

CENTER FOR HEALTH INFORMATION AND ANALYSIS

**PERFORMANCE OF THE
MASSACHUSETTS
HEALTH CARE SYSTEM**

ANNUAL REPORT
SEPTEMBER 2017



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2.8%

THCE totaled \$59.0 billion in 2016, or \$8,663 per capita; this represents an increase of 2.8% from 2015, below the health care cost growth benchmark.



Overall spending increased across all major insurance categories, but at more moderate rates than in prior years, and declined for the net cost of private health insurance.

KEY FINDINGS



Pharmacy and hospital outpatient spending were the largest drivers of THCE growth.

+6.3pp

Adoption of APMs grew by 6.3 percentage points in the commercial market in 2016, driven by a 13.5pp increase among PPO members.



TME increased in 2016 for commercial and MassHealth MCO members, and decreased for Medicare Advantage members.



Private commercial insurance enrollment of individual purchasers grew 34.5% between 2015 and 2016, while enrollment in ESI decreased slightly (-0.6%).



Premiums for individual purchasers declined by 3.4% from 2015 to 2016, while ESI premiums rose 3.9%.

4.4%

Between 2015 and 2016, member cost-sharing continued to grow at a faster rate (4.4%) than average income and premiums.

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 fifth annual look at these trends since the passage of the Commonwealth's 2012 cost containment legislation, Chapter 224.

Initial 2016 THCE

In 2016, Total Health Care Expenditures (THCE) in Massachusetts grew 2.8% from the prior year to \$8,663 per resident (\$59.0 billion statewide). This rate of growth is lower than the benchmark set annually by the Health Policy Commission (3.6%). These figures reflect CHIA's initial assessment of 2015-2016 growth, and will be finalized next year.¹

Health Care Spending

Overall spending increased across all major insurance categories, but at more moderate rates than in prior years, and declined for the net cost of private health insurance. Increases in pharmacy (6.4%) and hospital outpatient

spending (5.5%) were the largest drivers of THCE growth between 2015 and 2016. This represents an acceleration in hospital outpatient spending from 3.5% growth in 2015, but a deceleration in pharmacy expenditures from recent years when spending for prescription drugs increased by 12.1% in 2015 and 13.5% in 2014.

Overall THCE has always included prescription drug rebates payers received from manufacturers as an element of net cost of private health insurance (NCPHI). For the first time, however, CHIA was able to include more detailed analyses of newly-reported data on how those rebates specifically impact the amount that payers ultimately spend on prescription drugs. Prescription drug rebates are estimated to have grown substantially, ranging from \$1.1 billion in 2014, to \$1.5 billion in 2015, to \$1.7 billion in 2016.

Private Commercial Enrollment

Massachusetts private commercial insurance enrollment increased 0.8% between 2015 and 2016. Plans purchased

¹Please see *Understanding the Differences: Comparing Initial and Final 2015 THCE*, page 20, and the [technical appendix](#) for more detail.

by individuals were once again the fastest growing segment of the Massachusetts market (34.5%), while enrollment in employer-sponsored insurance decreased slightly (-0.6%).

By 2016, high deductible health plans (HDHPs) comprised 21.8% of the market, as Massachusetts employers and members continued to seek out health plans with higher deductibles in exchange for lower premiums. HDHP adoption was highest among members covered through smaller employers; half of the small group market enrollment was in HDHPs.

Cost of Commercial Coverage and Member Cost-Sharing

Average premiums in the fully-insured market grew 2.6% from 2015 to 2016, while self-insured premium equivalents rose 3.0%. In contrast to the premium increases reported for employer-sponsored insurance plans (3.9%), individual purchaser premiums declined (-3.4%) as membership shifted towards lower cost ConnectorCare plans sold through the Health Connector.

Member cost-sharing growth outpaced inflation, wage growth, and premiums, increasing by 4.4% between 2015 and 2016. For members in employer-sponsored insurance, cost-sharing grew by 5.0% while cost-sharing for individual purchasers decreased by 8.0% as a result of federal and state Affordable Care Act (ACA) subsidies. In keeping with trends towards HDHP enrollment, members covered through small and mid-size employers experienced the highest amount of cost-sharing.

Adoption of Alternative Payment Methods

Alternative payment methods (APMs) are intended to give providers new incentives to control overall costs while maintaining or improving quality. In the Massachusetts commercial market, the share of members whose care was paid for using APMs increased by 6.3 percentage points to 42.0% in 2016, after declining in the prior year. This growth was driven by a 13.5 percentage point increase in the number of Preferred Provider Organization members whose care was paid for using an APM. Among the 11 commercial payers engaged in APM arrangements in 2016, all but one increased the proportion of members whose care was paid for using an APM from 2015 to 2016.

MassHealth MCOs reported APM use for 35.7% of members in 2016, a decline of less than one percentage point from 2015. In the MassHealth PCC Plan, the share of members whose care was paid for using APMs increased slightly to 23.5% in 2016.

Quality of Massachusetts Providers

As in previous years, patient-reported experience ratings of Massachusetts hospitals were, on average, similar to national medians. 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. •

**TOTAL HEALTH CARE
EXPENDITURES**

KEY FINDINGS

TOTAL HEALTH CARE EXPENDITURES

THCE totaled \$59.0 billion in 2016, or \$8,663 per capita; this represents an increase of 2.8% from 2015, below the health care cost growth benchmark.

Overall spending increased across all major insurance categories, but at more moderate rates from prior years, and declined for the net cost of private health insurance.

Increases in pharmacy and hospital outpatient spending were the largest drivers of THCE growth between 2015 and 2016.

Spending for prescription drugs totaled \$9.2 billion in 2016, reflecting a 6.4% growth from 2015. This trend has slowed from 2015, when pharmacy spending grew 12.1%

TOTAL HEALTH CARE EXPENDITURES

A key provision of the Massachusetts health care cost containment law, Chapter 224 of the Acts of 2012, was to establish 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 2016, this benchmark was set to 3.6%.¹

THCE encompasses health care expenditures for Massachusetts residents from public and private sources, including all categories of medical expenses and all non-claims related payments to providers; all patient cost-sharing amounts, such as deductibles and copayments;

and the cost 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.

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 quality and performance settlements. Final THCE is published the following year, based on data which is submitted 17 months after the end of the performance year.

This report provides final results for calendar year 2015 and initial results for 2016. •

Notes: Detailed methodology and data sources for THCE are available at <http://www.chiamass.gov/total-health-care-expenditures>.

Unless otherwise stated, 2015-2016 comparisons are based upon 2015 final data. A discussion of the differences between 2015 initial and final data can be found on page 20.

TOTAL HEALTH CARE EXPENDITURES

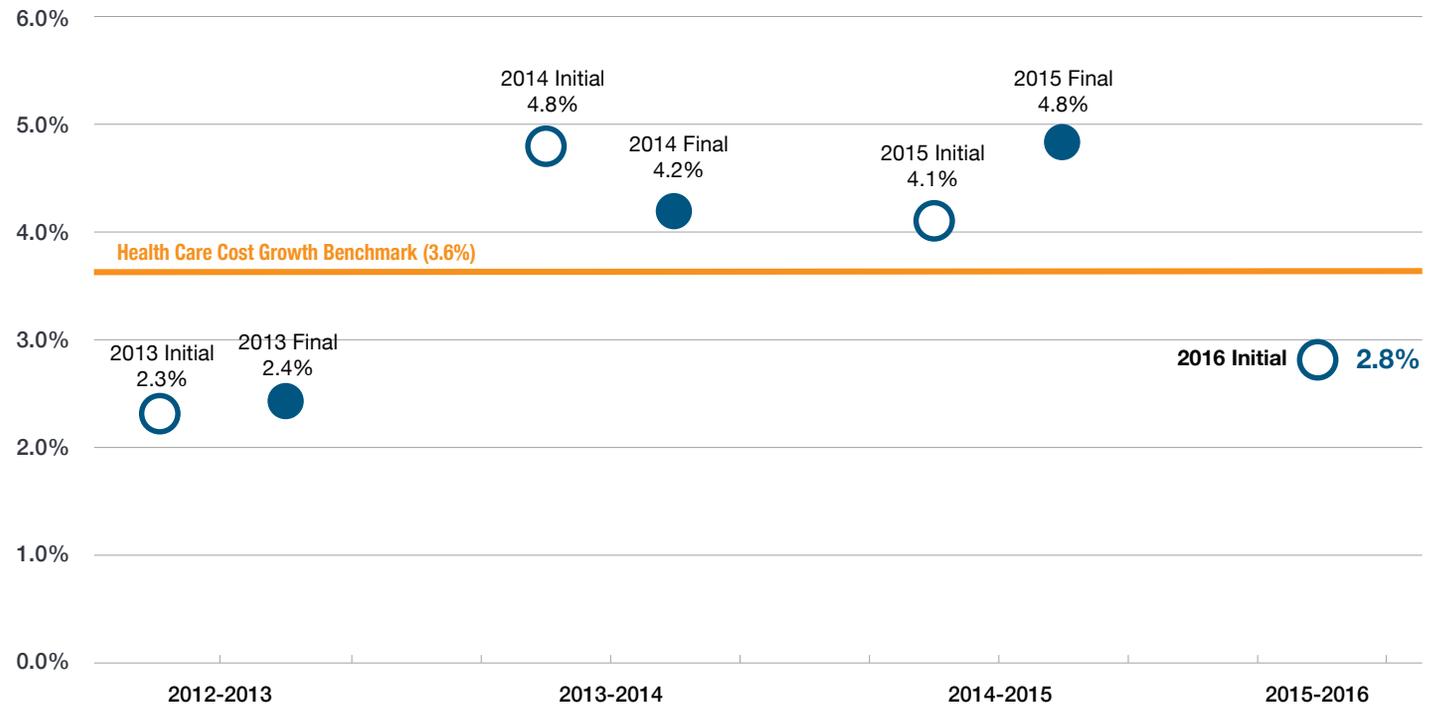
Each year CHIA calculates an initial THCE trend for the prior calendar year, which is then updated with more complete data the following year.

In 2016, THCE grew 2.8%, below the 3.6% cost growth benchmark set by the Health Policy Commission. Per capita THCE growth was also below growth in the Massachusetts economy (3.6%), but above national wages and salaries (2.3%) and regional inflation (1.5%). THCE rose by \$1.8 billion in 2016, totaling \$59.0 billion.

The initial assessment of 2014-2015 THCE per capita growth, reported in September 2016, indicated an increase of 4.1%. Updated with final data, THCE per capita growth in 2015 was revised to an increase of 4.8%.

Differences in initial and final THCE were attributable to data updates and corrections received from payers, and an actuarial adjustment applied in 2016 to improve the NCPHI methodology. See page 20 for more detail.

Per Capita Total Health Care Expenditures Growth, 2012-2016



THE INITIAL ASSESSMENT OF TOTAL HEALTH CARE EXPENDITURES PER CAPITA GROWTH IS 2.8% FOR 2016, BELOW THE HEALTH CARE COST GROWTH BENCHMARK.

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

TOTAL HEALTH CARE EXPENDITURES

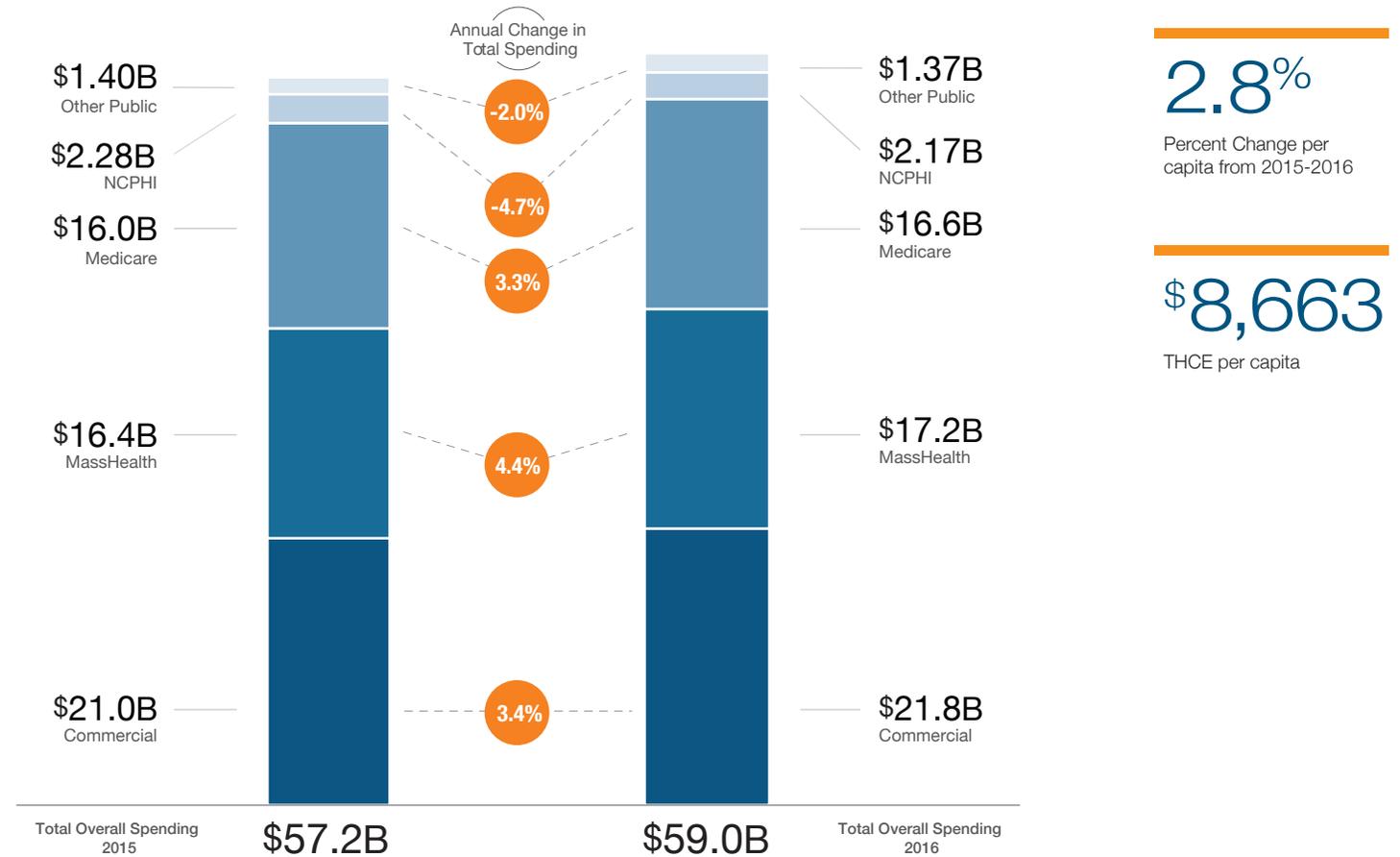
THCE represents the total amount paid by or on behalf of Massachusetts residents for insured health care services. It includes spending for commercially insured members, MassHealth-covered members, Medicare beneficiaries, other public programs, and the NCPHI for Massachusetts residents.

Overall spending increased from \$57.2 billion in 2015 to \$59.0 billion in 2016 while the population grew 0.4% to 6.8 million.

Commercial expenditures represented the largest insurance category of THCE (36.9%) in 2016. MassHealth and Medicare spending comprised 29.1% and 28.0% of THCE, respectively.

Spending increased across the major insurance categories of THCE in 2016. Commercial health care spending grew by 3.4% to \$21.8 billion, and MassHealth spending rose by 4.4% to \$17.2 billion. Medicare spending increased by 3.3% to \$16.6 billion while spending for other public programs (Department of Veterans Affairs and the Health Safety Net) fell by 2.0% to \$1.37 billion. NCPHI decreased by 4.7%, to \$2.17 billion.

Components of Total Health Care Expenditures by Insurance Category, 2015-2016



OVERALL SPENDING INCREASED ACROSS ALL MAJOR INSURANCE CATEGORIES, BUT DECLINED FOR THE NET COST OF PRIVATE HEALTH INSURANCE.

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

Notes: Commonwealth Care data not shown. The Commonwealth Care program ended in January 2015. Total expenditures were \$9.7 million in 2015 and \$0 in 2016. Percent changes are calculated based on non-rounded expenditure amounts. Please see [databook](#) for detailed information.

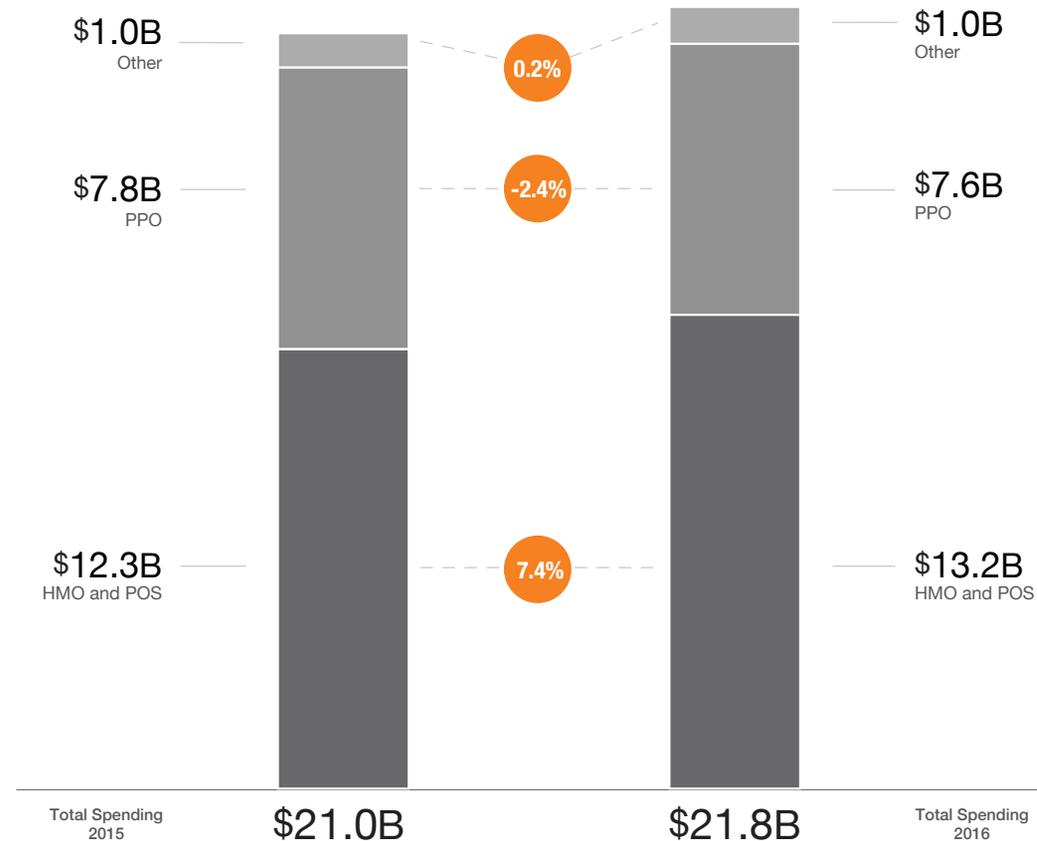
TOTAL HEALTH CARE EXPENDITURES

Within the commercial insurance market, private payers offer a variety of insurance product types. Different product types vary in the provider networks offered, the accessibility of in-network providers, and cost-sharing levels, among other factors.

Health Maintenance Organizations (HMOs) and Point of Service (POS) plans, which are distinguished by the requirement that a member select a primary care provider, together are the most common commercial insurance products in Massachusetts. In 2016, HMO and POS plans accounted for 60.5% of commercial spending. Overall spending on HMO and POS products increased by 7.4% to \$13.2 billion, while member months increased 3.5%.

Preferred Provider Organization (PPO) plans covered 35.2% of commercial members, a decrease from 37.0% in 2015. In 2016, PPO spending decreased 2.4% to \$7.6 billion.

Components of Total Health Care Expenditures: Private Commercial Insurance, 2015-2016



OVERALL SPENDING ON HMO AND POS PRODUCTS INCREASED BY 7.4% TO \$13.2 BILLION IN 2016.

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

Notes: For commercial partial claim data, CHIA estimates spending by product type by multiplying the share of member months reported in TME data by the estimated total commercial partial claim expenditures.

Percent changes are calculated based on non-rounded expenditure amounts. Please see [databook](#) for detailed information.

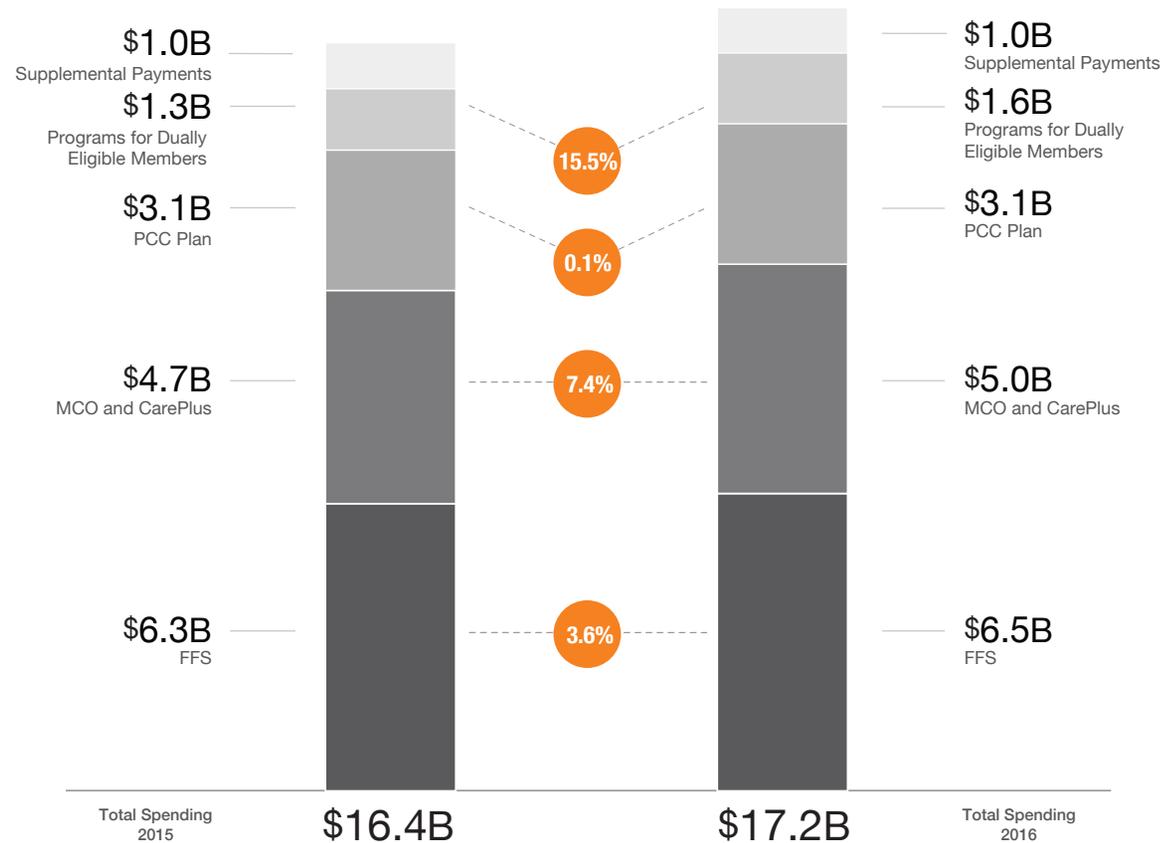
TOTAL HEALTH CARE EXPENDITURES

The majority of MassHealth members (69.7%) are enrolled in a managed care plan. MassHealth contracts with private Managed Care Organizations (MCOs) to manage the care of MassHealth members, while MassHealth directly administers the Primary Care Clinician (PCC) plan. In 2016, MCO spending increased by 7.4% while member months increased slightly (1.1%). PCC Plan spending increased by 0.1% while member months declined 4.8%.

Other MassHealth managed care programs are designed primarily for populations that are dually eligible for Medicare and Medicaid. Spending for these programs increased by 15.5%, and accounted for 9.0% of MassHealth spending. Enrollment increased by 2.7% from 2015 to 2016.

Some MassHealth members receive services on a fee-for-service (FFS) basis. In 2016, 85.1% of individuals receiving MassHealth FFS had other primary coverage. FFS spending increased by 3.6%, and accounted for 38.0% of total MassHealth spending.

Components of Total Health Care Expenditures: MassHealth, 2015-2016



TOTAL MASSHEALTH SPENDING INCREASED 4.4% IN 2016, SLOWING FROM A 5.4% INCREASE IN 2015.

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

Notes: MassHealth payments for CommCare members and temporary expenditures not shown; both ended in 2015. Total MassHealth CommCare expenditures were \$0.03 million in 2015 and \$0 in 2016. Total temporary expenditures were \$40.98 million in 2015 and \$0 in 2016. MassHealth programs for dually eligible members 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.

Percent changes are calculated based on non-rounded expenditure amounts. Please see [databook](#) for detailed information.

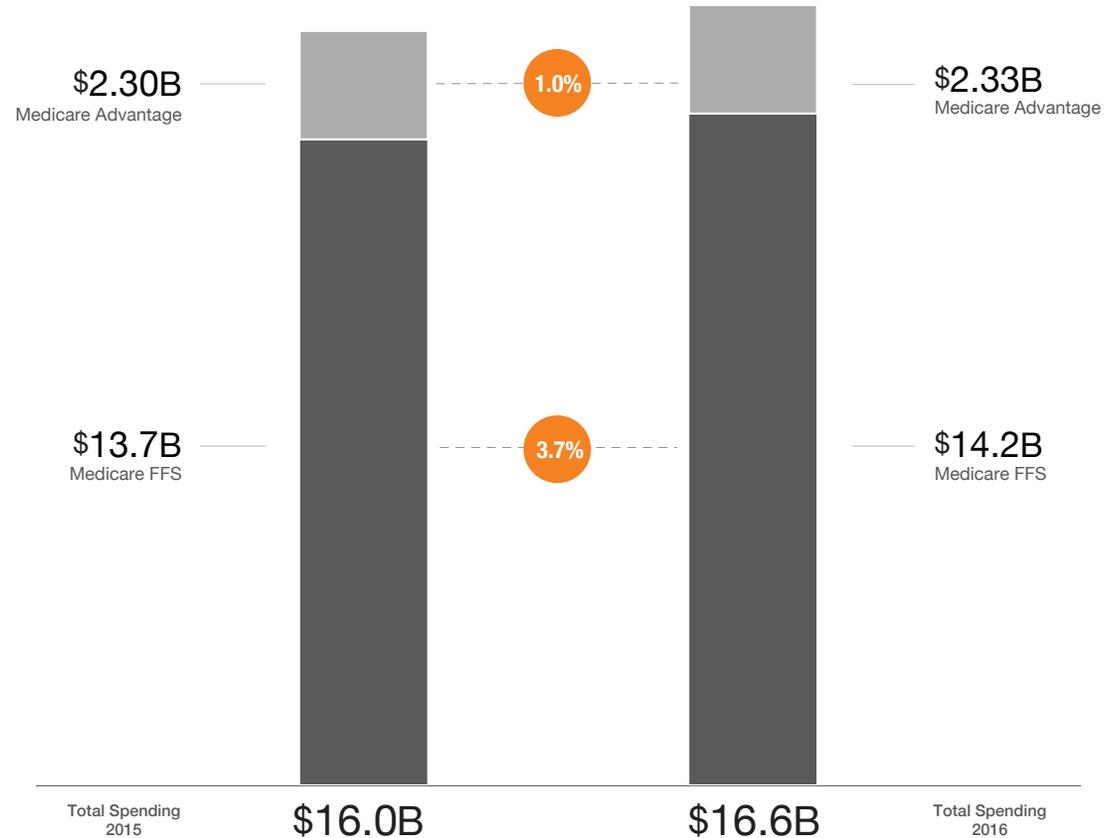
TOTAL HEALTH CARE EXPENDITURES

Medicare is the federal health insurance program for eligible seniors and people with disabilities.

Within the Medicare program, eligible individuals choose between traditional Medicare FFS insurance and Medicare Advantage products which are managed by private insurers. For beneficiaries, the primary difference between the two programs is that in return for managed care and some provider network limitations, Medicare Advantage plans offer different benefit designs (e.g., reduced cost-sharing) and some coverage enhancements.

In 2016, Medicare FFS spending increased by 3.7% to \$14.2 billion. Medicare Advantage accounted for 14.1% of total Medicare spending for Massachusetts residents, down from 14.4% in 2015.

Components of Total Health Care Expenditures: Medicare, 2015-2016



MEDICARE ADVANTAGE EXPENDITURES INCREASED BY 1.0%, WHILE MEDICARE FFS SPENDING INCREASED 3.7%.

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

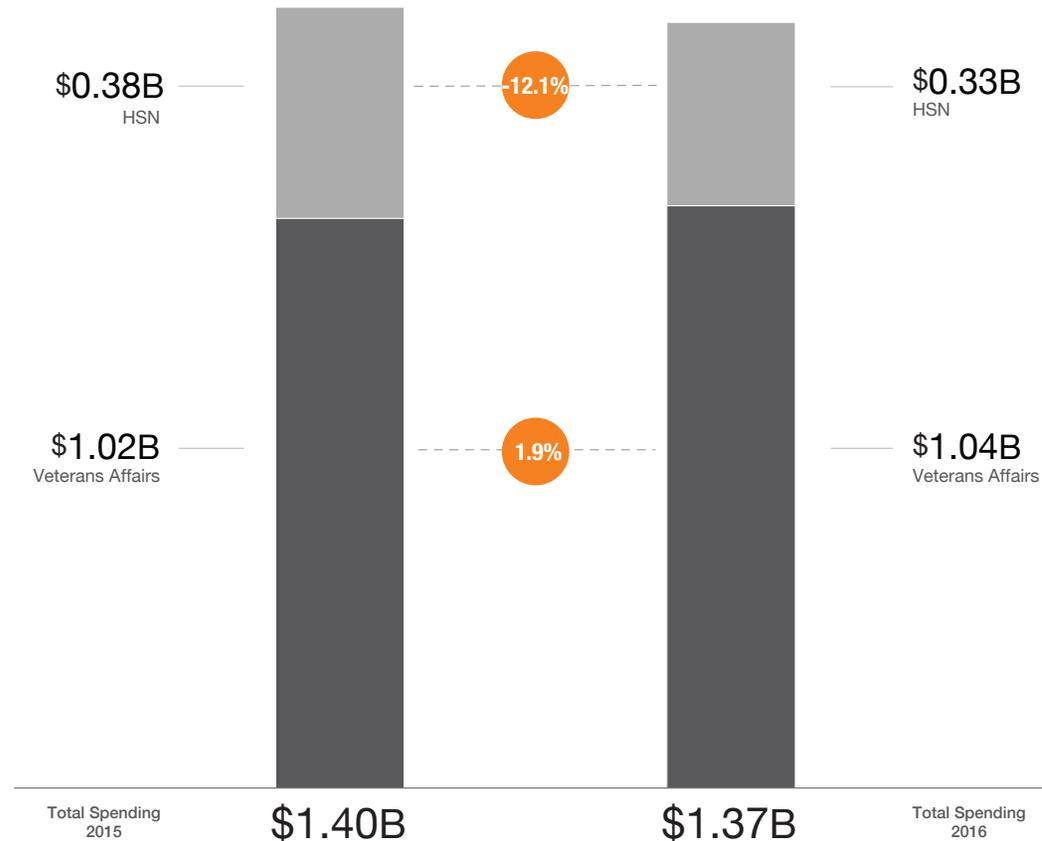
Notes: Please see [databook](#) for detailed information.

TOTAL HEALTH CARE EXPENDITURES

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 1.9% to \$1.04 billion in 2016.

The Health Safety Net (HSN) 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. HSN provider payments decreased 12.1% to \$0.3 billion in 2016.

Components of Total Health Care Expenditures: Other Public Programs, 2015-2016



HEALTH CARE SPENDING FOR MASSACHUSETTS VETERANS GREW 1.9% IN 2016; HEALTH SAFETY NET EXPENDITURES DECLINED BY 12.1%.

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

Notes: Medical Security Program (MSP) expenditures not shown. The MSP program ended in 2015. Total MSP expenditures were \$1.2 million in 2015 and \$0 in 2016. See [technical appendix](#) for details. HSN and VA data displayed above reflect methodology updates. Percent changes are calculated based on non-rounded expenditure amounts. Please see [databook](#) for detailed information.

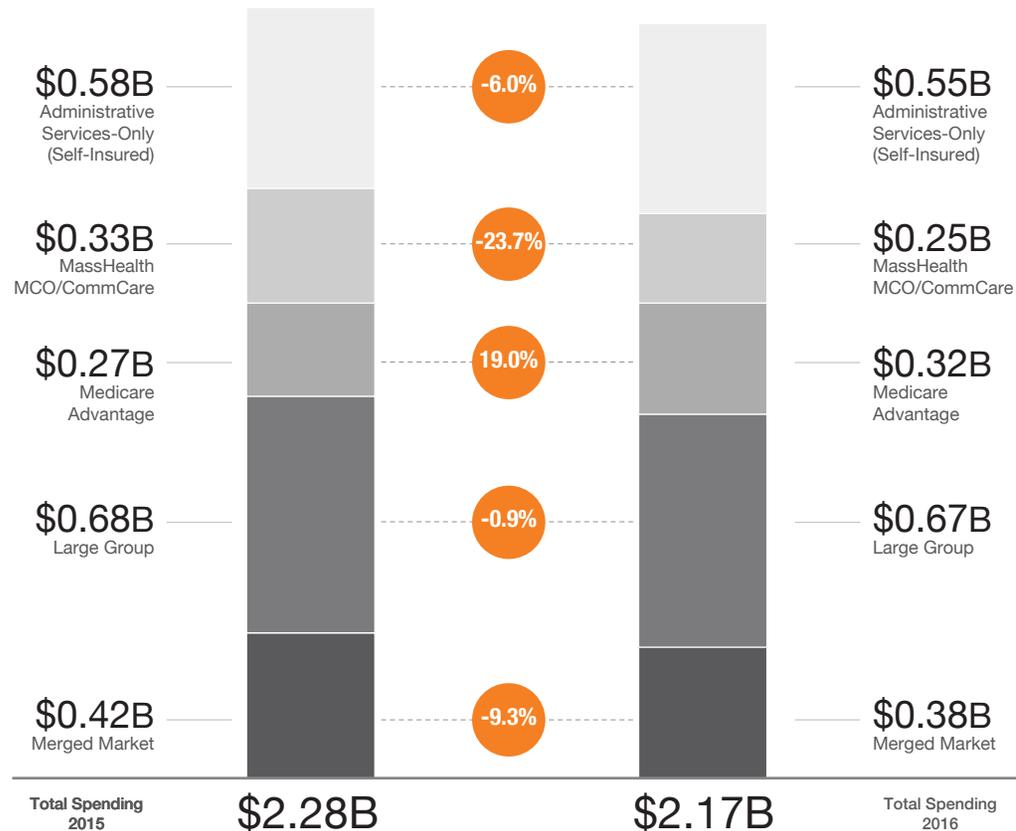
TOTAL HEALTH CARE EXPENDITURES

NCPHI captures the costs to Massachusetts residents associated with the administration of private health insurance, the difference between the premiums and similar payments that health plans receive on behalf of Massachusetts residents, and the expenditures for covered benefits incurred for those same members.

In 2016, the total spending for NCPHI declined by 4.7% to \$2.17 billion. This decline was driven by several factors, including claims outpacing capitation payments and premiums in the MassHealth MCO and merged markets, respectively, as well as a slight reduction in membership in the commercial fully-insured large group.

The administrative services-only market, in which health plans administer portions of self-insured employers' health benefits, also reported a decline in NCPHI.

Components of Total Health Care Expenditures: Net Cost of Private Health Insurance, 2015-2016



NCPHI DECLINED IN 2016 TO TOTAL \$2.17 BILLION, DRIVEN BY DECREASES IN THE MASSHEALTH MCO/COMMCARE AND MERGED MARKETS.

Source: Massachusetts Medical Loss Ratio Reports from Massachusetts Division of Insurance. Federal Medical Loss Ratio Reports from Center for Consumer Information and Insurance Oversight. Annual Statutory Financial Statement and Supplemental Health Care Exhibit from National Association of Insurance Commissioners.

Notes: NCPHI data combines the fully-insured mid-size, large group, and jumbo groups. While the Commonwealth Care Program sunsetted in 2015, payer NCPHI for this program is included in 2015 NCPHI. Premiums and similar payments include Health Premiums Earned, Net Reinsurance Premiums Earned, Other Premium Adjustments, and Risk Revenue.

TOTAL HEALTH CARE EXPENDITURES

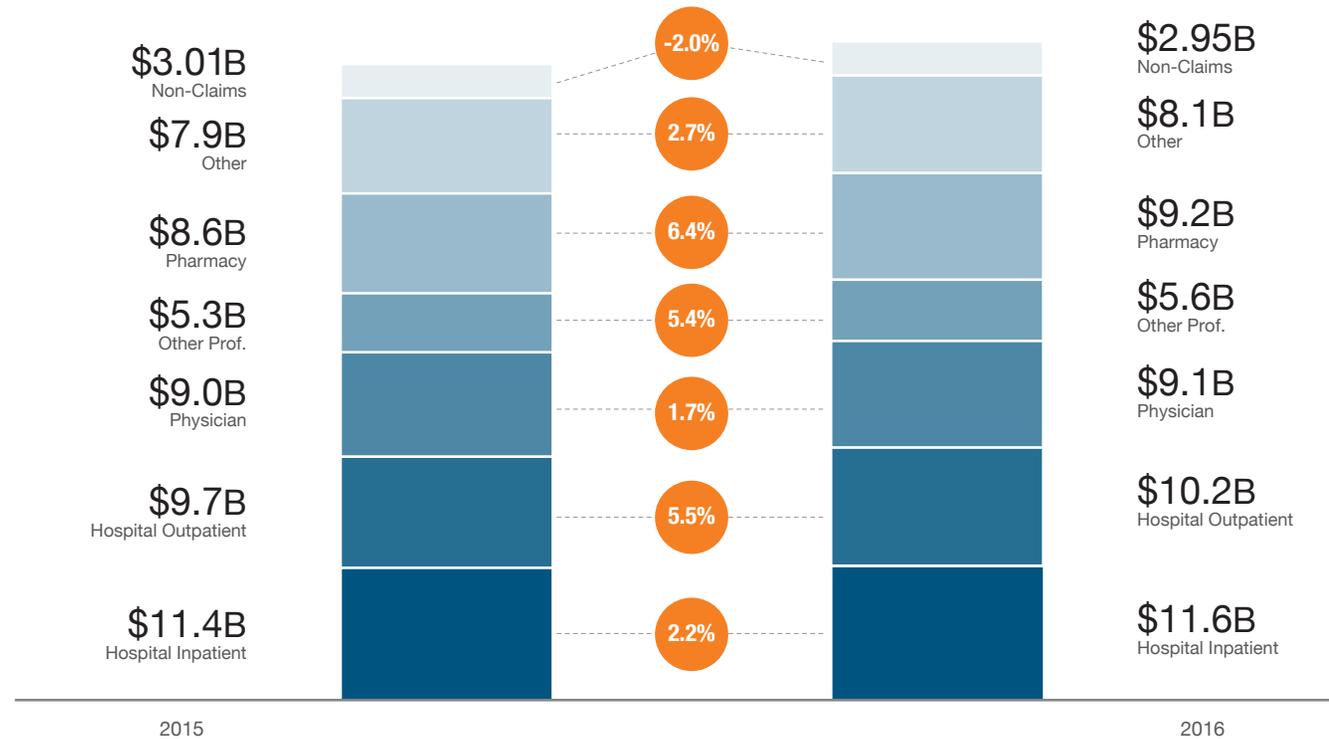
Hospital services accounted for the largest share of overall THCE spending in 2016, with inpatient and outpatient expenses totaling \$21.9 billion, increasing by 2.2% and 5.5%, respectively, from 2015.

Prescription drug spending increased the fastest among service categories in 2016, increasing 6.4% to \$9.2 billion. This rate is slower than in recent years when spending for prescription drugs increased by 12.1% in 2015 and 13.5% in 2014.³

Spending for physician services increased slightly in 2016, from \$9.0 billion in 2015 to \$9.1 billion, an increase of 1.7%. Other professional services spending increased by 5.4%, from \$5.3 billion to \$5.6 billion.

The mix of spending by service categories reported here is similar to data reported at the national level. Excluding non-claims payments, hospitals accounted for 39.7%, professional services 28.1%, prescription drugs 16.5%, and other costs 15.6% of personal health care spending nationally in 2016.⁴

Health Care Expenditures by Service Category, 2015-2016



HEALTH CARE SPENDING INCREASED IN ALL CLAIMS-BASED SERVICE CATEGORIES, RANGING FROM 1.7% TO 6.4%.

Source: Payer-reported TME data to CHIA and other public sources.

Notes: Excludes net cost of private health insurance; for insurance categories where THCE primarily utilizes MassHealth capitation amounts to determine total spending (i.e., SCO, One Care, and PACE), CHIA estimates expenditures by service category by multiplying MassHealth-provided expenditure amounts by the total share of spending in each service category as reported by payers in TME; for commercial non-TME filers, CHIA estimates the share of spending by service category by multiplying the estimate for total commercial non-TME filer expenditures by the share of spending in each category for all commercial full-claim and partial-claim members; public insurers do not submit data to CHIA utilizing the same service category definitions as private payers use to submit TME data. When calculating expenditures in each service category, CHIA crosswalks Medicare, MassHealth, and VA data into TME service categories. For additional detail on how expenditures are crosswalked for these payers, see the [technical appendix](#).

Percent changes are calculated based on non-rounded expenditure amounts. Please see [databook](#) for detailed information.

TOTAL HEALTH CARE EXPENDITURES

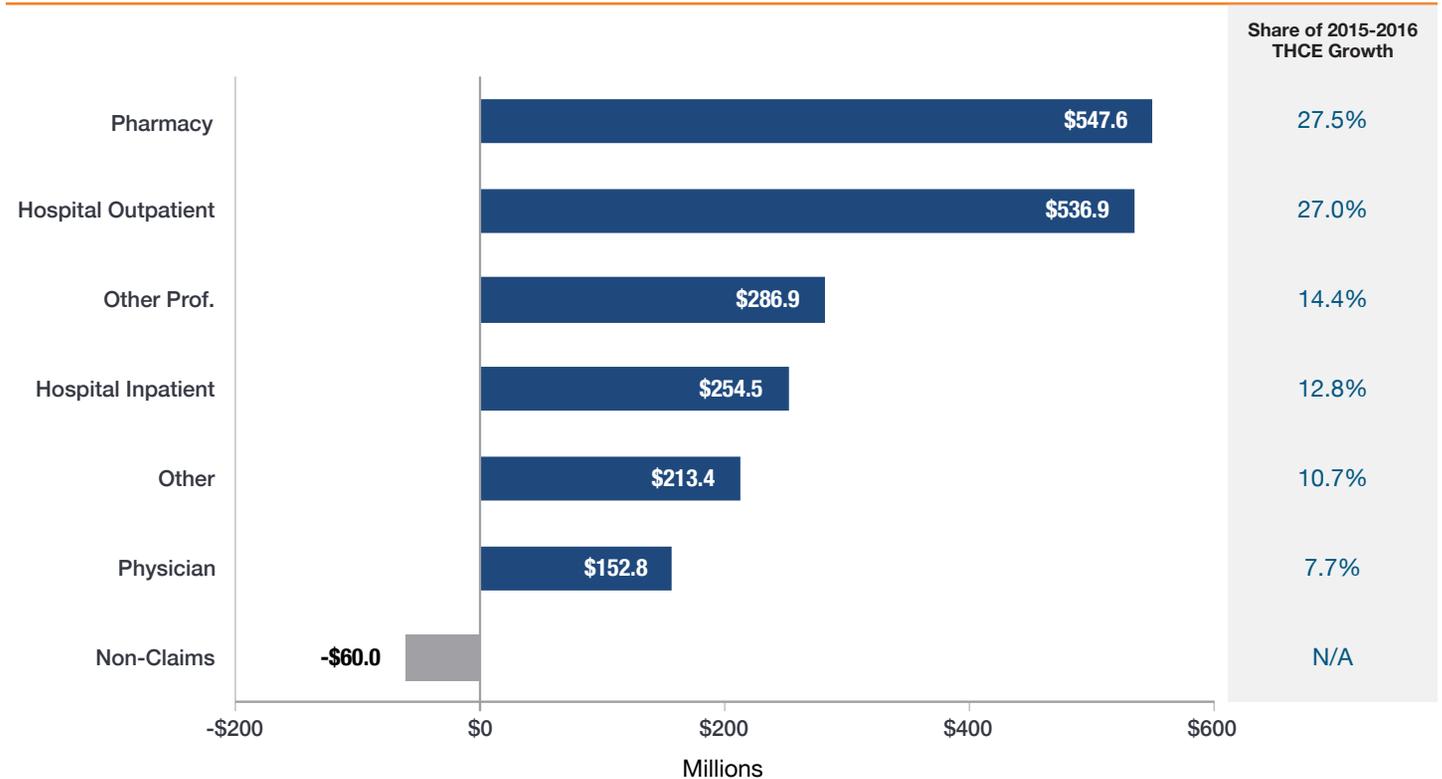
From 2015 to 2016, health care expenditures in Massachusetts increased by \$1.9 billion.

Payments to pharmacies for prescription drugs increased by \$547.6 million, or 6.4%, from 2015. This increase accounted for 27.5% of overall medical expenditure growth, the highest of any service category. Please see the next section, *A Closer Look: Prescription Drug Spending and Rebates*, for a consideration of the impact of manufacturer rebates on prescription drug spending.

Hospital outpatient spending was the second largest component in total medical expenditure growth, accounting for 27.0% of new spending. Hospital outpatient spending increased 5.5% from the prior year.

Spending on other professional services was the third largest component of THCE growth, accounting for 14.4% of additional spending. Other professional services spending increased by 5.4% from the prior year.

Change in Health Care Expenditures by Service Category, 2015-2016



INCREASES IN PHARMACY AND HOSPITAL OUTPATIENT SPENDING WERE THE LARGEST DRIVERS OF THCE GROWTH BETWEEN 2015 AND 2016.

Source: Payer-reported TME data to CHIA and other public sources.

Notes: Excludes net cost of private health insurance; for insurance categories where THCE primarily utilizes MassHealth capitation amounts to determine total spending (i.e., SCO, One Care, and PACE), CHIA estimates expenditures by service category by multiplying MassHealth-provided expenditure amounts by the total share of spending in each service category as reported by payers in TME; for commercial non-TME filers, CHIA estimates the share of spending by service category by multiplying the estimate for total commercial non-TME filer expenditures by the share of spending in each category for all commercial full-claim and partial-claim members; public insurers do not submit data to CHIA utilizing the same service category definitions as private payers use to submit TME data. When calculating expenditures in each service category, CHIA crosswalks Medicare, MassHealth, and VA data into TME service categories. For additional detail on how expenditures are crosswalked for these payers, see the [technical appendix](#).

Percent changes are calculated based on non-rounded expenditure amounts. Please see [databook](#) for detailed information.

UNDERSTANDING THE DIFFERENCES: COMPARING INITIAL AND FINAL 2015 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 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 submission are attributable to variation in the degree of accuracy with which payers predict finalized member eligibility, claims payments, and performance-based settlements. These estimates are often based on historical or market trends, which may or may not accurately reflect the current Massachusetts market. Final data, which allows for a 15 month claims run-out period updates the initial estimates with the actual claims and non-claims experience for the performance period.

As previously noted, the assessment of 2014-2015 THCE per capita growth was updated from 4.1% to 4.8%.

The change in the THCE growth rate was driven by decreases in both the final 2014 and final 2015 expenditure amounts. The 2014 amount decreased by 0.9% while the 2015 amount decreased by 0.3%. The larger 2014 decrease lowered the basis of comparison and had the effect of increasing the growth rate.

Several data corrections drove the decrease in expenditures. Some payers resubmitted data to correct errors or to update data for consistency across the relevant reporting periods. Payers were required to update 2015 spending with more complete claims. In addition, CHIA worked with external stakeholders to improve the precision of spending data used for the HSN and VA.

The calculation of NCPHI was subject to actuarial adjustments made possible by updates to payer financial statements that better capture reinsurance payments in the merged market.

Finally, the estimate of the Massachusetts population decreased slightly but had a material impact on the THCE growth rate. For more detailed information see the [technical appendix](#).

A CLOSER LOOK: PRESCRIPTION DRUG SPENDING AND REBATES

In recent years, pharmacy expenditures have comprised a growing share of health care spending, both nationally and in the Commonwealth.⁵ This trend has been attributed to multiple factors, including increasing drug utilization, the introduction of new specialty medications, and price growth.⁶

Measuring pharmacy expenditures is complicated by prescription drug rebates, which include discounts and other price concessions, as well as refunds for a portion of the price of the drugs, which are paid by pharmaceutical manufacturers to pharmacy benefit managers (PBMs) and health plans.

Such refunds are paid retrospectively and typically negotiated between the drug manufacturer and PBMs based on the PBM's or the PBM clients' formulary placement for the manufacturer's drug and their patients' utilization of the drug.^{7,8} Refunds can be structured in a variety of ways and rebate amounts vary significantly by drug and payer type.

This section contains analysis of newly-reported data to estimate the amount of rebates that payers received from manufacturers, and how those rebates may impact the amount that payers ultimately spend on prescription drugs. As in prior years, THCE includes the actual amounts that payers paid to pharmacies, and, rebate dollars retained by payers are included in THCE as deductions from claims expenses in NCPHI.

Measuring the amount of prescription drug rebates is critical to understanding prescription drug cost and its impact on total health care spending in Massachusetts. In addition, developing a better understanding of commercial health plan rebates represents an opportunity to advance transparency of information that—with the exception of rebates for publicly-funded insurance programs—has not been available to the public.

CHIA's measure of Total Health Care Expenditures reflects payments made to pharmacies at the point-of-sale for prescription drugs, including health plan payments and member cost-sharing, as defined in M.G.L. Chapter 12C. Many payers receive point-of-sale price reductions that reduce the payments made to pharmacies. The pharmacy spending included in THCE for these payers reflects the actual payments to pharmacies.

To estimate how pharmacy expenditure levels and trends may be impacted by rebates received by health plans, CHIA developed a new data specification and collected data from health plans in June 2017.⁹ The submitted data included member months, aggregate prescription drug spending, and aggregate rebates received by the health plan from manufacturers.¹⁰

Plans reported all rebates received from manufacturers, regardless of whether they were transferred by the PBM retrospectively or at the point-of-sale and regardless of what type of payment (e.g., refunds versus price concessions) that the rebate took when transferred.

This data enabled CHIA to compute the following metrics:

Total Pharmacy Spending: The amount paid by payers to pharmacies at the point-of-sale for members' prescription drugs, as calculated in THCE pursuant to M.G.L. chapter 12C §16

Net Pharmacy Spending: Total pharmacy expenditures as reported in THCE less additional rebates, discounts, and price concessions received retrospectively by the payer from drug manufacturers

Prescription Rebates: A refund for a portion of the price of a prescription drug covered under the pharmacy benefit; may be disbursed at the point-of-sale or retrospectively

See [technical appendix](#) for more detailed information on the methodology used in this section. •

A CLOSER LOOK: PRESCRIPTION DRUG SPENDING AND REBATES

In 2016, payer payments to pharmacies for prescription drugs in THCE totaled \$9.2 billion, reflecting a 6.4% growth from \$8.6 billion in 2015. This growth trend represents a slowdown from 2015, when pharmacy spending grew 12.1%.

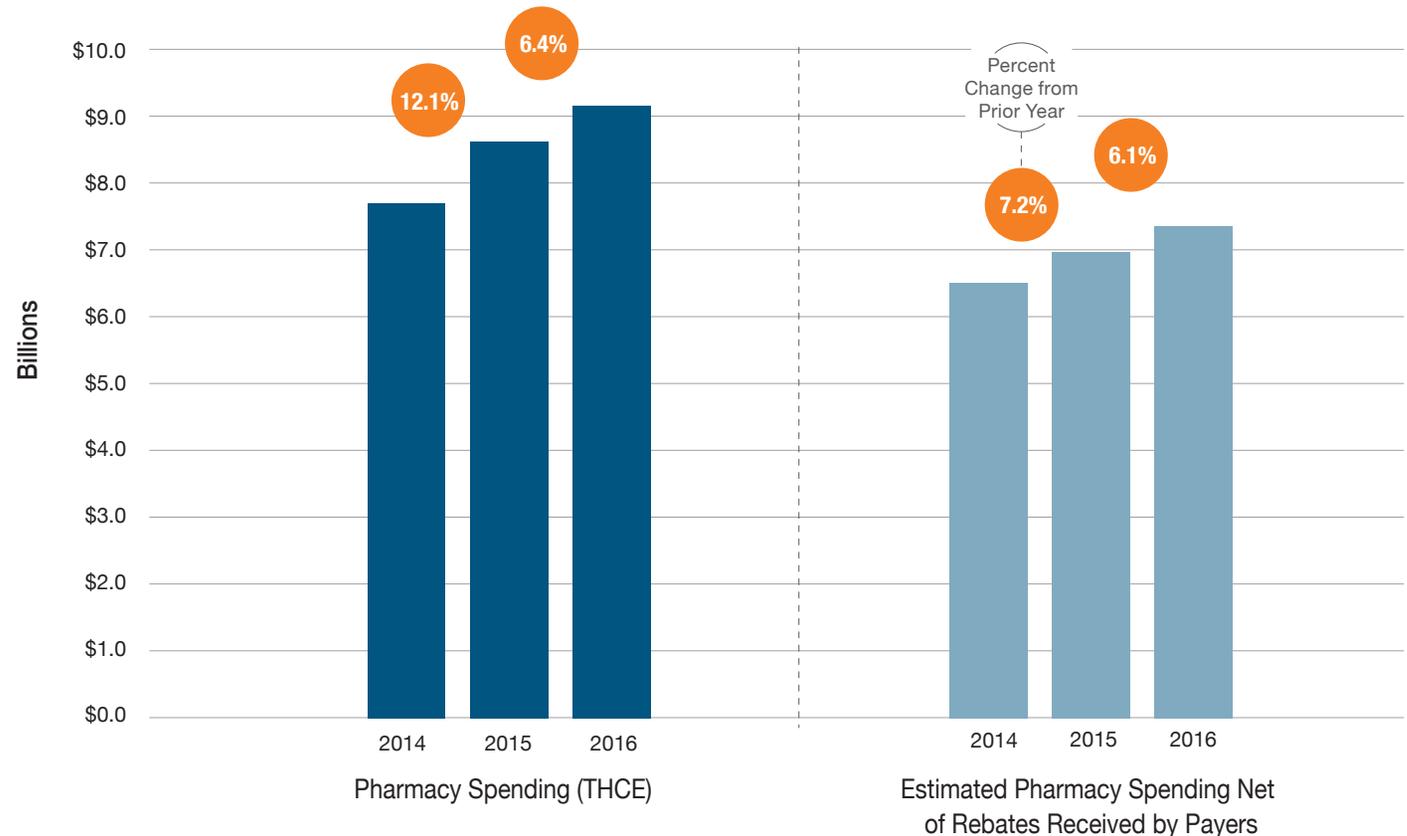
Prescription drug rebates, transmitted to payers from drug manufacturers, reduce payer total expenses for prescription drugs. These payments are accounted for in THCE through NCPHI, but have not previously been applied directly to pharmacy spending for analytic purposes.

Prescription drug rebates are estimated to have grown substantially from \$1.1 billion in 2014 to \$1.5 billion in 2015. In 2016, rebates increased to \$1.7 billion.

Estimating pharmacy expenses net of rebates received by payers suggests that payers' ultimate expenditures for prescription drugs grew 7.2% in 2015.

In 2016, rebates had a more limited impact on payer expenses. Pharmacy spending in THCE increased 6.4%, while estimated pharmacy expenses net of rebates received by payers grew 6.1%.

Estimated Impact of Rebates on Pharmacy Spending and Growth, 2014-2016



FROM 2015 TO 2016, PAYER PAYMENTS FOR PRESCRIPTION DRUGS GREW BY 6.4% IN THCE. ESTIMATED REBATES TO PAYERS WOULD REDUCE THIS RATE TO 6.1%.

Source: Payer-reported data to CHIA.

Notes: Total pharmacy payments reported by payers in THCE may include prescription drug price concessions or discounts transmitted at the point-of-sale. Pharmacy spending net of rebates estimates the impact of reducing the total pharmacy costs to payers by retrospective rebates, in addition to any price discounts included in THCE.

A CLOSER LOOK: PRESCRIPTION DRUG SPENDING AND REBATES

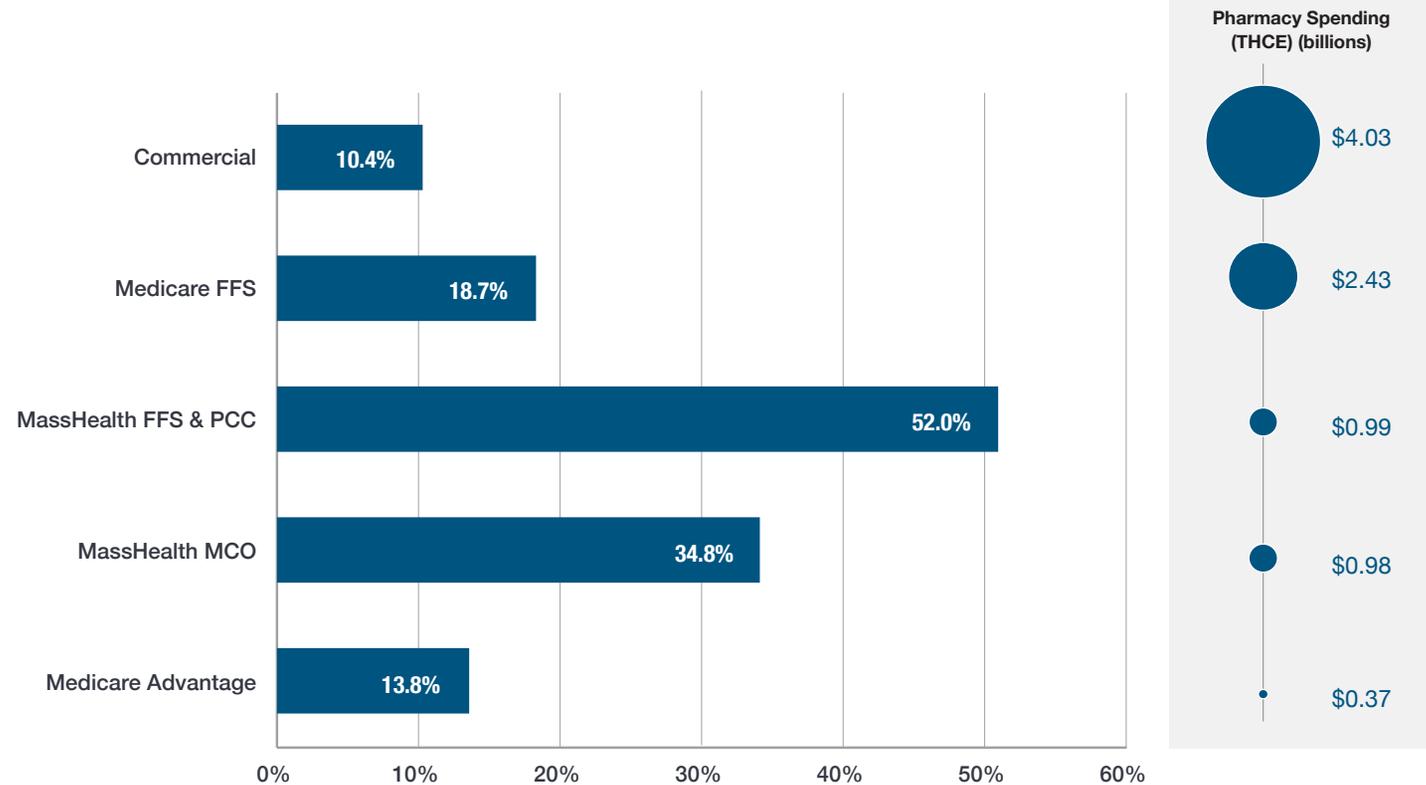
Private payers, commonly through PBMs, negotiate with drug manufacturers to receive rebates on their members' prescription drug utilization. Legal requirements, member demographics, utilization trends, and coverage decisions all may impact payers' ability to negotiate rebates.

In the commercial market, payers reported that they received rebates that were equal to 10.4% of total pharmacy spending.

Commercial payers offering Medicare Part D plans—either as standalone Prescription Drug Plans for Medicare FFS members or through Medicare Advantage plans—similarly negotiate with manufacturers, averaging 18.7% and 13.8% rebates, respectively.

Federal law dictates minimum requirements for rebates to state Medicaid programs, and also allows for supplemental rebates to managed care organizations. As a result, MassHealth reported the highest rebate percentage.

Estimated Drug Rebate Proportion of Pharmacy Spending by Insurance Category, 2016



PHARMACY REBATES VARIED FROM 10.4% TO 52.0% ACROSS INSURANCE CATEGORIES.

Source: Payer-reported data to CHIA.

Notes: Rebate percentages for MassHealth MCO member utilization includes both the amounts transmitted directly to MassHealth, as well as any supplemental rebates negotiated by MMCOs. Standalone Medicare Prescription Drug Plans (PDPs) includes data for PDP sponsors that report TME data to CHIA. PDP sponsors that do not report TME data are excluded from this analysis.

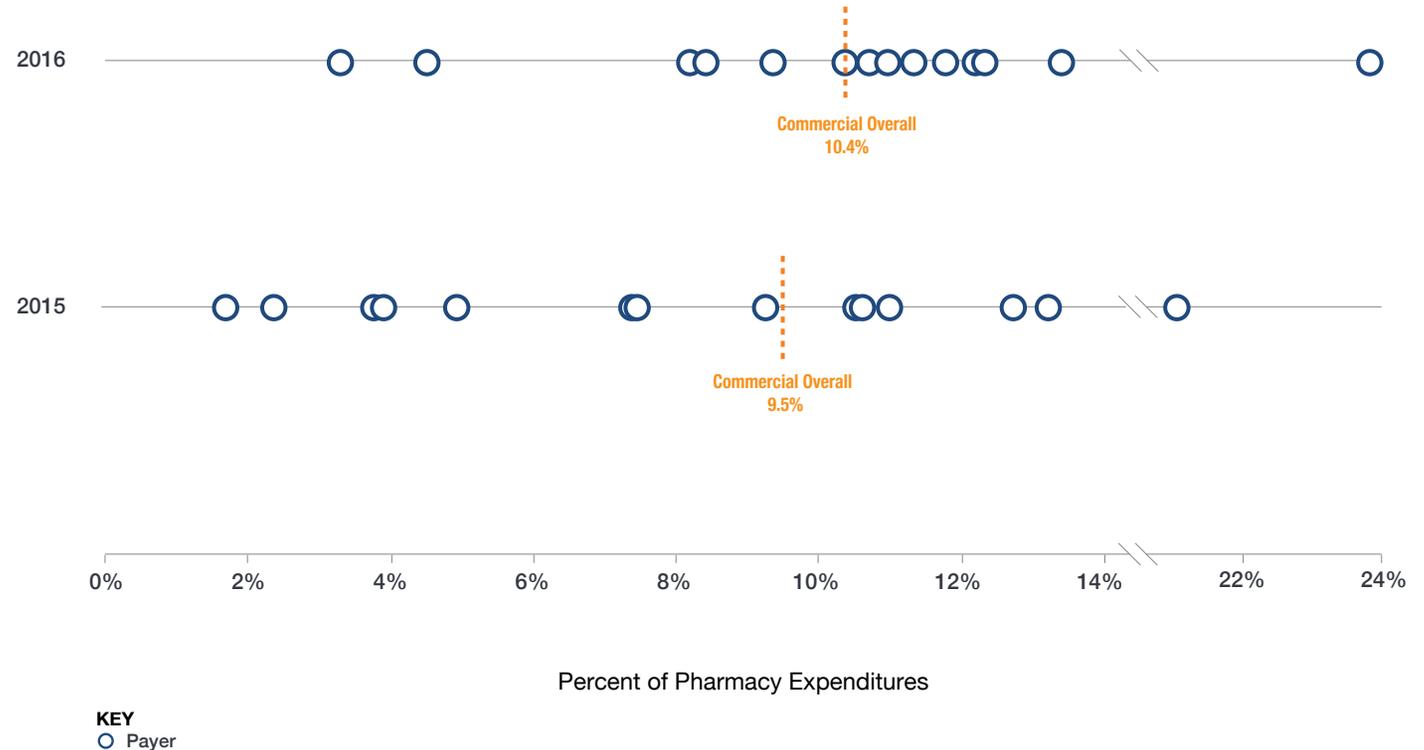
A CLOSER LOOK: PRESCRIPTION DRUG SPENDING AND REBATES

Overall, commercial payers received 10.4% of pharmacy spending back from manufacturers in the form of rebates in 2016. However, there was variation in reported rebate shares across commercial payers.

In 2015, four of 14 payers reported rebates within two percentage points of the overall market of 9.5%. In 2016, payers' rebate percentages were more tightly clustered around the overall trend of 10.4%, with eight out of 14 payers reporting rebates in this range.

Variation in payer-reported rebate shares may be driven by several factors, including member demographics, utilization trends, coverage decisions, and market power. In addition, variation may be driven by the complexity and variability of payer-PBM contracts.

Range of Payer-Reported Commercial Rebates as a Percentage of Gross Pharmacy Expenditures, 2015-2016



PAYER REBATES FOR COMMERCIAL MEMBERS NARROWED IN 2016, WITH EIGHT OF 14 PAYERS REPORTING PERCENTAGES BETWEEN 8.4% AND 12.4%.

Source: Payer-reported data to CHIA.

TOTAL HEALTH CARE EXPENDITURES NOTES

- 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** Note that CHIA's methodology for calculating the share of expenditures by service category was updated in this annual report to include data from additional data sources for which service category data was previously unavailable (e.g., the Veterans Administration).
- 4** Data analysis completed by CHIA using National Health Expenditure Accounts from the Office of the Actuary in the Centers for Medicare & Medicaid Services. See Table 02 National Health Expenditures Amounts and Annual Percent Change by Type of Expenditure. <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsProjected.html>.
- 5** In this section, "pharmacy expenditures" refers to spending associated with prescription drugs paid for under the pharmacy benefit, and excludes drugs paid for under the medical benefit that were delivered to the patient in a health care setting.
- 6** "Medicines Use and Spending in the U.S.: A Review of 2016 and Outlook to 2021," QuintileIMS Institute, last accessed August 29, 2017, <https://www.quintileims.com/press-releases/quintileims-institute-study-us-drug-spending-growth-of-48-percent-in-2016>.
- 7** PBM clients include, but are not limited to, health plans, self-funded employers, and public insurance programs.
- 8** Factors that are often considered when negotiating rebates include a drug's formulary tier placement and cost-sharing level, utilization management tools like prior authorizations and step edits, and the market share captured by the drug relative to possible competitor products.
- 9** In July 2016, the Massachusetts Legislature revised M.G.L. Chapter 12C to require CHIA's analysis of cost growth to "consider the effect of drug rebates and other price concessions in the aggregate without disclosure of any product or manufacturer-specific rebate or price concession information, and without limiting or otherwise affecting the confidential or proprietary nature of any rebate or price concession agreement."
- 10** THCE pharmacy spending reflects Massachusetts residents in all cases, while estimates of net pharmacy spending and drug rebates are derived from a separate data collection with a comparable but in some instances, different population.

**QUALITY OF CARE
IN THE COMMONWEALTH**

KEY FINDINGS

QUALITY OF CARE IN THE COMMONWEALTH

The reported experience of patients admitted to Massachusetts hospitals was similar to the median patient-reported experience nationally.

Unplanned readmissions decreased from 2011 to 2013, but increased thereafter.

Ten of 37 reporting hospitals met all three Leapfrog standards for reducing potentially unnecessary maternity practices.

Residents of Bristol and Hampden counties had higher rates of potentially preventable admissions for certain conditions than residents of other counties.

QUALITY OF CARE IN THE COMMONWEALTH

CHIA monitors and reports on health care provider quality using measures selected from the Commonwealth's Standard Quality Measure Set (SQMS).

This chapter summarizes the performance of Massachusetts acute care hospitals in areas of key interest to health care consumers: patient experience, hospital readmissions, use of maternity-related procedures, and potentially preventable hospitalizations.

CHIA calculates performance on hospital readmissions and potentially preventable hospitalizations using the Hospital Discharge Database.¹ CHIA acquires data for the other SQMS measures included in this chapter from datasets created by other organizations that collect data directly from health care payers or providers.²

While this report explores several important aspects of care, the data and measures included do not comprehensively evaluate the quality of health care in Massachusetts.

In the coming months, CHIA will provide further details on the findings in this report in an updated edition of [A Focus on Provider Quality](#). The report will also provide additional information on hospital performance, as well as measures for primary care providers and post-acute care providers.

CHIA continually seeks out new opportunities to meaningfully contribute to quality improvement efforts in Massachusetts through robust data transparency, and will remain engaged with stakeholders across the health care system in support of enhanced quality measurement. •

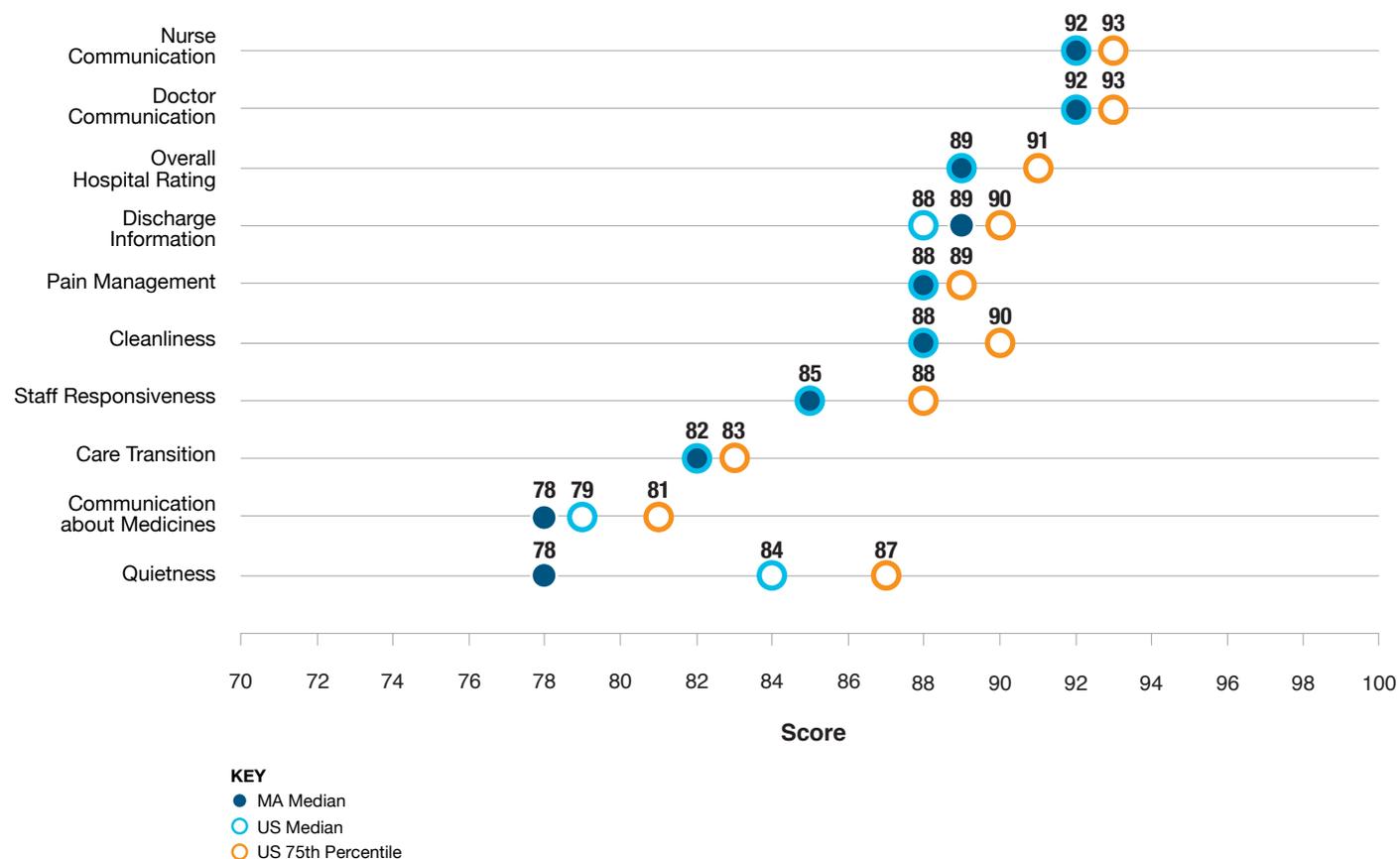
QUALITY OF CARE IN THE COMMONWEALTH

On most measures, patient-reported experience of Massachusetts hospitals was similar to the experience of patients at hospitals nationally. Patient experience ratings of Massachusetts hospitals consistently fell below the national 75th percentile.

Patients rated nurse and doctor communication more highly than other domains of care (median score of 92 out of 100), as did patients nationally. Median scores were lowest for communication about medicines and quietness (78 out of 100) and were lower than median scores nationally.

In 2016, the Massachusetts hospital median patient rating for communication about medicines was slightly below the national median. Ratings of quietness in Massachusetts hospitals continued to fall below the nation in 2016, with a median of 78 compared to the national median of 84 out of 100.

Patient-Reported Experience During Acute Hospital Admission, 2016



THE REPORTED EXPERIENCE OF PATIENTS ADMITTED TO MASSACHUSETTS HOSPITALS WAS SIMILAR TO THE MEDIAN PATIENT-REPORTED EXPERIENCE NATIONALLY.

Source: CMS Hospital Compare.
 Notes: All payers, patient ages 18+.

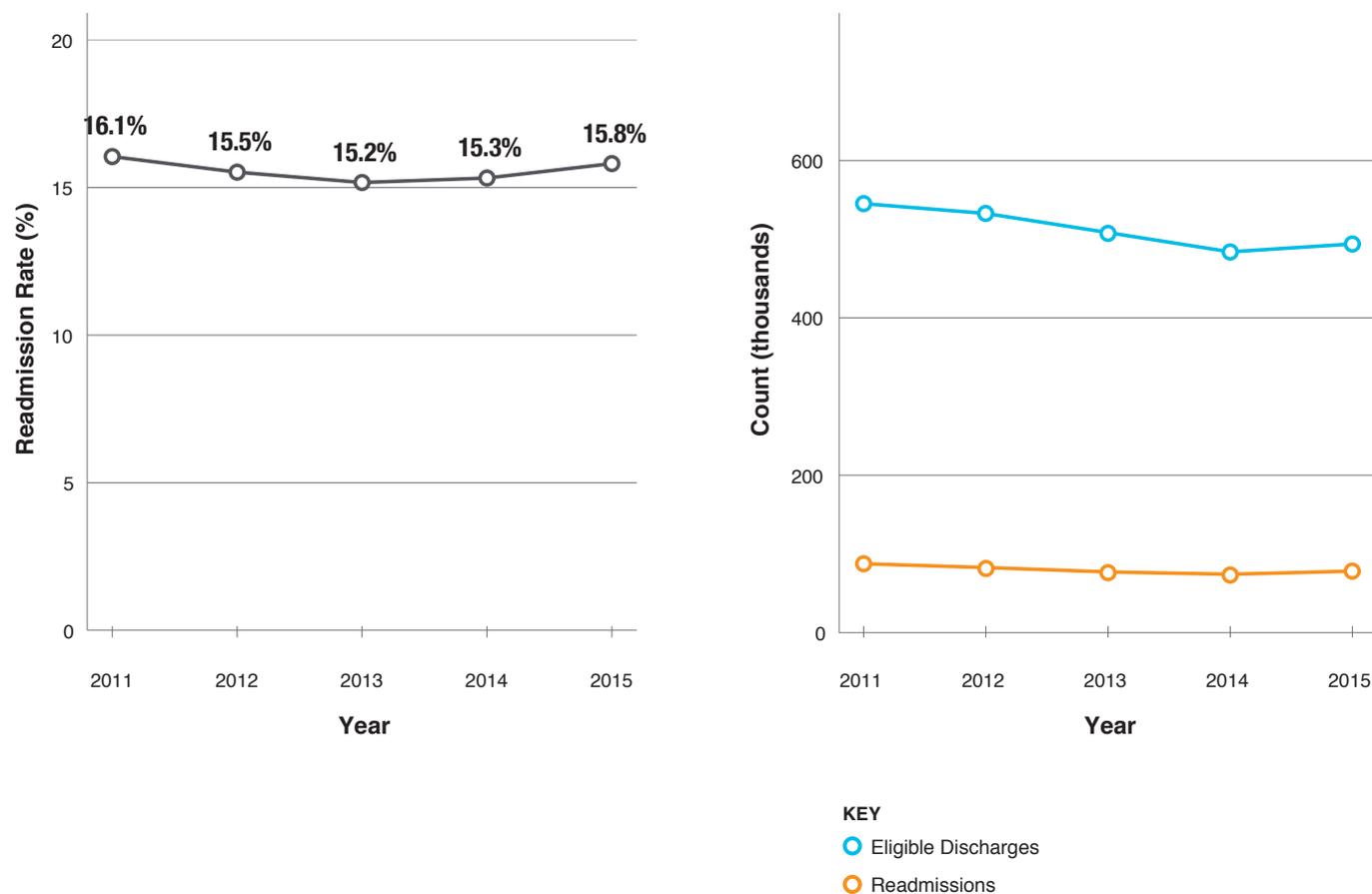
QUALITY OF CARE IN THE COMMONWEALTH

Unplanned hospital readmissions are costly and may affect patient health and experience of care. In state fiscal year (SFY) 2015, 15.8% of eligible discharges from Massachusetts acute care hospitals resulted in a readmission, a 0.5 percentage point increase from the 2014 rate of 15.3%. Across the five years, rates declined from 2011 to 2013 and increased thereafter.

The number of eligible discharges in Massachusetts acute care hospitals increased from 483,896 in 2014 to 493,847 in 2015, reversing a long-term trend of declining hospitalizations. The number of readmissions, which has also been declining historically, increased between 2014 and 2015 as well, from 74,000 to 78,000.

In 2015, readmissions increased more quickly than hospitalizations, resulting in the higher admission rate.

Trends in Statewide All-Payer Readmission Rate, Discharges, and Readmissions, SFY 2011-2015



UNPLANNED READMISSIONS DECREASED FROM 2011 TO 2013, BUT INCREASED THEREAFTER.

Source: CHIA Hospital Discharge Database.

Notes: Analyses include discharges for adults with any payer, excluding discharges for obstetric or primary psychiatric care.

QUALITY OF CARE IN THE COMMONWEALTH

An early elective delivery is a birth (via Cesarean section or induction) prior to 39 weeks gestation for non-medical reasons. Through voluntary hospital reporting, the Leapfrog Group measures whether hospitals keep their rates of elective deliveries at or under five percent. In 2016, rates of early elective deliveries fell at five of the 36 hospitals that reported this measure, but rose at 11. The highest rate was 8.6% in 2016 (compared to 13.5% in 2015). Twenty-four of 37 hospitals reported no early elective deliveries.

Leapfrog has set a target episiotomy rate among delivering patients of five percent or less; 19 of 37 reporting hospitals met this target in 2016. The high episiotomy rates in a few hospitals are far outside practice norms for Massachusetts.

While Cesarean sections can be lifesaving, they are not always necessary and the risks to mothers and infants are significant.³ In 2016, 14 of 36 reporting hospitals met the Leapfrog standard that no more than 23.9% of women with low-risk pregnancies deliver via Cesarean section.^{4,5}

Rates of Maternity-Related Procedures Relative to Performance Targets, by Hospital, 2016

	Early Elective Deliveries	Incidence of Episiotomy	Cesarean Section
Leapfrog Standard is ≤	5.0%	5.0%	23.9%
Fully Met Three Standards			
Anna Jacques Hospital	4.8%	3.3%	22.3%
Baystate Medical Center	3.3%	3.9%	23.5%
Berkshire Medical Center	0.0%	0.7%	17.5%
Beth Israel Deaconess Hospital – Plymouth	0.0%	1.9%	21.0%
Beverly Hospital	0.0%	2.2%	19.2%
Cooley Dickinson Hospital	4.2%	4.3%	19.4%
Fairview Hospital	0.0%	0.0%	17.1%
Holyoke Medical Center	0.0%	1.7%	23.5%
Mt. Auburn Hospital	0.0%	3.6%	22.7%
St. Vincent Hospital	0.0%	4.8%	23.7%
Fully Met Two Standards			
Baystate Franklin Medical Center	3.2%	0.0%	24.6%
Beth Israel Deaconess Medical Center	1.5%	3.6%	24.7%
Brigham and Women's Hospital	1.0%	4.9%	25.4%
Cape Cod Hospital	0.0%	4.1%	25.1%
Cambridge Health Alliance	0.0%	1.8%	30.2%
Emerson Hospital	4.1%	2.4%	25.8%
Hallmark Health	0.0%	7.1%	19.4%
Heywood Hospital	0.0%	11.2%	14.2%
Lowell General Hospital	2.2%	5.9%	22.6%
Mercy Medical Center	0.0%	4.2%	32.4%
MetroWest Medical Center	0.0%	9.8%	23.5%
Signature Healthcare Brockton Hospital	0.0%	1.7%	28.0%
South Shore Hospital	0.0%	5.0%	30.8%

	Early Elective Deliveries	Incidence of Episiotomy	Cesarean Section
Leapfrog Standard is ≤	5.0%	5.0%	23.9%
Fully Met One Standard			
Harrington Memorial Hospital	0.0%	15.9%	28.0%
HealthAlliance Hospital	0.0%	5.3%	
Steward Holy Family Hospital	3.1%	16.0%	32.5%
Lawrence General Hospital	0.0%	8.0%	26.1%
Milford Regional Medical Center	0.0%	20.7%	26.8%
Morton Hospital	0.0%	5.5%	28.6%
Newton-Wellesley Hospital	2.8%	10.3%	27.8%
Steward Norwood Hospital	0.0%	8.1%	24.7%
Steward St. Elizabeth's Medical Center	1.5%	8.2%	31.6%
Steward Good Samaritan Medical Center	0.0%	9.7%	26.8%
Tufts Medical Center	0.0%	5.3%	26.8%
Winchester Hospital	0.0%	5.2%	28.7%
Fully Met No Standards			
Falmouth Hospital	8.6%	12.4%	26.4%
Sturdy Memorial Hospital	7.1%	8.8%	29.4%

TEN OF 37 REPORTING HOSPITALS MET ALL THREE LEAPFROG STANDARDS FOR REDUCING POTENTIALLY UNNECESSARY MATERNITY PRACTICES.

KEY (Based on Leapfrog Standard)

■ Fully meets standard	■ Some progress
■ Substantial progress	■ Willing to report

Lower is better

Source: The Leapfrog Group Hospital Survey. The Leapfrog Hospital Survey is based on voluntary hospital reporting and does not include data on all Massachusetts hospitals.

Notes: All payers, all ages. See the [technical appendix](#) for information on Leapfrog's standards and scoring methodologies. A hospital is "Willing to Report" if it provided data for a measure to Leapfrog but has not demonstrated progress according to Leapfrog's scoring methodology.

QUALITY OF CARE IN THE COMMONWEALTH

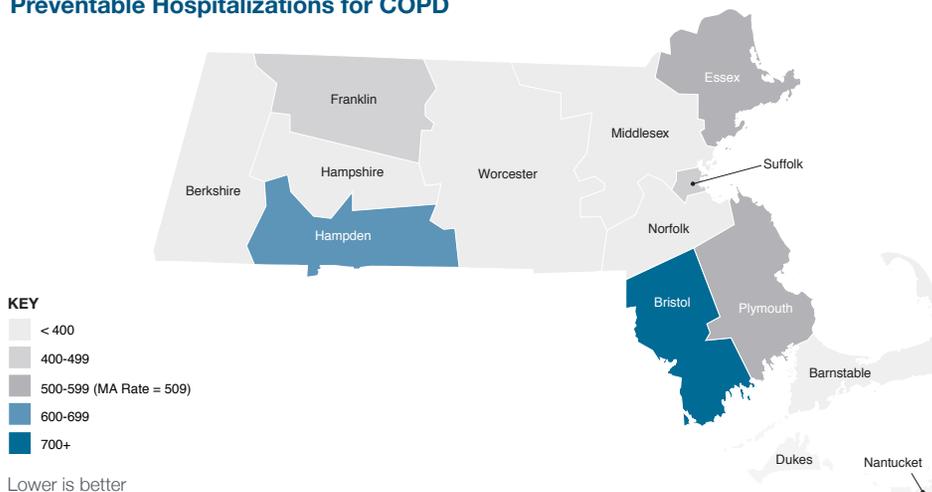
Prevention quality indicators calculate the rate of avoidable hospitalizations in the population for certain conditions. These measures assess the effectiveness of primary care, appropriate self-treatment, and early interventions in preventing complications and hospital admissions.

Across Massachusetts, there were 462.5 potentially preventable hospitalizations for chronic obstructive pulmonary disease (COPD) per 100,000 residents. There was wide variation between counties, which ranged from 248.8 in Nantucket County to 777.9 per 100,000 residents in Bristol county.

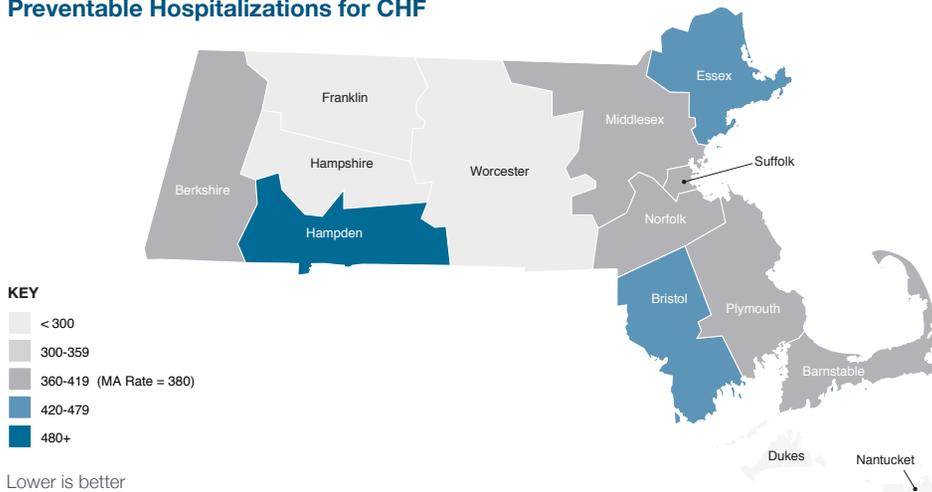
The statewide rate of preventable hospitalizations for congestive heart failure (CHF) was 385.5 per 100,000 residents. Nantucket County had the lowest rate of 27.3, while Hampden County had the highest rate at 588.1 per 100,000 residents.

Potentially Preventable Hospitalizations for COPD and CHF per 100,000 Massachusetts Residents, by County of Residence, 2016

Preventable Hospitalizations for COPD



Preventable Hospitalizations for CHF



Source: CHIA Hospital Discharge Database.

Notes: All payers, ages vary by measure. Rates are not risk adjusted. The regional variation may be due to underlying differences in patient demographics.

RESIDENTS OF BRISTOL AND HAMPDEN COUNTIES HAD HIGHER RATES OF POTENTIALLY PREVENTABLE ADMISSIONS THAN RESIDENTS OF OTHER COUNTIES.

QUALITY OF CARE IN THE COMMONWEALTH NOTES

- 1** CHIA used the AHRQ v6.0.1 ICD-10-CM/PCS PQI Software to calculate potentially preventable hospitalizations. Details on the methodology for calculating readmissions is available in *Hospital-Wide Adult All-Payer Readmissions in Massachusetts: SFY 2011-2015* (<http://www.chiamass.gov/assets/docs/r/pubs/16/Readmissions-Report-2016-12.pdf>).
- 2** Hospital Consumer Assessment of Healthcare Providers and Systems Survey. The Leapfrog Group collects data on use of maternity-related services.
- 3** JL Ecker and FD Frigoletto, Jr., "Cesarean Delivery and the Risk-Benefit Calculus," *New England Journal of Medicine* 356, no.9 (2007): 885-888.
- 4** "Factsheet: Maternity Care," *The Leapfrog Group*, accessed August 7, 2017, http://www.leapfroggroup.org/sites/default/files/Files/Maternity%20Care%20Fact%20Sheet_2017.pdf.
- 5** Leapfrog's standard aligns with the US Department of Health and Human Services Healthy People 2020 target. See <http://www.healthypeople.gov/2020/topics-objectives/topic/maternal-infant-and-child-health/objectives>. Last accessed August 7, 2017.

TOTAL MEDICAL EXPENSES & ALTERNATIVE PAYMENT METHODS

KEY FINDINGS

TOTAL MEDICAL EXPENSES & ALTERNATIVE PAYMENT METHODS

TME increased in 2016 for commercial and MassHealth MCO members, and decreased for Medicare Advantage members.

Per member per month spending for hospital outpatient and pharmacy services grew faster than other major service categories in 2016 for commercial full-claim members.

Adoption of APMs grew by 6.3 percentage points in the commercial market in 2016.

Commercial APM adoption increased from 1.1% of PPO members in 2015 to 14.7% of PPO members in 2016.

TOTAL MEDICAL EXPENSES AND ALTERNATIVE PAYMENT METHODS

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 per member per month (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, CHIA collects information on how payments to providers are made. Historically, the majority of health care services have been paid using a fee-for-service (FFS) method. As payers increasingly look to promote coordinated, higher value care, they are shifting toward alternative payment methods (APMs), using non-FFS methods of payment in which some of the financial risk associated both with the occurrence of medical conditions as well as the management of those conditions is shifted from payers to providers.

Generally, 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 2015 final and 2016 preliminary TME and APMs¹ using the following metrics:

TME: Total expenditures for health care services in a given year, divided by the number of member months in the payer's population.

Health Status Adjusted (HSA) TME: TME adjusted to reflect differences in the health status of member populations.

Managing physician group TME: Total medical spending for members required by their insurance plan to select a primary care provider.

APM adoption: The share of member months associated with a primary care provider engaged in an alternative payment contract with the reporting payer. •

TOTAL MEDICAL EXPENSES & ALTERNATIVE PAYMENT METHODS

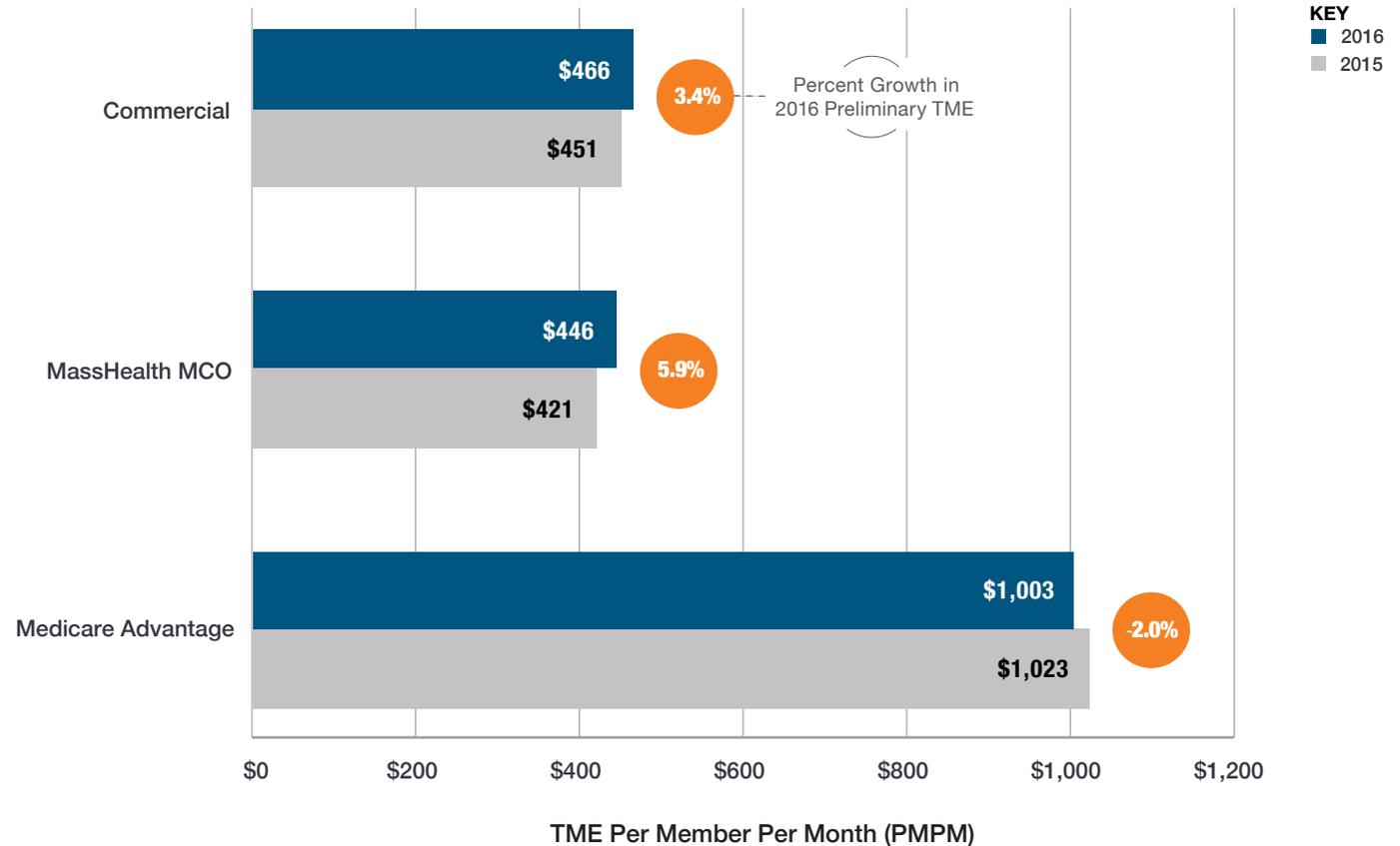
Total Medical Expenses Per Member Per Month by Insurance Category, 2015-2016

In 2016, TME was \$466 PMPM for commercial members for whom the payer has access to full claims data, an increase of 3.4% over 2015.

MassHealth MCOs reported TME of \$446 PMPM in 2016, an increase of 5.9% compared to a nearly flat trend in 2015 (-0.3%).

For both of these populations, member month growth was relatively low (2.1% for commercial full-claim and 1.1% among MassHealth MCOs) while expenditures grew by 5.6% for commercial full-claim members and 7.0% for MassHealth MCO members from 2015.

TME for Medicare Advantage members was \$1,003 PMPM in 2016, a decrease of 2.0% from the prior reporting year. Medicare Advantage enrollment continued to grow in 2016, increasing by 3.0% from 2015.



TME INCREASED IN 2016 FOR COMMERCIAL AND MASSHEALTH MCO MEMBERS WHILE DECREASING FOR MEDICARE ADVANTAGE MEMBERS.

Source: Payer-reported TME data to CHIA.

Notes: Commercial data displayed above represents commercial full-claim only. For detailed Medicare Advantage data, please see the [databook](#). 2015 data displayed above reflects final TME. MassHealth redetermination activity and the unwinding of Temporary coverage resulted in a volatile risk pool in 2015 and therefore this growth rate in 2016 does not necessarily reflect underlying growth trends in MassHealth MCOs.

TOTAL MEDICAL EXPENSES & ALTERNATIVE PAYMENT METHODS

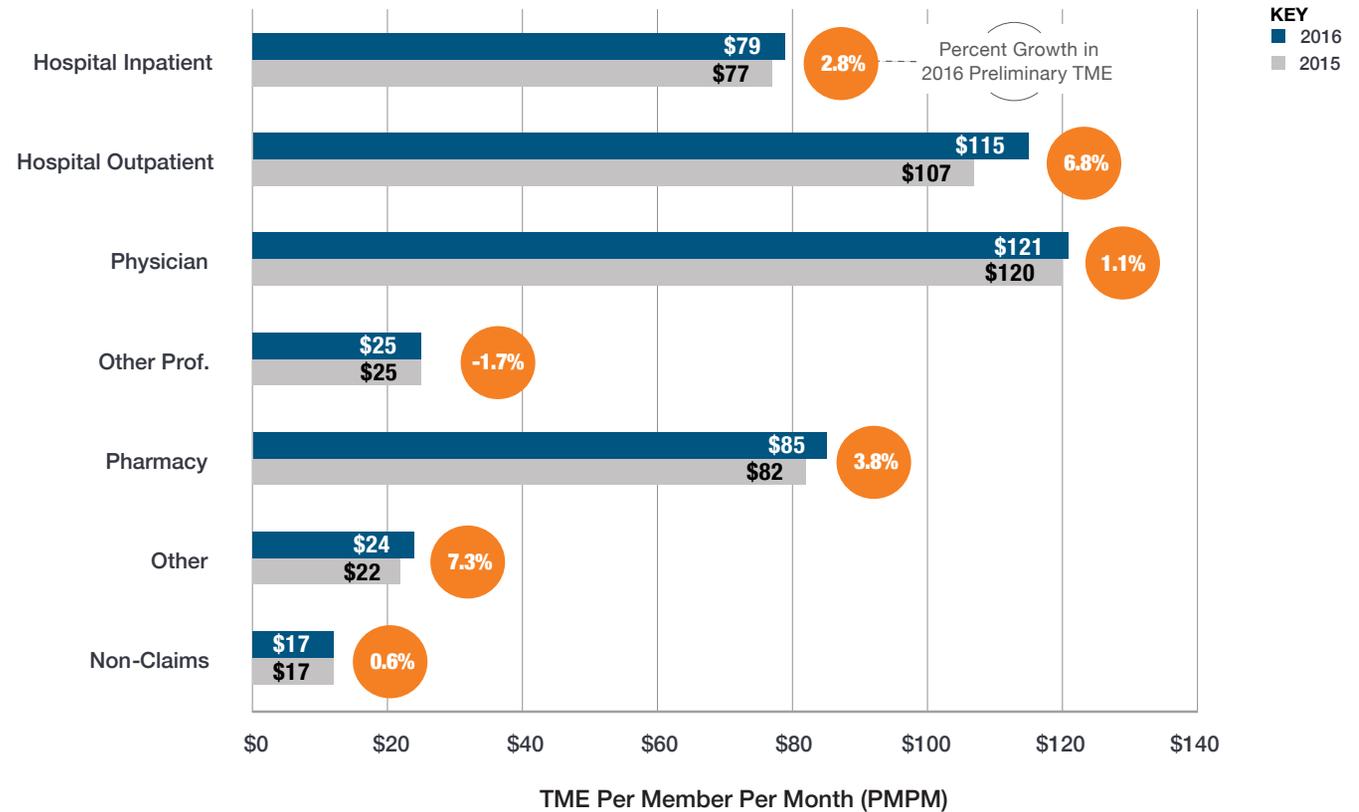
Spending for hospital inpatient and outpatient services, physician services, and prescription drugs comprised 85.8% of TME for the commercial full-claim population in 2016.

Physician services represented the largest spending category, consistent with prior years, and increased by 1.1% from 2015—the lowest rate among the major service categories.

Similar to prior years, the rate of growth in PMPM spending for hospital inpatient services was generally low for commercial full-claim members at 2.8% in 2016.

Both hospital outpatient and pharmacy spending increased at rates faster than overall TME, increasing by 6.8% and 3.8%, respectively, for these commercial members.

Commercial Total Medical Expenses Per Member Per Month by Service Category, 2015-2016



PMPM SPENDING FOR HOSPITAL OUTPATIENT AND PHARMACY SERVICES GREW FASTER THAN OTHER MAJOR SERVICE CATEGORIES IN 2016 FOR COMMERCIAL FULL-CLAIM MEMBERS.

Source: Payer-reported TME data to CHIA.

Notes: Data displayed above represents commercial full-claim spending only. Commercial full-claim TME represented 75.7% of total commercial expenditures in 2016. 2015 data displayed above reflects final TME. For definitions of service categories please see TME data specifications: <http://www.chiamass.gov/assets/docs/p/tme-rp/data-spec-manual-tme.pdf>.

TOTAL MEDICAL EXPENSES & ALTERNATIVE PAYMENT METHODS

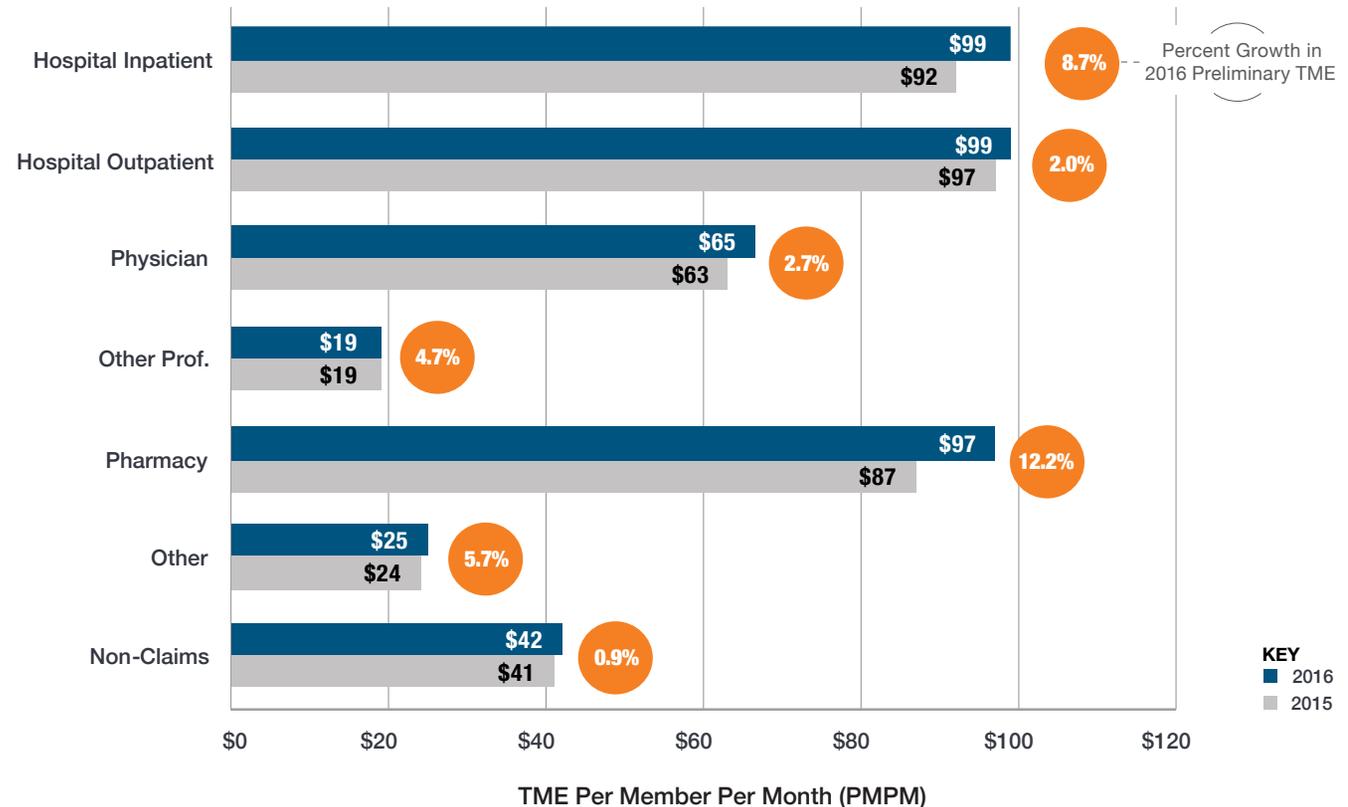
PMPM spending for MassHealth MCO members increased across all service categories, in contrast to prior year trends.

As in 2015, spending for pharmacy services grew faster than other service categories, increasing by 12.2% to \$97 PMPM in 2016. This rate is an acceleration from the 8.0% growth rate in pharmacy spending in 2015.

In 2016, pharmacy spending nearly equaled hospital inpatient and hospital outpatient spending.

Hospital inpatient spending also grew faster than overall MassHealth MCO TME growth, increasing by 8.7% in 2016 after declines in the prior two reporting years.

MassHealth MCO Total Medical Expenses Per Member Per Month by Service Category, 2015-2016



SPENDING FOR PHARMACY SERVICES WAS THE FASTEST GROWING SERVICE CATEGORY IN 2016 FOR MASSHEALTH MCO MEMBERS, INCREASING BY 12.2% PMPM.

Source: Payer-reported TME data to CHIA.

Notes: For definitions of service categories please see TME data specifications: <http://www.chiamass.gov/assets/docs/p/tme-rp/data-spec-manual-tme.pdf>. 2015 data displayed above reflects final TME.

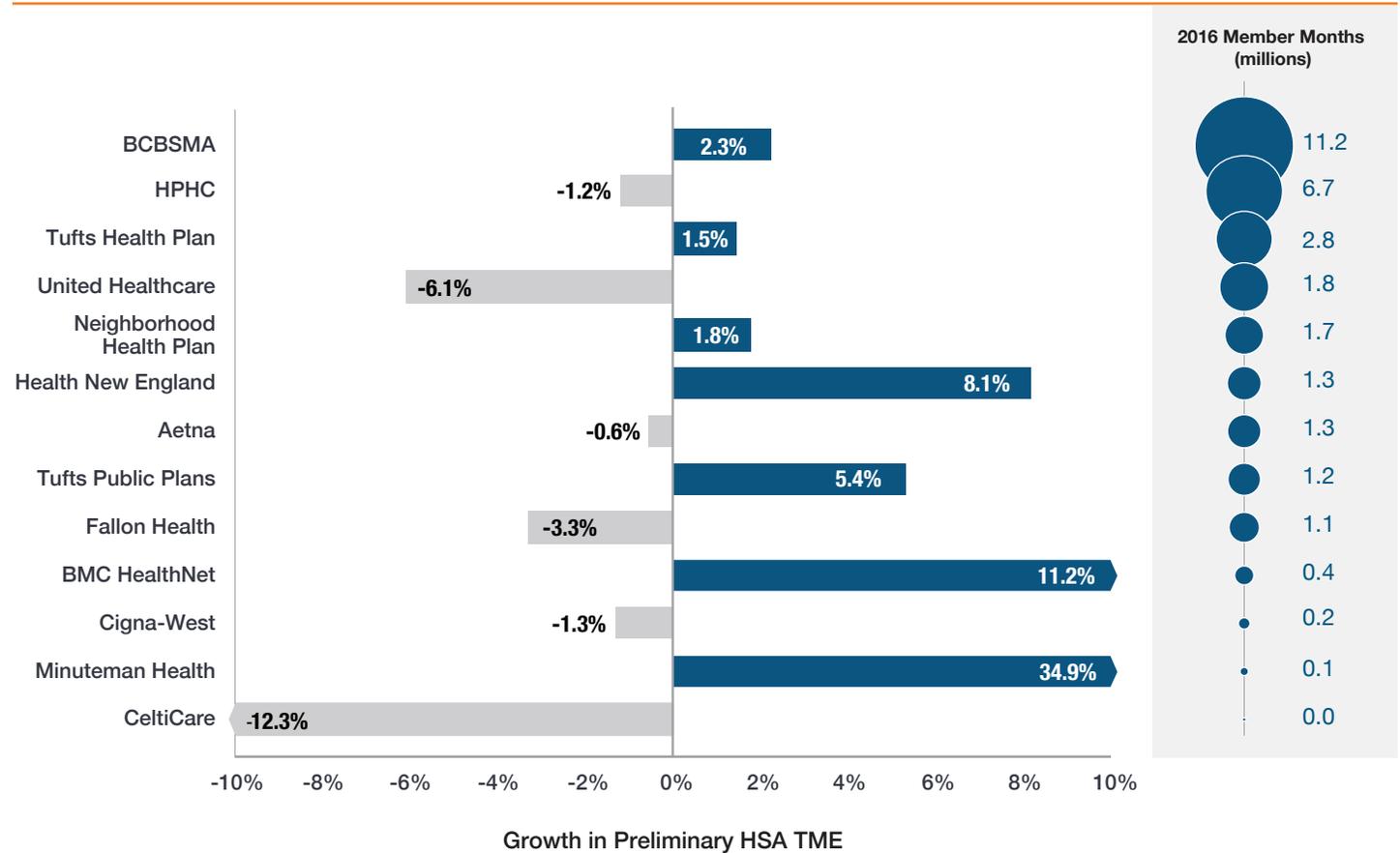
TOTAL MEDICAL EXPENSES & ALTERNATIVE PAYMENT METHODS

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

Nine commercial payers—accounting for 89.8% of this population—reported preliminary HSA TME growth below the 3.6% benchmark from 2015 to 2016.

The four largest commercial payers—Blue Cross Blue Shield of Massachusetts (BCBSMA), Harvard Pilgrim Health Care (HPHC), Tufts Health Plan, and United Healthcare—representing a combined 75.6% of commercial full-claim member months, reported decreases or low growth in preliminary HSA TME in 2016.

Preliminary Commercial Health Status Adjusted TME by Payer, 2015-2016



THE FOUR LARGEST PAYERS REPORTED LOW OR NEGATIVE PRELIMINARY HEALTH STATUS ADJUSTED TME GROWTH IN 2016.

Source: Payer-reported TME data to CHIA.

Notes: Data displayed above reflects commercial full-claim TME expressed on a PMPM basis. The tools used for adjusting TME for health status of a payer's covered members vary among payers, and therefore adjustments are not uniform or directly comparable across payers. Payers are required, however, 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. Cigna-East reported 2.4 million member months in 2016, but did not utilize a consistent risk adjustment tool.² As a result, Cigna-East was excluded from HSA TME analysis.

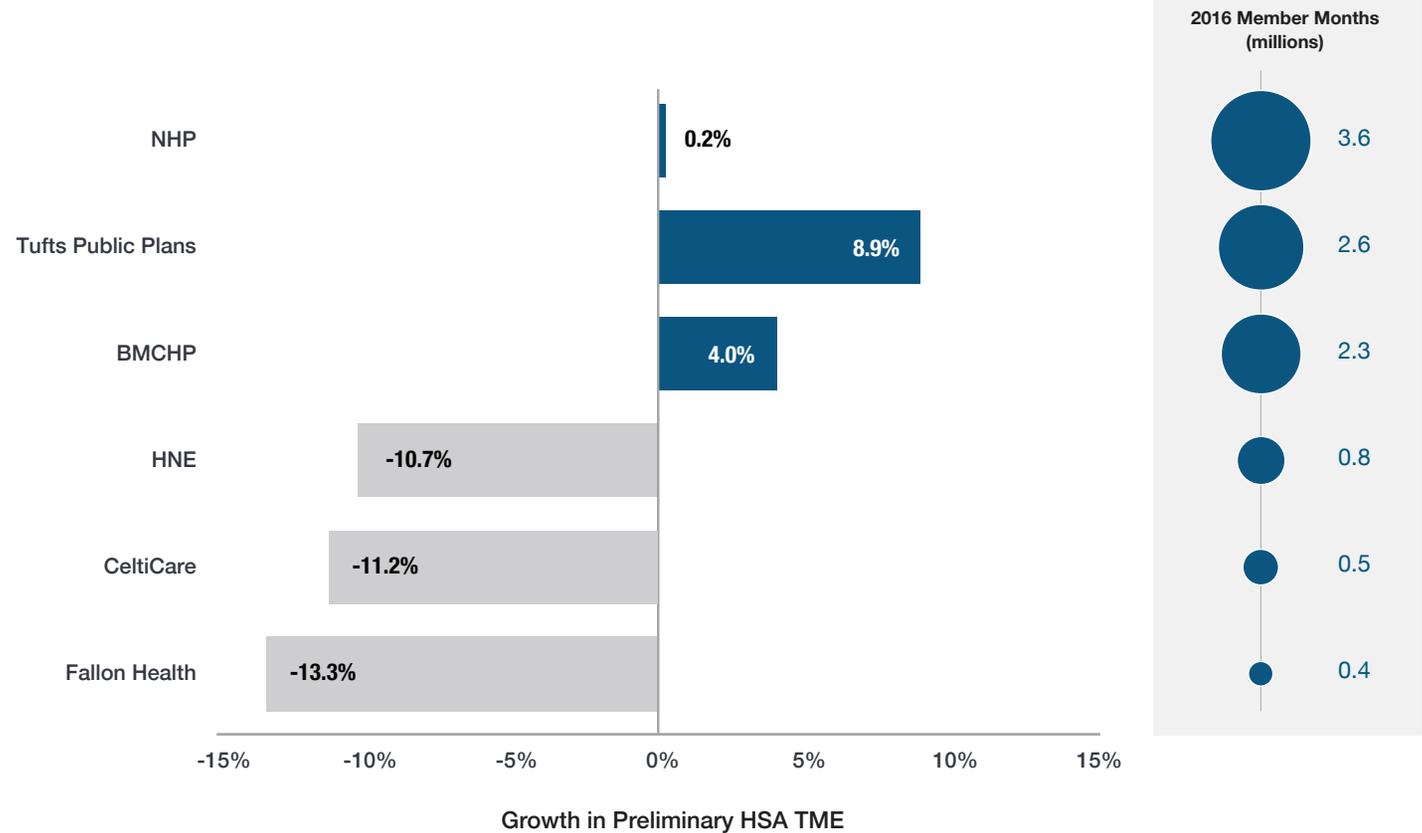
TOTAL MEDICAL EXPENSES & ALTERNATIVE PAYMENT METHODS

Preliminary MassHealth MCO Health Status Adjusted TME by Payer, 2015-2016

In 2016, the majority of MassHealth MCO members (83.5%) were enrolled with Neighborhood Health Plan (NHP), Tufts Public Plans, and BMC HealthNet Plan (BMCHP). All three reported increases in preliminary HSA TME from 2015 to 2016. Among these plans, increases in total expenses exceeded enrollment growth for two payers, and coincided with enrollment declines in the third.

The remaining three payers accounted for 16.5% of member months in 2016. All three of the payers with smaller enrollment shares experienced double digit decreases in HSA TME from 2015 to 2016. Additionally, all three reported decreases in total expenses.

From 2015 to 2016, BMCHP, Health New England (HNE), and CultiCare experienced decreases in their MCO membership, while NHP, Tufts Public Plans, and Fallon Health experienced increases in their MCO member population.



THE THREE LARGEST MASSHEALTH MCO PAYERS COVERED 83.5% OF MASSHEALTH MCO MEMBERS, AND REPORTED INCREASES IN PRELIMINARY HSA TME RANGING FROM 0.2% TO 8.9% IN 2016.

Source: Payer-reported TME data to CHIA.

Notes: The tools used for adjusting TME for health status of a payer's covered members vary among payers, and therefore adjustments are not uniform or directly comparable across payers. Payers are required, however, 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.

TOTAL MEDICAL EXPENSES & ALTERNATIVE PAYMENT METHODS

Managing physician group HSA TME measures the total medical spending for members required by their insurance plan to select a primary care provider (PCP).³

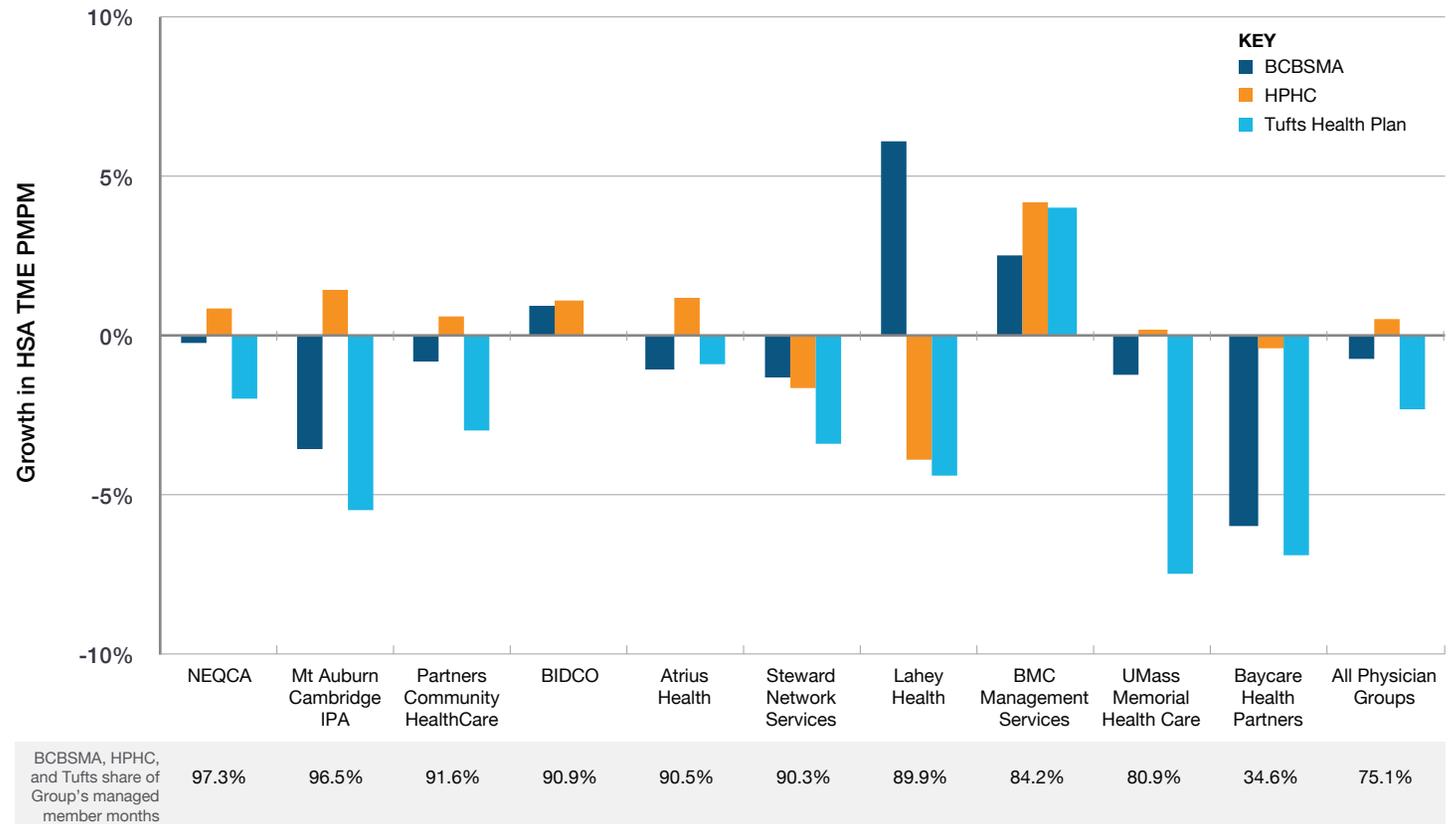
In 2015, BCBSMA, HPHC, and Tufts Health Plan were the three largest Massachusetts-based payers, covering 75.1% of members who selected a PCP.

Eight of the 10 largest managing physician groups experienced decreases in HSA TME for two of the three payers' networks from 2014 to 2015.

BMC Management Services was the only physician group that had increases in payer-reported HSA TME in all three payers' networks from 2014 to 2015.

Members managed by Steward Network Services and Baycare Health Partners had decreases in HSA TME for all three payers.

Managing Physician Group Commercial Health Status Adjusted TME, 2014-2015



IN 2015, HSA TME GROWTH FOR PATIENTS MANAGED BY EIGHT OF THE TEN LARGEST PHYSICIAN GROUPS DECREASED IN AT LEAST ONE PAYER'S NETWORK.

Source: Payer-reported TME data to CHIA.

Notes: Managing physician group TME is presented for 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, and due to the adoption of APM contract arrangements.

TOTAL MEDICAL EXPENSES & ALTERNATIVE PAYMENT METHODS

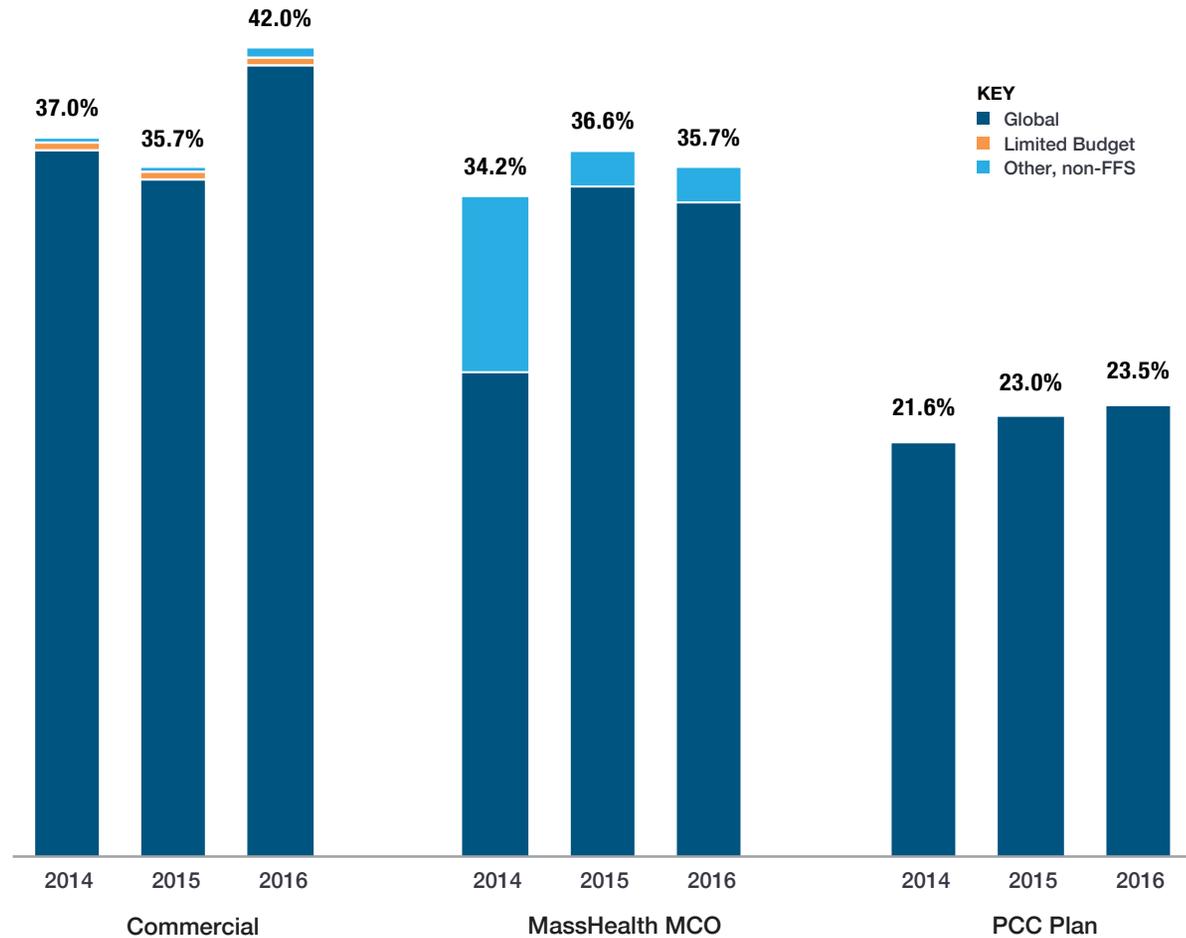
As payers increasingly look to promote coordinated, higher value care they are shifting towards APMs, which are intended to give providers new incentives to control overall costs while maintaining or improving quality.

In the Massachusetts commercial market, the share of members whose care was paid for using APMs increased by 6.3 percentage points to 42.0% in 2016, after declining in the prior year.

MassHealth MCOs reported APM use for 35.7% of members in 2016, a decline of less than one percentage point from 2015. In the MassHealth PCC Plan, the share of members whose care was paid for using APMs increased slightly to 23.5% in 2016.

Global payment arrangements continued to be the dominant APM employed by commercial payers, MassHealth MCOs, and the MassHealth PCC Plan. Across these insurance categories, global payment methods were used in more than 95.0% of instances in which members' care was paid under an APM.

Adoption of Alternative Payment Methods by Insurance Category, 2014-2016



ADOPTION OF APMS INCREASED BY 6.3 PERCENTAGE POINTS IN THE COMMERCIAL MARKET IN 2016.

Source: Payer-reported APM data to CHIA.

Notes: 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.

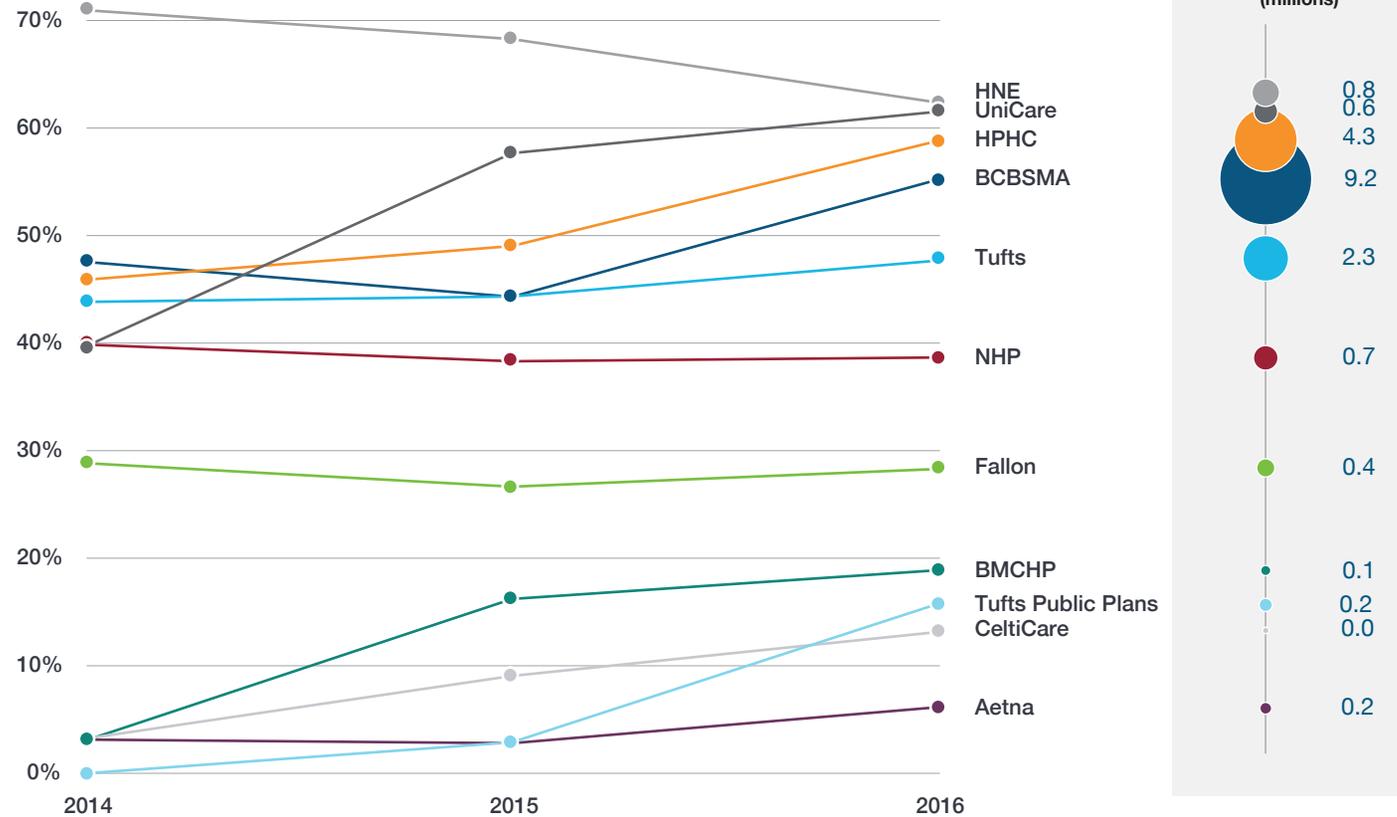
TOTAL MEDICAL EXPENSES & ALTERNATIVE PAYMENT METHODS

In the commercial market, 11 out of 14 payers engaged in APM arrangements in 2016. Ten of these 11 payers increased the proportion of members whose care was paid for using an APM from 2015 to 2016. Cigna, Minuteman Health, and United Healthcare reported no APMs in 2016, consistent with prior years.

While the number of members whose care was paid for using an APM increased in 2016, the majority of care for commercial members continued to be paid using the fee-for-service method (58.0%). Only four payers in the commercial market, HNE, UniCare, HPHC, and BCBSMA, had the majority of their members care paid for through an APM arrangement.

HNE continued to report the highest adoption rate among commercial payers (62.4%), but was the only payer whose APM adoption in 2016 was lower than the prior year.

APM Adoption Trends by Commercial Payers, 2014-2016



THE MAJORITY OF COMMERCIAL PAYERS REPORTED INCREASES IN THE PROPORTION OF MEMBERS COVERED UNDER APMS FROM THE PRIOR YEAR.

Source: Payer-reported APM data to CHIA.

Notes: Cigna, Minuteman, and United Healthcare do not provide APMs. Harvard Pilgrim Health Care's data includes subsidiary Health Plans Inc. 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. The data displayed above includes both full-claim and partial claim members.

TOTAL MEDICAL EXPENSES & ALTERNATIVE PAYMENT METHODS

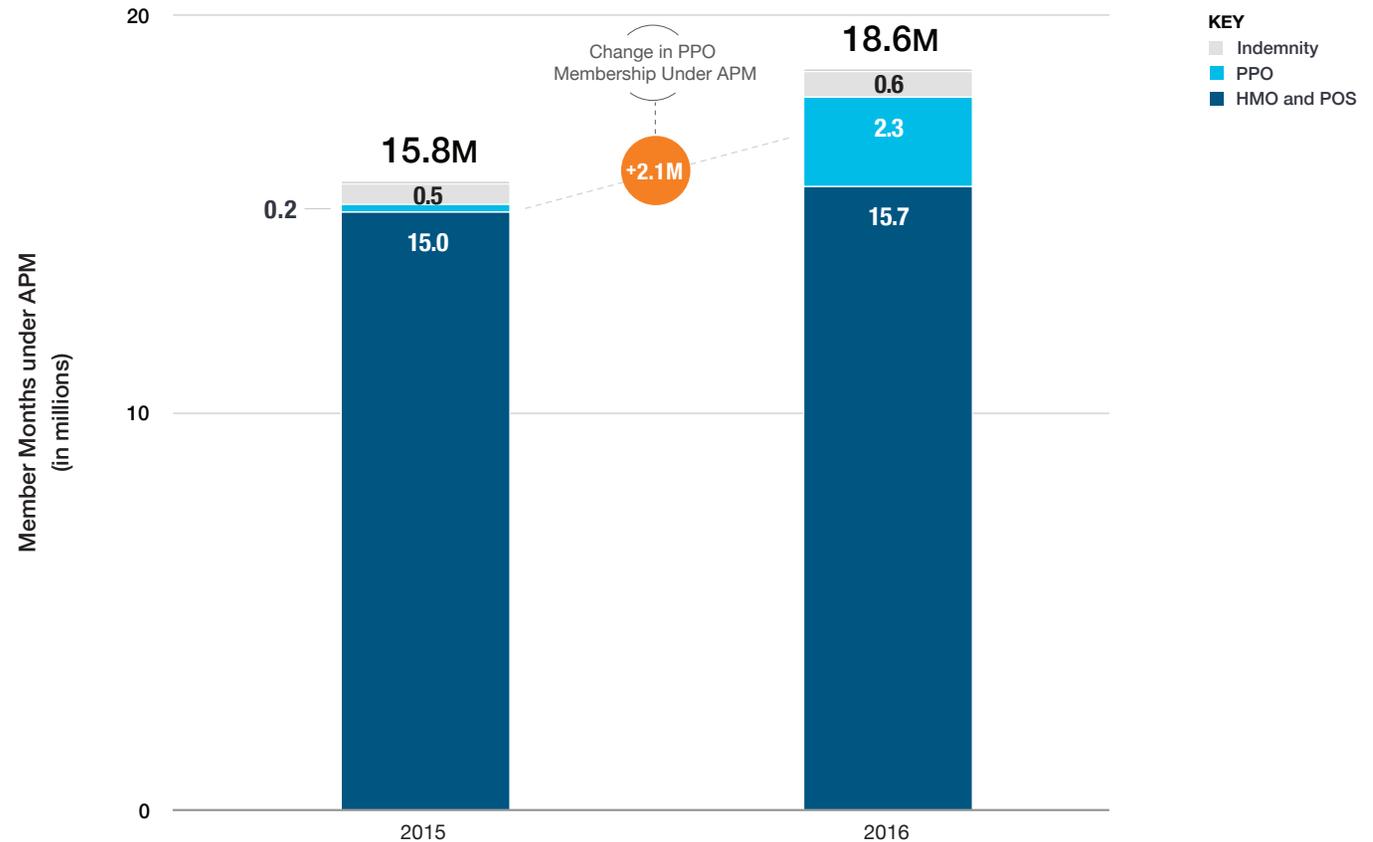
In 2016, increasing percentages of commercial, non-HMO members were covered under an APM—growing overall from 4.0% to 16.6%.

APM adoption rates increased most rapidly within the PPO product type, with 2.3 million member months included in APM contract arrangements in 2016. The percentage of PPO members whose care was paid for using an APM increased from 1.1% to 14.7%. This was largely driven by PPO members covered by BCBSMA; a quarter of its PPO members were moved from FFS and into global payments in 2016.

APM adoption within the Indemnity product type also increased, driven by increases in UniCare membership under global payment arrangements.

In 2016, HMO and POS members under APMs increased by 4.3% from the prior year. Global payment APMs continued to be the dominant arrangement; payers reported 58.1% of commercial HMO/POS members' care was paid for using a global APM.

Commercial APM Adoption by Product Type, 2015-2016



COMMERCIAL APMS INCREASED FROM 1.1% OF PPO MEMBERS IN 2015 TO 14.7% OF PPO MEMBERS IN 2016.

Source: Payer-reported APM data to CHIA.

Notes: 2015 data includes 611 member months attributed to APMs in Other Product Types, but is not displayed above. 2016 data includes but does not display 1,703 member months in Other Product types under APM arrangements.

TOTAL MEDICAL EXPENSES & ALTERNATIVE PAYMENT METHODS

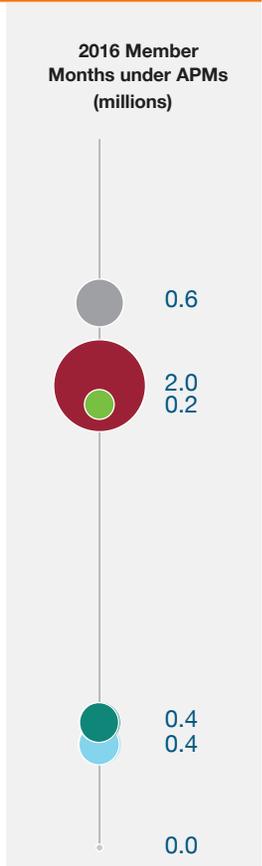
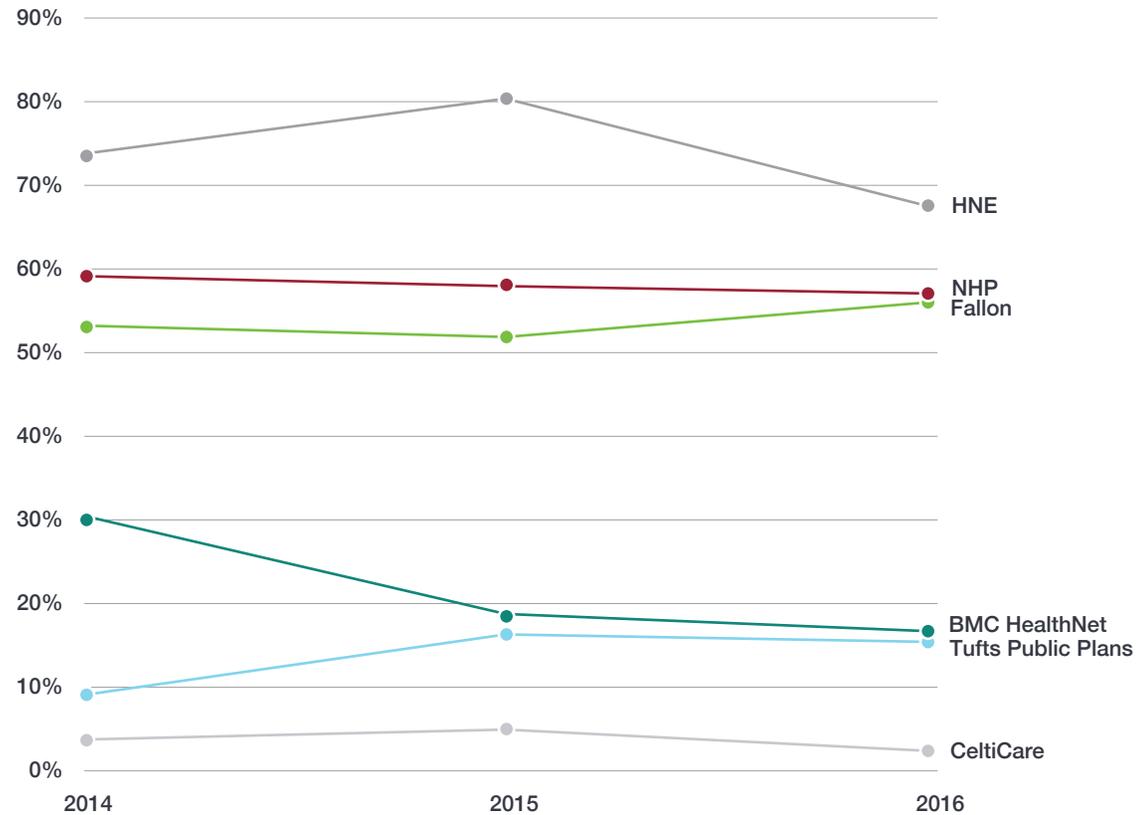
In 2016, all MassHealth MCO payers engaged in APM contract arrangements, covering approximately 35.7% of total MassHealth MCO members.

Five of the six MCO payers reported decreases in the proportion of members in an APM from 2015 to 2016. HNE reported the largest decrease (12 percentage points) in APM adoption between 2015 and 2016, but maintained the highest APM adoption rate at 67.7%.

Although NHP reported an overall decrease in the APM adoption rate, the total number of NHP members whose care was paid for using APMs rose by 9.0% to 3.6 million member months in 2016.

HNE, NHP, and Fallon reported that the majority of their MassHealth members are covered under an APM arrangement, consistent with prior reporting years.

APM Adoption Trends by MassHealth MCOs, 2014-2016



APM ADOPTION RATES DECREASED FOR FIVE OF THE SIX MASSHEALTH MCOs BETWEEN 2015 AND 2016.

Source: Payer-reported APM data to CHIA.

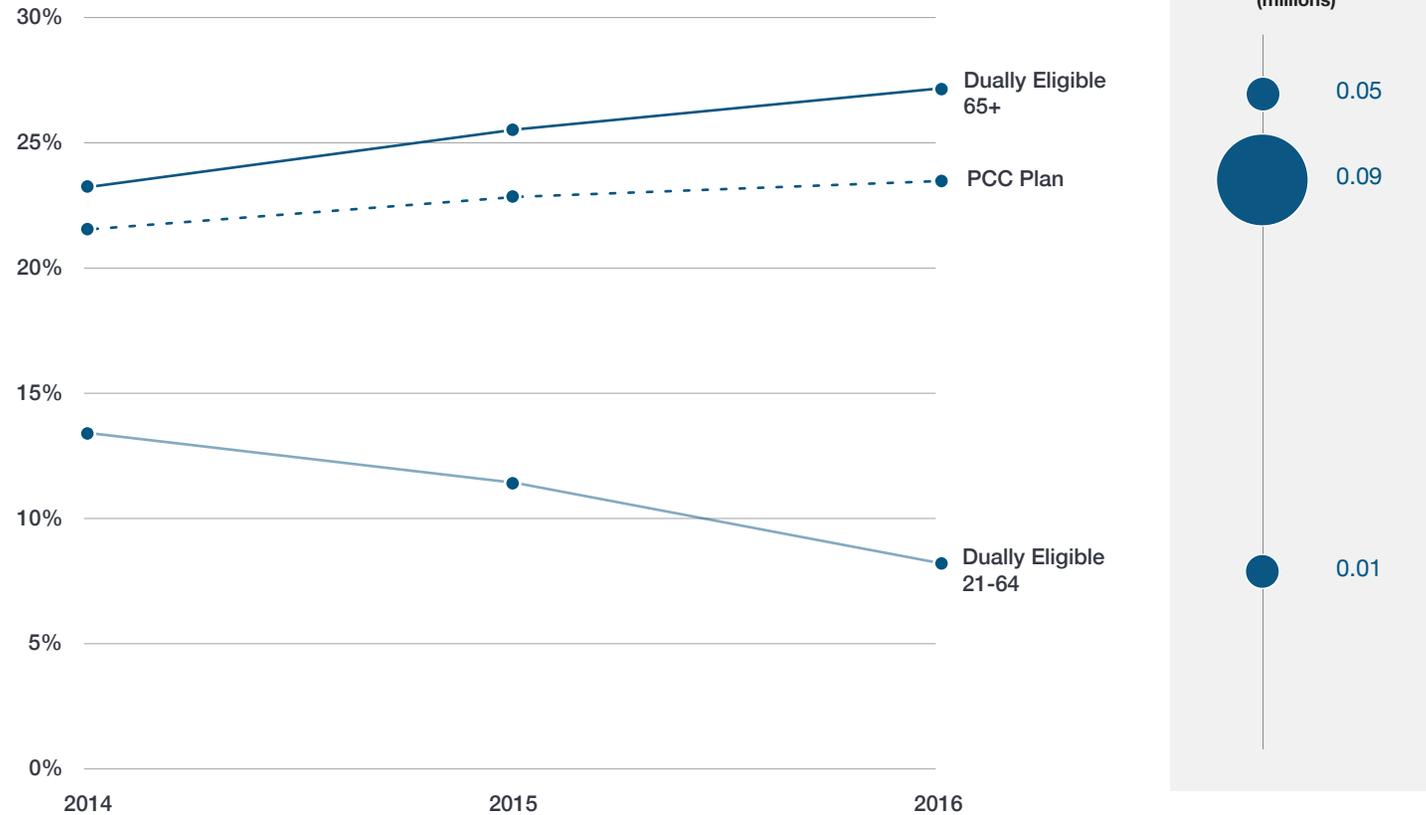
Notes: Membership under APMs is measured by the share of member months associated with a primary care provider engaged in an alternative payment contract with the reporting payer.

TOTAL MEDICAL EXPENSES & ALTERNATIVE PAYMENT METHODS

MassHealth APM adoption increased slightly for the second consecutive year for both the PCC Plan and dually eligible members age 65 and older. 23.5% of MassHealth PCC Plan members and 27.2% of dually eligible seniors had their care paid for under an APM in 2016.

The adoption of APMs for dually eligible members under the age of 65 has been trending in the opposite direction, with consecutive declines from 2015 to 2016. In 2016, 8.3% of these members had primary care providers engaged in APM arrangements, a decline of three percentage points from the prior year.

APM Adoption Trends by MassHealth PCC Plan and Programs for Dually Eligible Members, 2014-2016



APM ADOPTION INCREASED SLIGHTLY FOR MASSHEALTH PCC MEMBERS AND DUALLY ELIGIBLE ADULTS AGE 65 AND ABOVE IN 2016.

Source: MassHealth-reported data to CHIA.

Notes: 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.

TOTAL MEDICAL EXPENSES & ALTERNATIVE PAYMENT METHODS NOTES

- 1** 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/APM that is comparable to the previous year's 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.
- 2** Cigna-East did not utilize a consistent health status adjustment tool and version, and therefore risk scores and HSA TME growth are not comparable from 2015 to 2016.
- 3** 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 providers.

**PRIVATE COMMERCIAL
CONTRACT ENROLLMENT**

KEY FINDINGS

PRIVATE COMMERCIAL CONTRACT ENROLLMENT

Private commercial insurance enrollment of individual purchasers grew 34.5% between 2015 and 2016, while enrollment in employer-sponsored insurance decreased slightly (-0.6%).

By 2016, more than half of individual purchasers received cost-sharing reduction subsidies via specialized ConnectorCare plans sold through the Health Connector.

In 2016, 21.8% of Massachusetts contract members were enrolled in high deductible health plans. Half of small group members were enrolled in high deductible health plans.

PRIVATE COMMERCIAL CONTRACT ENROLLMENT

As part of its efforts to monitor the changing health care landscape, CHIA collects and analyzes Massachusetts private commercial health insurance enrollment data. Data reported by payers for 2014 through 2016 reflects nearly 4.5 million contract lives.¹ CHIA analyzed enrollment by employer size, product type (HMO, PPO, POS), funding type, and HDHP benefit design type (tiered and limited network detail is provided in the [databook](#)). Unless otherwise noted, the remaining chapters of this report highlight membership and cost trends for members covered under private commercial contracts established in Massachusetts (which may include non-Massachusetts residents).²

The vast majority of the private commercial market consists of employer-sponsored insurance (ESI) plans. However, a small but growing portion of the market consists of individuals who purchase plans either directly from insurers or via the Health Connector. For purposes of this report, this portion of the market is referred to as individual purchasers.

Since 2006, the Health Connector has served as an exchange from which individuals and small businesses can purchase health insurance. Beginning in 2014, insurance products offered through the Health Connector adopted federal qualified health plan (QHP) standards, as defined under the Affordable Care Act (ACA). Depending on income, individuals may qualify for ConnectorCare plans that include a combination of state and federal assistance with premium payments as well as cost-sharing reduction (CSR) subsidies, which reduce out-of-pocket spending on copayments, coinsurance, and deductibles.³ Of the payers included in this report, Fallon, HNE, NHP, and Tufts offered ConnectorCare plans.⁴

While payers reported membership and financial data on student health plans offered by colleges and universities, those members are not reported here. See [databook](#) and [technical appendix](#) for more information. ●

For additional insight into employer-sponsored insurance plans, see CHIA's [2016 Massachusetts Employer Survey](#); for information on Massachusetts insurance enrollment trends, including Medicare and Medicaid Enrollment, see CHIA's most recent [Enrollment Trends](#) report.

PRIVATE COMMERCIAL CONTRACT ENROLLMENT

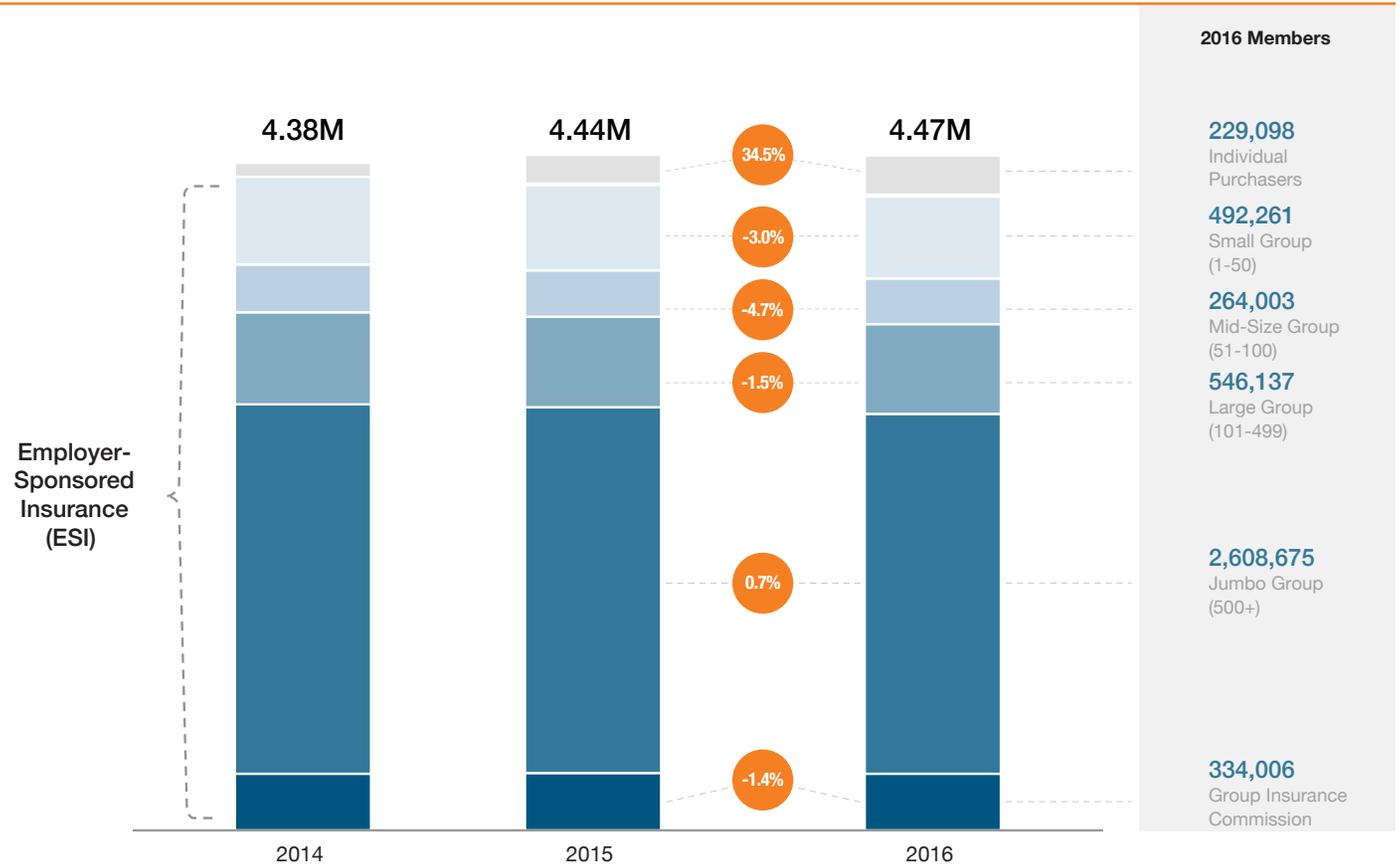
Massachusetts private commercial insurance enrollment increased 0.8% between 2015 and 2016, approaching 4.5 million members.

Nearly 95% of these members were covered by an ESI plan, while the remainder purchased individual plans, including Health Connector plans.

Enrollment in ESI plans declined across employer categories (-0.6% overall) from 2015 to 2016 with the exception of the jumbo group, which saw growth of 0.7% during that period.

Individual purchaser enrollment grew 34.5% from 2015 to 2016, now accounting for nearly 230,000 members. Growth was impacted by the closure of several public programs (MassHealth Temporary, Commonwealth Care, Medical Security Program) in 2014 and early 2015.

Enrollment by Employer Size, 2014-2016



EMPLOYER-SPONSORED INSURANCE ENROLLMENT DECREASED BY 0.6% FROM 2015 TO 2016, WHILE ENROLLMENT OF INDIVIDUAL PURCHASERS GREW 34.5% TO 229,098 MEMBERS.

Source: Payer-reported data to CHIA.

Notes: Based on MA contract membership, which may include non-MA residents. BMC HealthNet Plan, CeltiCare, and Minuteman Health also sold individual plans but fell below the 50,000 member reporting threshold for this data request. Jumbo does not include GIC members. See [technical appendix](#).

PRIVATE COMMERCIAL CONTRACT ENROLLMENT

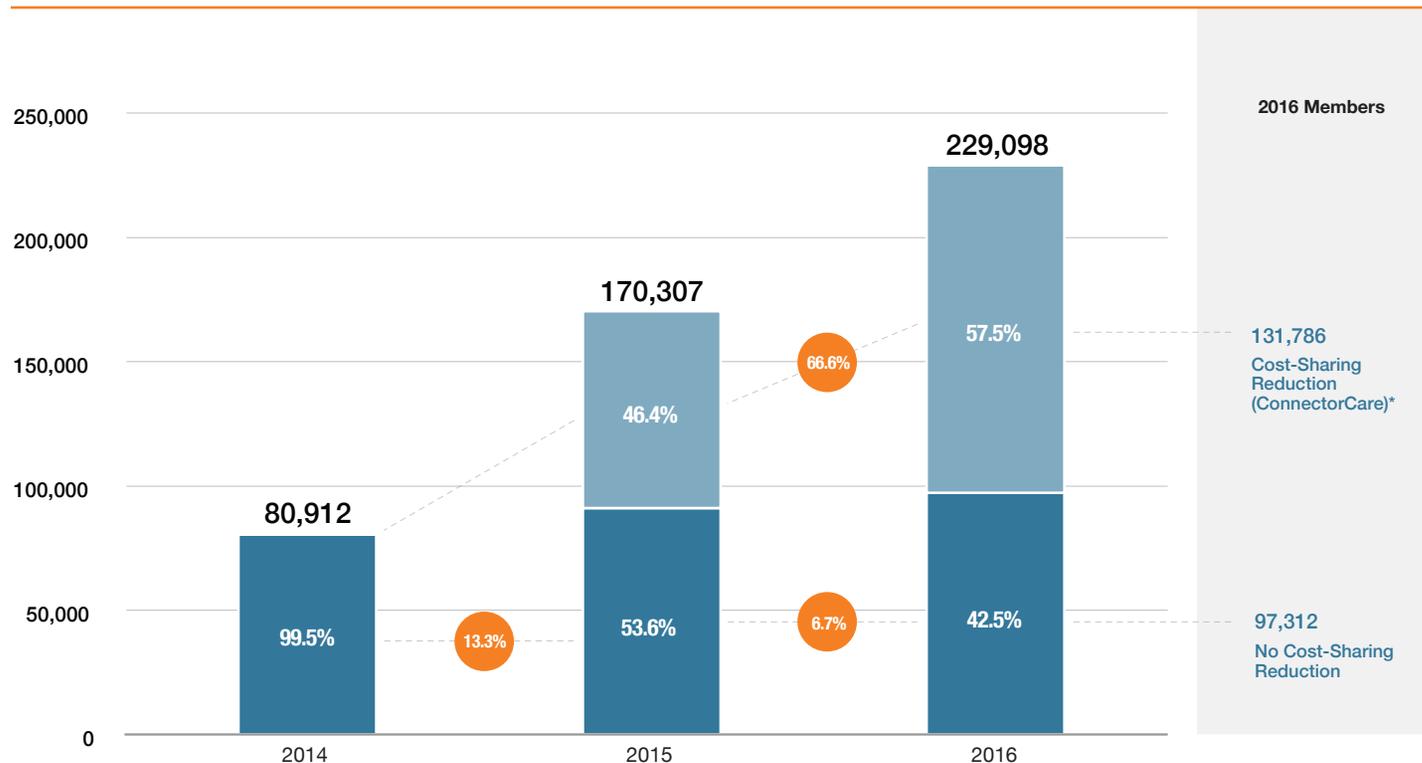
Massachusetts individual purchaser enrollment increased by almost 59,000 members (34.5%) between 2015 and 2016 to 229,098 members.

Growth was concentrated largely in ConnectorCare plans sold through the Health Connector that included federal and state cost-sharing reduction (CSR) subsidies. These CSR subsidies lower copayment and deductible amounts for low- and moderate-income households. Tufts's and NHP's ConnectorCare membership grew the most during this time period.

In 2016, more than half (57.5%) of individual purchasers received CSRs. This population also grew by 66.6% between 2015 and 2016—much faster than non-CSR plans which increased by 6.7%.

Several smaller payers also offered ConnectorCare plans but were not subject to this data request. In total, there were nearly 177,000 ConnectorCare members by December 2016.⁵

Individual Purchaser Enrollment, 2014-2016



BY 2016, MORE THAN HALF OF INDIVIDUAL PURCHASERS (57.5%) RECEIVED COST-SHARING REDUCTION SUBSIDIES VIA SPECIALIZED PLANS SOLD THROUGH THE HEALTH CONNECTOR.

Source: Payer-reported data to CHIA.

Notes: Based on MA contract membership, which may include non-MA residents. See [technical appendix](#).

*BMC HealthNet Plan, CeltiCare, and Minuteman Health also sold individual plans through the Health Connector but fell below the reporting threshold for this data request. Including these additional payers, there were approximately 177,000 ConnectorCare enrollees by December 2016, according to CHIA's August 2017 [Enrollment Trends](#) report.

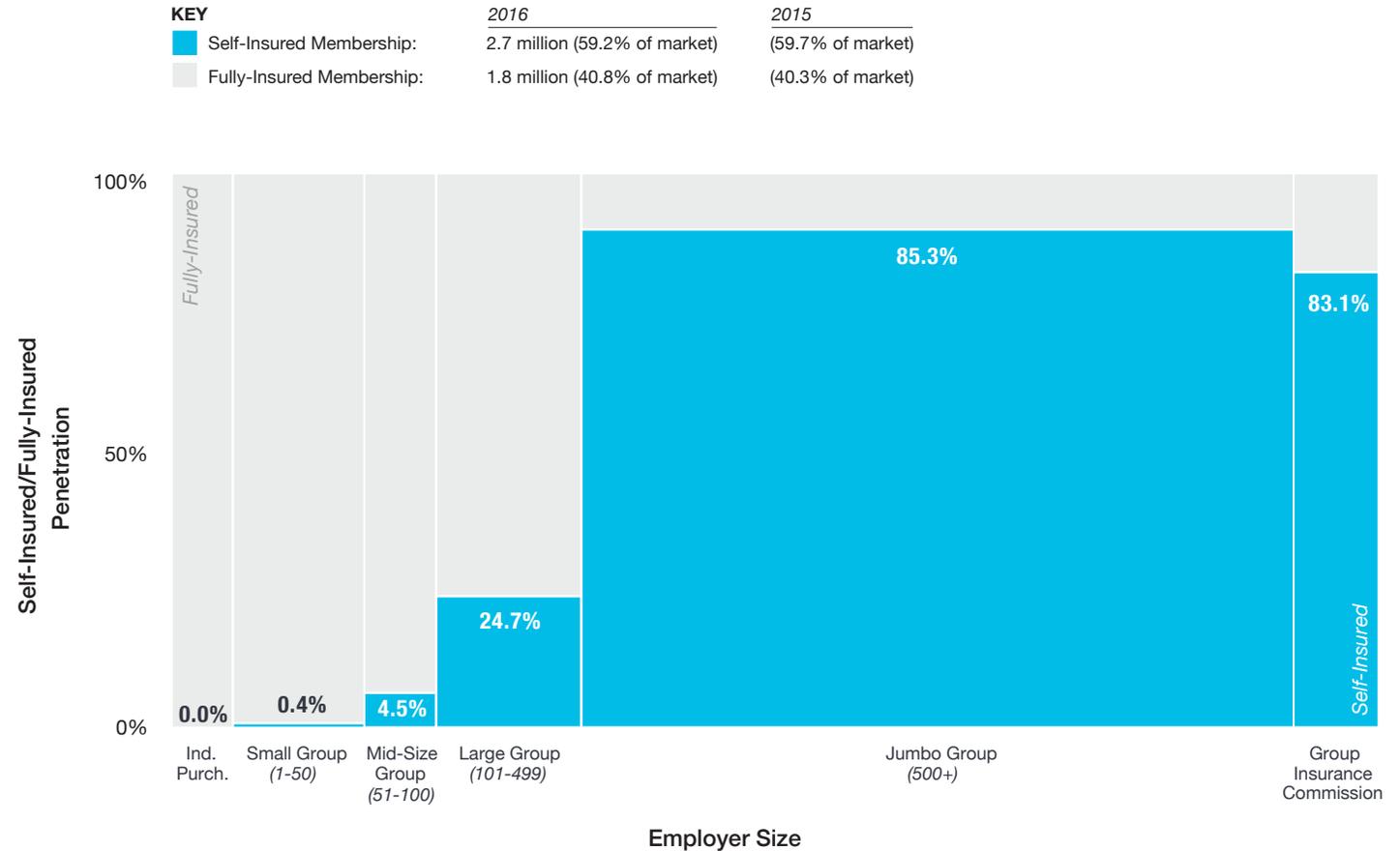
PRIVATE COMMERCIAL CONTRACT ENROLLMENT

Employers may choose to provide health insurance through fully- or self-insured arrangements. Under fully-insured plans, payers assume the financial risks for covering members' medical expenses in exchange for a monthly premium. Self-insured employers assume financial risk for employees' and employee-dependents' eligible medical costs.

In 2016, self-insured membership represented 59.2% of the Massachusetts commercial market (2.7 million members). For the second year in a row, the percentage of members covered by self-insured plans declined, as enrollment increased in fully-insured individual plans.

Self-insurance was most common among members receiving coverage through employers with at least 500 employees (85.3% of members self-insured) and the Group Insurance Commission (GIC) (83.1%) which has more than 300,000 members. Self-insurance among smaller employers remained low in Massachusetts.

Enrollment by Employer Size and Funding Type, 2016



SELF-INSURANCE REMAINED RELATIVELY UNCOMMON AMONG MASSACHUSETTS EMPLOYERS WITH FEWER THAN 500 EMPLOYEES.

Source: Payer-reported data to CHIA.

Notes: Based on MA contract membership, which may include non-MA residents. BMCHP, CeliCare, and Minuteman Health also sold individual plans but fell below the reporting threshold for this data request. Jumbo does not include GIC members. See [technical appendix](#).

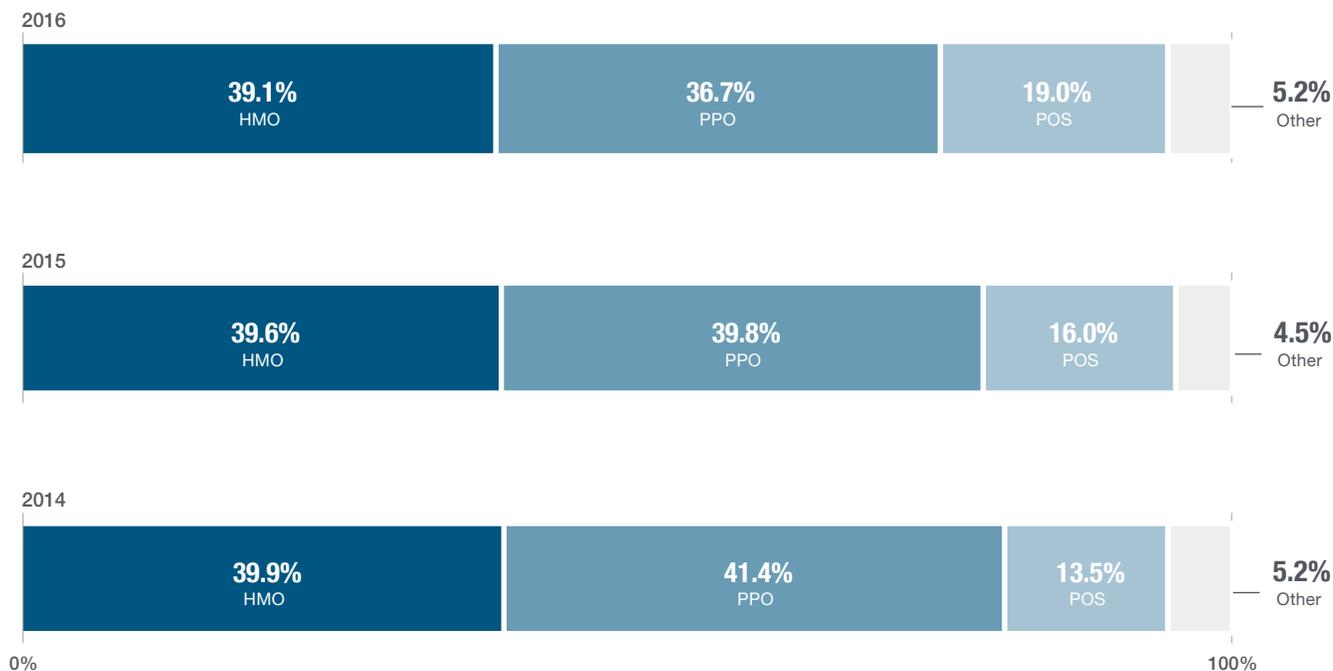
PRIVATE COMMERCIAL CONTRACT ENROLLMENT

HMO membership represented 39.1% of the Massachusetts private commercial insurance market in 2016, a proportion that changed little over the previous year. HMO members have access to defined, often regional provider networks, which they typically access through a primary care provider (PCP).

Enrollment in PPO plans comprised 36.7% of the market in 2016, down from 39.8% in 2015 and 41.4% in 2014. PPO members have access to broader provider networks than in an HMO and may access a wider range of treatment settings without a referral from a PCP.

Nearly two-thirds (65.1%) of the decline in PPO enrollment from 2015 to 2016 occurred in the GIC market sector. 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.⁶

Enrollment by Product Type, 2014-2016



THE PROPORTION OF MASSACHUSETTS MEMBERS ENROLLED IN PPO PRODUCTS FELL FROM 2014 TO 2016, DUE LARGELY TO CHANGES IN GIC HEALTH PLAN OFFERINGS.

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 HDHPs. Cigna enrollment data excluded due to data quality concerns. See [technical appendix](#).

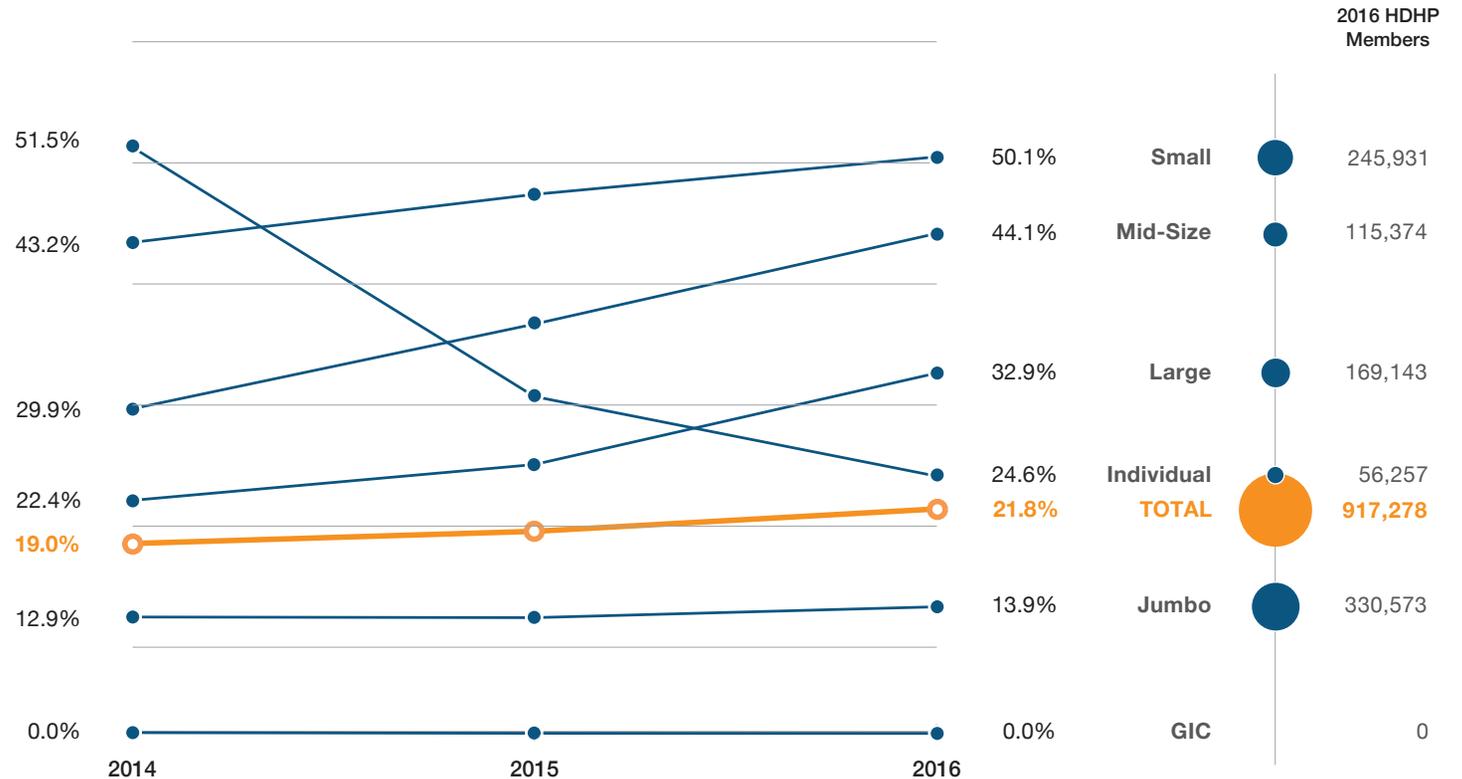
PRIVATE COMMERCIAL CONTRACT ENROLLMENT

High deductible health plan (HDHP) enrollment grew 9.9% (+82,000 members) between 2015 and 2016.⁷ By 2016, over 900,000 Massachusetts members (21.8%) were enrolled in an HDHP.

Market-wide HDHP prevalence was moderated by the decreased adoption in the individual purchaser market (down 6.6 percentage points to 24.6% of that sector), as membership in Health Connector plans with reduced member cost-sharing (including deductibles) continued to grow.

Outside the individual purchaser market sector, HDHP adoption increases occurred across nearly all employer size categories between 2015 and 2016. Payers did not report any HDHPs among GIC plans.

High Deductible Health Plan Prevalence by Employer Size, 2014-2016



IN 2016, MORE THAN ONE IN FIVE (21.8%) MASSACHUSETTS CONTRACT MEMBERS WAS ENROLLED IN AN HDHP. HIGH DEDUCTIBLES WERE MORE PREVALENT IN SMALLER EMPLOYER GROUPS.

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 HDHPs. Cigna enrollment data excluded due to data quality concerns. See [technical appendix](#).

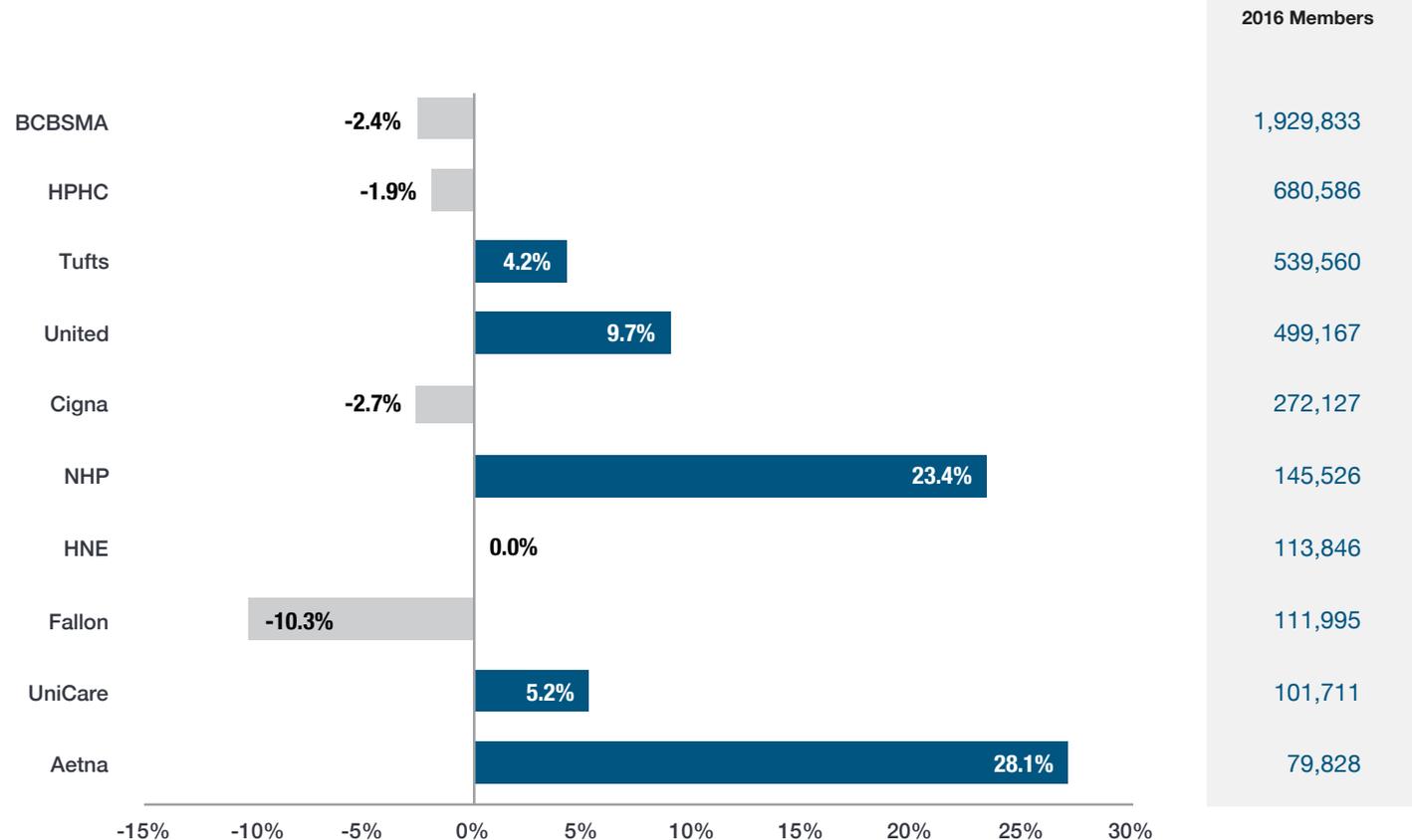
PRIVATE COMMERCIAL CONTRACT ENROLLMENT

Enrollment Changes by Payer, 2015-2016

The three largest commercial insurers—BCBSMA, HPHC, and Tufts—retained their market dominance in 2016, with 70.4% of Massachusetts private commercial members covered by one of these payers. Of these three payers, only Tufts reported enrollment growth from 2015 to 2016 (increasing 4.2% from 517,754 to 539,560 members), driven by gains in individual purchaser membership.

NHP experienced sizable growth (23.4%) from 2015 to 2016, increasing its enrollment to 145,526 private commercial members. NHP reported increases in both individual purchaser and ESI enrollment.

Fallon reported the largest proportional enrollment decrease, falling 10.3% to 111,995 members in 2016.



OF THE THREE LARGEST PAYERS, ONLY TUFTS HAD GROWTH IN ENROLLMENT—DUE TO AN INCREASE IN INDIVIDUAL PURCHASER MEMBERS.

Source: Payer-reported data to CHIA.

Notes: Based on MA contract membership, which may include non-MA residents. Payers with fewer than 50,000 private commercial members were not subject to this data request. See [technical appendix](#).

PRIVATE COMMERCIAL CONTRACT ENROLLMENT NOTES

- Chapter results based on contract member data provided by Aetna, 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 Plans 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 2016, this included BMC HealthNet (BMCHP), which has a rapidly increasing QHP population. According to CHIA's *Enrollment Trends* report, BMC's average membership in 2016 was just under 36,000 members, most of whom were individual purchasers.
- Massachusetts residents may be covered by contracts executed outside of the Commonwealth. Reported contract members may reside inside or outside Massachusetts; out-of-state contract members are most often covered by an employer that is located in Massachusetts.
- Massachusetts residents who are not eligible for MassHealth or Medicare and who have household incomes less than or equal to 300% of the Federal Poverty Level may qualify for ConnectorCare plans with reduced cost-sharing. Residents with household incomes up to 400% of the Federal Poverty Level may also receive federal Advance Premium Tax Credits (APTCs) to lower the cost of premiums.
- BMC, CeltiCare, and Minuteman also offered ConnectorCare plans but did not meet the private commercial insurance threshold to report data to CHIA for this report. For more information on ConnectorCare, see <https://www.mahealthconnector.org>.
- Center for Health Information and Analysis, *Enrollment Trends* (August 2017 Edition), <http://www.chiamass.gov/assets/Uploads/enrollment/2017-august/Enrollment-Trends-August-2017-Report.pdf>.
- "Harvard Independence and Tufts Health Navigator Become POS Plans July 1, 2015: What Does This Mean?" *Executive Office for Administration and Finance*, accessed August 15, 2017, <http://www.mass.gov/anf/employee-insurance-and-retirement-benefits/oversight-agencies/gic/harvard-independence-and-tufts-navigator-become-pos-plans.html>.
- Plans were classified as HDHPs if the individual deductible was greater than or equal to the qualifying Internal Revenue Service threshold. The minimum individual deductible for an HDHP was set at \$1,250 in 2014 and \$1,300 in 2015 and 2016. Only a plan's individual deductible level must satisfy the threshold to be reported in this category.

PRIVATE COMMERCIAL COVERAGE COSTS

KEY FINDINGS

PRIVATE COMMERCIAL COVERAGE COSTS

In 2016, premiums increased by 2.6% on average to \$464 PMPM. Self-insured premium equivalents increased by 3.0% to \$504 PMPM.

Premiums for individual purchasers declined by 3.4% from 2015 to 2016, while employer-sponsored insurance premiums rose 3.9%.

Among the largest payers, higher premiums were associated with higher benefit levels.

PRIVATE COMMERCIAL COVERAGE COSTS

CHIA collects and analyzes Massachusetts private commercial health insurance cost of coverage data in order to monitor trends in this area. This payer-submitted cost data is reported by employer size, product type (HMO, PPO, POS), funding type, and benefit design type (HDHP, tiered network, limited network) for 2014 through 2016.

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. 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).

CHIA annually collects data on fully-insured employers' premiums and self-insured employers' premium equivalents. These data are not directly comparable, as premiums are set by payers *prospectively*, while premium equivalents include medical claims that are paid by an employer *retroactively*.

Employees of Massachusetts private commercial market employers directly pay approximately 25% of their premiums each year.¹ ●

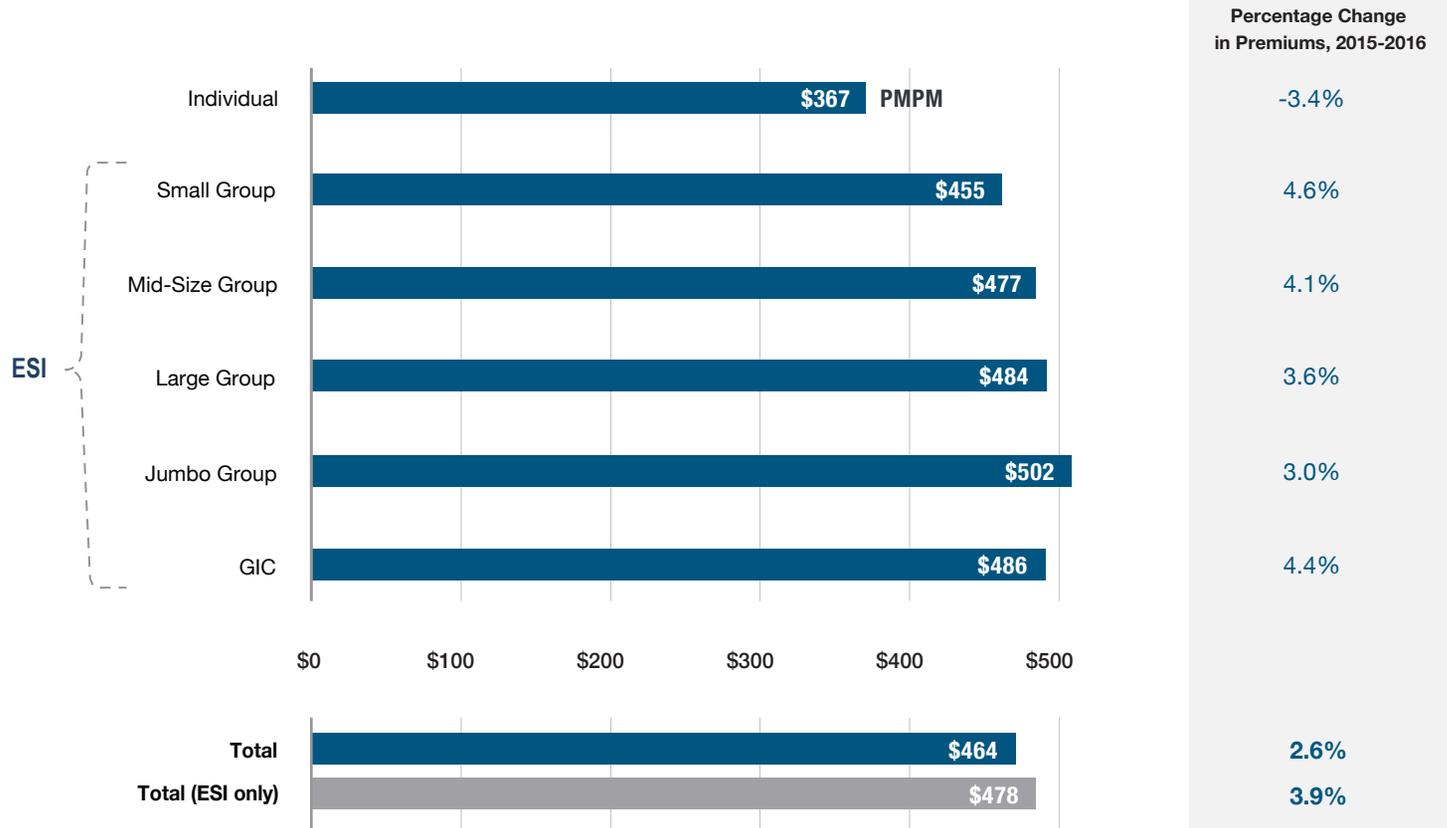
PRIVATE COMMERCIAL COVERAGE COSTS

Between 2015 and 2016, fully-insured premiums increased by 2.6% overall to \$464 PMPM. ESI plans experienced premium growth across all employer sizes, with the GIC, small, and mid-size employer premiums all rising by more than 4.0%.

Premiums for individual purchasers declined by 3.4% to \$367 PMPM between 2015 and 2016, as membership shifted toward ConnectorCare plans, particularly to lower-premium plans offered by Tufts.² A majority of individual purchasers qualified for state and federal assistance with premium payments, further lowering their monthly premium contributions below those reported here.

Overall, the 2016 rate of premium growth exceeded the annual inflation rate of 1.5%.³

Fully-Insured Premiums by Employer Size, 2016



PREMIUMS INCREASED BY 2.6% ON AVERAGE IN 2016. PREMIUMS FOR INDIVIDUAL PURCHASERS DECLINED BY 3.4% WHILE EMPLOYER-SPONSORED INSURANCE PREMIUMS ROSE 3.9%.

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

Notes: Based on MA contract membership, which may include non-MA residents. Premiums are net of MLR rebates and scaled by the "Percent of Benefits Not Carved Out." United Healthcare financial data excluded due to the timing of data submission (member months also excluded). Premiums for individual purchasers were not reported net of APTCs, which would further reduce that market sector's PMPM premiums from the member's perspective. See [technical appendix](#).

PRIVATE COMMERCIAL COVERAGE COSTS

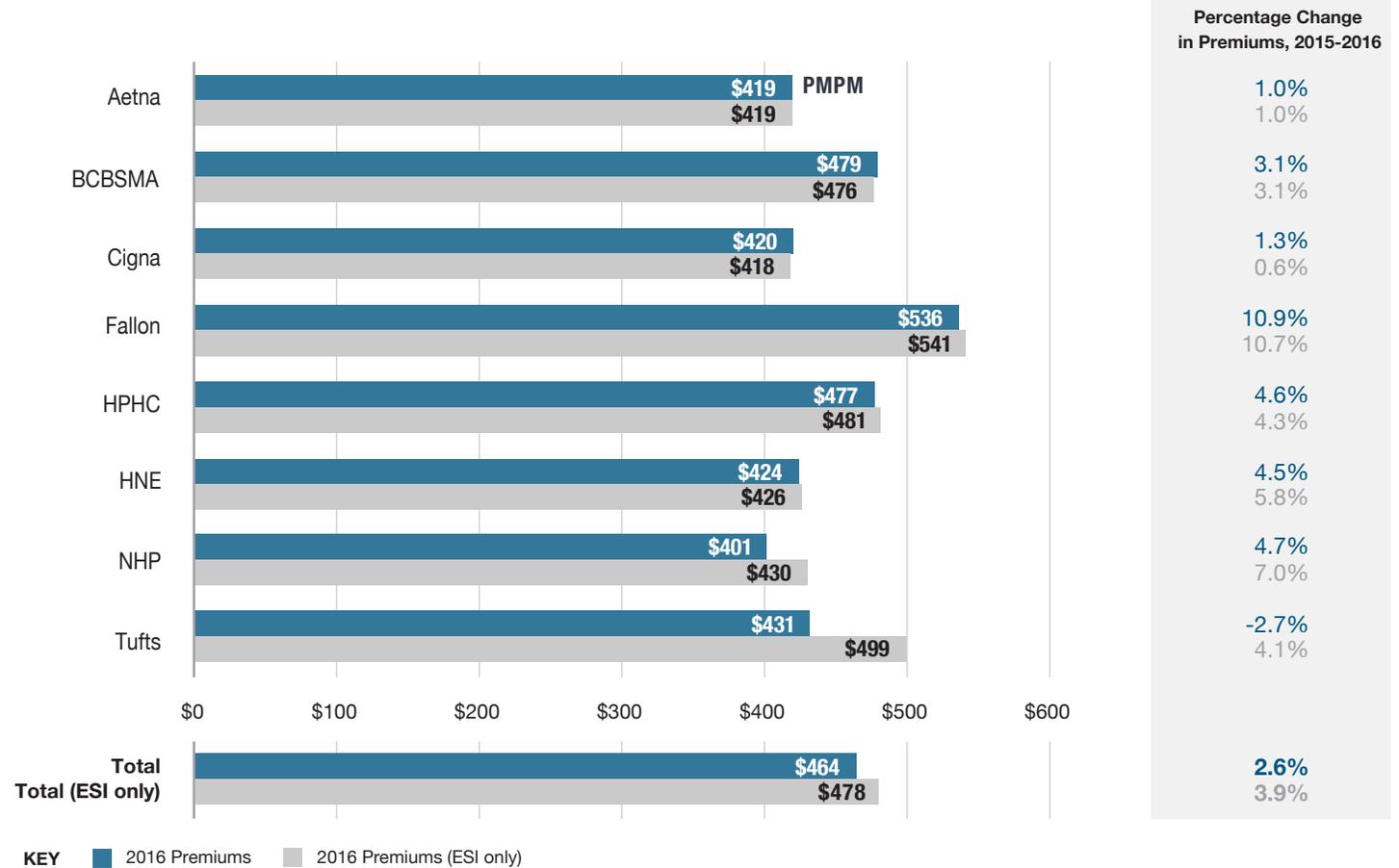
From 2015 to 2016, fully-insured premiums increased 2.6% to \$464 PMPM. Premiums in 2016 ranged from \$401 to \$536 PMPM across payers.⁴ This variation was due not only to benefits offered but also to the different market sectors within which payers offer health plans. Among ESI plans, premiums increased 3.9% to \$478 PMPM.

Tufts's overall decline in premiums was due to growth in its share of individual purchasers. Its ESI-only premiums increased 4.1% from 2015 to 2016.

During this period, Fallon's premiums increased 10.9% to \$536 PMPM, the highest reported premium increase among payers.

BY PAYER, PREMIUM CHANGES RANGED FROM -2.7% AT TUFTS TO 10.9% AT FALLON. TUFTS'S DECREASED PREMIUMS WERE DUE TO GROWTH IN INDIVIDUAL PURCHASER MEMBERSHIP.

Fully-Insured Premiums by Payer, 2016



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

Notes: Based on MA contract membership, which may include non-MA residents. Premiums are net of MLR rebates and scaled by the "Percent of Benefits Not Carved Out." Premiums for individual purchasers were not reported net of APTCs, which would further reduce that market sector's PMPM premiums from the member's perspective. United Healthcare financial data excluded due to the timing of data submission (member months also excluded). UniCare not included in graph due to low fully-insured membership. See [technical appendix](#).

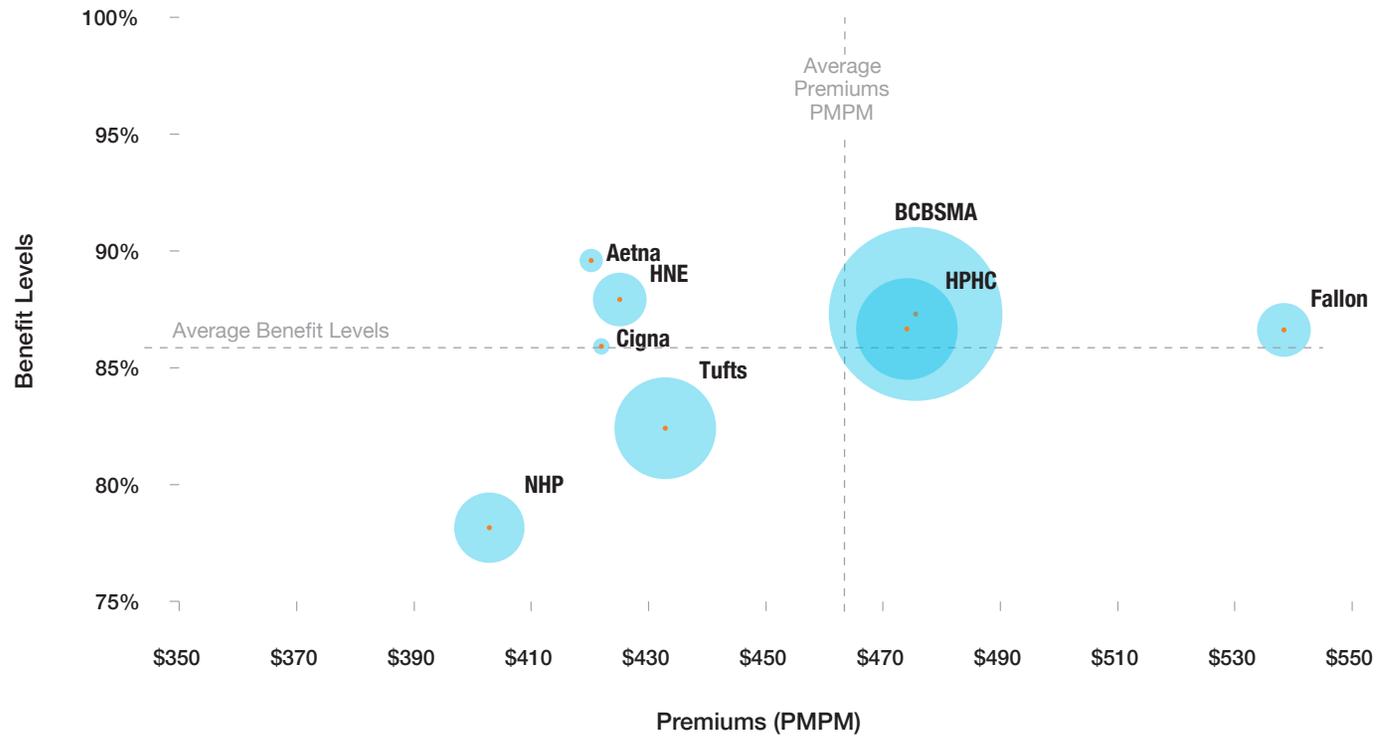
PRIVATE COMMERCIAL COVERAGE COSTS

Employers and members compare health plans, balancing premiums with potential out-of-pocket patient costs. Payers design their individual products and portfolio of offerings accordingly (e.g., HDHPs).

Benefit levels (also known as actuarial value) varied across payers in 2016, ranging from 78% to 90%. Actuarial values estimate the proportion of covered medical expenses for which payers are responsible, but they do not reflect other factors, such as network size, that may vary by plan.⁵

The two payers with the most fully-insured members, BCBSMA and HPHC, both had slightly higher than average premiums and benefit levels. Tufts and NHP both had lower than average premiums and benefit levels.

Fully-Insured Payer Premiums vs. Benefit Levels, 2016



FOR THE PAYERS WITH THE LARGEST FULLY-INSURED CONTRACT ENROLLMENT IN 2016, HIGHER PREMIUMS WERE ASSOCIATED WITH HIGHER BENEFIT LEVELS.

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

Notes: Circles scaled based on payers' 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 the timing of data submission (member months also excluded). UniCare not included in graph due to low fully-insured membership. See [technical appendix](#).

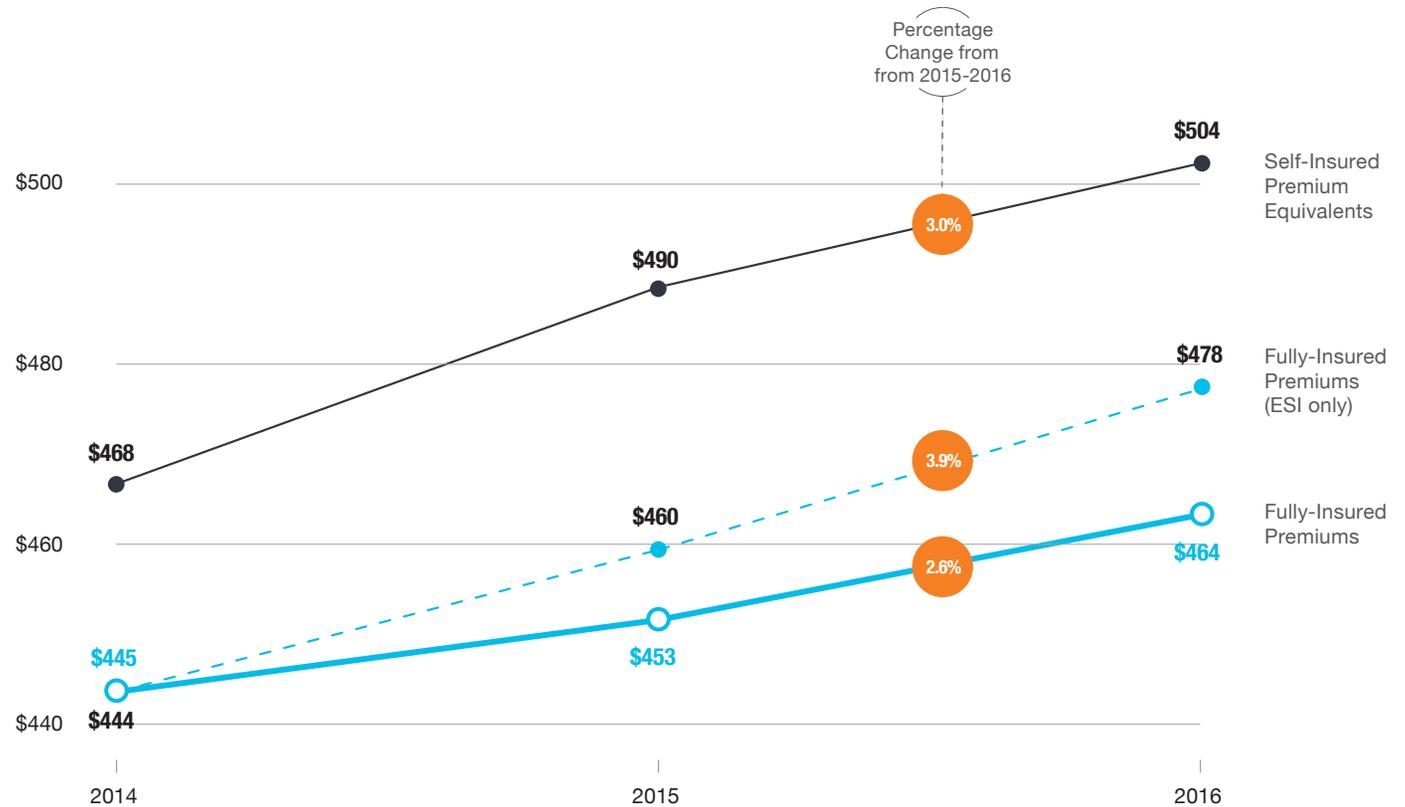
PRIVATE COMMERCIAL COVERAGE COSTS

Rather than premiums, self-insured employers pay for the cost of members' claims (approximately 96% of total costs) and an ASF for services such as claims administration and negotiated provider networks. Together, these direct medical claims costs and ASFs serve as a premium equivalent.

Because self-insured plans have no individual purchaser members, self-insured premium equivalents are more comparable (although not precisely) to ESI-only fully-insured premiums.

Self-insured premium equivalents increased by 3.0% from 2015 to 2016 to \$504 PMPM, while fully-insured ESI-only premiums grew by 3.9% to \$478 PMPM.⁶

Fully-Insured Premiums and Self-Insured Premium Equivalents, 2014-2016



IN 2016, PREMIUM EQUIVALENTS FOR SELF-INSURED EMPLOYER PLANS INCREASED BY 3.0% TO \$504 PMPM.

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

Notes: Based on MA contract membership, which may include non-MA residents. Premiums are net of MLR rebates and scaled by the "Percent of Benefits Not Carved Out." Reported premium equivalents represent 68.8% of all self-insured members. United Healthcare data excluded due to timing of data submission (member months also excluded). See [technical appendix](#).

PRIVATE COMMERCIAL COVERAGE COSTS NOTES

- 1** Center for Health Information and Analysis, *Massachusetts Employer Survey: 2016 Summary of Results* (Boston, March 2017), <http://www.chiamass.gov/massachusetts-employer-survey>.
- 2** Massachusetts Health Connector, *Final Award of 2016 Seal of Approval (VOTE)* (Boston, September 2015), <https://betterhealthconnector.com/wp-content/uploads/2016-Final-SoA-Board-Presentation-091015.pdf>.
- 3** U.S. Bureau of Labor Statistics, Consumer Price Index Boston-Brockton-Nashua, MA-NH-ME-CT, https://www.bls.gov/regions/new-england/data/consumerpriceindex_boston_table.htm. The average rise in the Consumer Price Index for all urban consumers (not seasonally adjusted) from 2015 to 2016 was 1.5%.
- 4** UniCare was excluded from the by-payer premiums analyses due to the small size and unique demographics of its fully-insured membership. UniCare's 2,400 fully-insured members are primarily non-Medicare retirees enrolled through the Group Insurance Commission. In 2016, premiums for this specialized population were \$939 PMPM.
- 5** Calculated benefit levels reflect the payer's liability for allowed medical claims before any CSR subsidies are applied. Therefore, a member enrolled in a ConnectorCare plan would experience a higher effective benefit level than reported here.
- 6** Reported premium equivalents include data for BCBSMA, HNE, HPHC, Tufts, and UniCare. Together, these payers enrolled 68.8% of all Massachusetts self-insured members in 2016. Aetna, Cigna, and Fallon declined to provide ASF data to CHIA. While United provided ASFs, its financial data was excluded due to the timing of data submission.

MEMBER COST-SHARING

KEY FINDINGS

MEMBER COST-SHARING

Between 2015 and 2016, member cost-sharing grew at a faster rate (4.4%) than premiums and average income and inflation, although cost-sharing for individual purchasers declined (-8.0%) due to ACA subsidies.

In 2016, average member cost-sharing for smaller employers was higher and growing faster than for larger employers.

In 2015, lower income families reported more difficulty paying medical bills and higher unmet medical need due to cost.

MEMBER COST-SHARING

CHIA collects and analyzes Massachusetts public and private commercial health insurance member cost-sharing data as part of its efforts to monitor the costs facing Massachusetts health insurance members. This chapter includes information about private commercial health insurance member cost-sharing based on data reported by payers for 2014 through 2016. This payer-submitted data is reported by employer size category, product type (HMO, PPO, POS), funding type, and benefit design type (HDHP, tiered network, limited network). Additionally, this chapter includes findings from CHIA's [Massachusetts Health Insurance Survey](#) which reflects the impacts of cost-sharing on families with all forms (private and public) of insurance in 2015.

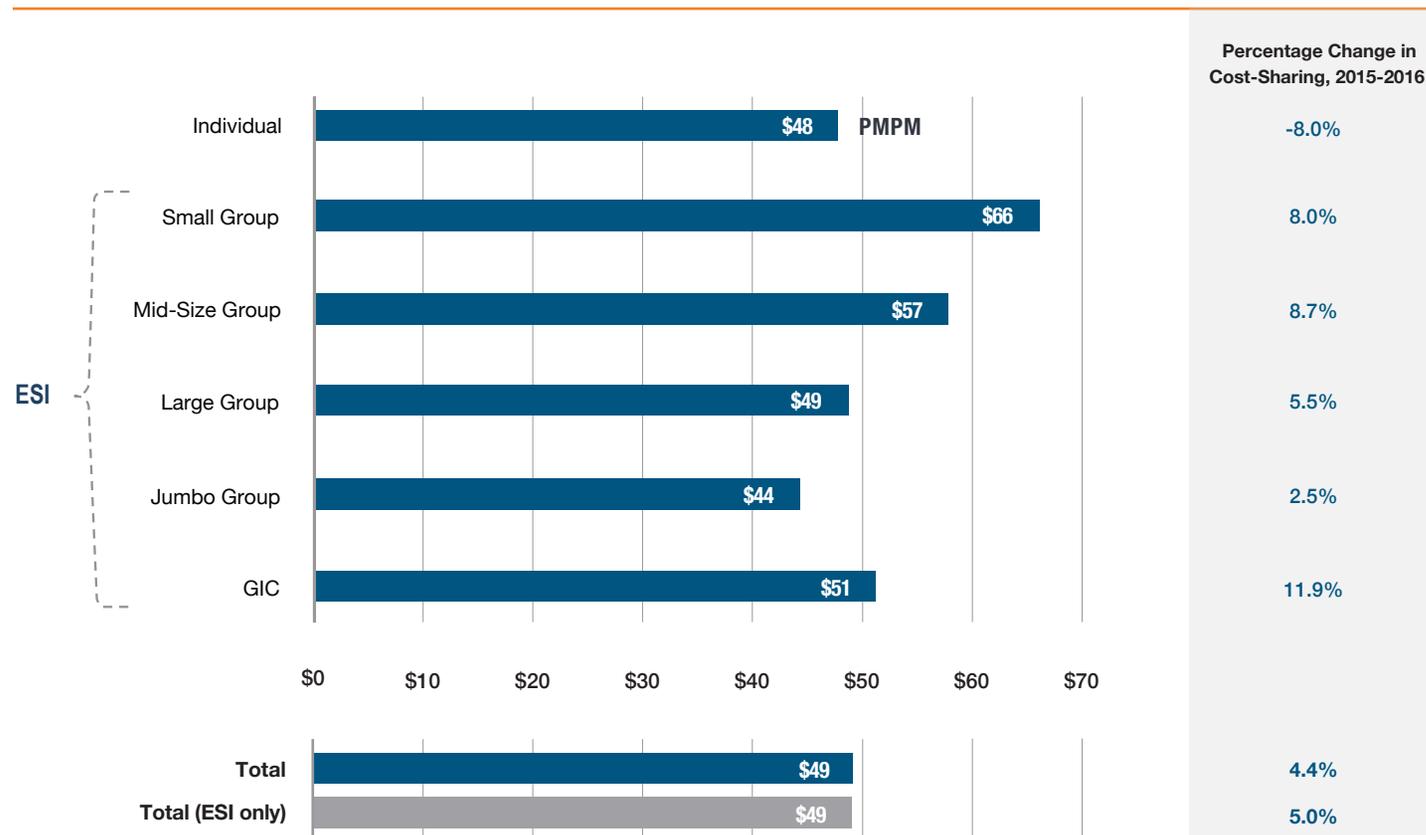
Member cost-sharing includes all medical expenses covered by a member's plan but not paid for by the payer or employer (e.g., deductibles, copays, and co-insurance). It includes members who had little to no medical costs, as well as those who may have experienced substantial medical costs. It does not 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. ●

MEMBER COST-SHARING

Member cost-sharing obligations varied by employer size. Employees of larger employers tended to have lower cost-sharing responsibilities than those working for smaller employers, and this gap increased in 2016. Small group members' cost-sharing increased by 8.0% from 2015 to 2016 to \$66 PMPM, while cost-sharing for jumbo group members rose 2.5% to \$44 PMPM during the same year.

Cost-sharing among individual purchasers declined 8.0% from 2015, as more members enrolled in ConnectorCare plans offering CSRs. These ConnectorCare plans included approximately \$159 million in combined state and federal subsidies to reduce cost-sharing obligations for low- and moderate-income Massachusetts residents.

Cost-Sharing by Employer Size, 2016



MEMBER COST-SHARING CONTINUED TO BE HIGHER AMONG SMALLER EMPLOYERS IN 2016. SUBSIDIES HELPED DECREASE COST-SHARING FOR INDIVIDUAL PURCHASERS.

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

Notes: Based on MA contract membership, which may include non-MA residents. Jumbo does not include GIC members. United Healthcare financial data excluded due to the timing of data submission (member months also excluded). See [technical appendix](#).

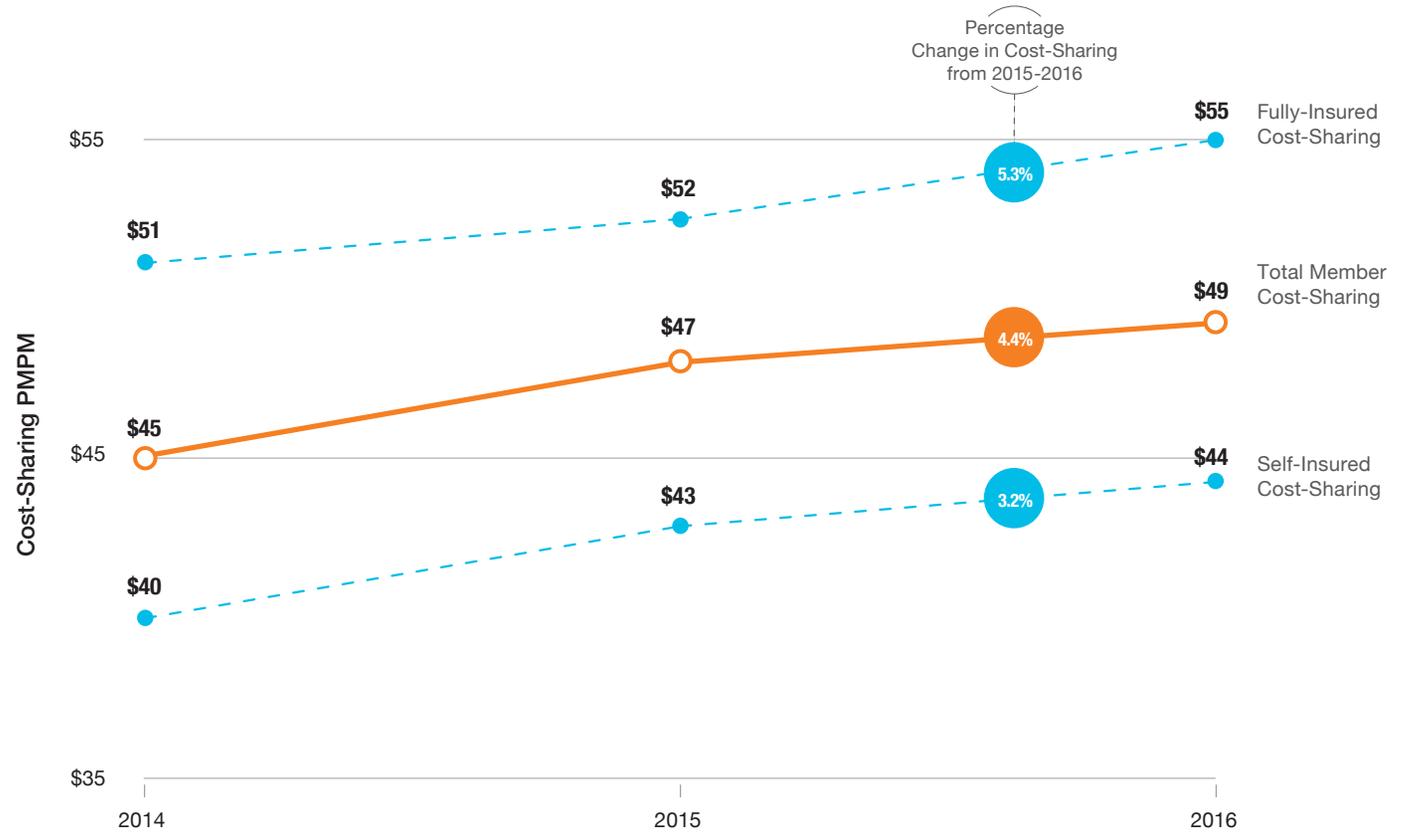
MEMBER COST-SHARING

Average cost-sharing for Massachusetts private commercial health insurance members increased by 4.4% between 2015 and 2016 to \$49 PMPM (or \$587 per member per year). Member cost-sharing grew faster than average regional income (2.9%) and inflation (1.5%) during the same period.¹

Fully-insured member cost-sharing was higher than self-insured member cost-sharing, on average, and grew at a faster rate. Self-insured member cost-sharing grew 3.2% between 2015 and 2016 to \$44 PMPM; fully-insured cost-sharing grew 5.3% to \$55 PMPM.

Self-insured member cost-sharing primarily reflects the experience of members covered through the largest employer groups (jumbo group and GIC).

Cost-Sharing by Funding Type, 2014-2016



IN 2016, MEMBER COST-SHARING GREW AT A FASTER RATE (4.4%) THAN AVERAGE INCOME (2.9%).

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. United Healthcare financial data excluded due to the timing of data submission (member months also excluded). See [technical appendix](#).

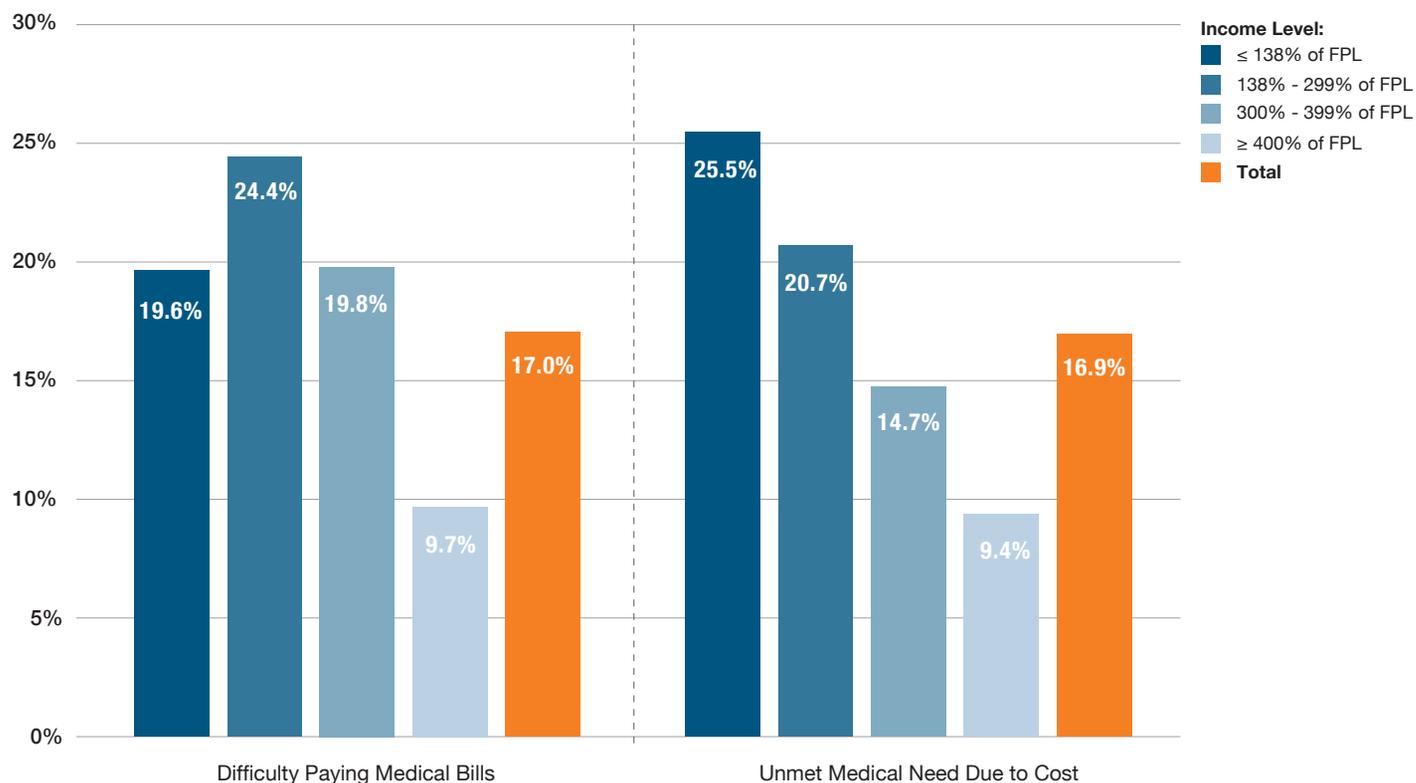
MEMBER COST-SHARING

Higher health care costs and increasing member cost-sharing can create financial challenges, particularly for families with lower incomes.

In 2015, 17.0% of Massachusetts residents had problems paying medical bills over the prior 12 months. Lower-income families were more likely to report difficulty paying medical bills than were those with family incomes at or above 400% of the Federal Poverty Level (FPL).

Insured individuals may also go without needed care because of concerns about cost-sharing. In 2015, 16.9% of respondents reported an unmet need for medical care due to cost. Among those with family incomes at or below 138% of the FPL, 25.5% reported an unmet need for medical care during the prior 12 months due to cost.

Member Cost-Sharing and Health Care Affordability, 2015



IN 2015, LOWER INCOME FAMILIES REPORTED MORE DIFFICULTY PAYING MEDICAL BILLS AND HIGHER UNMET MEDICAL NEED DUE TO COST.

Source: 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>.

Notes: CHIA's MHIS is a population-based survey that includes members with commercial, MassHealth, and Medicare insurance coverage, as well as those without insurance coverage. CHIA is currently conducting an updated MHIS survey that will include 2017 data.

MEMBER COST-SHARING NOTES

- 1 “Changing Compensation Costs in the Boston Metropolitan Area — June 2017,” *U.S. Bureau of Labor Statistics*, accessed August 17, 2017, https://www.bls.gov/regions/new-england/news-release/employmentcostindex_boston.htm. Wages and salaries for private industry workers in the Boston-Worcester-Manchester area rose 2.9% from December 2015 to December 2016 (not seasonally adjusted). “Consumer Price Index Boston-Brockton-Nashua, MA-NH-ME-CT,” *U.S. Bureau of Labor Statistics*, accessed August 17, 2017, https://www.bls.gov/regions/new-england/data/consumerpriceindex_boston_table.htm. The average rise in the Consumer Price Index for all urban consumers in the Boston-Brockton-Nashua area from 2015 to 2016 was 1.5% (not seasonally adjusted).

PRIVATE COMMERCIAL PAYER USE OF FUNDS

KEY FINDINGS

PRIVATE COMMERCIAL PAYER USE OF FUNDS

For every premium dollar collected in 2016, more than 88% was used to pay for members' medical care.

For employers with more than 50 employees, Massachusetts payers retained \$57 PMPM from premiums collected.

More than half of retained premiums covered payers' general administrative costs, while the rest was used for broker commissions, taxes and fees, and a small payer surplus.

PRIVATE COMMERCIAL PAYER USE OF FUNDS

CHIA collects and analyzes data on Massachusetts payers' administrative costs in the private commercial health insurance market 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, by employer size. CHIA also reports on premium retention by expense category among all fully-insured employer groups with more than 50 employees.

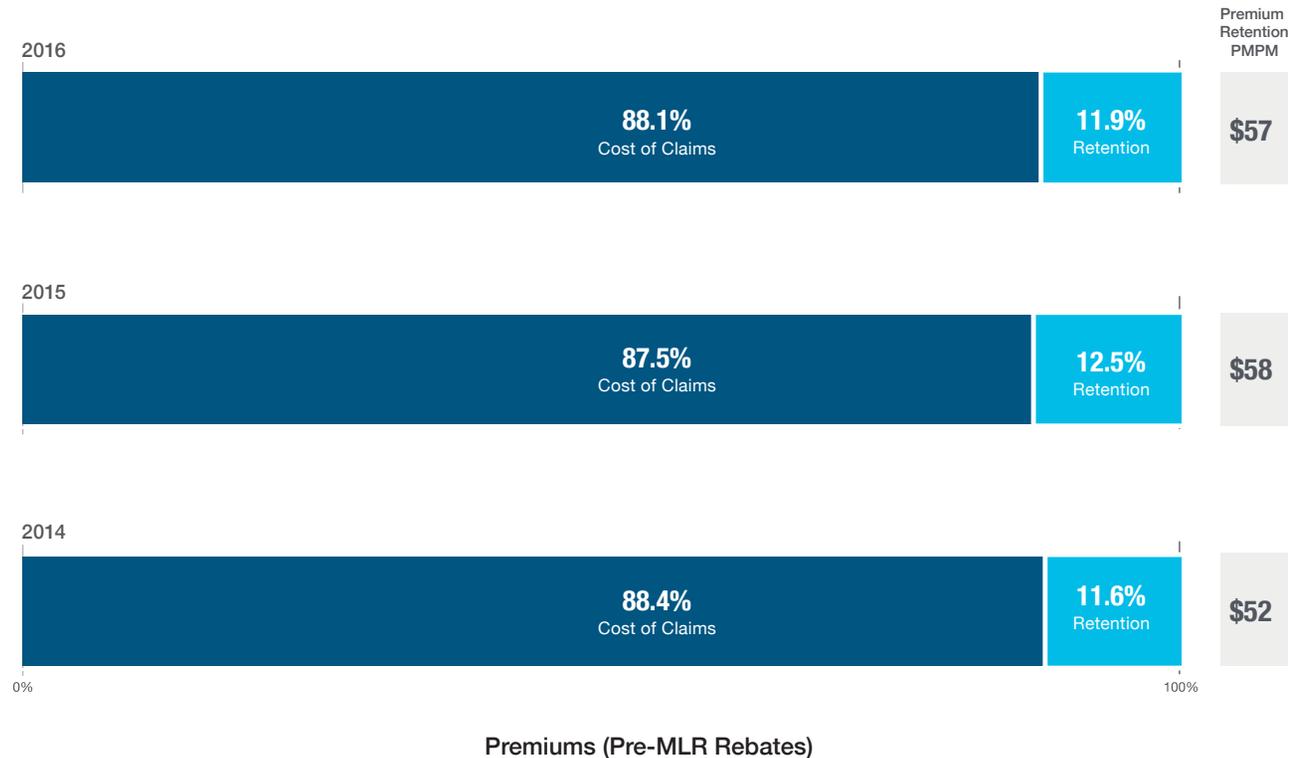
Plans sold to individual purchasers and small groups are subject to ACA transfer programs—Risk Adjustment, Reinsurance (temporary), and Risk Corridors (temporary)—that were designed to stabilize premiums and protect against adverse selection during the initial years of the law's implementation. Due to data availability and timing constraints, CHIA is unable to profile premium retention for these segments of the Massachusetts market. ●

PRIVATE COMMERCIAL PAYER USE OF FUNDS

In 2016, as in 2015, the vast majority of premium dollars collected (88.1%) were used to pay for members' medical care.¹ Payers used the remainder, which was "retained" (11.9%), to pay for plan administration, broker fees, and premium taxes, among other expenses, with any residual funds representing surplus (profit).²

Payers consider expected costs for the year ahead when setting premium levels. From 2015 to 2016, the cost of claims rose slightly faster than earned premiums for plans sold outside the individual and small group market. Payer retention decreased from 12.5% to 11.9% of premiums during this time.

Fully-Insured Premium Retention (>50 Employees), 2014-2016



FOR EVERY PREMIUM DOLLAR COLLECTED, MORE THAN 88 CENTS WAS USED TO PAY FOR MEMBERS' MEDICAL CARE.

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

Notes: Based on MA contract membership, which may include non-MA residents. Merged market (individual and small group purchasers) excluded from analysis. Reported premiums have not been adjusted to account for MLR rebates, as those are a component of retention. Reported premiums, cost of claims, and retention have not been scaled by the "Percent of Benefits Not Carved Out." Data for United Healthcare excluded due to timing of data submission. See [technical appendix](#).

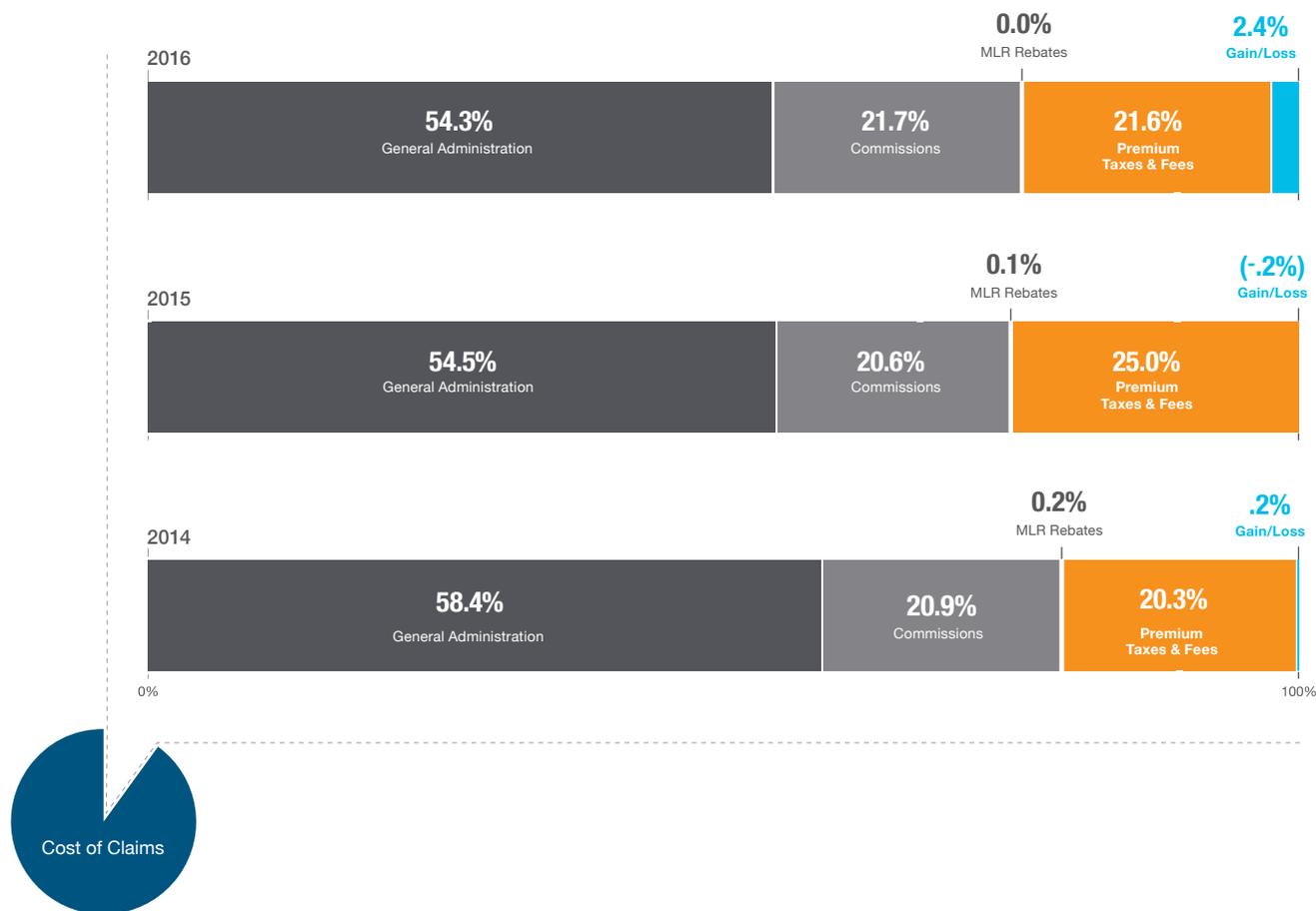
PRIVATE COMMERCIAL PAYER USE OF FUNDS

Among fully-insured plans with more than 50 employees, general administrative expenses—including cost of plan design, claims administration, and customer service—accounted for 54.3% of premium retention in 2016.

More than one-fifth of retained premiums for larger group plans was spent on broker commissions (21.7% of retention). Reported taxes and fees decreased from 25.0% to 21.6% of retention between 2015 and 2016. After accounting for all expenses, payers were left with a small surplus (profit) from these plans.

BETWEEN 2015 AND 2016, TAXES AND FEES DECREASED TO 21.6% OF RETAINED PREMIUMS FOR EMPLOYER GROUPS WITH MORE THAN 50 EMPLOYEES.

Fully-Insured Premium Retention (>50 Employees) Breakdown, 2014-2016



Source: Supplemental 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. Includes data for United Healthcare.

PRIVATE COMMERCIAL PAYER USE OF FUNDS NOTES

- 1 Among fully-insured plans with more than 50 employees.
- 2 Premium retention, as reported here, is not directly comparable to state or federal Medical Loss Ratio (MLR) calculations.

GLOSSARY OF TERMS

Actuarial Value (AV): A measure of the proportion of covered medical expenses paid by insurance. Actuarial values may be estimated by several different methods; for the method used in this report, see [technical appendix](#).

Administrative Service Fee (ASF): The fee 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 Services-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.

Advance Premium Tax Credit (APTC): Federal tax credits, available to those with incomes below 400% of the Federal Poverty Limit (FPL) enrolled in plans sold on the Health Connector, which lower the members' monthly premium.

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

ConnectorCare: A type of qualified health plan (QHP) offered through the Health Connector with lower monthly premiums and cost-sharing for those with household incomes at or below 300% of the FPL.

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

Cost-Sharing Reduction (CSR) Subsidies: Subsidies, available to those with incomes below 300% of the Federal Poverty Limit enrolled in a QHP, which reduce out-of-pocket expenses towards copayments, coinsurance, and deductibles.

Employer Size: Average employer or group size segregated into the following categories: individual purchasers (post-merger), small group (1-50 enrollees), 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.

Employer-Sponsored Insurance (ESI) Plans: Health insurance plans purchased by employers on behalf of their employees as part of an employee benefit package.

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.

Group Insurance Commission (GIC): The organization that provides health benefits to state employees and retirees in Massachusetts.

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, HPC established the health care cost growth benchmark for 2015 at 3.6 percent.

Health Connector: The Commonwealth's state-based health insurance marketplace where individuals, families, and small businesses can purchase health plans from insurers.

High Deductible Health Plan (HDHP): As defined by the IRS, a health plan with an individual plan deductible exceeding \$1,250 for 2014 and \$1,300 for 2015 and 2016.

Health Maintenance Organizations (HMOs): Insurance 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.

Limited Network: 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.

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.

Net Prescription Drug Spending: Payments made to pharmacies for members' prescription drugs less rebates received by the health plan from manufacturers.

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

Percent of 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.

Point of Service (POS): Insurance plans that generally require members to coordinate care through a primary care physician and offer both in-network and out-of-network coverage options.

Preferred Provider Organizations (PPOs): Insurance 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, 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., Connector fees, reinsurance). Includes Advance Premium Tax Credits, where applicable.

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., Connector fees, reinsurance).

Premium Equivalents: For self-insured lines of business, premium equivalents are calculated by adding the value of incurred claims to the administrative service fees that payers receive from self-insured employers.

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 four mutually exclusive categories in this report: Health Maintenance Organizations, Point of Service, Preferred Provider Organizations, and Other.

Qualified Health Plans (QHPs): A health plan certified by the 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).

Self-Insured: A self-insured employer takes on the financial responsibility and risk for its employees’ and dependents’ medical claims, paying claims and administrative service 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.

Tiered Network Health Plans: Insurance 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 simply 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	MCO	Managed Care Organization
AHRQ	Agency for Healthcare Research & Quality	MGL	Massachusetts General Law
APM	Alternative Payment Method	MHIS	Massachusetts Health Insurance Survey
APTC	Advance Premium Tax Credit	MLR	Medical Loss Ratio
ASF	Administrative Service Fee	MMCO	MassHealth Managed Care Organization
BCBSMA	Blue Cross Blue Shield of Massachusetts	MSP	Medical Security Program
BIDCO	Beth Israel Deaconess Care Organization	NCPHI	Net Cost of Private Health Insurance
BMC	Boston Medical Center	NEQCA	New England Quality Care Alliance
BMCHP	Boston Medical Center HealthNet Plan	NHP	Neighborhood Health Plan
CHF	Congestive Heart Failure	PACE	Programs of All-Inclusive Care for the Elderly
CHIA	Center for Health Information and Analysis	PBM	Pharmacy Benefit Managers
CMS	Centers for Medicare & Medicaid Services	PCC	Primary Care Clinician
COPD	Chronic Obstructive Pulmonary Disease	PCP	Primary Care Provider
CSR	Cost-Sharing Reduction	PDP	Prescription Drug Plan
ESI	Employer-Sponsored Insurance	PMPM	Per Member Per Month
FFS	Fee-for-Service	POS	Point of Service
FPL	Federal Poverty Level	PPO	Preferred Provider Organization
GIC	Group Insurance Commission	QHP	Qualified Health Plan
HDHP	High Deductible Health Plan	SCO	Senior Care Options
HMO	Health Maintenance Organization	SFY	State Fiscal Year
HNE	Health New England	SHCE	Supplemental Health Care Exhibit
HPHC	Harvard Pilgrim Health Care	SQMS	Standard Quality Measure Set
HSA	Health Status Adjusted	THCE	Total Health Care Expenditures
HSN	Health Safety Net	TME	Total Medical Expenses
IRS	Internal Revenue Service	VA	Veterans Affairs
MA	Massachusetts		



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