 57.9% of commercial HMO members, and any APM arrangement for 1.1% of PPO members.

PAYER TRENDS IN ALTERNATIVE PAYMENT METHODS

In 2015, most payers reported adoption of some APMs, with the exception of United Healthcare, Cigna, and Minuteman Health.[17]

APMs in the Commercial Market

Among the top six Massachusetts-based commercial payers, APM adoption ranged from 28.7% (Fallon) to 69.8% (HNE) in 2015 (Figure 6).[18] BMC HealthNet, NHP, and HPHC reported the largest increases in the total number of commercial members with care paid for under APMs.

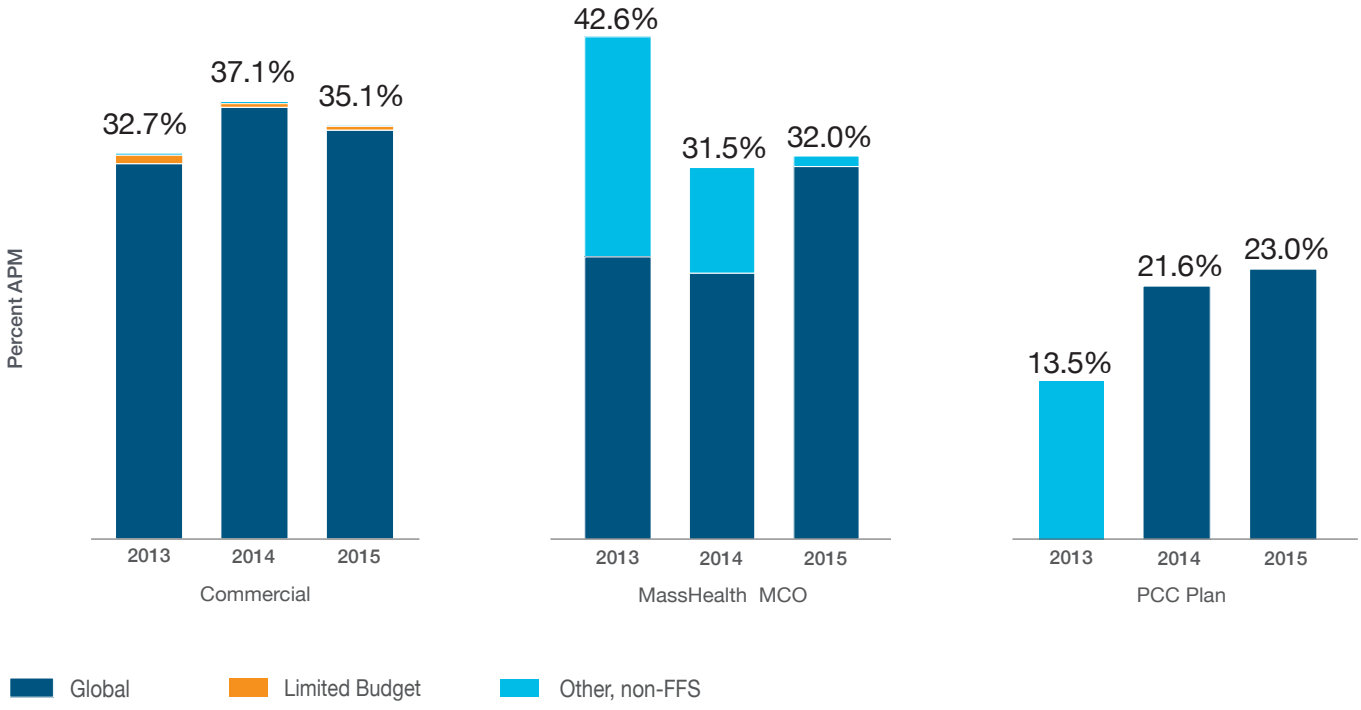
As of 2015, three of the six largest Massachusetts-based commercial payers achieved the 60.0% HMO global payment adoption target established by the Health Policy Commission—BCBSMA, HPHC, and HNE. In contrast, APM adoption in PPO products lags behind HMO products, with only Tufts (11.2%) and Aetna (1.9%) reporting the use of APMs for PPO members in 2015.

5 **Adoption of Alternative Payment Methods by Insurance Category, 2013–2015**

In 2015, global payment arrangements continued to be the dominant APM employed by commercial payers, MassHealth MCOs, and the MassHealth PCC Plan.

DURING 2015, APM ADOPTION REMAINED STABLE AMONG MASSHEALTH MCOs (+0.6 PP) AND THE MASSHEALTH PCC PLAN (+1.3 PP). COMMERCIAL APM ADOPTION DECLINED TWO PERCENTAGE POINTS DURING THIS TIME.

Source: Payer-reported TME data to CHIA, 2013-2015.



APMs among MassHealth MCOs

In 2015, Tufts Public Plans reported the largest growth in APM adoption for MassHealth MCO members, with the share of members with care paid for under APMs increasing by eight percentage points. BMC HealthNet, NHP, and Fallon reported declines in the share of MassHealth MCO members under APMs. Although NHP and Fallon's APM adoption rates declined, the *total* number of members whose care was paid for using APMs rose by 14.7% and 9.9%, respectively. HNE continued to report the highest adoption of APMs among MassHealth MCOs, at 75.8% in 2015 (Figure 7).

APMs among MassHealth PCC and Dual Eligible Programs

APM adoption grew slightly in the MassHealth PCC plan, with 23.0% of members aligned to a primary care provider paid under an APM in 2015, compared with 21.6% in 2014.[19] APM adoption was also reported for providers managing the care of members who were dually eligible for Medicare and Medicaid. In 2015, 25.6% of dually eligible members over age 65 (low-income seniors) and 11.5% of dually eligible members ages 21-64 (adults with disabilities) had primary care providers engaged in APM arrangements. In 2014 and 2015, the PCC plan and programs for dual-eligibles ages 21-64 employed global payment arrangements for providers, while programs for seniors utilized limited budgets.[20]

TRENDS IN GLOBAL PAYMENT ARRANGEMENTS AND RISK CONTRACTS

Among commercial payers, MassHealth MCOs, and MassHealth programs, global payment arrangements were the most commonly reported APM. Generally, global payment arrangements, which include a budgeted

6 APM Adoption by Commercial Payers, 2013–2015

	Payer	APM Adoption Rate 2013	2014	2015	Change (pps) in APM Adoption Rate, 2014-2015
MA-based Payers	Blue Cross Blue Shield of MA	49%	48%	43%	-4.5
	Harvard Pilgrim Health Care	26%	46%	48%	2.3
	Tufts Health Plan	41%	44%	44%	0.5
	Fallon Health	21%	26%	29%	2.2
	Neighborhood Health Plan	36%	34%	32%	-1.7
	Health New England	72%	71%	70%	-1.2
	Tufts Public Plans	0%	0%	3%	3.1
	BMC HealthNet	0%	3%	14%	10.7
	Minuteman	n/a	0%	0%	0.0
National Payers	Cigna	0%	0%	0%	0.0
	Aetna	2%	3%	3%	-0.4
	United Healthcare	0%	0%	0%	0.0
	UniCare	2%	40%	42%	2.1
	CeltiCare	0%	3%	9%	5.9

Source: Payer-reported APM data to CHIA, 2013-2015.

Notes: Within each geographic category, payers are listed by descending share of total commercial member months in 2015. Harvard Pilgrim data includes its subsidiary, Health Plans Inc.

7 APM Adoption by MassHealth MCOs, 2013–2015

	Payer	APM Adoption Rate 2013	2014	2015	Change (pps) in APM Adoption Rate, 2014-2015
MassHealth MCOs	Neighborhood Health Plan	47%	50%	47%	-2.5
	Tufts Public Plans	28%	9%	17%	8.0
	BMC HealthNet	45%	31%	16%	-14.4
	Health New England	72%	74%	76%	1.7
	CeltiCare	n/a	4%	5%	1.2
	Fallon Health	81%	54%	52%	-1.3

Source: Payer-reported APM data to CHIA, 2013-2015.

Notes: MassHealth MCOs are listed by descending share of total MassHealth managed care member months in 2015.

8 **APM Adoption by MassHealth PCC and Dual Eligible Programs, 2013–2015**

	APM Adoption Rate			Change (pps) in APM Adoption Rate, 2014-2015
	2013	2014	2015	
PCC	14%	22%	23%	1.3
Dual eligibles, ages 65+	19%	23%	26%	2.3
Dual eligibles, ages 21-64	0%	13%	11%	-2.0

Source: Payer-reported APM data to CHIA, 2013-2015.

Notes: Within each geographic category, payers are listed by descending share of total commercial member months in 2014.

amount for a comprehensive set of services for a defined patient population, hold providers "at risk" for financial and/or quality performance. This section focuses on two types of risk arrangements: "two-sided," often called upside and downside risk, and "upside-only," sometimes called shared savings.[21]

Among payers reporting global payments in the commercial market, global payment contracts were overwhelmingly two-sided, at 88.3% of members in 2015, nearly unchanged from 2014. The proportion of two-sided risk contracts among MassHealth MCO payers declined by 3.9 percentage points to 42.9% during 2015. However, the MassHealth PCC Plan reported that 63.0% of members had primary care providers in a two-sided risk contract in 2015.

As payers and providers aim to better integrate behavioral and physical health care, an area of focus has been the inclusion of behavioral health services as part of global payment arrangements.[22] This approach intends to incentivize primary care providers to better coordinate behavioral health services for their patients. However, in 2015, risk for behavioral health was excluded from global budgets in the commercial market for 39.0% of members with primary care providers in global budget arrangements. Among MassHealth MCOs, 85.7% of global payment arrangements excluded risk for behavioral health services.

Endnotes

1 TME and APM data presented here is for the private commercial full-claim population and MassHealth MCOs. In 2015, the commercial full-claim population accounted for about 76% of the commercial market, while the commercial partial-claim population accounted for the other 24%. Because commercial partial-claims do not account for all of a member population's medical spending, this chapter will focus on the commercial full-claim population.

2 Final TME and APM have at least 15 months of claims run-out and finalized performance payment settlements. Preliminary TME/APM data represents, at minimum, three months of claims run-out. In order to report preliminary TME that is comparable to the previous year's TME/APM data, payers apply completion factors, which include payer estimates for the expenses for services that have been incurred but not reported (IBNR) by service category. See the technical appendix for more information.

3 For detailed information on QHP enrollment, see CHIA's *July 2016 Enrollment Trends* databook. Available from: http://www.chiamass.gov/enrollment-in-health-insurance/. (Last accessed August 18, 2016.)

4 For data on other service categories, which include "Professional Other," "Other," and "Non-Claims," please see chartpack and databook.

5 The tools used for adjusting TME for health status of a payer's covered members vary among payers so that adjustments are not uniform or directly comparable across payers. However, payers are required to utilize a consistent health status adjustment tool and version across three data years to ensure within-payer comparability of HSA TME. See the databook for a list of health status adjustment tools used for the data presented in this report.

6 M.G.L. Chapter 12C §18 requires CHIA to conduct analysis on payer and provider organization HSA TME growth, as these trends underlie and influence overall changes in THCE. While the health care cost growth benchmark's statutory use is for comparison with statewide THCE growth, it serves as a useful indicator of payer and provider HSA TME performance. However, comparison of payer and provider HSA TME growth relative to the benchmark should be interpreted with caution, as HSA TME for these entities reflects a smaller, more distinct population than statewide THCE.

7 Note: Cigna-East risk scores, and therefore HSA TME growth rates, are not comparable across 2014 and 2015.

8 MassHealth MCO payers reported increases in average risk scores ranging from 0.0%–12.0%. Growth in risk scores indicates that the member population has increased resource needs, and, as such, may incur higher costs than prior years. Note that payers are required to apply a consistent risk adjustment tool across 2013, 2014, and 2015 TME data.

9 Tufts Public Plans was formerly known as Network Health, LLC.

10 Cigna-East risk scores are not comparable across 2014 and 2015 TME data.

11 See call-out box in this report's "Total Health Care Expenditures" chapter for more information on the differences between initial and final data.

12 The difference is largely attributable to a change in reporting by United Healthcare. In final reporting, United Healthcare updated 2013 and 2014 spending to correctly include spending for Massachusetts members covered by policies that were issued (or sitused) out of state.

13 Managing Physician Group TME analyses are presented on a health status adjusted basis to account for differences in health status of members between managing physician groups within a given payer and insurance category. The tools used for adjusting TME for health status of a payer's covered members vary among payers so that adjustments are not uniform or directly comparable across payers. Note that TME data is not adjusted for differences in covered benefits within payers and between payers.

14 Identified by the share of total commercial member months in CY 2015

15 M.G.L. Chapter 12C §18 requires CHIA to conduct analysis on payer and provider organization HSA TME growth, as these trends underlie and influence overall changes in THCE. While the health care cost growth benchmark's statutory use is for comparison with statewide THCE growth, it serves as a useful indicator of payer and provider HSA TME performance. However, comparison of payer and provider HSA TME growth relative to the benchmark should be interpreted with caution, as HSA TME for these entities reflects a smaller, more distinct population than statewide THCE.

16 Health Policy Commission, *2014 Cost Trends Report* (Boston, December 2014), http://www.mass.gov/anf/budget-taxes-and-procurement/oversight-agencies/health-policy-commission/2014-cost-trends-report.pdf; Health Policy Commission, *2015 Cost Trends Report* (Boston, December 2015), http://www.mass.gov/anf/budget-taxes-and-procurement/oversight-agencies/health-policy-commission/publications/2015-cost-trends-report.pdf. In 2015, the HPC updated these recommendations for commercial payers, advising that commercial payers strive for 80.0% of HMO members, and one third of PPO members, to be covered by all types of APMs by 2017. As of 2015, 58.0% of HMO members, and 1.0% of PPO members, statewide were covered by any type of APM.

17 Minuteman Health entered the commercial market in 2013. In 2015, their membership comprised 0.1% of the commercial market.

18 Membership under APMs is measured by the share of member months associated with a primary care provider engaged in an alternative payment contract with the reporting payer.

19 Note that MassHealth PCC and dual-eligible APM adoption is based upon enrollment, not member months.

20 In this section, a limited budget is a payment arrangement where budgets for health care spending are set for a non-comprehensive set of services delivered by a single provider organization, such as capitated primary care.

21 In a two-sided risk model, providers share in cost savings if costs stay below a target budget for their population's care and they share in the losses at a pre-negotiated rate if their patient population's costs exceed the target budget. Providers are often eligible to keep a larger proportion of savings if they agree to share in any costs above the target. In a shared savings model, providers share in cost savings at a pre-negotiated rate if the costs stay below a target budget for their population's care, but face no financial risk if the costs of their patient population exceed it.

22 Health Policy Commission, *2015 Cost Trends Report* (Boston, December 2015), http://www.mass.gov/anf/budget-taxes-and-procurement/oversight-agencies/health-policy-commission/publications/2015-cost-trends-report.pdf.

PRIVATE COMMERCIAL CONTRACT ENROLLMENT

BACKGROUND

CHIA collects and analyzes Massachusetts private commercial health insurance enrollment data as part of its efforts to monitor the health care landscape, including payer market share and product adoption trends. Data is reported by payer, employer size category, product type (HMO, PPO), and benefit design type (HDHP, tiered network, limited network) for 2013 through 2015.[1] Unless otherwise noted, the remaining chapters of this report highlight membership and cost trends for members covered under private commercial contracts established in Massachusetts.[2]

MASSACHUSETTS HEALTH INSURANCE COVERAGE

In 2015, approximately two-thirds of Massachusetts residents (66%) were covered under private commercial health insurance.[3] Most residents received insurance through their employer (55%), though an increasing proportion purchased coverage through the Health Connector, or directly from a payer (10%).[4]

Nearly one in three Massachusetts residents (31%) was covered under some form of public health insurance, such as Medicare or Medicaid, in 2015. Public program enrollment trends varied considerably between 2013 and 2015, as the Commonwealth worked through the challenges of implementing provisions of the ACA. The ACA expanded Massachusetts Medicaid eligibility and created a system of subsidies and tax credits for low- and moderate-income residents to purchase insurance through the Health Connector.[5] As the Health Connector accelerated enrollment into private commercial plans in 2015, MassHealth ended its Temporary program, which it established to provide coverage until the Health Connector's systems were fully operational.[6] With these changes, MassHealth and Commonwealth Care enrollment declined by over 260,000 enrollees between December 2014 and 2015, as private enrollment increased.[7]

Approximately 4% of Massachusetts residents were uninsured in 2015.[8]

ENROLLMENT TRENDS

Massachusetts commercial enrollment increased by approximately 75,000 members (1.7%) to 4.5 million members between 2014 and 2015. Growth was driven by the influx of new individual purchasers to the private market, as several public programs closed (MassHealth Temporary, Commonwealth Care, Medical Security Program) and subsidized and unsubsidized coverage became available for purchase through the Health Connector. Individual enrollment more than doubled (113%) to 170,000 enrollees (90,000 new members), in 2015 (Figure 1).

Tufts Health Plan (Tufts) enrolled 53,000 new individual enrollees—largely through Tufts Public Plan (previously Network Health)—and NHP enrolled nearly 27,000. NHP also added 11,000 enrollees to its small employer and Massachusetts Group Insurance Commission (GIC) products; NHP remains the fastest growing major health insurance payer in Massachusetts.[9]

SELF-INSURED ENROLLMENT

Massachusetts self-insured enrollment remained steady at nearly 60% of private commercial membership (2.7 million members).[10] (For more information on the differences between fully- and self-insured employer arrangements, see *Understanding Employer Funding Types* call-out box.) Three-quarters (75%) of those receiving coverage through employers with more than 100 employees were covered under self-insured

KEY FINDINGS

Individual private commercial enrollment increased by 90,000 from 2014 to 2015, as private commercial plans, for both subsidized and unsubsidized members, became available through the Health Connector. These new individual purchasers were concentrated in lower-premium, fully-insured, HMO plans.

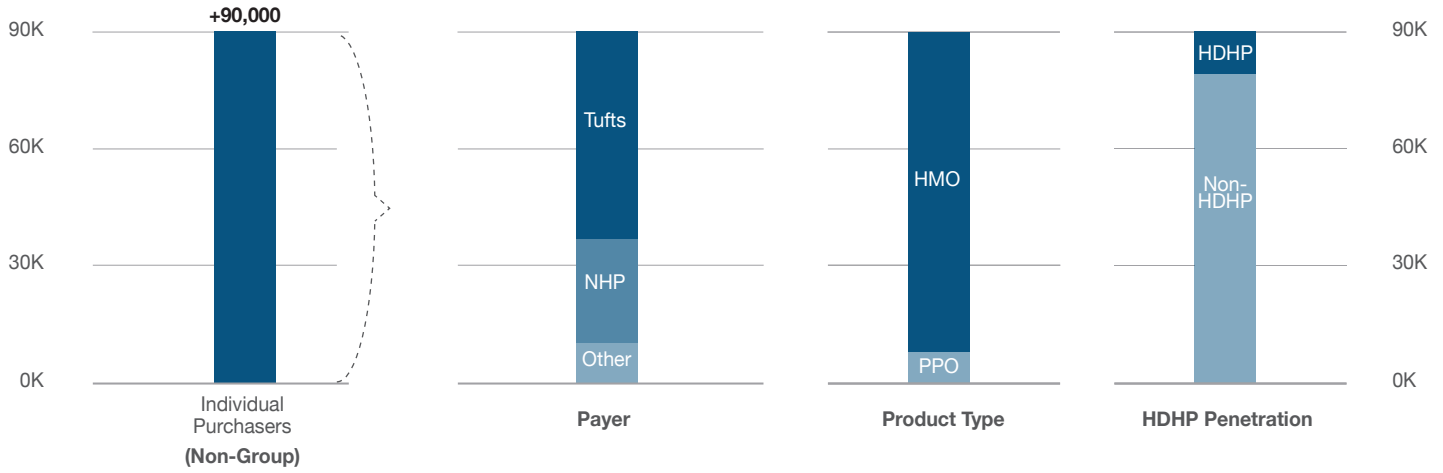
Massachusetts self-insured enrollment remained steady at 2.7 million members between 2014 and 2015, comprising nearly 60% of private commercial membership.

High deductible health plan (HDHP) membership in Massachusetts increased by 14% (118,000 members) between 2014 and 2015 to nearly one million members (21% of market membership).

1 **Individual Purchaser Increases by Payer, Product Type, and HDHP Penetration**

The increase in individual purchasers of health insurance in Massachusetts drove overall private commercial enrollment gains from 2014 to 2015. Payers offering QHPs through the Health Connector, such as Tufts (Network Health) and NHP, had the greatest increases in individual purchasers. Most net new individual purchasers enrolled in HMO, non-HDHP products.

THE SHARP INCREASE IN INDIVIDUAL PURCHASERS IN MASSACHUSETTS IMPACTED OVERALL MARKET ENROLLMENT AND COST TRENDS BETWEEN 2014 AND 2015.



Source: Payer-reported data to CHIA.

Notes: Based on MA contract-membership, which may include non-MA residents. Only payers with over 50,000 lives included; for full Individual purchaser enrollment counts, see *July 2016 Enrollment Trends*. HDHPs defined by IRS Individual plan standards. See technical appendix.

arrangements. Self-insurance among employers with fewer than 100 employees remains low in Massachusetts (Figure 2).[11] BCBSMA, United Healthcare (United), and HPHC remained the largest self-insured administrators in the Commonwealth, accounting for nearly 73% of Massachusetts's self-insured contract lives.

ENROLLMENT BY PRODUCT TYPE

Massachusetts HMO membership remained constant at approximately 1.9 million lives between 2014 and 2015, despite the addition of new individual, fully-insured, primarily HMO members to the market. HMO members have access to defined, often regional, provider networks, which they typically access through their primary care provider (PCP).

There was no change in HMO penetration, which remained at 42% of Massachusetts private commercial members, between 2014 and 2015.

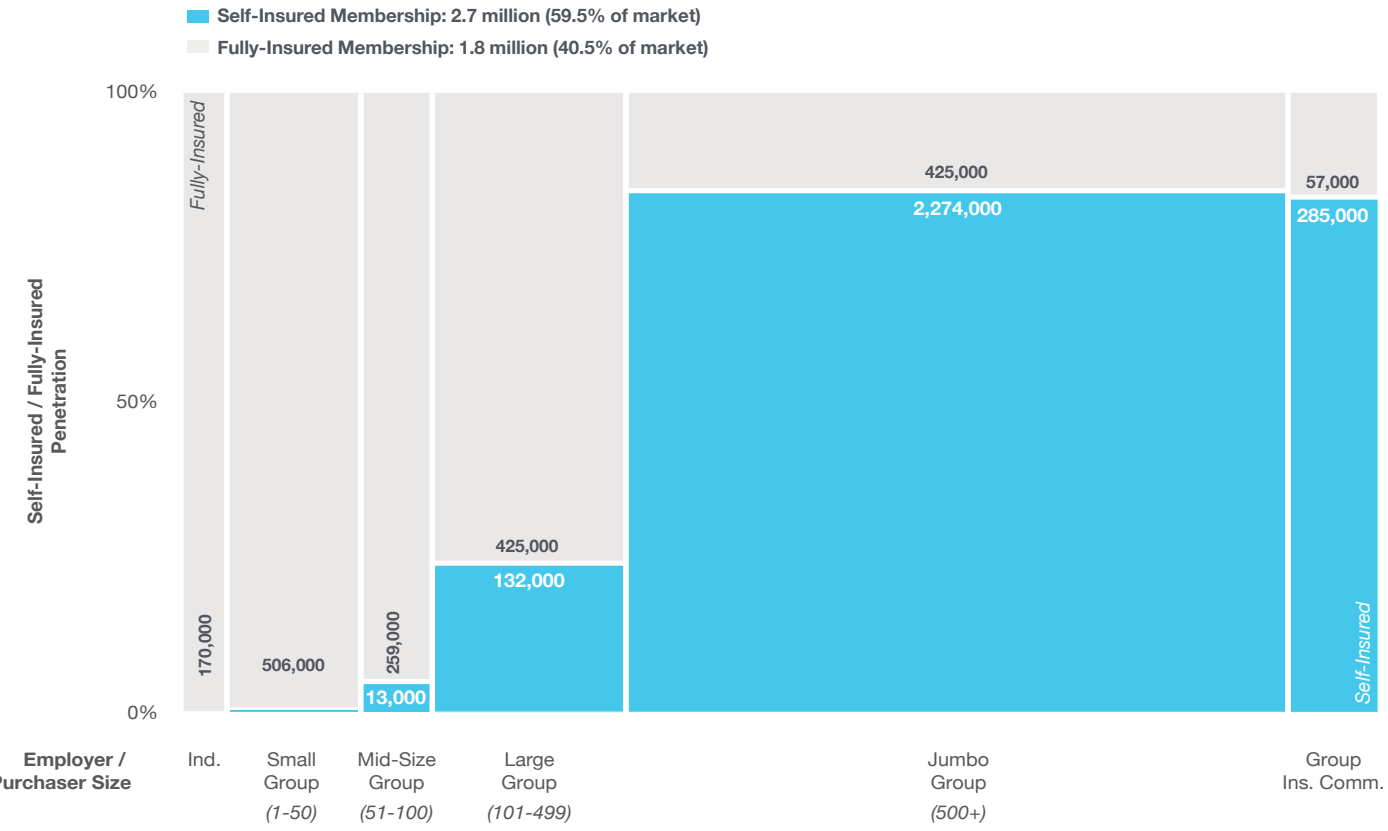
PPO membership also held steady in Massachusetts between 2014 and 2015 at approximately two million lives (45% of the market), ending a longer term trend of annual membership growth. PPO members have access to both "preferred" and broader provider networks without needing PCP approval; members may receive care from providers outside of the preferred network in exchange for higher cost-sharing.

Membership increases were reported for "Other" non-HMO, non-PPO plans between 2014 and 2015 (up by 11%, 62,000 members), which may include such hybrid products as Point-of-Service (POS) plans.[12] POS plans require a PCP referral, but like PPO plans, allow access to out-of-network providers in exchange for higher member cost-sharing. The GIC converted two of its larger PPO plans to POS plans in July 2015 as it sought cost-savings through the introduction of a PCP-referral requirement.[13]

2 Enrollment by Employer Size and Funding Type

Self-insured employers assume the financial risk for members' covered medical expenses. Self-insured plans are not subject to most state regulations, including mandated benefits. In Massachusetts, in 2015, nearly 60% of private commercial members were covered under self-insured plans; 84% of members who received their health insurance coverage through a "jumbo" (500+ employees) employer were covered under self-insured arrangements.

IN 2015, NEARLY 60% OF PRIVATE COMMERCIAL HEALTH INSURANCE MEMBERS WERE COVERED UNDER SELF-INSURED PLANS.



Source: Payer-reported data to CHIA.
Notes: Based on MA contract-membership, which may include non-MA residents. GIC presented separately for informational purposes; in past reports its membership mostly included under "Jumbo Group." See technical appendix.

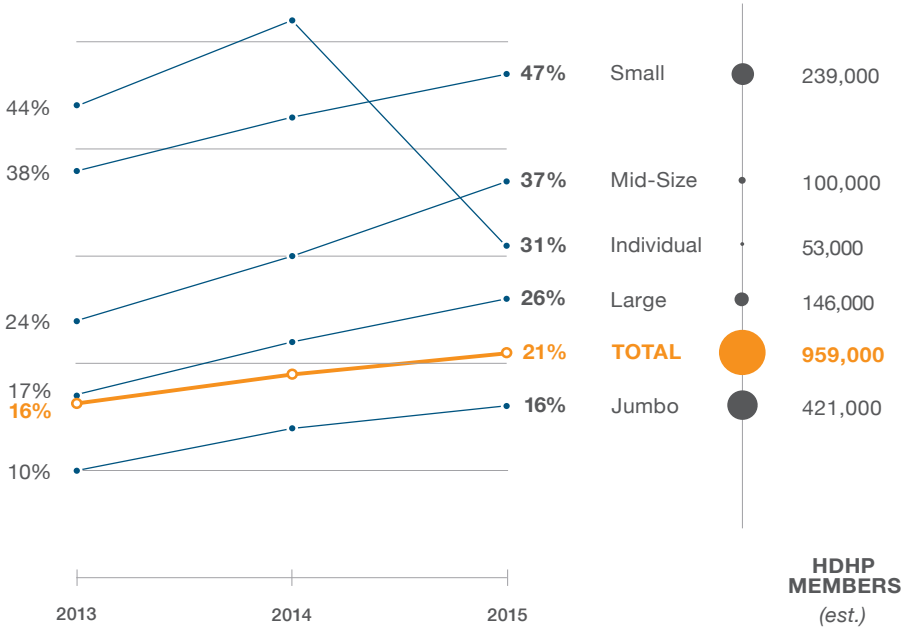
HIGH DEDUCTIBLE HEALTH PLAN ENROLLMENT

HDHP adoption, which was evident in both fully-insured and self-insured plans, increased by 14.0% (118,000 members) between 2014 and 2015. By 2015, close to one million Massachusetts members (21%) were enrolled in an HDHP. In 2015, HDHP members were responsible for paying an annual individual plan deductible in excess of $1,300 or an annual family plan deductible in excess of $2,600, though actual member plan deductibles may far exceed these minimum IRS-based thresholds.[14] HDHPs may be paired with employer-sponsored health reimbursement arrangements or health savings accounts to help employees mitigate increased out-of-pocket spending.

HDHP adoption increases occurred across nearly all employer sizes (Figure 3). Small group (1-50 employee) member HDHP adoption rose by four percentage points to cover 47% of all small group members; mid-size group (50-100 employees) HDHP adoption increased by seven percentage points to 37%; large group (101-499 employees) adoption increased four percentage points

3 Private Commercial High Deductible Health Plan Membership by Enrollment by Employer Size

HDHPs offer members lower premiums in exchange for potentially higher cost-sharing. Massachusetts HDHP membership continued to grow in the Commonwealth into 2015. More than one in five members (21%) were enrolled in an HDHP, up 14.0% (118,000 members) from 2014 (two percentage points). HDHP penetration rose within most employer-size categories, with the exception of individual purchasers, where new, lower-deductible members entered the market through the Health Connector.



NEARLY ONE MILLION MASSACHUSETTS HEALTH INSURANCE MEMBERS WERE ENROLLED IN A HIGH DEDUCTIBLE HEALTH PLAN BY 2015.

Source: Payer-reported data to CHIA.
Notes: Based on MA contract-membership, which may include non-MA residents. HDHPs defined by IRS Individual plan standards. Jumbo does not include GIC members who do not have HDHP. See technical appendix.

to 26%; and jumbo group (500+ employees) adoption increased two percentage points to 16%. While HDHP adoption generally increased in group insurance, market HDHP adoption was moderated by the proportional decrease in individual purchaser HDHP adoption (down 21 percentage points to 31%) as lower-deductible, subsidized Health Connector purchasers entered the market.[15]

BCBSMA, Cigna, and HPHC comprised nearly all of the HDHP increases in Massachusetts between 2014 and 2015. BCBSMA added over 56,000 new HDHP enrollees (a 15.2% increase), Cigna, nearly 59,000 (93.6%), and HPHC, 20,000 (17.4%), though shifts to HDHPs were seen within most payers' memberships.

LIMITED AND TIERED NETWORK ENROLLMENT

Tiered network membership, after several years of enrollment increases, remained steady from 2014 to 2015 at approximately 722,000 members or 16% of commercial membership. Under tiered network plans, payers may "tier" service providers by quality and/or cost-efficiency measures and hold members responsible for paying higher levels of cost-sharing for utilizing providers in lower-rated tiers.[15] The GIC has led payer development and adoption of tiered provider networks in the Commonwealth; its members continue to account for approximately 45% of Massachusetts's tiered network enrollment.

Limited network enrollment, within which members have access to a more limited provider network in exchange for lower premiums, continues to have low penetration in Massachusetts. Only 147,000 members, or approximately 3% of private commercial membership, were in limited network plans in 2015, an increase of 11,000 members (8% since 2014).

Understanding Employer Funding Types

Employers may choose to provide health insurance through fully- or self-insured arrangements. In fully-insured arrangements, an employer (or purchaser) contracts with a payer to provide health insurance for its employees and employee-dependents. The employer pays a pre-determined, set contract amount—or premium—to the payer, in exchange for the payer assuming the risk of covering medical expenses that may occur during the contract period for any eligible member.

In self-insured arrangements, an employer (or purchaser, such as the Group Insurance Commission) contracts with a payer or with a third party administrator (TPA) to design and administer health insurance plans for its employees and employee-dependents. However, in self-insured arrangements, the employer is responsible for paying eligible medical costs, as adjudicated and billed by the payer or TPA.* The employer pays the payer or TPA a pre-determined administrative service fee, in exchange for plan administration and utilization of the payer's provider network and negotiated rates. Self-insured plans are not subject to most Massachusetts insurance regulations, including mandated benefits, some taxes, and fees (e.g., insurer tax, premium tax).** More information on the costs incurred by fully- and self-insured employers is available in the next chapter.

* Employer may mitigate liability by purchasing stop-loss insurance.

** Due to legislation, self-insured GIC plans may not be exempt.

Endnotes

1 Chapter results based on contract-member data provided by Aetna, Anthem (UniCare), Blue Cross Blue Shield of Massachusetts, Cigna, Fallon Health, Harvard Pilgrim Health Care (including Health Plans Inc.), Health New England, Neighborhood Health Plan, Tufts Health Plan (including Tufts Public Plan aka Network Health), and United Healthcare. Results not directly comparable to previous reports as payer data may have changed. Payers with fewer than 50,000 Massachusetts primary, medical enrollees are not required to submit data; in 2015, this includes BMC HealthNet (BMC), which has a rapidly increasing QHP population. The exclusion of BMC from this report results in a slight understatement in the growth of individual purchasers in Massachusetts (approx. 20,000 in 2015).

2 Massachusetts residents may be covered by contracts executed outside of the Commonwealth.

3 Center for Health Information and Analysis, *Findings from the 2015 Massachusetts Health Insurance Survey* (Boston, December 2015), http://www.chiamass.gov/assets/docs/r/survey/mhis-2015/2015-MHIS.pdf. 2015 MHIS fielded between May 18 and August 2, 2015. Shown results are scaled to full population based on 96.4% estimated insurance rate.

4 As of 2014-15 Open Enrollment, Health Connector enrollees were eligible for state and federal premium and cost-sharing subsidies.

5 Coverage sold through the Health Connector is reported as private commercial coverage. The largest share of Health Connector members are those with incomes below 300% FPL, who may receive federal premium and state and federal cost-sharing subsidies (ConnectorCare). Members between 300% and 400% FPL may also receive federal premium subsidies.

6 MassHealth also resumed annual renewals (ongoing eligibility redeterminations) during this period.

7 Center for Health Information and Analysis, *July 2016 Enrollment Trends* (Boston, July 2016), http://www.chiamass.gov/assets/Uploads/enrollment/enrollment-trends-july-2016.pdf.

8 CHIA, *Findings from the 2015 Massachusetts Health Insurance Survey*.

9 GIC members are broken out separately as the GIC is a unique health insurance purchaser in the Massachusetts market. In previous reports, most of the GIC membership was included under "Jumbo."

10 Kaiser Family Foundation and Health Research & Educational Trust, *Employer Health Benefits: 2015 Annual Survey* (Menlo Park, CA, September 2015), http://files.kff.org/attachment/report-2015-employer-health-benefits-survey. Massachusetts self-insured rates are in-line with national averages.

11 Only 1% of individual purchasers and enrollees of employers with 100 or fewer employees were covered under self-insured arrangements in 2015.

12 Some payers may have included their POS enrollment under HMO, depending upon plan design and alignment with CHIA's specifications.

13 "Harvard Independence and Tufts Health Navigator Become POS Plans July 1, 2015: What Does This Mean?" Executive Office for Administration and Finance, accessed August 3, 2016, http://www.mass.gov/anf/employee-insurance-and-retirement-benefits/oversight-agencies/gic/harvard-independence-and-tufts-navigator-become-pos-plans.html.

14 Individual plan HDHP deductibles were $1,250 in 2013 and 2014, and $1,300 in 2015. In 2015, deductible and out-of-pocket maximums for HSA-compatible HDHPs were $6,450 for individual plan in-network services and $12,900 for family plans. See IRS guidance.

15 Connector Care members qualify for a zero-dollar deductible; Gold and Platinum members would also have deductibles below IRS-HDHP thresholds.

16 Out-of-pocket price variation aims to encourage members to choose lower cost or higher quality providers. Tiering methods may vary across payers and products. Tiered network results should be viewed with caution, as other unaccounted for factors, such as membership and other plan and network characteristics, may skew results.

PRIVATE COMMERCIAL COVERAGE COSTS

KEY FINDINGS

The average cost of providing private commercial health insurance in Massachusetts rose by 1.9% between 2014 and 2015. Excluding individual purchasers, the majority of which entered the market in 2015 into lower-premium plans, the cost of coverage increased 2.7%.

Between 2014 and 2015, fully-insured premiums increased, on average, by 1.6% to $443 PMPM or $5,317 per member per year. Excluding individual purchasers, fully-insured premiums grew by 3.6%.

Between 2014 and 2015, self-insured employers' cost-of-claims increased by 2.1%, on average to $437 PMPM or $5,240 per member per year.

BACKGROUND

CHIA collects and analyzes Massachusetts private commercial health insurance cost of coverage data in order to monitor trends in this area on behalf of Massachusetts employers and employees. Cost data is reported by payer, employer size category, product type (HMO, PPO), and benefit design type (HDHP, tiered network, limited network) for 2013 through 2015. Plan costs are scaled to comprehensive benefits (see technical appendix).[1]

MASSACHUSETTS COST OF COVERAGE (FULLY-INSURED & SELF-INSURED)

The average cost of providing private commercial health insurance in Massachusetts rose by approximately 1.9% between 2014 and 2015, as measured by fully-insured premiums and self-insured cost-of-claims.[2] Excluding individual purchasers, the majority of which entered the market in 2015 into lower-cost plans, the cost of coverage increased 2.7% during this period. These increases were higher than the inflation rate (0.6%) and average income growth (2.5%).[3] Average benefit levels have declined slightly.

Private commercial insurance is administered on a fully- or self-insured contract-basis, with employers facing different sets of costs for each funding method. The cost for providing fully-insured coverage is measured by the annual premium, an amount prospectively set by the payer, in exchange for which the payer will assume all financial risk associated with members' eligible medical expenses through the contract period.[4] The cost for providing self-insured coverage, where the employer retains the financial risk associated with members' medical claims, is based on members' actual medical expenses and an administrative service fee (ASF).

A self-insured employer's greatest coverage expense—approximately 95% of its average annual direct cost—is the "cost-of-claims" for its members, as adjudicated and billed by its payer or third party administrator (TPA).[5,6] Self-insured employers also pay their payer or TPA a predetermined ASF for services such as health insurance plan design, claims administration, and/or provider networks with negotiated rates.[7]

CHIA annually collects data on fully-insured employers' premiums and self-insured employers' cost-of-claims. These data are not directly comparable, as premiums are set by payers *prospectively*, while cost-of-claims paid by an employer *retroactively*.[8] ASF data submissions were not required by CHIA this year, and are not included in self-insured cost of coverage.

Employees of Massachusetts private commercial market employers directly pay approximately 25% of the cost of their health insurance each year, excluding additional cost-sharing.[9]

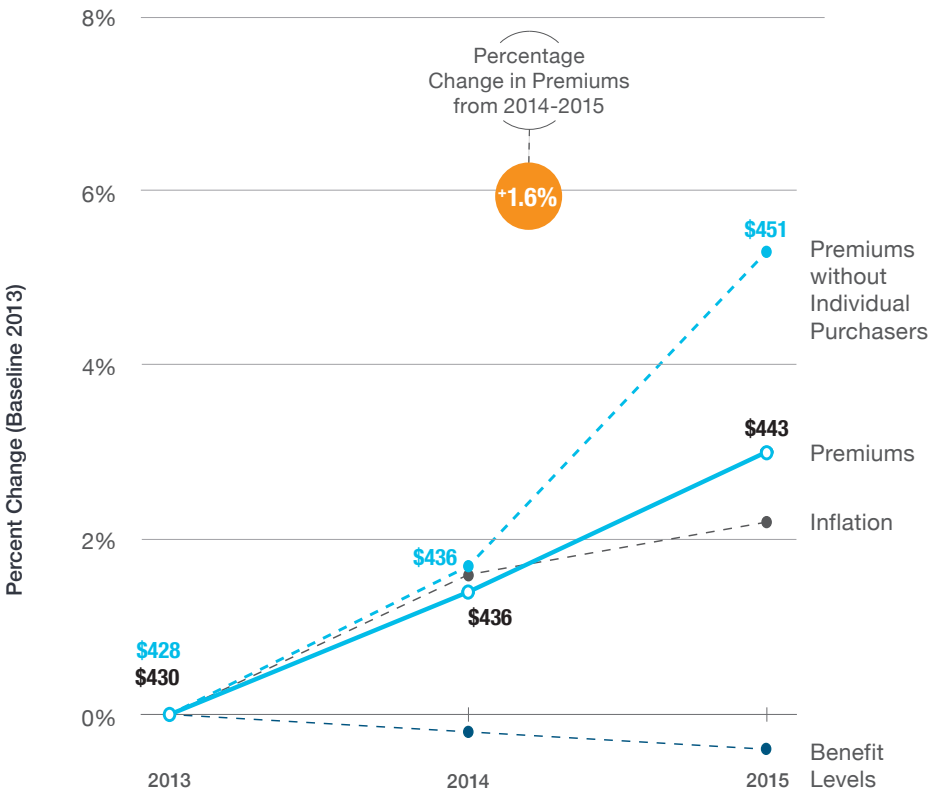
FULLY-INSURED PREMIUMS AND BENEFIT LEVELS

Between 2014 and 2015, fully-insured premiums increased, on average, by 1.6% to $443 PMPM or $5,317 per member per year. Excluding individual purchasers, a majority of which are new lower-cost plan entrants into the private commercial market, fully-insured premiums grew by 3.6%, more than double the increase seen from 2013 to 2014 (1.7%) (Figure 1). Average fully-insured member benefit levels declined slightly.

Across all employer sizes, premiums increased between 3.2% and 4.2% from 2014 to 2015, except for individual purchasers (-18.2%), where new, low-premium plan

1 Fully-Insured Premiums and Benefit Levels

Premium costs accelerated slightly between 2014 and 2015 (1.6%). Removing individual purchasers—half of whom entered the market into lower-premium plans in 2015—reveals even higher premiums growth for most private commercial members (3.6%).



	Members (Est.) 2015	Premiums 2015	Premium Change 2014-2015
Aetna	36,000	$260	12.1%
Anthem	3,000	$884	3.0%
BCBSMA	881,000	$454	4.2%
Cigna	7,000	$415	9.9%
Fallon	100,000	$488	6.0%
HPHC	314,000	$456	-0.1%
HNE	89,000	$402	6.2%
NHP	118,000	$382	0.4%
Tufts	275,000	$434	-5.8%
United	21,000	n/a	n/a
Total	**1,842,000**	**$443**	**1.6%**

FULLY-INSURED PREMIUMS GREW 1.6% BETWEEN 2014 AND 2015 AS BENEFIT LEVELS SLIGHTLY DECLINED.

Source: Payer-reported data to CHIA; US Bureau of Labor Statistics; Oliver Wyman Analysis.

Notes: Based on MA contract-membership, which may include non-MA residents. Premiums net of MLR rebates and scaled by the "Percent of Benefits Not Carved Out." United Healthcare financial data excluded due to data quality concerns. Inflation measured by the CPI -U for Boston-Brockton-Nashua, not seasonally adjusted. Tufts includes Tufts Public Plans (Network Health) data. See technical appendix.

entrants brought down category averages; GIC members also had lower premium increases than market averages (1.9%). Mid-size and large group members paid the highest average premiums in the market ($464 PMPM and $462 PMPM, respectively).

In 2015, Anthem (UniCare), Fallon, and HPHC members paid the highest average premiums PMPM, with various benefit levels.[10] Aetna, NHP, and HNE members paid the lowest average premiums PMPM, while maintaining higher than market-average benefit levels (Figure 2).[11] Of Massachusetts's larger fully-insured payers, Fallon and HNE members experienced the highest average payer premium growth PMPM (6.0% and 6.2%, respectively) between 2014 and 2015.

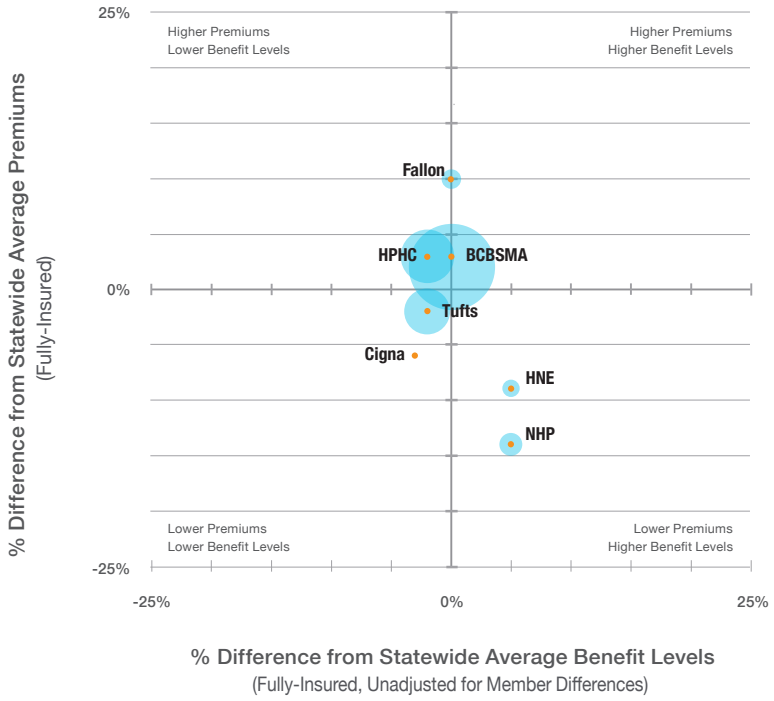
SELF-INSURED COST-OF-CLAIMS AND BENEFIT LEVELS

Between 2014 and 2015, average self-insured cost-of-claims increased by 2.1% to $437 PMPM, or $5,240 per member per year, with growth decelerating from the previous year's trend (5.0%).[12] Self-insured plan benefit levels declined slightly (Figure 3).

Self-insured cost-of-claims grew by 2.1% for the largest self-insured employers in Massachusetts (500+

2 Payer Premiums and Benefit Levels vs. Statewide Average

Employers and members weigh health plan selection, balancing up-front premiums with higher potential out-of-pocket patient costs. Payers design their individual products and portfolio of offerings accordingly (e.g., HDHPs).



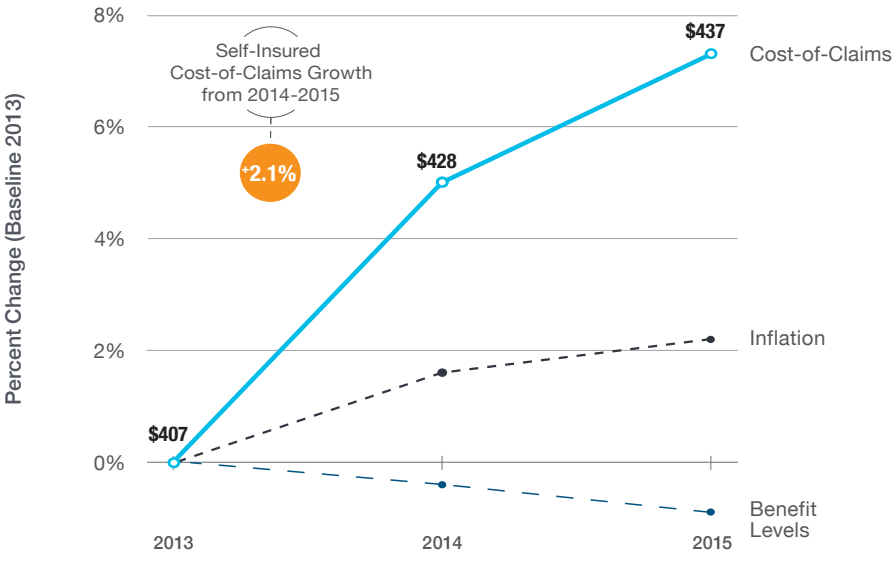
HEALTH INSURANCE PURCHASERS MAY CONSIDER BOTH PREMIUMS AND BENEFIT LEVELS WHEN MAKING HEALTH PLAN CHOICES.

Source: Payer-reported data to CHIA; Oliver Wyman Analysis.

Notes: Based on MA contract-membership, which may include non-MA residents. Premiums net of MLR rebates and scaled by the "Percent of Benefits Not Carved Out." Benefits and premiums not adjusted for member or employer characteristics. United Healthcare financial data excluded due to data quality concerns. Aetna and Anthem (Unicare) not shown; Aetna has a high student population, Anthem, a high GIC non-Medicare retiree population, leaving their fully-insured populations as reasonable outliers. Tufts includes Tufts Public Plans (Network Health) data. See technical appendix.

3 Self-Insured Cost-of-Claims and Benefit Levels

After substantial self-insured claims cost growth between 2013 and 2014 (5.0%), the cost-of-claims moderated between 2014 and 2015 (2.1%).



Source: Payer-reported data to CHIA; US Bureau of Labor Statistics; Oliver Wyman Analysis.

Notes: Based on MA contract-membership, which may include non-MA residents. Cost-of-claims scaled by the "Percent of Benefits Not Carved Out". United Healthcare financial data excluded due to data quality concerns. Inflation measured by the CPI -U for Boston-Brockton-Nashua, not seasonally adjusted. Tufts includes Tufts Public Plans (Network Health) data. See technical appendix.

SELF-INSURED COST-OF-CLAIMS GROWTH MODERATED SLIGHTLY TO 2.1% BETWEEN 2014 AND 2015, AFTER GROWING BY 5.0% THE PREVIOUS YEAR.

	Members *(Est.)* 2015	Cost-of-Claims 2015	Cost-of-Claims Change 2014-2015
Aetna	64,000	$314	-20.7%
Anthem	95,000	$516	1.8%
BCBSMA	1,159,000	$436	2.6%
Cigna	273,000	$366	4.0%
Fallon	26,000	$368	-5.6%
HPHC	380,000	$501	3.4%
HNE	30,000	$392	3.4%
Tufts	243,000	$434	1.2%
United	434,000	n/a	n/a
Total	**2,704,000**	**$437**	**2.1%**

employees) and 2.0% for the GIC population, though GIC members' incurred claims were 16.7% higher ($501 PMPM vs. $430 PMPM) in 2015.

Several reporting payers voluntarily provided CHIA with ASF data.[13] Based on data for approximately 30% of self-insured members in Massachusetts, average ASFs declined to approximately $18.95 PMPM, down from $19.47 PMPM for comparable payer-memberships in 2014 (-2.7%).

Self-insured employers, on average, between 2014 and 2015, continued to "carve-out" notable portions of their pharmacy and behavioral health services from their primary administrator. In 2015, payers reported that approximately 10% of their self-insured members' claim-dollars were administered by another payer.[14] This was consistent with levels seen in 2013 and 2014. The decentralization of benefit plan design, membership, and claims administration for certain services may have implications for plan administrators and policymakers as they continue efforts to improve care coordination.

Endnotes

1 Chapter results based on contract-member data provided by Aetna, Anthem (UniCare), Blue Cross Blue Shield of Massachusetts, Cigna, Fallon Health, Harvard Pilgrim Health Care (including Health Plans Inc.), Health New England, Neighborhood Health Plan, and Tufts Health Plan (including Tufts Public Plan aka Network Health). United Healthcare was unable to provide reliable financial data for reporting. Results not directly comparable to previous reports as payer data may have changed. Payers with fewer than 50,000 Massachusetts primary, medical enrollees are not required to submit data; in 2015, this includes BMC HealthNet (BMC), which has a rapidly increasing QHP population. The exclusion of BMC from this report results in a slight understatement in the growth of individual purchasers in Massachusetts (approx. 20,000 in 2015).

2 Excluding ASFs.

3 US Bureau of Labor Statistics (BLS) Consumer Price Index – All Urban Consumers, not seasonally adjusted, for the Boston-Brockton-Nashua area, from 2014 to 2015 rose from 255.184 to 256.715 (+0.6%). BLS Employment Cost Index for wages and salaries for private industry workers in the Boston-Worcester-Manchester area between December 2014 and December 2015 rose 2.5%.

4 Employers may mitigate this risk by purchasing stop-loss insurance.

5 Based on CHIA 2014 data, Massachusetts administrators charged $22 PMPM in ASFs out of a $456 PMPM premium-equivalent (ASF + claims) to administer self-insured members, on average (approx. 5.0% not capture by claim amount). Self-insured employers may mitigate claims risk by also, separately purchasing stop-loss insurance from their primary administrator or on the secondary market. Stop-loss insurance and other indirect expenses are not included in this proportion.

6 As requested from payers, CHIA's cost-of-claims is inclusive of non-claim payments and rebate reimbursements.

7 Payers/TPAs may also provide population health management services for an additional fee.

8 For example, if a membership's claims and/or utilization are higher than expected for a given year, self-insured cost-of-claims would instantly reflect these cost increases, while fully-insured premiums may not reflect changes until the following year.

9 Employee contribution data from the Medical Expenditure Panel Survey – Insurance Component (MEPS-IC). Each year, both fully- and self-insured employers—often in consultation with their payer or TPA—assign employees a direct "premium contribution" that reflects the value of the health plan each employee selects, though the full premium is generally considered to be part of an employees' compensation.

10 Anthem (UniCare)'s membership is primarily comprised of GIC, non-Medicare, retirees, who cost more, and use more services. Anthem (UniCare) members' average premiums were $884 PMPM, with an average actuarial value of 0.94; Fallon, $488 PMPM, 0.80; HPHC, $456 PMPM, 0.86.

11 Aetna has a large student membership population, which tends to pay lower premiums for more generous services, though also utilizes services at lower rates. HNE's population was concentrated in the lower-cost Western portion of Massachusetts. Aetna members' average premiums were $260 PMPM, with an average actuarial value of 0.90; NHP, $382 PMPM, 0.92; HNE, $402 PMPM, 0.92.

12 Cigna financial data's inclusion in this year's report reduced market self-insured claims-costs for 2013 and 2014; results also do not include ASF costs, and are not comparable to those presented in previous reports.

13 ASF data provided by Aetna, Anthem (Unicare), HPHC, HNE, and Tufts.

14 Payers were asked to approximate this percentage by comparing like groups to arrive at an estimate of missing claim-dollars.

PRIVATE COMMERCIAL CONTRACT MEMBER COST-SHARING

KEY FINDINGS

Average Massachusetts private commercial health insurance member cost-sharing increased by 4.4% between 2014 and 2015, to $47 PMPM or $567 per member per year. While self-insured members continued to pay less than fully-insured members ($44 PMPM vs. $51 PMPM), their cost-sharing grew at twice the rate (6.0% vs. 2.5%).

PPO product members continued to pay more out-of-pocket than HMO product members, both per member per month ($52 PMPM and $42 PMPM) and per health care dollar spent (11.3% and 9.1%).

During the previous two year period, average Massachusetts member medical cost-sharing grew by 10.3%, exceeding average income growth (6.1%) and average cost of coverage growth (5.3%). Massachusetts health plan members are increasingly bearing a greater proportion of medical spending.

BACKGROUND

CHIA collects and analyzes Massachusetts private commercial health insurance member cost-sharing data as part of its efforts to monitor the costs facing Massachusetts private health insurance members. Member cost-sharing data is reported by payer, employer size category, product type (HMO, PPO), and benefit design type (HDHP, tiered network, limited network) for 2013 through 2015. Plan costs are scaled to comprehensive benefits (see technical appendix).

MASSACHUSETTS MEMBER COST-SHARING

Average Massachusetts private commercial health insurance member cost-sharing increased by 4.4% between 2014 and 2015 to $47 PMPM, or $567 per member per year. Self-insured member cost-sharing was lower than fully-insured member cost-sharing, on average, but grew at twice the rate (Figure 1). Self-insured member cost-sharing grew 6.0% between 2014 and 2015 to $44 PMPM; fully-insured cost-sharing grew 2.5% to $51 PMPM.

Member cost-sharing includes all medical expenses covered by a member's plan, but not paid for by the payer or employer (e.g., deductibles, co-pays, and co-insurance). It includes members who had little to no medical costs as well as those who may have experienced substantial medical costs. It does not include out-of-pocket payments for goods and services not covered by insurance (e.g., over-the-counter medicines, vision, and dental care). Member cost-sharing also does not account for employer offsets, such as health reimbursement arrangements or health savings accounts.

These higher patient cost-sharing responsibilities, combined with increasing overall medical costs, contributed to cost-sharing growth.[1] Cost-sharing and plan benefit levels, however, varied by payer, employer size, and product design. For example, members of Massachusetts's largest "jumbo" (500+ employees) firms, which are largely self-insured, paid less out-of-pocket than members of Massachusetts's small group firms, both per member per month ($43 PMPM and $61 PMPM, respectively) and per health care dollar spent (9.1% and 13.5%, respectively). Small group members' cost-sharing increased by 6.1% from 2014 to 2015; GIC member cost-sharing though increased even more (8.5%). Individual purchasers' average cost-sharing declined (-15.9%) (Figure 2).

Members of PPO products paid more out-of-pocket than members of HMO products both per member per month ($52 PMPM and $42 PMPM, respectively) and per health care dollar spent (11.3% and 9.1%, respectively).

From 2014 to 2015, Anthem (UniCare) GIC members experienced the greatest cost-sharing growth of any payers' membership, up 15.3% to $45 PMPM.[2] Fallon members, on average, for the second year, paid the most out-of-pocket of any payer's membership. HNE members, conversely, experienced declining cost-sharing during the period (-10.3% to $42 PMPM).

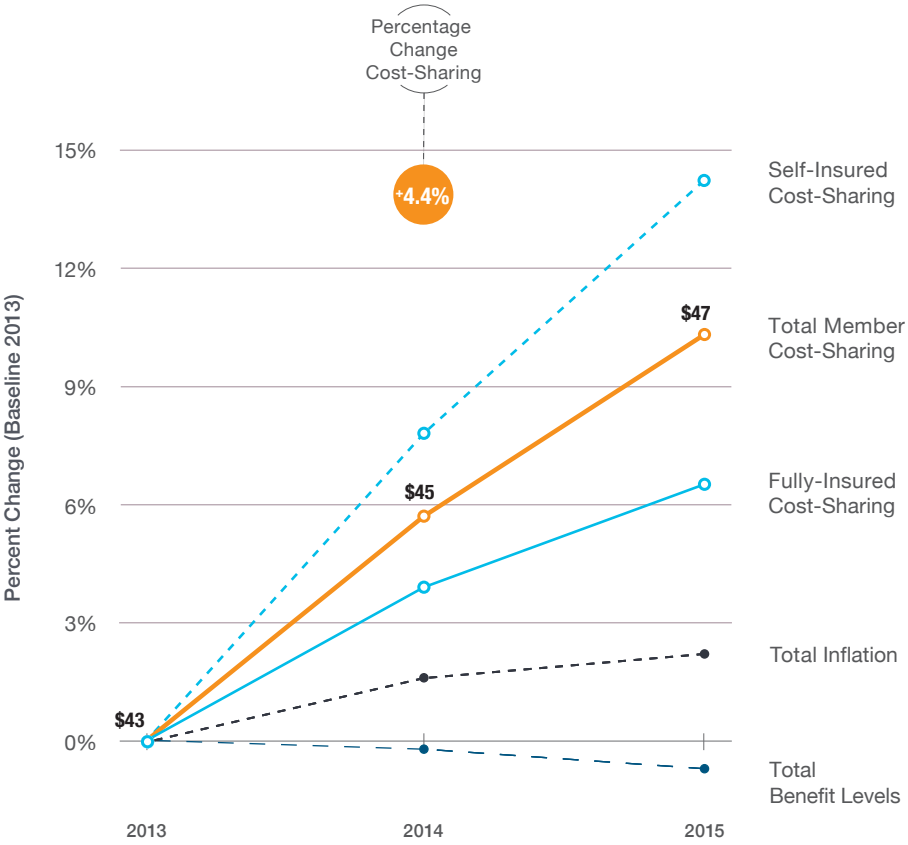
HDHP and limited network members' cost-sharing grew less than market average (-4.1% and 2.0%, respectively) though HDHP members paid cost-sharing well above market averages ($72 PMPM vs. $47 PMPM).[3] Tiered network members' cost-sharing grew 5.0% to $45 PMPM.

COST-SHARING'S BROADER IMPACT

During the two year period, 2013 through 2015, average Massachusetts medical cost-sharing growth of 10.3% continued to exceed average income gains (6.1%).[4]

1 Private Commercial Cost-Sharing by Funding Type

Member cost-sharing includes all medical care expenses covered by a member's plan, but not paid for by the payer. This includes deductibles, co-pays, and co-insurance, but not other out-of-pocket spending not covered by a member's plan (e.g., over-the-counter medicine). Member cost-sharing increased by over 10% between 2013 to 2015, to $47 PMPM—or over $567 per member per year.



Funding Type	Members *(Est.)* 2015	Cost-Sharing PMPM 2015	Change 2014-2015
Fully-insured	1,842,000	$51	2.5%
Self-insured	2,704,000	$44	6.0%
Total	**4,546,000**	**$47**	**4.4%**

MEMBER COST-SHARING CONTINUES TO INCREASE MORE THAN INFLATION AND WAGES. MEMBERS CONTINUE TO BEAR A GREATER SHARE OF OVERALL HEALTH CARE COSTS.

Source: Payer-reported data to CHIA; US Bureau of Labor Statistics; Oliver Wyman Analysis. Employment Cost Index for private industry workers, wages, and salaries (2013-2015).

Notes: Based on MA contract-membership, which may include non-MA residents. Premiums net of MLR rebates and scaled by the "Percent of Benefits Not Carved Out." Inflation measured by the CPI -U for Boston-Brockton-Nashua, not seasonally adjusted. United Healthcare financial data excluded due to data quality concerns (member months also excluded). See technical appendix.

Combined with increasing cost of coverage (5.3%), the amount Massachusetts employees and their families are expected to pay for health care is growing at rates higher than overall market spending. The impact on members of these higher costs on health system access and affordability appears in recent survey data.

In 2015, 21% of Massachusetts non-elderly adults reported having an unmet health care need during the previous year due to its expected cost; similarly, 12% reported foregoing needed prescription drugs.[5] Nearly one in five Massachusetts non-elderly adults (19%) had trouble paying their medical bills: 15% had to cut back on or withdraw from savings to pay for them, while 8.0% had to borrow. One in ten Massachusetts non-elderly adults reported receiving a call from a collection agency about medical debt in 2015. Ten percent of non-elderly adults also reported that someone in their family switched to a lower cost health insurance plan during the past year in order to reduce their health care spending. Lower cost plans, by design, often have less generous benefits or more limited provider networks, potentially putting subscribers and dependents at more financial risk should medical services be needed.

2 Private Commercial Cost-Sharing by Employer Size

Market Sector	Members *(Est.)* 2015	Cost-Sharing PMPM 2015	Change 2014-2015
Individual	170,000	$62	-15.9%
Small Group	506,000	$61	6.1%
Mid-Size Group	272,000	$52	1.0%
Large Group	556,000	$44	3.6%
Jumbo Group	2,699,000	$43	4.2%
GIC	342,000	$48	8.5%
Total	**4,546,000**	**$47**	**4.4%**

Source: Payer-reported data to CHIA.

Notes: Based on MA contract-membership, which may include non-MA residents. Cost-sharing scaled by the "Percent of Benefits Not Carved Out." Individual cost-sharing has not been reduced to account for subsidies through the Health Connector. See technical appendix.

Endnotes

1 Average private commercial scaled allowed amounts rose from $457 PMPM to $466 PMPM (2.0%).

2 Network Health (Tufts Public Plan) members, who were primarily enrolled in QHP products in 2015, also experienced high levels of cost-sharing.

3 Self-selection led to younger and healthier memberships.

4 From 2012 to 2014, Massachusetts member cost-sharing rose by 7.6%, as employee wages increased by 5.3%.

5 Center for Health Information and Analysis, *Findings from the 2015 Massachusetts Health Insurance Survey* (Boston, December 2015), http://www.chiamass.gov/assets/docs/r/survey/mhis-2015/2015-MHIS.pdf. 2015 MHIS fielded between May 18 and August 2, 2015. The 2016 Massachusetts Health Reform Survey similarly found that 19.3% of Massachusetts non-elderly residents did not get needed health care due to the cost of care in 2015, up from 13.8% in 2013.

PRIVATE COMMERCIAL PAYER USE OF FUNDS

BACKGROUND

CHIA collects and analyzes data on Massachusetts private commercial health insurance payers' administrative costs as part of its efforts to monitor and appropriately profile overall health plan spending. For fully-insured lines of business, CHIA reports data on "premium retention," which is the proportion of premium dollars not spent on member medical claims; it also reports premium retention by expense category. For self-insured lines of business, several payers voluntarily provided CHIA with ASF data, detailing how much was charged to self-insured employers in exchange for plan administration.

FULLY-INSURED PREMIUM RETENTION

In 2015, as in 2014, the vast majority of premium dollars that payers collected (89%) were used to pay for member medical care. The remainder which is "retained" (11%) was used by payers to pay for plan administration, broker fees, and premium taxes, among other expenses, with residual funds representing surplus or deficit (profit or loss).[1] However, because fully-insured premiums increased slightly faster than incurred claims (2.0% vs. 1.5%), payer retention increased to approximately $47 PMPM, on average, up from $45 PMPM in 2014 (4.7%) (Figure 1).

In 2015, the Massachusetts Medical Loss Ratio (MLR) merged market threshold requirement was lowered to 0.88, from 0.89 in 2014. The fully-insured large group MLR threshold remained at 0.85. Most payers are expected to meet the MLR requirements for their populations in 2015, without substantial rebate distribution required.

For fully-insured plans with more than 100 employees, who were not subject to risk-adjustment, general administrative expenses in 2015 remained similar to 2014 (down 4.0% to $29 PMPM), with a continued increase in taxes and fees (up 26.9% to $13 PMPM). In 2015, general administrative expenses, including cost of plan design, claims administration, and customer service, comprised about 55% of all non-merged market non-medical claims spending; broker commissions comprised 21%. Taxes and fees increased to 25.0% of non-medical claims spending, up from 7.6% in 2013 and 20.3% in 2014.

SELF-INSURED ADMINISTRATIVE SERVICE FEES

Payers and TPAs charge self-insured employers on a per-contract, per-subscriber, or a per-member basis for administering their self-insured plan and claims. Based on voluntary data submissions accounting for approximately 30% of Massachusetts's self-insured members, ASFs decreased to approximately $19 PMPM in 2015, down from $20 PMPM for comparable payer-memberships in 2014 (-2.7%). ASFs may vary by employer size and the level and types of services provided. For example, some administrators may offer population health management services, while others provide simpler claims processing packages.

KEY FINDINGS

In 2015, as in 2014, the vast majority of fully-insured premium dollars were used to pay for member medical care (89%). The "retained" remainder was used by payers to pay for plan administration, broker fees, and taxes, among other expenses, with any residual funds representing surplus.

Average large group, fully-insured premium retention increased to $53 PMPM in 2015, up from $51 PMPM in 2014 (2.8%).

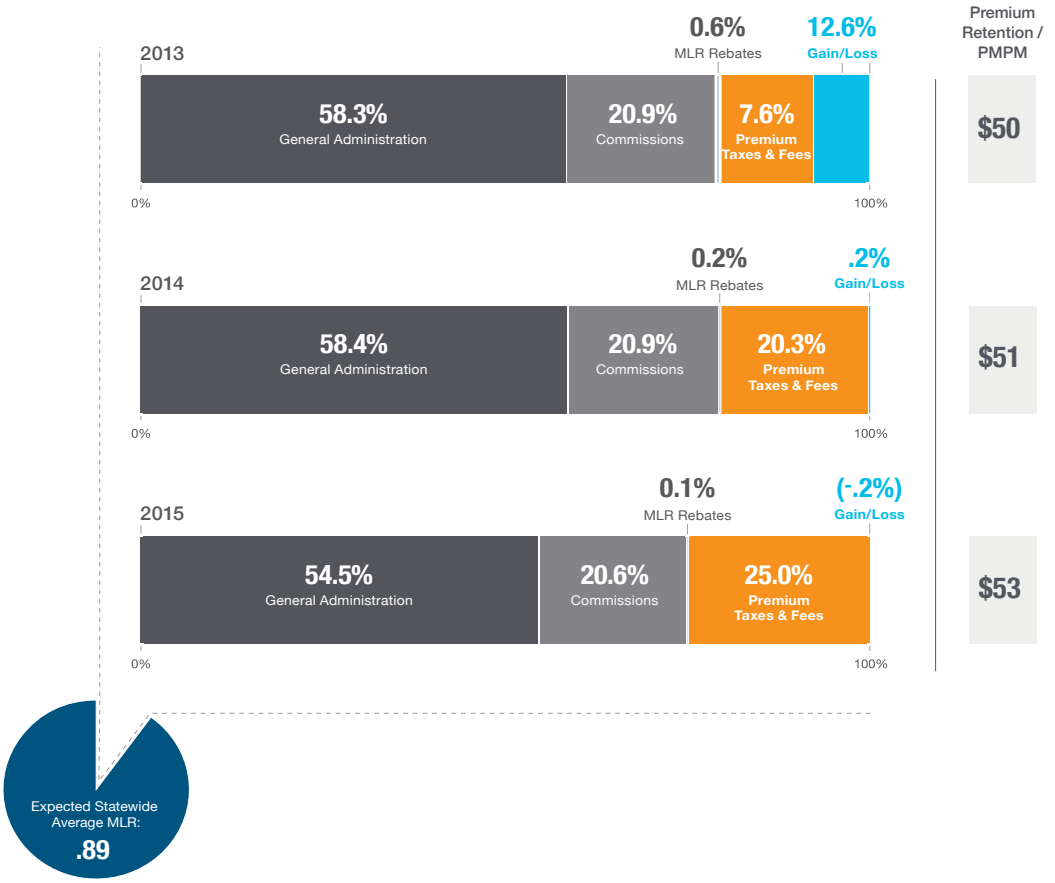
As a proportion of large group premium retention, taxes more than tripled between 2013 and 2015 from 7.6% to 25.0% of expenses, as surplus declined from 12.6% to a 0.2% loss. General administration declined slightly as a proportion of premium retention dollars (58.3% to 54.5%).

Endnote

[1] Retained funds are net of any non-claims payments and pharmacy rebates, which are already included in incurred claim costs; payer payment-level expectations impact premiums.

1 Private Commercial Fully-Insured Non-Merged Market Premiums Retention

More than half of large group premium retention—the remainder after payers pay members' medical expenses—are used to design and administer plans, manage networks, provide customer service, and to cover general administrative expenses. These amounts have held relatively constant between 2013 and 2015 between $28 and $30 PMPM. However, the proportion (and amount) payers have had to pay in taxes and fees has increased more than threefold during that time.



THE AMOUNT PAYERS PAID FOR TAXES AND FEES INCREASED MORE THAN THREEFOLD FOR THEIR NON-MERGED MARKET FULLY-INSURED MEMBERS BETWEEN 2013 AND 2015, AND PAYER SURPLUSES, ON AVERAGE, WERE ELIMINATED.

Source: Supplement Health Care Exhibit (SHCE) payer-reported data , as analyzed by Oliver Wyman.

Notes: Based on MA contract-membership, which may include non-MA residents. Merged Market (individual and small group purchasers) excluded from analysis. See technical appendix.

Massachusetts 3R Transfers

The ACA established three programs—Risk Adjustment, Reinsurance (temporary), and Risk Corridors (temporary)—that were designed to stabilize premiums and protect against adverse selection during the initial years of the law's implementation. Massachusetts Risk Adjustment results were released in June 2016 for payers insuring enrollees in the Massachusetts merged market during 2015.* Transfers of $85.7 million were assigned to balance out the risk and cost, up from $61 million in 2014. BCBSMA, Massachusetts's largest insurer, is owed the most from risk adjustment, $41 million; Tufts Public Plans (previously known as Network Health) is expected to pay the most ($35 million). Massachusetts's small, thousand-member co-op health plan, Minuteman, is expected to pay $6.1 million. (For more information, visit the Massachusetts Health Connector at www.MAhealthconnector.org).

CHIA collected data from payers on the financial amounts associated with the "3Rs" can be found in the databook. (For more information on how these programs work, see this Kaiser Family Foundation issue brief at http://kff.org/health-reform/issue-brief/explaining-health-care-reform-risk-adjustment-reinsurance-and-risk-corridors/).

* In August 2016, the Health Connector informed all payers in the Massachusetts merged market that the following payers had filed reconsideration requests: BCBSMA, HNE, and Minuteman.

Glossary of Terms

Actuarial Value: A measure of a plan's generosity. The share of health care expenses a plan covers for a typical group of enrollees. Actuarial values may be estimated by several different methods; for the method used in this report, see technical appendix.

Alternative Payment Methods (APMs): Payment methods used by a payer to reimburse heath care providers that are not solely based on the fee-for-service basis.

Administrative Service Fees (ASFs): The fees earned by payers or third party administrators for the administration of a self-insured health plan excluding any premiums collected for stop-loss coverage.

Administrative Service Only: Commercial payers that perform administrative services for self-insured employers. Services can include plan design and network access, claims adjudication and administration, and/or population health management.

Claims, Allowed: The total cost of medical claims to the payer after the negotiated provider or network discount.

Claims, Incurred: The total cost of medical claims to the payer after the negotiated provider or network discount and after member cost-sharing.

Cost of Coverage: The annual cost of providing primary medical coverage to Massachusetts employers (or purchasers) and employees. For fully-insured coverage, this is measured by the annual premium an employer pays to a private commercial payer to cover the medical expenses of eligible employees and employee-dependents. For self-insured coverage, this is measured by the cost-of-claims the self-insured employer and employee is responsible for paying, excluding any stop-loss reimbursements.

Cost-Sharing: The amount of an allowed claim the member is responsible for paying. This includes any copayments, deductibles, and coinsurance payments for the services rendered.

Fully-Insured: A fully-insured employer contracts with a payer to pay for eligible medical costs for its employees and dependents in exchange for a pre-set annual premium.

Funding Type: The segmentation of health plans into two types—fully-insured and self-insured—based on how they are funded.

Health Care-Associated Infections (HAIs): Infections that people acquire while receiving treatment for another condition in a health care setting.

Health Care Cost Growth Benchmark (Benchmark): The projected annual percentage change in Total Health Care Expenditure (THCE) measure in the Commonwealth, as established by the Health Policy Commission (HPC). The benchmark is tied to growth in the state's economy, the potential gross state product (PGSP). The Commonwealth has set the PGSP for 2015 at 3.6 percent. Accordingly, the HPC established the health care cost growth benchmark for 2015 at 3.6 percent.

Healthcare Effectiveness Data and Information Set (HEDIS): A set of measures that evaluate provider effectiveness and efficiency on a range of services. The current HEDIS set includes measures to assess appropriateness and/or overuse of certain services, preventive care, chronic disease management, and behavioral health care.

Health Maintenance Organizations (HMOs): Plans that have a closed network of providers, outside of which coverage is not provided, except in emergencies. These plans generally require members to coordinate care through a primary care physician.

High Deductible Health Plans (HDHPs): As defined by the Internal Revenue Service, health plans with an individual plan deductible exceeding $1,250 for 2013 and 2014, and $1,300 in 2015.

Limited Network: A limited network plan is a health insurance plan that offers members access to a reduced or selective provider network, which is smaller than the payer's most comprehensive provider network within a defined geographic area and from which the payer may choose to exclude from participation other providers who participate in the payer's general or regional provider network. This definition, like that contained within Massachusetts Division of Insurance regulation 211 CMR 152.00, does not require a plan to offer a specific level of cost (premium) savings in order to qualify as a limited network plan.

Managing Physician Group Total Medical Expenses: Measure of the total health care spending of members whose plans require the selection of a primary care physician associated with a physician group, adjusted for health status.

Market Sector: Average employer or group size segregated into the following categories: individual purchasers (post-merger), small group (1-50 employees), mid-size group (51-100 employees), large group (101-499 employees), and jumbo group (500+ employees). In the small group market segment, only those small employers that met the definition of "Eligible Small Business or Group" per Massachusetts Division of Insurance Regulation 211 CMR 66.04 were included; otherwise, they are categorized within mid-size.

Medical Loss Ratio (MLR): As established by the Division of Insurance: the sum of a payer's incurred medical expenses, their expenses for improving health care quality, and their expenses for deductible fraud, abuse detection, and recovery services, all divided by the difference of premiums minus taxes and assessments.

Merged Market: The combined health insurance market within which both individual (or non-group) and small group plans are purchased.

Patient Safety Indicators: A set of indicators that calculate the rate of complications and adverse events following surgeries, procedures, and childbirth in acute hospitals.

Payer Retention: The difference between the total premiums collected by payers and the total spent by payers on incurred medical claims.

Percent Benefits Not Carved Out: The estimated percentage of a comprehensive package of benefits (e.g., pharmacy, behavioral health) that are accounted for within a payer's reported claims.

Preferred Provider Organizations (PPOs): Plans that identify a network of "preferred providers" while allowing members to obtain coverage outside of the network, though to typically higher levels of cost-sharing. PPO plans generally do not require enrollees to select a primary care physician.

Premiums, Adjusted: Premium rates adjusted for membership differences in age, gender, area, group size, and benefits across payers; see technical appendix for more detail.

Premiums, Earned: The total gross premiums earned prior to any medical loss ratio rebate payments, including any portion of the premium that is paid to a third party (e.g., Massachusetts Health Connector fees, reinsurance).

Premiums, Earned, Net of Rebates: The total gross premiums earned after removing medical loss ratio rebates incurred during the year (though not necessarily paid during the year), including any portion of the premium that is paid to a third party (e.g., Massachusetts Health Connector fees, reinsurance).

Prescription Drug Rebate: A refund for a portion of the price of a prescription drug. Such refunds are paid retrospectively and typically negotiated between the drug manufacturer and pharmacy benefit managers, who may share a portion of the refunds with clients that may include insurers, self-funded employers, and public insurance programs. The refunds can be structured in a variety of ways and refund amounts vary significantly by drug and payer.

Prevention Quality Indicators (PQIs): A set of indicators that assess the rate of hospitalizations for "ambulatory care sensitive conditions," conditions for which high quality preventive, outpatient, and primary care can potentially prevent complications, more severe disease, and/or the need for hospitalizations. These indicators calculate rates of potentially avoidable hospitalizations in the population and can be risk-adjusted.

Product Type: The segmentation of health plans along the lines of provider networks. Plans are classified into one of three mutually exclusive categories in this report: Health Maintenance Organizations, Preferred Provider Organizations, and Other.

Qualified Health Plans (QHPs): A health plan certified by the Massachusetts Health Connector to meet benefit and cost-sharing standards.

Risk Adjustment: The Affordable Care Act program that transfers funds between payers offering health insurance plans in the Merged Market to balance out enrollee health status (risk).

"Scaled" Premiums, Claims: Premiums and claims scaled to 100% of "Benefits Not Carved Out."

Self-Insured: A self-insured employer takes on the financial responsibility and risk for its employees and employee-dependents' medical claims, paying claims administration fees to payers or third party administrators.

Standard Quality Measure Set (SQMS): The Commonwealth's Statewide Quality Advisory Committee recommends quality measures annually for the state's Standard Quality Measure Set. The Committee's recommendations draw from the extensive body of existing, standardized, and nationally recognized quality measures.

Third Party Administrators (TPAs): Companies that contract with self-insured employers to provide health insurance products, negotiated provider network rates, and claims adjudication services.

Tiered Network Health Plans: Plans that segment their provider networks into tiers, with tiers typically based on differences in the quality and/or the cost of care provided. Tiers are not considered separate networks, but rather sub-segments of a payer's HMO or PPO network. A tiered network is different than a plan only splitting benefits by in-network vs. out-of-network; a tiered network will have varying degrees of payments for in-network providers.

Total Health Care Expenditures (THCE): A measure of total spending for health care in the Commonwealth. Chapter 224 of the Acts of 2012 defines THCE as the annual per capita sum of all health care expenditures in the Commonwealth from public and private sources, including (i) all categories of medical expenses and all non-claims related payments to providers, as included in the health status adjusted total medical expenses reported by CHIA; (ii) all patient cost-sharing amounts, such as deductibles and copayments; and (iii) the net cost of private health insurance, or as otherwise defined in regulations promulgated by CHIA.

Total Medical Expenses (TME): The total medical spending for a member population based on allowed claims for all categories of medical expenses and all non-claims related payments to providers. TME is expressed on a per member per month basis.

Index of Acronyms

ACA	Affordable Care Act
AMP	Average Manufacturer Price
APM	Alternative Payment Method
ASF	Administrative Service Fee
BCBSMA	Blue Cross Blue Shield of Massachusetts
CHIA	Center for Health Information and Analysis
CHIP	Children's Health Insurance Program
CMS	Centers for Medicare & Medicaid Services
COPD	Chronic Pulmonary Obstructive Disease
FFS	Fee-for-Service
FPL	Federal Poverty Level
GIC	Group Insurance Commission
HAI	Health Care-Associated Infection
HCAHPS	Hospital Consumer Assessment of Healthcare Providers and Systems
HDHP	High Deductible Health Plan
HEDIS	Healthcare Effectiveness Data and Information Set
HMO	Health Maintenance Organization
HNE	Health New England
HPHC	Harvard Pilgrim Health Care
HSA	Health Status Adjusted
MCO	Managed Care Organization
MLR	Medical Loss Ratio
NCPHI	Net Cost of Private Health Insurance
NHP	Neighborhood Health Plan
PACE	Programs of All-Inclusive Care for the Elderly
PBM	Pharmacy Benefit Manager
PCC	Primary Care Clinician
PCP	Primary Care Provider
PMPM	Per Member Per Month
POS	Point-of-Service
PPO	Preferred Provider Organization
PQI	Prevention Quality Indicator
NHP	Neighborhood Health Plan
SCO	Senior Care Options
SHCE	Supplemental Health Care Exhibit
THCE	Total Health Care Expenditures
TME	Total Medical Expense
TPA	Third Party Administrator
QHP	Qualified Health Plans
SQMS	Standard Quality Measure Set
URI	Upper Respiratory Infection

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