

**2017 Annual Health Care**

# **COST TRENDS REPORT**





# TABLE OF CONTENTS

<b>INDEX OF ACRONYMS</b> .....	<b>2</b>
<b>EXECUTIVE SUMMARY</b> .....	<b>4</b>
<b>CHAPTER 1: INTRODUCTION</b> .....	<b>8</b>
<b>Exhibit 1.1</b> Total per-capita health care spending by state, 2009 and 2014	
<b>CHAPTER 2: TRENDS IN SPENDING AND CARE DELIVERY</b> .....	<b>12</b>
<b>Exhibit 2.1</b> Annual growth in total health care expenditures per capita in Massachusetts	
<b>Exhibit 2.2</b> Change in enrollment and per-enrollee spending by major market segment, 2015-2016	
<b>Exhibit 2.3</b> Rates of spending growth in Massachusetts in 2015 and 2016, by category	
<b>Exhibit 2.4</b> Annual growth in total health care spending per-capita in Massachusetts and nationwide	
<b>Exhibit 2.5</b> Annual growth in per-capita commercial health care spending, Massachusetts and nationwide	
<b>Exhibit 2.6</b> Total family premium and employee contribution to premium in Massachusetts by the firm's wage quartile, 2016	
<b>Exhibit 2.7</b> Differences in utilization and spending for families of similar income but better or worse health status, 2015	
<b>CHAPTER 3: HOSPITAL OUTPATIENT DEPARTMENT SPENDING</b> .....	<b>21</b>
<b>Exhibit 3.1</b> Commercial spending per member per year in Massachusetts by hospital outpatient service category, 2015, and contribution to spending growth, 2013 - 2015	
<b>Exhibit 3.2</b> Share of volume by setting for five cross-over surgical procedures performed in hospitals, 2011 - 2015	
<b>Exhibit 3.3</b> Comparison of mean commercial prices for select services by setting, 2015	
<b>Exhibit 3.4</b> Comparison of Medicare prices for select services by setting, 2015	
<b>Exhibit 3.5</b> Differences in Medicare program payments and beneficiary cost sharing for office visits provided in hospital outpatient departments and freestanding physician offices in Massachusetts, 2015	
<b>Exhibit 3.6</b> Use of select services by setting among Medicare beneficiaries in Massachusetts and the U.S., 2012 and 2015	
<b>CHAPTER 4: PROVIDER ORGANIZATION PERFORMANCE VARIATION</b> .....	<b>29</b>
<b>Exhibit 4.1</b> Patient attribution methodology	
<b>Exhibit 4.2</b> Descriptive statistics of commercially insured population attributed to a provider organization	
<b>Exhibit 4.3</b> Average risk-adjusted commercial spending per member per year, by provider organization, 2015	
<b>Exhibit 4.4</b> Average risk-adjusted commercial spending per member per year, by category of service and provider organization, 2015	
<b>Exhibit 4.5</b> Adjusted ED visits, per 100 members, by provider organization, 2015	
<b>CHAPTER 5: POLICY RECOMMENDATIONS</b> .....	<b>37</b>
<b>Exhibit 5.1</b> Dashboard of HPC system performance metrics	
<b>Exhibit 5.2</b> Dashboard of HPC improvement targets	
<b>LIST OF TECHNICAL APPENDICES</b> .....	<b>46</b>
<b>ACKNOWLEDGMENTS</b> .....	<b>47</b>

## INDEX OF ACRONYMS

<b>ACA</b>	Affordable Care Act
<b>ACO</b>	Accountable Care Organizations
<b>AGO</b>	Attorney General's Office
<b>AMC</b>	AMC Academic Medical Centers
<b>APCD</b>	All-Payer Claims Database
<b>APM</b>	Alternative Payment Methods
<b>BCBS</b>	Blue Cross Blue Shield
<b>BH</b>	Behavioral Health
<b>BMC</b>	Boston Medical Center
<b>CHIA</b>	Center for Health Information and Analysis
<b>CMS</b>	Center for Medicare and Medicaid Services
<b>CPT</b>	Current Procedural Terminology
<b>DRG</b>	Diagnosis-Related Groups
<b>DSI</b>	Demand-Side Incentives
<b>E&amp;M</b>	Evaluation and Management
<b>ED</b>	Emergency Department
<b>FFS</b>	Fee-For-Service
<b>GIC</b>	Group Insurance Commission
<b>HMO</b>	Health Maintenance Organization
<b>HPC</b>	Health Policy Commission
<b>IRF</b>	Inpatient Rehabilitation Facility
<b>LTCH</b>	Long-Term Care Hospital
<b>MACIPA</b>	Mount Auburn Cambridge Independent Practice Association
<b>MCO</b>	Managed Care Organization
<b>MEDPAC</b>	Medicare Payment Advisory Commission
<b>MPFS</b>	Medicare Physician Fee Schedule
<b>MRI</b>	Magnetic Resonance Imaging
<b>OPPS</b>	Outpatient Prospective Payment System
<b>PAC</b>	Post-Acute Care
<b>PCC</b>	Primary Care Clinician Plan
<b>PCP</b>	Primary Care Clinician
<b>POS</b>	Point-of-Service
<b>PPO</b>	Preferred Provider Organization
<b>RPO</b>	Registration of Provider Organizations
<b>SNF</b>	Skilled Nursing Facility
<b>THCE</b>	Total Health Care Expenditures
<b>TME</b>	TME Total Medical Expenditures
<b>DSRIP</b>	Delivery System Reform Incentive Program
<b>CHART</b>	Community Hospital Acceleration, Revitalization, and Transformation Investment Program

# **EXECUTIVE SUMMARY**

## EXECUTIVE SUMMARY

The Health Policy Commission (HPC), established in 2012, is charged with monitoring health care spending growth in Massachusetts and providing data-driven policy recommendations regarding health care delivery and payment system reform. Consistent with this mandate, the HPC's annual Cost Trends Report presents an overview of trends in health care spending and delivery in Massachusetts, evaluates progress in key areas, and makes recommendations for strategies to increase quality and efficiency in the Commonwealth.

Past cost trends reports have focused on four areas of opportunity: fostering a value-based market; promoting an efficient, high-quality healthcare delivery system; advancing aligned and effective financial incentives; and enhancing data and measurement for transparency and accountability.

The HPC continues to emphasize these opportunities in its analysis, recommendations, and strategic priorities.

This executive summary presents a concise overview of the findings and recommendations detailed in this fifth annual report.

## FINDINGS

### TRENDS IN SPENDING

- In 2016, Total Health Care Expenditures (THCE) in Massachusetts grew 2.8 percent per capita, lower than the 3.6 percent health care cost growth benchmark set by the HPC. The average annual rate of growth in THCE in Massachusetts from 2012 to 2016 was 3.55 percent, slightly below the state's benchmark.
  - The Massachusetts growth rate of 2.8 percent in 2016 was below the national growth rate of 3.5 percent, continuing a seven year trend of total spending growth below the U.S. rate.
  - Growth in commercial health care spending continues to be below the national average. Cumulatively between 2012 and 2016, this lower growth rate amounts to commercial spending that has been \$5.9 billion lower over this time period than would have been the case if growth rates matched the national average.

- Per capita spending grew 3.2 percent among commercial enrollees, 5.0 percent among full coverage MassHealth enrollees in the MCO and PCC programs (mostly due to an increase in health risk), and 0.3 percent among Original Medicare enrollees.
- Prescription drug and hospital outpatient department spending were the highest growth areas in 2016, with increases in spending of 6.1 percent net of rebates and 5.5 percent from 2015, respectively.
- In Massachusetts, employer-sponsored insurance premiums have grown more slowly in recent years compared to the U.S. overall. In 2012, family premiums were about 11 percent higher in Massachusetts compared to the U.S. average; in 2016, family premiums were 7 percent higher in Massachusetts. The average annual family premium plus cost-sharing for employer coverage in Massachusetts in 2016 was \$21,085.
- While Massachusetts employer-sponsored insurance premiums are still among the nation's highest, Massachusetts Health Connector premiums were the second lowest in the U.S. in 2017.
  - Employer-sponsored insurance premiums in Massachusetts are fourth highest in the country, while the premium cost for a benchmark plan on the Massachusetts Connector was 31 percent below the average in ACA exchanges and second lowest in the country.
- The number of people getting health insurance through smaller employers dropped by 8 percent between 2014 and 2016, consistent with fewer small employers offering coverage. Enrollment in the individual market, most of which is offered through the Massachusetts Health Connector, has grown over this time.

### OPPORTUNITIES TO IMPROVE QUALITY AND EFFICIENCY

- Care delivered in hospital outpatient departments is a high growth category of spending. While some hospital outpatient spending is high-value, the use of hospital-based care when the same services could be provided in a non-hospital setting may result in unnecessary higher spending.
  - Massachusetts residents are more likely to see providers in hospital settings rather than non-hospital

settings. For example, Original Medicare beneficiaries in Massachusetts use hospital outpatient departments for routine visits at twice the national rate (21 percent of routine office visits in Massachusetts took place in hospital settings, compared to 11 percent in the U.S.). Given that Medicare prices for routine visits are twice as high in the hospital outpatient department compared to an office setting, the higher hospital outpatient department use rate results in an additional \$56 million a year spent in Massachusetts.

- Across many categories of health care utilization, there are some recent positive trends, as well as some areas for continued improvement.
  - Massachusetts residents continue to use more hospital outpatient, inpatient, and emergency department (ED) care than the nation overall, though the gaps have closed by roughly one-third between 2011 and 2015.
  - Access to behavioral health care remains an area for improvement. The rate of behavioral-health ED visits among Massachusetts residents increased 22 percent from 2011 to 2016.
  - The percentage of community-appropriate inpatient care treated at Massachusetts community hospitals continued to decline in 2016 to 58 percent from 60 percent in 2011.
  - Trends in post-acute care indicate shifts away from use of institutional settings. Between 2014 and 2016, the share of discharges to institutional post-acute care fell 1.3 percentage points, in large part due to reductions among discharges for musculoskeletal conditions and reductions among certain hospitals.
- There was considerable variation in risk-adjusted spending and utilization outcomes for patients depending on their provider organization. Spending varied by more than 30 percent between the highest (Partners) and lowest-spending organization (Reliant) in 2015, even accounting for patient health risk. Provider organizations anchored by academic medical centers tended to have higher spending than physician-led organizations.
  - The variation was primarily driven by hospital outpatient spending, which varied two-fold between the highest and lowest-spending organization.

- Hospital inpatient, lab, and pharmacy spending tended to follow the same general patterns by organization type.

- ED visits and avoidable ED visits also varied two-fold across organizations in 2015, even adjusting for additional patient characteristics such as income of their zip code of residence, health risk, age, gender, and insurance product details.

## PROGRESS IN ALIGNING INCENTIVES FOR EFFICIENT AND HIGH QUALITY CARE

- Use of alternative payment methods (APMs) among commercial payers increased overall in 2016, reflecting different trends by payer type.
  - APM use among the three largest Massachusetts payers increased sharply from 46 percent to 56 percent of covered lives in 2016. However, the rate remained at 36 percent among other Massachusetts-based carriers, which increased their market share in 2016. APM use among national carriers in Massachusetts – which cover 20 percent of the commercial population – is very low, totaling only 2 percent of their covered lives (see **Chartpack**).
- Uptake of tiered and limited network insurance products grew slightly in 2016, though the increase in tiered network plans was entirely due to plans offered to state employees enrolled through the Group Insurance Commission (GIC) (see **Chartpack**).

## RECOMMENDATIONS

In light of these findings and the HPC's other analytic and policy work throughout the year, the HPC makes the following recommendations to advance the goal of better care and better health at a lower cost for the people of Massachusetts:

### RECOMMENDATIONS TO STRENGTHEN MARKET FUNCTIONING AND SYSTEM TRANSPARENCY

1. **Pharmaceutical spending:** The Commonwealth should take action to reduce increases in drug spending, and payers and providers should consider further opportunities to maximize value. Specific areas of focus should include authorizing reforms in the Mass-Health program, increasing price transparency and

accountability, adding pharmaceutical and medical device manufacturers as Cost Trends Hearing witnesses, using value-based benchmarks and contracts, using treatment protocols and guidelines, and enhancing provider education and monitoring of prescribing patterns.

- 2. Out-of-network billing:** The Commonwealth should enhance out-of-network (OON) protections for consumers. Specific actions should include requiring advanced patient notification, consumer billing protections in emergency and “surprise” billing scenarios, and reasonable and fair reimbursement for OON services.
- 3. Provider price variation:** The Commonwealth should reduce unwarranted variation in provider prices through advancing data-driven interventions and policies in the coming year.
- 4. Facility fees:** The Commonwealth should take action to equalize payments for the same services between hospital outpatient departments and physician offices. Specific actions should include establishing limits on sites that can bill as hospital outpatient departments and implementing site-neutral payments for select services.
- 5. Demand-side incentives:** The Commonwealth should encourage payers and employers to enhance strategies that empower consumers to make high-value choices. Specific areas of focus should include encouraging employees to choose high-value plans; encouraging employers to purchase health insurance through the Massachusetts Health Connector; improving the design of tiered and limited network plans, and testing new ideas such as primary care provider tiering; and encouraging broad use of CHIA’s new CompareCare website.

## RECOMMENDATIONS TO PROMOTE AN EFFICIENT, HIGH-QUALITY HEALTH CARE DELIVERY SYSTEM

- 6. Social determinants of health:** The Commonwealth should emphasize the importance of social determinants of health on health care access, outcomes, and cost. Specific areas of focus should include flexible funding to address health-related social needs, inclusion of social determinants in payment policies and performance measurement, and research and evaluation of innovative interventions and policies to build the evidence base.

- 7. Health care workforce:** The Commonwealth should support advancements in the health care workforce that promote top-of-license practice and new care team models. Specific actions should include scope of practice reform, including removing restrictions that are not evidence-based; establishing a new level of dental practitioner for expanded oral health care access; supporting new care team models, particularly to address patients’ behavioral health and health-related social needs; and engaging the health care workforce in cost containment and delivery reform efforts.
- 8. Innovation investments:** The Commonwealth should continue to support targeted investments to test, evaluate, and scale innovative care delivery models. Emerging ideas that should be considered for funding include pharmacologic treatment for substance use disorder in primary care settings; telehealth, particularly to enhance access to care for certain high-need services and patient populations; and mobile integrated health, in which community paramedicine and other providers treat patients in their homes and communities.
- 9. Unnecessary utilization:** The Commonwealth should focus on reducing unnecessary utilization and increasing the provision of care in high-value, low-cost settings, consistent with the HPC’s improvement targets. Policy-makers and market participants should seek progress on avoidable emergency department utilization, avoidable hospital admissions and readmissions, treating low-acuity conditions in community hospitals rather than academic medical centers and teaching hospitals, and unnecessary institutional post-acute care.
- 10. Alignment and improvement of APMs:** The Commonwealth should continue to promote the increased adoption of alternative payment methods (APMs) and improvements in APM effectiveness. Specific areas of focus should include increasing APM coverage in the commercial market, aligning quality measurement in APMs, adopting HPC Accountable Care Organization certification standards, incorporating bundled payments, and reducing disparities in budget levels.

CHAPTER 1:  
**INTRODUCTION**

# CHAPTER 1: INTRODUCTION

The Health Policy Commission (HPC), created in 2012, is charged with monitoring health care spending growth in Massachusetts and providing data-driven policy recommendations regarding health care delivery and payment system reform (see **Sidebar: “What is the role of the Health Policy Commission?”**). In this annual Cost Trends Report, the HPC examines key cost drivers and evaluates the state’s progress in meeting several cost containment, care delivery, and payment system goals. The Report includes a set of policy recommendations and targets for the Commonwealth to consider in our collective work toward a high-value, well-functioning health system.

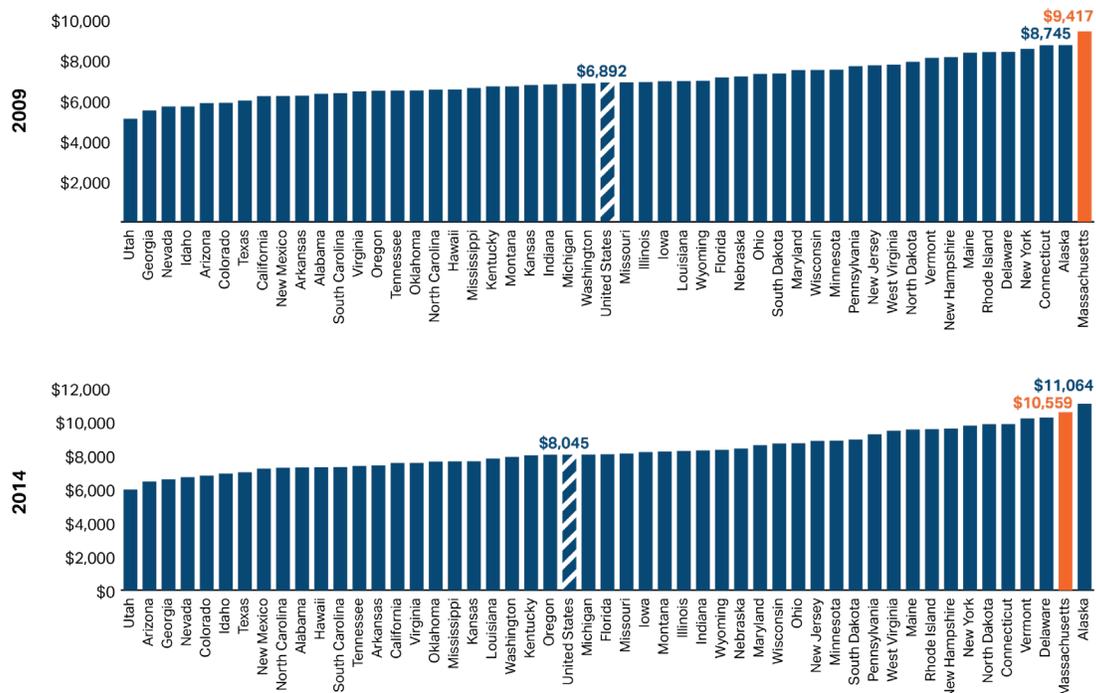
The HPC’s work is driven by the following principles:

- **Fostering a value-based market** in which payers and providers openly compete, and in which providers are supported and equitably rewarded for providing high-quality and affordable services;
- **Supporting an efficient, high-quality, health care delivery system** that improves health by delivering coordinated, patient-centered health care that accounts for patients’ behavioral, social, and medical needs;

- **Advancing aligned and effective financial incentives** for providers to deliver high-quality, cost-effective care and for consumers and employers to make high-value choices for their care and coverage; and
- **Enhancing transparency through publicly available data and information on health care system performance** necessary for providers, payers, patients, employers, and policymakers, including state agencies and the Legislature, to successfully implement reforms and evaluate performance over time.

The present-day context in which this Report is published is one of both challenge and promise. Massachusetts has the lowest rate of uninsured residents in the U.S., having undertaken health reform before the federal Patient Protection and Affordable Care Act (ACA) passed in 2010. The Commonwealth continues to rank among the top five states in the Commonwealth Fund’s state scorecard both overall and within the categories of access, prevention and treatment, healthy lives, and equity.<sup>1</sup> Health care spending growth in Massachusetts was again below the national rate in 2016, marking the seventh consecutive year in which this has been the case. Yet Massachusetts remains a high-cost state, moving from the most costly state in 2009 to the second costliest state in 2014 (see **Exhibit 1.1**).

**EXHIBIT 1.1** Total per-capita health care spending by state, 2009 and 2014



Sources: Centers for Medicare and Medicaid Services State Health Expenditure Accounts, 2009 and 2014

In 2014, state residents spent \$2,500 more per person on health care than residents of other states on average and more than residents of any state but Alaska. Importantly, Massachusetts had the 4th lowest rate of spending growth among states since 2009, but low growth must be sustained for many years to approach national average spending levels (which are still much higher than spending in other high-income countries).<sup>2</sup>

The high level of health care spending in Massachusetts does not appear to be justified by significantly higher quality of care. While Massachusetts includes a number of nationally-recognized health care institutions, the quality of care at acute hospitals in Massachusetts was similar, on average, to national levels, and hospital readmissions rates are higher than most states.<sup>1</sup> Consistent with these data, the Commonwealth Fund's scorecard ranked Massachusetts 39th in the nation for avoidable hospital use and costs, worsening from a ranking of 31st the previous year.

Excessive health care costs are crowding out spending on other priorities for government, households, and businesses. For an average Massachusetts family in 2015 with employer-based coverage, health care spending comprised more than a quarter of the family's income – a share that will continue to rise if premiums grow faster than wage growth.<sup>3</sup> Recognizing this, Chapter 224 of the Acts of 2012, the comprehensive health care reform legislation that established the HPC, set a statewide target for a sustainable rate of growth of total health care expenditures. From 2013 to 2017, the benchmark rate was set at 3.6 percent growth. From 2015 to 2016, the growth in total health care spending in Massachusetts was 2.8 percent, below the state's benchmark of 3.6 percent.

In this Report, the HPC presents the results of its recent research to further enhance the state's understanding of these health care spending trends and cost drivers. In addition, the HPC identifies opportunities for improving the quality and efficiency of the health care system in support of the Commonwealth's goal of sustaining spending growth in line with the health care cost growth benchmark.

## HOW THIS REPORT IS ORGANIZED

This Report is informed by the work of the Attorney General's Office (AGO) and the Center for Health Information and Analysis (CHIA), as well as by presentations at and testimony submitted during the HPC's 2017 Annual Cost

Trends Hearing. The Report includes material in two formats, a narrative written report and a graphical chartpack.

In the written report, **Chapters 2 through 4** compare health care cost growth in 2016 against the state's health care cost growth benchmark and discuss trends and levels of health care spending in Massachusetts and the nation overall; examine trends associated with spending for hospital outpatient department services; and analyze variation among provider groups in health care spending and utilization of care among their patients. **Chapter 5** contains the HPC's recommendations for accelerating efficiency in health care spending in Massachusetts and improving quality of care, as well as a dashboard summarizing performance in the Commonwealth on key measures.

The chartpack, produced for the first time this year, presents updated results and trends previously reported on by the HPC. These include areas for improvement in care delivery performance, such as avoidable hospital and emergency department utilization, and maximizing value in post-acute care. The chartpack also analyzes progress in aligning incentives, including use of alternative payment methods (APM) and demand-side incentives (DSI).

### What is the role of the Health Policy Commission?

The Health Policy Commission (HPC) is an independent state agency that develops policy to reduce health care cost growth and improve the quality of patient care. The HPC's mission is to advance a more transparent, accountable, and innovative health care system through its independent policy leadership and investment programs. The HPC's goal is better health and better care – at a lower cost – across the Commonwealth.

The agency's main responsibilities are led by HPC staff and overseen by an 11-member Board of Commissioners. HPC staff and commissioners work collaboratively to monitor and improve the performance of the health care system. Key activities include setting the health care cost growth benchmark; setting and monitoring provider and payer performance relative to the health care cost growth benchmark; creating standards for care delivery systems that are accountable to better meet patients' medical, behavioral, and social needs; analyzing the impact of health care market transactions on cost, quality, and access; and investing in community health care delivery and innovations.

i HPC analysis of data of the Center for Medicare & Medicaid Services Geographic Variation Public Use File.

## References

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- 3 Auerbach D. Massachusetts health care cost trends in a national context. In: Annual Cost Trends Hearing; 2017 Oct 2. Available from: <http://www.mass.gov/anf/budget-taxes-and-procurement/oversight-agencies/health-policy-commission/public-meetings/annual-cost-trends-hearing/2017/day-1-hpc.pdf>.

CHAPTER 2:  
**TRENDS IN SPENDING AND  
CARE DELIVERY**

## CHAPTER 2: TRENDS IN SPENDING AND CARE DELIVERY

The Commonwealth's landmark health care cost containment law, Chapter 224 of the Acts of 2012,<sup>i</sup> establishes a benchmark against which annual growth in health care spending is evaluated, recognizing that containing spending growth is critical to easing the burden of health care spending on government, households, and businesses. Chapter 224 directs the Health Policy Commission (HPC) and the Center for Health Information and Analysis (CHIA) to monitor health care spending growth annually relative to the Commonwealth's economic growth. The benchmark is tied to potential gross state product with the intention of maintaining a roughly constant share of the state economy devoted to health care spending. From 2013 to 2017, the benchmark has been set at 3.6 percent.<sup>i</sup>

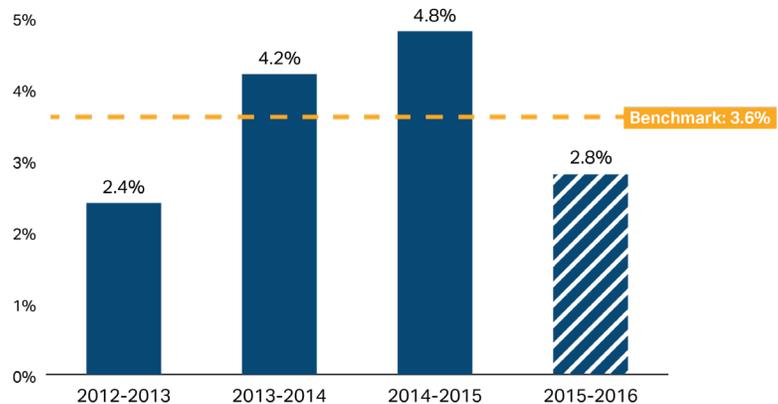
In keeping with the mandate to monitor spending against the benchmark, and value and performance in the health system overall, this chapter discusses the state's performance relative to the benchmark in 2016 and broad trends affecting health care spending in the Commonwealth.

### SPENDING GROWTH FROM 2015 TO 2016

The measure of spending growth that is compared to the benchmark is defined as the change in Total Health Care Expenditures (THCE, as defined by CHIA) per state resident. THCE includes health care spending incurred by individuals, the state, and the federal government via Medicaid (Mass-Health) and Medicare, as well as commercial

spending as reported by health insurers to CHIA. From 2015 to 2016, CHIA reported that the initial per capita growth in THCE in Massachusetts was 2.8 percent, below the state's benchmark of 3.6 percent.<sup>2</sup> Total spending increased from \$57.2 billion in 2015<sup>ii</sup> to \$59.0 billion in 2016,<sup>iii</sup> while the state's population was estimated to have grown from 6.78 million to 6.81 million residents over the same time period, resulting in an increase in per capita spending from \$8,429 to \$8,663. This marks the second year of performance below the benchmark rate in the four years since the passage of Chapter 224 for which THCE growth can be assessed. The average annual growth rate over the four years is 3.55 percent, just below the benchmark rate (see **Exhibit 2.1**).

**EXHIBIT 2.1** Annual growth in total health care expenditures per capita in Massachusetts



**Note:** 2015-2016 spending growth is preliminary.

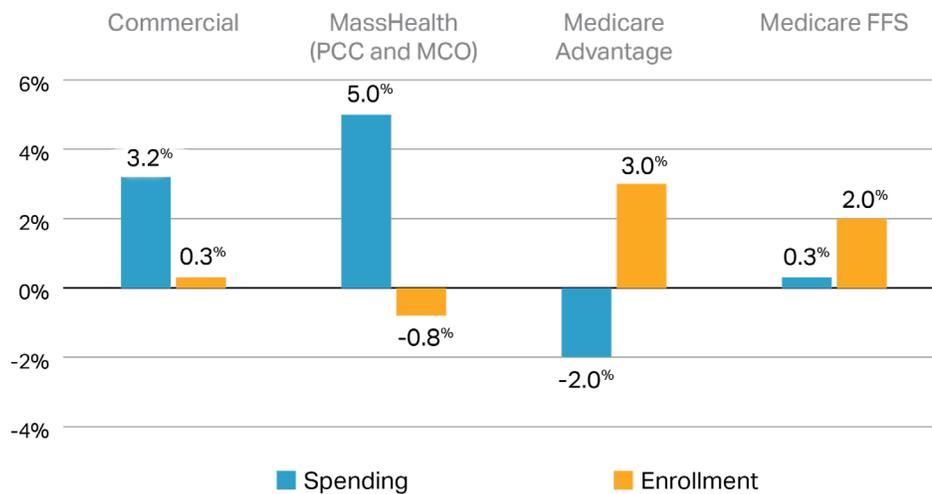
**Source:** Center for Health Information and Analysis Annual Report, 2017

i From 2018 to 2022, the benchmark was set by law to equal potential gross state product minus 0.5 percent, or 3.1 percent, unless the HPC's board votes to maintain the benchmark at 3.6 percent. On March 29, 2017, the board voted unanimously to allow the benchmark to drop to 3.1 percent for the 2018 calendar year relative to 2017. Performance against this lower benchmark will be assessed in the HPC's 2019 Cost Trends Report.

ii 2014 and 2015 spending were revised downward from \$54.8 billion and \$57.4 billion to \$54.3 billion and \$57.2 billion, respectively. Much of the 2014 revision was based on a categorization error by United Health Care which resulted in double-counting of roughly \$600 million worth of spending on Medicare enrollees. These revisions resulted in changes in previously-reported THCE growth of 4.1 percent from 2014-2015 to 4.8 percent.

iii This figure is preliminary.

**EXHIBIT 2.2** Change in enrollment and per-enrollee spending by major market segment, 2015-2016



**Notes:** Medicare FFS spending does not include Part D prescription drug coverage. Commercial spending and enrollment growth includes enrollees with full and partial claims. MassHealth includes only full coverage enrollees in the PCC and MCO programs. Figures are not adjusted for changes in health status.

**Source:** Center for Health Information and Analysis Annual Report, 2017

Total spending growth was relatively similar across the three major market segments (Medicare, MassHealth, and commercial) but there were important differences in terms of changes in enrollment and changes in spending per enrollee (see **Exhibit 2.2**).

Spending growth per commercial enrollee was below the 3.6 percent benchmark rate in 2016. However, within the commercial sector, important differences continue between the individual and employer markets (see **Chartpack**). Premiums for individuals enrolled in the individual market, most of whom obtain insurance through the Massachusetts Health Connector, continued to decline further in 2016 after declining in 2015 – such that the average individual market premium was more than 20 percent below the average premium in the employer-based market in 2016. On the other hand, premiums in the employer-based insurance market increased by 3.9 percent on average in 2016 while cost-sharing increased by 5.3 percent.<sup>iv</sup>

Enrollment trends also diverged, with enrollment growing by 59,000 in the individual market in 2016 and declining by 24,000 in the employer market, primarily among those insured through smaller firms.<sup>v</sup> The decline in members enrolled through smaller firms is consistent with a significant drop in rates of offering coverage among establishments with fewer than 25 employees (from 70 percent in 2014 to 59 percent in 2016), as identified in CHIA's Massachusetts Employer Survey.<sup>3,vi</sup> When employers with fewer than 50 employees were asked in 2016 why they do not offer coverage, the most common responses were “employees covered under another plan, including coverage under a spouse, MassHealth, or the Massachusetts Health Connector” (64%) and “[the] firm is not required to offer insurance due to small size” (58%).

Per member growth in spending among MassHealth PCC and MCO enrollees was 5.0 percent while enrollment declined slightly. When adjusted for health status changes, spending

iv Estimates are for the fully-insured market only.

v Some enrollment growth in the individual market in 2016 was due to a transfer of individuals from CommonwealthCare and the MassHealth Temporary Coverage program.

vi Offer rates declined from 70% to 59% among establishments with between 3 and 24 employees, which comprise the majority of establishments with fewer than 50 employees.

growth among MCO enrollees in 2016 was only 1.1 percent, compared to unadjusted growth of 5.9 percent, indicating the spending growth was largely explained by fluctuations in membership and the health risk of enrolled members. Prescription drug spending was the largest driver of spending among this group, growing at a rate of 8.5 percent in 2016.<sup>vii</sup>

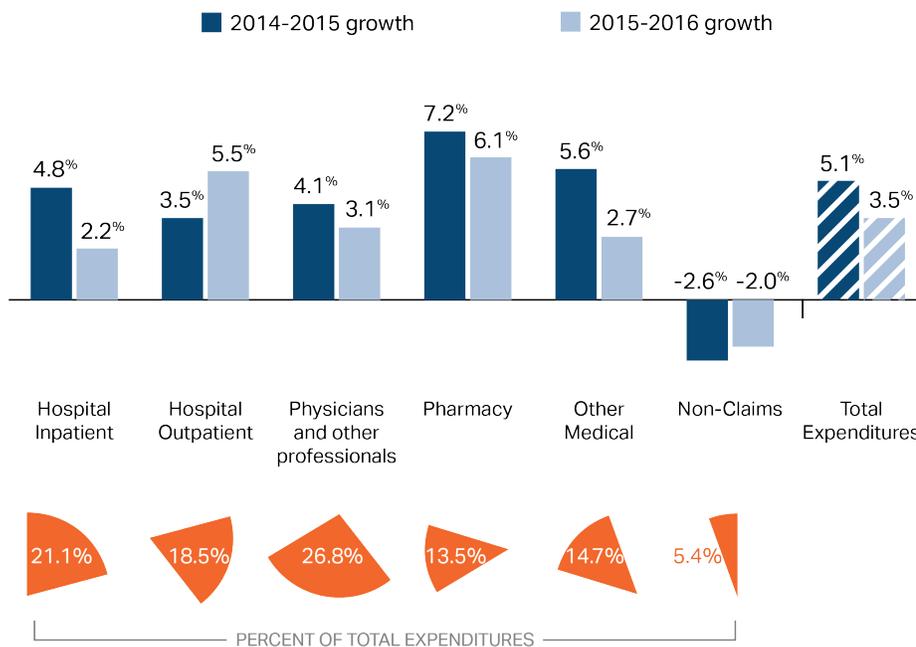
Medicare spending per enrollee in Massachusetts continued to grow very slowly in 2016 at 0.3 percent, even below low national rates of 0.6 percent in 2016. Yet, consistent with trends in population aging nationwide and in Massachusetts, enrollment in Medicare grew 2 percent in Fee-For-Service (FFS) and 3 percent in Medicare Advantage. This degree of enrollment growth is consistent with known trends in the aging of the population in Massachusetts, which, by itself, is expected to contribute 0.5 percent in THCE spending growth each year.<sup>4</sup>

## SPENDING BY CATEGORY OF SERVICE

Hospital outpatient and prescription drug spending were the fastest-growing categories of spending in 2016, with rates of growth of 5.5 percent and 6.1 percent respectively (see **Exhibit 2.3**).

Prescription drug spending growth per member (net of rebates) moderated to 4.7 percent in the commercial market in 2016 after growing by 6.9 percent in 2015 (see **Sidebar: Prescription drug spending trends**). Drug spending growth per member (net of rebates) in Medicare Advantage was unchanged, and spending per member among Original Medicare enrollees in Medicare part D decreased 2.1 percent. However, there was considerable growth in the percentage of Original Medicare beneficiaries who enrolled in Medicare part D (from 59 percent in 2015 to 66 percent in 2016), increasing total spending on prescription drugs (net of rebates) among those beneficiaries by 11 percent in 2016.

**EXHIBIT 2.3** Rates of spending growth in Massachusetts in 2015 and 2016, by category



**Notes:** Pharmacy spending is net of rebates.

**Source:** Payer reported TME data to CHIA and other public sources; appears in Center for Health Information and Analysis Annual Report, 2017

vii This figure does not include drug rebates.

## Prescription drug spending trends and state policy

Prescription drugs represented the highest growth sector of health care spending in 2016. Point of sale spending on prescription drugs in Massachusetts grew 6.4 percent in 2016, from \$8.6 billion to \$9.2 billion. However, payers receive additional rebates, discounts, and other price concessions from manufacturers that are not reflected in payments at the point of sale but lower total drug spending. Accounting for these rebates, prescription drug spending grew 6.1 percent in 2016, somewhat higher than U.S. net growth estimates of 4.8 percent, although these numbers are not fully analogous.<sup>5</sup> Growth slowed from 2015, when prescription drug spending grew 7.2 percent net of rebates (12.1 percent gross).<sup>viii</sup> However, annual spending for drugs continues to grow substantially faster than other sectors. Analysts estimate mid-single digit growth annually through 2021, based on expectations for new product innovation and price growth for existing products, offset by generic and biosimilar competition.<sup>5</sup>

Importantly, future spending may continue to be impacted by intensified efforts by health plans and pharmacy benefit managers to manage spending. For example, following the launch of PCSK9s, a new class of high-cost drugs to manage high cholesterol, U.S. payers heavily restricted use of these medications to their FDA approved uses.<sup>5</sup> As a result, uptake of these drugs was limited in 2016.

Drug spending trends have motivated numerous state level efforts across the country and in Massachusetts to increase price scrutiny and competition. Governor Baker has proposed a multi-faceted approach to address increasing costs in the MassHealth program. The proposal would allow MassHealth to negotiate directly with manufacturers and impose robust transparency requirements in order to establish fair and reasonable cost-effective prices. In addition, in September 2017, Massachusetts applied for a waiver from federal Medicaid rules in order to exclude certain drugs from the MassHealth formulary, similar to standard practice in commercial plans.<sup>6</sup> MassHealth would maintain an exceptions process to cover drugs that are not on the formulary when medically necessary. In addition to strengthening the linkage between coverage and evidence, MassHealth would be better positioned to negotiate prices for covered drugs and promote market competition that can moderate drug prices. The Massachusetts Senate has also proposed legislation to increase transparency into drug pricing across the market.<sup>7</sup>

A number of other states have also considered new drug price transparency legislation this year.<sup>7</sup> California passed a law in 2017 that requires manufacturers to provide all purchasers with advance notice of price increases above a certain threshold and to provide information justifying price increases and high launch prices in certain cases. In April 2017, New York created a drug spending cap within its Medicaid program. A Drug Utilization Review Board will determine whether to recommend a supplemental rebate for particular drugs based on a drug's impact on spending, justification for price increases, and cost of the drug relative to its therapeutic benefits.

A growing emphasis among state purchasers on clinical effectiveness and cost effectiveness, as well as increased scrutiny on prices, could support a more value-based marketplace and moderate future drug spending growth.

Hospital outpatient spending growth was greater in 2016 than 2015, and continues a longer-term trend of relatively high rates of growth compared to other categories of spending. Growth in hospital outpatient spending can arise from a number of factors, including price increases, volume increases, and shifting of care from either more costly inpatient settings or less costly non-hospital settings. This year,

the HPC focuses again on hospital outpatient spending, in **Chapter 3: Hospital Outpatient Department Spending.**

Massachusetts appears to be making some progress in using less institutional care. Growth in hospital inpatient spending was relatively low in 2016. The total number of inpatient hospital visits grew by 0.3 percent in 2016 while hospital inpatient spending grew 2.2 percent (see **Chartpack**).

viii Net prices for existing brand products grew 3.5 percent in 2016. While this net price growth was higher than the 2.6 percent growth in 2015, it was lower than in any previous year since 2011.

Following a hospital discharge, use of institutional post-acute care— such as skilled nursing facilities— dropped in 2016, led by a reduction in use for musculoskeletal conditions from 44 percent to 38 percent (see **Chartpack**). Total skilled nursing facility spending among Original Medicare beneficiaries in Massachusetts dropped nearly 11 percent per beneficiary in 2016.

## COMPARISON TO NATIONWIDE TRENDS

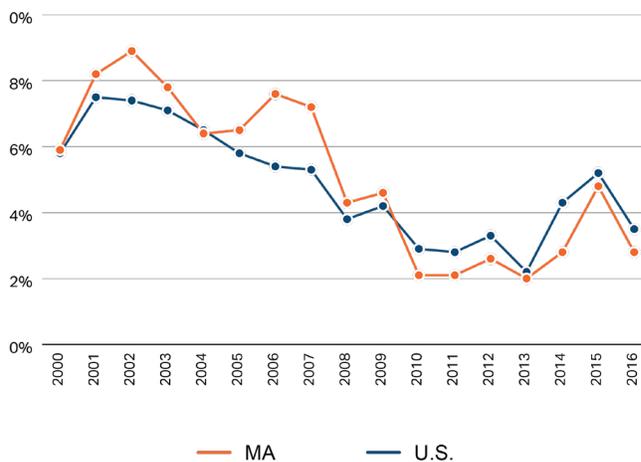
In terms of overall per capita spending growth, the Massachusetts total health care spending growth rate of 2.8 percent per capita in 2016 was below the US rate of 3.5 percent, continuing a consecutive seven year trend of spending growth below the national growth rate (see **Exhibit 2.4**)

Total spending per capita in Massachusetts grew the third slowest of all states in the US between 2009 and 2014, which reduced the extent by which spending in Massachusetts exceeded the national average from 37 percent to 31 percent. Much of the reduction came in the areas of hospital spending (combined inpatient and outpatient). In 2009, Massachusetts residents spent \$1,060 more than the national average on hospital care, accounting for 42 percent of the total spending difference. By 2014, Massachusetts residents spent \$850 more than the national average on hospital care, accounting for 34 percent of the excess spending in Massachusetts. In contrast, Massachusetts residents spent \$950 more than the national average on home health and other post-acute care in 2014, an increase from \$815 more in 2009.

In the commercial sector, per member growth rates also continued to be below the national average (see **Exhibit 2.5**), although growth has accelerated each year since 2012.

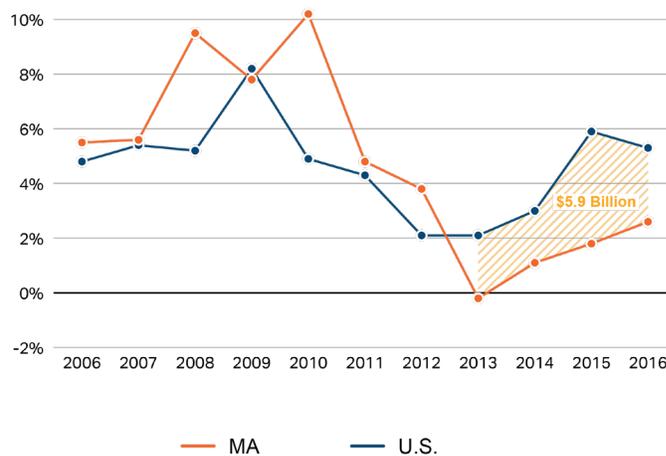
Cumulatively from 2012 to 2016, these lower growth rates amount to commercial spending that has been \$5.9B lower over this time period than would have been the case if growth rates matched the national average. This lower growth is reflected in health insurance premiums that have dropped relative to the national average. Average family premiums for employer coverage were 10.7 percent above the national average in 2012 but 7.0 percent above the average in 2016, while premiums for single coverage were 13.7 percent higher in 2012 and 8.5 percent higher in 2016. Lower growth also stems from trends in premiums for individual coverage in Massachusetts, mainly through the Massachusetts Health

**EXHIBIT 2.4** Annual growth in total health care spending per-capita in Massachusetts and nationwide



**Sources:** Centers for Medicare and Medicaid Services, National Health Expenditure Accounts Personal Health Care Expenditures, 2014-2016 and State Health Expenditure Accounts, 2000-2014; Center for Health Information and Analysis, Total Health Care Expenditures (MA), 2014-2016

**EXHIBIT 2.5** Annual growth in per-capita commercial health care spending, Massachusetts and nationwide



**Sources:** Centers for Medicare and Medicaid Services, National Health Expenditure Accounts Personal Health Care Expenditures, 2014-2016 and State Health Expenditure Accounts, 2000-2014; Center for Health Information and Analysis, Total Health Care Expenditures (MA), 2014-2016

Connector. These premiums dropped in 2015 and 2016 while growing substantially in the rest of the nation (see **Chart-pack**) and are now lower than any other state in the nation except Washington.

Nevertheless, employer-based health insurance premiums in Massachusetts remain the fourth highest in the country, with an average family paying nearly \$19,000 per year for coverage in 2016 and single enrollees paying \$6,600 on average.<sup>8</sup>

## ACCESS TO AND AFFORDABILITY OF CARE

Massachusetts has long been a leader in advancing access to care, particularly since the passage of Chapter 58 of the Acts of 2006, the health care access reform law that became a model for the Affordable Care Act. The Commonwealth continues to have the lowest uninsured rate in the nation at 2.5 percent of the population in 2016, which was 6.1 percentage-points lower than the national average (8.6 percent).<sup>9</sup> Furthermore, the percentage of Massachusetts residents who had difficulty paying their medical bills decreased slightly from 2015 to 2017, dropping from 17.0 percent to 15.8 percent.<sup>10</sup> Despite these encouraging trends, many Massachusetts residents and employers face considerable challenges with health care affordability.

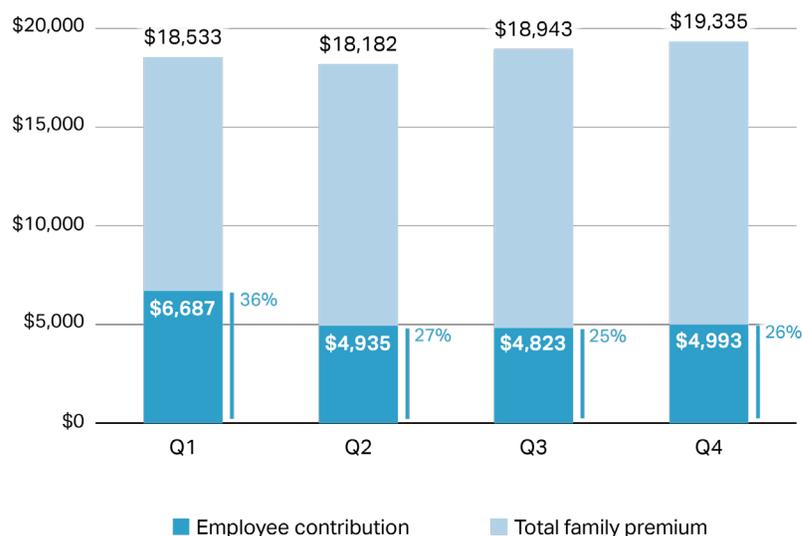
As noted earlier, the average total premium (including both employer and employee contributions) for employer-based family coverage in Massachusetts was \$18,955 overall in 2016; including typical cost sharing amounts, the cost of health care totaled over \$21,085 annually per family. This amount is more than the entire annual earnings of one in five Massachusetts workers.<sup>11</sup> Combining premium costs, out-of-pocket spending and taxes that pay for federal and state health care

programs, an average Massachusetts family spends more than 25 percent of its total income on health care, stretching the remainder across other priorities.<sup>12</sup>

In addition to the affordability challenge posed by rising premiums, affordability may be worsening due to increased out-of-pocket spending. The proportion of individuals with private coverage that are enrolled in high-deductible plans grew 2 percentage points in 2016, resulting in more than one in five individuals enrolled in high-deductible plans. Results from CHIA's 2017 Massachusetts Health Insurance Survey show that almost one in four Massachusetts residents spent more than \$3,000 out-of-pocket on health care in 2017.<sup>9</sup>

Two other factors make commercial health care even less affordable for lower-income residents who are ineligible for subsidies via the Massachusetts Health Connector or MassHealth. First, employees of lower-wage firms contributed more toward family premiums than employees of higher-wage firms in 2016 (see **Exhibit 2.6**). This finding became even more pronounced between 2015 and 2016.<sup>13</sup>

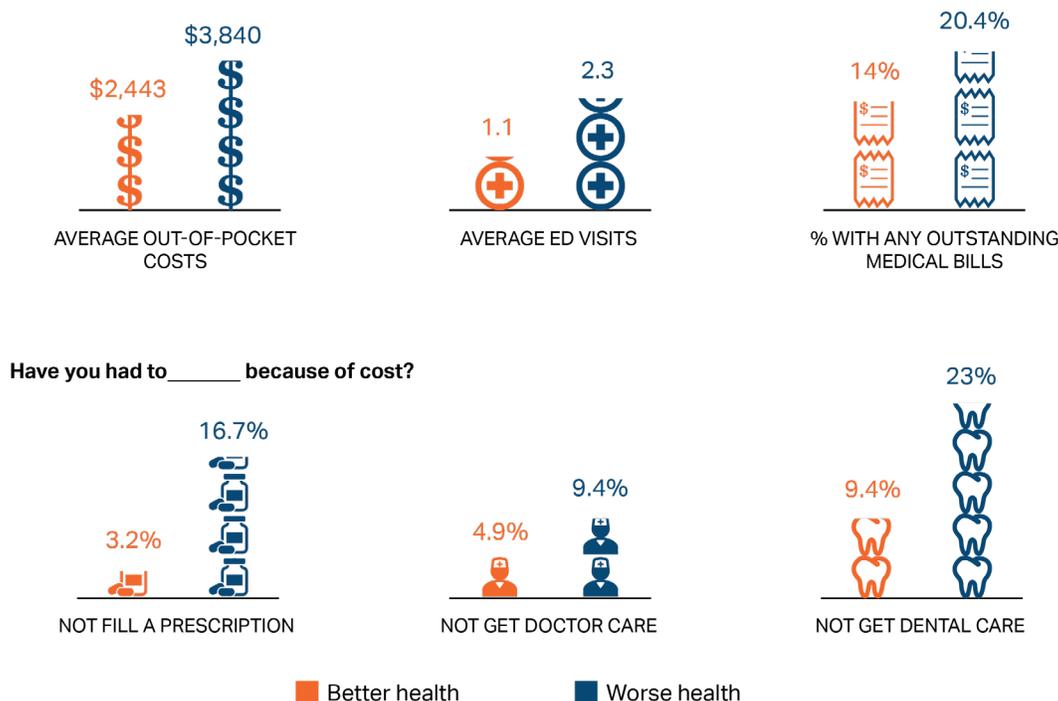
**EXHIBIT 2.6** Total family premium and employee contribution to premium in Massachusetts by the firm's wage quartile, 2016



**Notes:** Wage quartiles reflect average wages at each firm included in the sample. For example, Q1 includes firms with average wages below the 25th percentile.

**Sources:** HPC analysis of Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey, 2016

**EXHIBIT 2.7** Differences in utilization and spending for families of similar income but better or worse health status, 2014 and 2015



**Notes:** Analysis is based on 843 families with employer-sponsored health insurance between 200% and 500% of the federal poverty level, representing 1.5 million state residents (across two years). All differences are statistically significant at the 10% level ( $p < .10$ ) or less and all but two (outstanding medical bills and doctor care) are statistically significant at the 5% level ( $p < .05$ ). Better health is defined as those reporting their health is 'excellent' or 'very good'. Worse Health is 'good', 'fair' and 'poor'.

**Sources:** HPC analysis of Center for Health Information and Analysis Massachusetts Health Insurance Survey, 2014 and 2015

Second, families who report worse health status faced higher burdens of health spending than those in better health, even where total income was roughly the same (see **Exhibit 2.7**). Relative to families in better health, families with greater health needs had higher out-of-pocket costs (\$3,840 versus \$2,443); were more likely not to fill a prescription (16.7 percent versus 3.2 percent), get doctor care (9.4 percent versus 4.9 percent) or dental care (23.0 percent versus 9.4 percent); and, were more likely to have outstanding medical bills (20.4 percent versus 14.0 percent).

## FUTURE OUTLOOK

The outlook for success against the state's spending benchmark for growth in 2017 and beyond is uncertain, though there are some promising developments underway. For example, the MassHealth ACO program, aided by additional waiver funding from the federal government, will launch in early 2018. With the launch of the ACO program, APM coverage will increase for MassHealth PCC and MCO members, and the added incentives for controlling costs and

improving care coordination could help reduce spending among those enrollees. Some private insurers also report implementing payment strategies and incentives oriented toward reducing excess spending, such as non-payment for some readmissions, use of cash-back and other demand-side incentives, and further introduction of APMs into PPO products.<sup>14</sup> National spending trends between 2016 and 2017 appear similar to trends between 2015 and 2016, including trends in prescription drug prices, where state trends tend to follow national trends.<sup>15</sup>

On the other hand, there continues to be uncertainty surrounding federal implementation and policy regarding the ACA, particularly the fate of cost-sharing reductions for low-income exchange enrollees which were ended in late 2017 and rules related to Association Health Plans. Consolidation of providers also continues, with potential impacts on spending and market dynamics.<sup>16</sup> As always, continued vigilance is required to meet the state's goals with regard to health care spending, access, and quality of care for all residents.

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**CHAPTER 3:**  
**HOSPITAL OUTPATIENT**  
**DEPARTMENT SPENDING**

## CHAPTER 3: HOSPITAL OUTPATIENT DEPARTMENT SPENDING

Hospital outpatient departments provide a range of clinical services, from the simple to the complex, including regular doctor visits, imaging, emergency department (ED) visits, and surgeries. Many hospital outpatient services can be performed in alternative settings, including at more expensive hospital inpatient settings or at less expensive non-hospital settings, such as a physician’s office or a free-standing imaging center.

In 2016, spending in hospital outpatient departments represented 18.5 percent of all health care spending in the Commonwealth, and spending in this sector has among the highest growth rates. Across all payers, hospital outpatient department spending increased 5.5 percent from 2015 to 2016 and 3.5 percent from 2014 to 2015 (see **Exhibit 2.3** in **Chapter 2**). Growth in hospital outpatient department spending in Massachusetts appears similar to trends in the U.S. overall: hospital outpatient spending for Original Medicare beneficiaries grew 5.2 percent per year in Massachusetts between 2013 and 2016, compared to 4.8 percent per year in the U.S.<sup>i</sup>

Hospital outpatient use varies widely by region and by provider system (see **Chapter 4** for detail on provider system variation), but on average, patients in Massachusetts have much higher levels of hospital outpatient department use compared to the nation overall. In 2015, hospital outpatient visits per Medicare beneficiary in Massachusetts exceeded the U.S. average by 49 percent (see **Chartpack**). Massachusetts Medicare beneficiaries spent \$477 more annually per beneficiary on hospital outpatient care than the U.S. average in 2016.<sup>ii</sup>

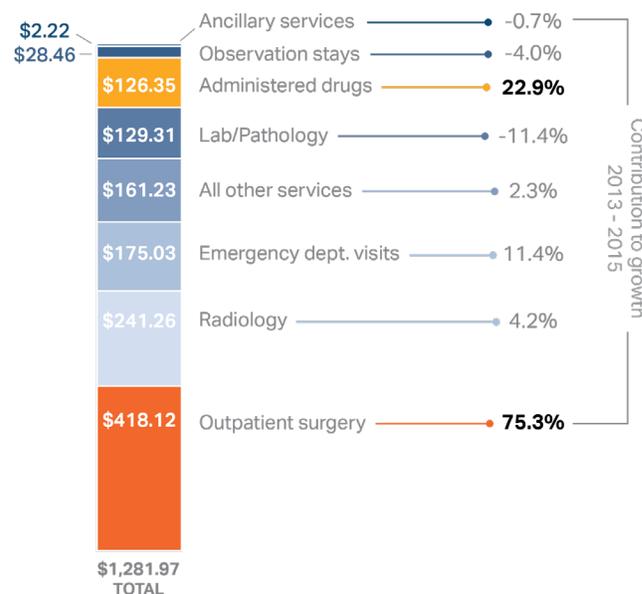
Multiple dynamics influence hospital outpatient use and spending growth. Growth in hospital outpatient spending does not by itself indicate that spending is unwarranted; for example, shifting higher-cost inpatient care to outpatient care could represent an improvement in efficiency. This chapter identifies drivers of growth and highlights

opportunities for more efficient spending, particularly in the area of shifts to hospital outpatient departments from less expensive non-hospital settings.

### COMPONENTS OF HOSPITAL OUTPATIENT DEPARTMENT SPENDING

Hospital outpatient spending consists of different types of services, which have grown at different rates (see **Exhibit 3.1**). Outpatient surgery, in which the patient typically requires hospital care for less than 24 hours and includes procedures such as a colonoscopy, represented about one-third of hospital outpatient spending in 2015. It was also one of the fastest growing categories of hospital outpatient spending, growing 14 percent between 2013 and 2015 and accounting for 75 percent of total hospital outpatient spending growth between 2013 and 2015 in the

**EXHIBIT 3.1** Commercial spending per member per year in Massachusetts by hospital outpatient service category, 2015, and contribution to spending growth, 2013 - 2015



**Notes:** 2013 data were adjusted to match commercial TME growth in hospital outpatient spending as reported by CHIA between 2013 and 2014. Hospital outpatient includes all outpatient spending billed on a facility claim for a Massachusetts acute-care facility. See Technical Appendix for details.

**Sources:** HPC analysis of Massachusetts All-Payer Claims Database, 2013-2015

i HPC analysis of data supplied to the HPC by the Center for Medicare & Medicaid Services

ii While Massachusetts has higher utilization than the national rate for other hospital services as well, these differentials are lower; Massachusetts ED and hospital inpatient visits per capita were 9 percent and 8 percent the national average in 2015, respectively.

commercial population. Spending on administered drugs<sup>iii</sup> (including payments for the drugs and the administration) also grew 14 percent between 2013 and 2015 and accounted for 23 percent of outpatient spending growth between these years. ED visits accounted for 11 percent of growth.

## FACTORS CONTRIBUTING TO CHANGE IN VOLUME OF SERVICES

### SHIFTS BETWEEN INPATIENT AND OUTPATIENT SETTINGS

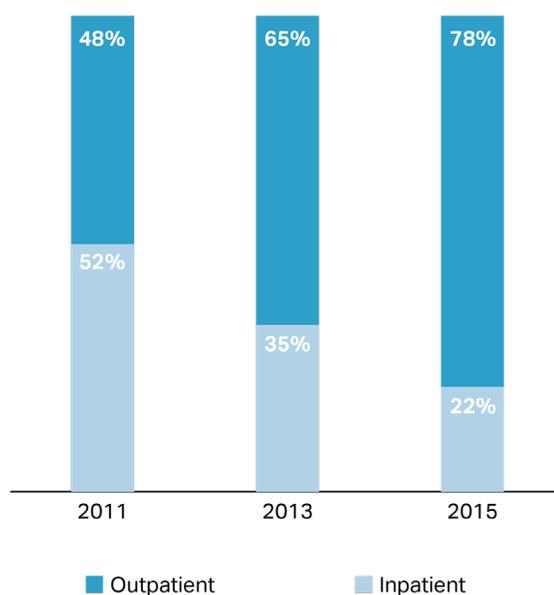
Over the past several decades, more surgical procedures have been moving from the inpatient to the outpatient setting, largely due to advancements in medical technology. In 2014, 66 percent of surgeries in the U.S. were performed in an outpatient setting, compared with 51 percent in 1990 and 16 percent in 1980.<sup>1</sup> Technological innovation has enabled patients to undergo less invasive procedures and recover faster. For example, surgical procedures have become easier to deliver in an outpatient setting due to advances in minimally invasive procedures, better anesthesia, and more effective therapies to manage pain at home.<sup>2</sup> Literature suggests that these improvements have not only driven a shift to the outpatient setting, but also led to an increase in total volume of procedures.<sup>3</sup> In 2016, outpatient spending accounted for 56 percent of all hospital revenue among community hospitals in Massachusetts, and 50 percent and 45 percent of hospital revenue among teaching hospitals and academic medical centers, respectively.<sup>iv</sup>

To further analyze shifts in hospital care, the HPC examined trends for five “cross-over” procedures commonly performed in both settings: laparoscopic cholecystectomy, laparoscopic appendectomy, arthrodesis, laparoscopic total hysterectomy, and laparoscopic vaginal hysterectomy.<sup>v</sup> Between 2011 and 2015, the setting of care for these procedures changed dramatically (see **Exhibit 3.2**), with a fairly even split between inpatient and outpatient settings in 2011 shifting to 78 percent of these procedures being performed on an outpatient

basis in 2015. Between 2011 and 2015, the total number of these procedures remained relatively constant.<sup>vi</sup>

An earlier HPC analysis of trends in these procedures from 2011 to 2013 found that total spending on these five procedures grew slightly, but spending growth would likely have been higher without the shifts in setting of care.<sup>4</sup> Prices grew in both the inpatient and outpatient settings, with price growth appearing to have consumed potential savings from the shift in site of care.<sup>vii</sup>

**EXHIBIT 3.2** Share of volume by setting for five cross-over surgical procedures performed in hospitals, 2011 - 2015



**Notes:** The five cross-over procedures were identified as the highest-volume procedures billed by surgeons in 2013 where at least 10 percent of the surgeries occurred at an inpatient hospital and at least 10 percent occurred in an outpatient setting. Procedures are laparoscopic cholecystectomy, laparoscopic appendectomy, arthrodesis, laparoscopic total hysterectomy, and laparoscopic vaginal hysterectomy.

**Sources:** HPC analysis of Massachusetts All-Payer Claims Database, 2011-2015

- iii Drugs administered in a hospital outpatient department are typically covered under a patient's medical benefit, rather than prescription drug benefit. Examples of these administered medical drugs include chemotherapy agents and flu vaccines.
- iv Based on analysis of Center for Health Information and Analysis' FY 2015 Massachusetts Hospital Profiles.
- v Procedures were selected based on the highest volume billed by surgeons in 2013, where at least 10 percent of the surgeries occurred at an inpatient hospital and at least 10 percent occurred in an outpatient setting.
- vi Controlling for a change in the number of member months in the database between 2011 and 2015, the total number of procedures increased by 0.3 percent.
- vii Inpatient prices increased more than outpatient prices. Between 2011 and 2013, growth in inpatient prices for the five procedures ranged from 12 to 21 percent, while growth in outpatient prices ranged from 4 to 17 percent.

### SHIFTS BETWEEN NON-HOSPITAL AND HOSPITAL OUTPATIENT SETTINGS

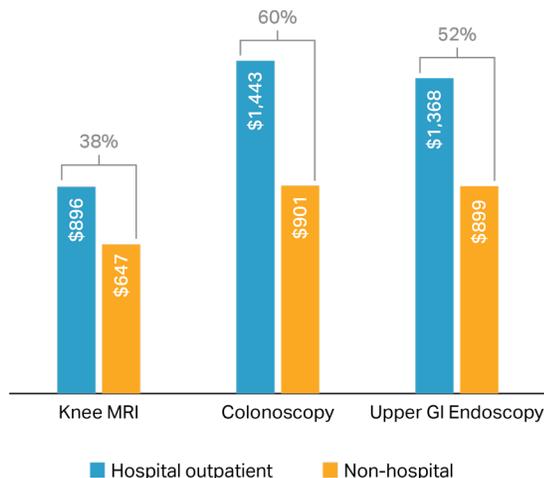
In contrast to shifts from inpatient care, shifts from non-hospital settings (such as a physician’s office or a freestanding imaging center) to hospital outpatient settings have the potential to increase spending unnecessarily and represent an important opportunity for policy attention.

Prices tend to be substantially higher in hospital outpatient departments than in non-hospital settings, reflecting in part the fact that hospital outpatient departments may require costly facility overhead, such as infrastructure for complex surgeries and maintaining 24-hour access to emergency departments. However, higher compensation for this costly facility overhead generally applies to all services performed in a hospital outpatient department, even to services that could safely and effectively be performed in lower cost non-hospital settings, such as routine doctor’s visits or simple cardiac imaging. Whereas payment for services performed in a doctor’s office usually combines compensation for professional services and overhead into one fee, some payers provide separate payments for professional and overhead components (or “facility fees”) when the service is performed in a hospital outpatient department (see **Sidebar: Hospital outpatient department prices**).

Among commercial payers in Massachusetts, prices in 2015 for a knee MRI were 38 percent higher when performed in a hospital outpatient department compared to a non-hospital setting such as a freestanding imaging center (see **Exhibit 3.3**). Prices for a colonoscopy averaged 60 percent higher in a hospital outpatient setting, compared to a non-hospital setting.

Differences in prices between settings are also very substantial in the Medicare program (see **Exhibit 3.4** and **Sidebar: Hospital outpatient department prices**).

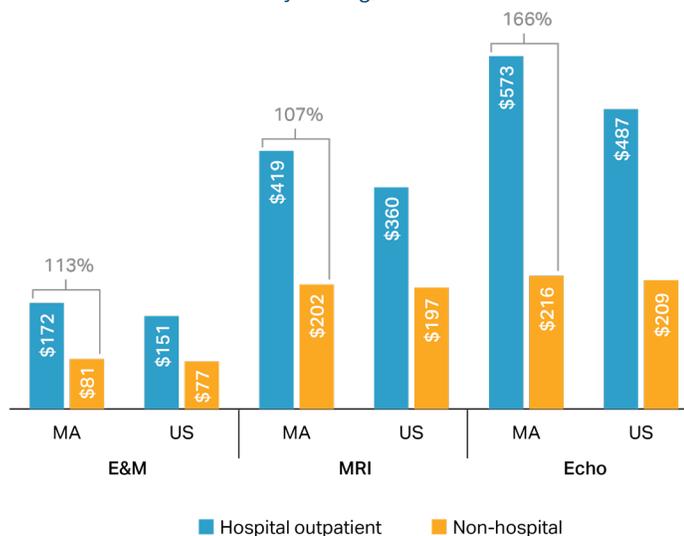
**EXHIBIT 3.3** Comparison of mean commercial prices for select services by setting, 2015



**Notes:** The Current Procedural Terminology codes used are 73721 (knee MRI), 45378 (colonoscopy), and 43239 (upper GI endoscopy). Spending includes insurer and enrollee payments for both the facility and professional portion of the service, on all claim lines for the same patient on the same date with the same CPT code.

**Sources:** HPC analysis of Massachusetts All-Payer Claims Database, 2015

**EXHIBIT 3.4** Comparison of Medicare prices for select services by setting, 2015



**Notes:** Prices reflect Medicare allowed amount for services, including the professional and facility fee components. Professional services are paid under the Medicare Physician Fee Schedule (MPFS). Facility fees are paid under the Outpatient Prospective Payment System (OPPS). The Current Procedural Terminology codes used are 99211-99215 (evaluation & management visits), 70551 (MRI scan of the brain), and 93306 (echocardiogram). The hospital outpatient category includes settings for which Medicare reimburses professional services at a facility rate.

**Sources:** HPC analysis of Center for Medicare and Medicaid Services, Medicare Physician and Other Supplier Public Use File, 2015 and Hospital Outpatient Prospective Payment Final Rule, CY2015.

## Hospital outpatient department prices in the Medicare program and other settings

In the Medicare payment system, payments for services provided in a hospital outpatient department have two components: a professional fee and a facility fee. This facility fee is intended to reflect additional high overhead costs associated with a hospital outpatient department (e.g., equipment and ancillary staff to provide complex surgeries, requirements to provide 24-hour care). In contrast, payments for services provided in a physician’s office have only a professional fee component. This fee is higher than the professional fee in a hospital outpatient department because it includes both professional costs and facility costs associated with overhead in a physician’s office.

The combined payment amount for a service provided in a hospital outpatient department is substantially more than the payment for the same service provided in a physician’s office. For example, the Medicare payment for a regular office visit in a hospital outpatient department is more than double the payment for the same service provided in a freestanding practice (see **Exhibit 3.5**). Because Medicare patients are responsible for paying a percentage of the cost of their care, patient cost-sharing is also double when this service is provided in a hospital outpatient department.

Many commercial payers tend to adopt Medicare payment rules. Therefore, commercial patients may receive two bills for a service provided in a hospital outpatient department, known as “split billing”: a bill for professional services and a second bill for the hospital facility fee. While some commercial payers do not allow “split billing,” further research is needed on whether these restrictions result in lowering total payments or whether hospitals respond by shifting their billing practices to seek higher total payments under a single bill.

**EXHIBIT 3.5** Differences in Medicare program payments and beneficiary cost sharing for office visits provided in hospital outpatient departments and freestanding physician offices in Massachusetts, 2015

	Non-hospital setting	Hospital outpatient setting		
	Professional services Office rate*	Professional services Facility rate	Facility fee	Total hospital Based rate
Medicare program payment	\$64.53	\$44.87	\$92.38	\$137.26
Beneficiary cost sharing	\$16.13	\$11.22	\$23.10	\$34.31
Total payment	\$80.66	\$56.09	\$115.48	\$171.57

\*includes payment for overhead

**Notes:** Prices reflect Medicare allowed amount for services. Professional services paid under the Medicare physician fee schedule (MPFS). Facility fees paid under the Outpatient Prospective Payment System (OPPS). The Current Procedural Terminology codes used for evaluation & management visits are 99211-99215; prices for professional services are a weighted average of these codes. The Healthcare Common Procedure Code Set code for evaluation & management visits under OPPS is G0463.

**Sources:** HPC analysis of Center for Medicare and Medicaid Services, Medicare Physician and Other Supplier Public Use File, 2015 and Hospital Outpatient Prospective Payment Final Rule, CY2015.

The HPC has found that volume has shifted for a number of services from non-hospital settings to hospital outpatient departments. One important factor in this shift is the increase in physician affiliation with hospitals, which can include contracting affiliations and hospital acquisition of physician groups. Affiliations can shift care to

hospital outpatient departments through new in-system referral patterns that bypass non-hospital settings in favor of hospital-based care. In addition, hospital acquisition of physician practices can increase spending without changing where services are delivered. When hospitals acquire physician groups, they may license physician offices as satellite

hospital outpatient departments. In these cases, the hospital bills on behalf of the physician office at the higher hospital outpatient department rates for the same service at the same location.<sup>viii</sup>

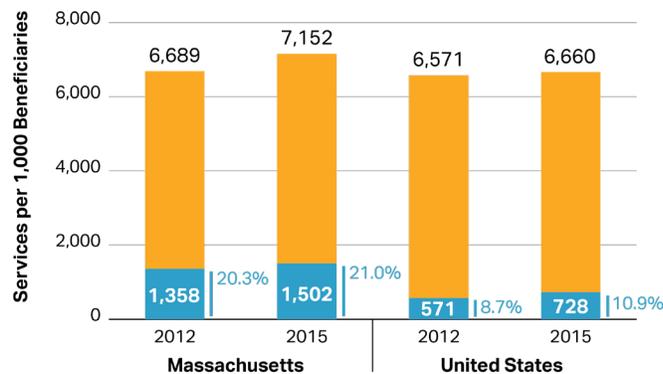
To analyze these trends, the HPC used Original Medicare data to compare use of select services by setting over time in Massachusetts and in the U.S.<sup>ix</sup> In all cases, a larger share of services was provided in hospital outpatient departments in Massachusetts than in the U.S. in 2015, and the share of services provided in a hospital outpatient department increased in all cases between 2012 and 2015 (see **Exhibit 3.6**).

For Evaluation & Management (E&M) visits (routine doctor visits),<sup>x</sup> Medicare beneficiaries in Massachusetts use hospital outpatient departments at twice the national rate. In 2015, 21 percent of E&M visits in Massachusetts took place in hospital settings, compared to 11 percent in the U.S overall. This higher use of hospital outpatient departments for doctor visits translates to an average cost per visit that is 10 percent higher than it would be otherwise (an average of \$99.75 versus \$90.57), resulting in an additional \$56 million in spending per year. While this represents a single high-volume example, similar excess costs are paid across many other services such as those included in **Exhibit 3.6**.

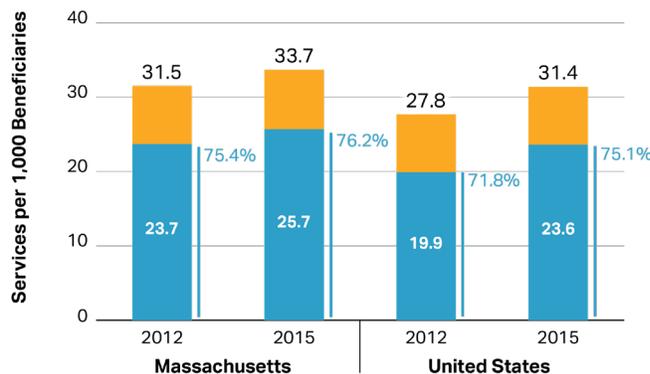
Payers are increasingly implementing reforms to address the shifts in site of care and the disparity in prices for services rendered at hospital outpatient departments for services that could be safely provided in lower-cost settings (see **Sidebar: Payer policies regarding hospital outpatient departments**). The findings in this chapter support the need for further action in this area to ensure efficient health care spending.

**EXHIBIT 3.6** Use of select services by setting among Medicare beneficiaries in Massachusetts and the U.S., 2012 and 2015

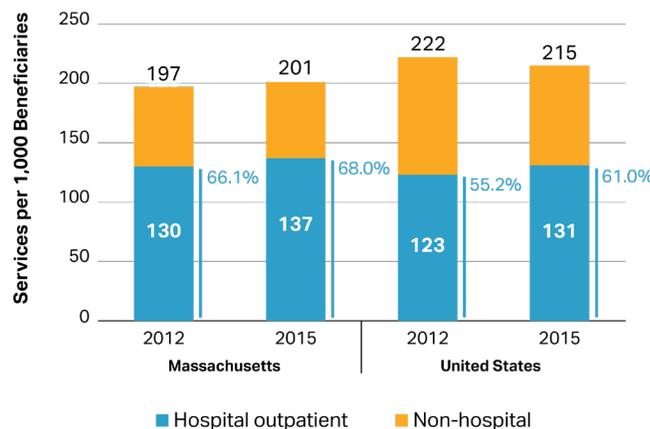
*Evaluation & management visits (99211 - 99215), 2012 and 2015*



*MRI scan of the brain (70551), 2012 and 2015*



*Echocardiogram (93306), 2012 and 2015*



viii See 2015 Cost Trends Report for additional detail on this trend in Massachusetts and the U.S.  
 ix Services were selected from a set that the Medicare Payment Advisory Commission has identified as comparable between settings on the basis of complexity and patient acuity (see Medicare Payment Advisory Commission. Report to the Congress: Medicare and the health care delivery system. 2013 June).  
 x Defined as CPT codes 99211-99215. Prices discussed in this section reflect a weighted average of payments for these codes.

**Notes:** The Current Procedural Terminology (CPT) codes used for Evaluation & Management visits are 99211-99215; prices for professional services are a weighted average of these codes. CPT code 70551 was used for MRI, and CPT code 93306 was used for echocardiogram.  
**Sources:** HPC analysis of Center for Medicare and Medicaid Services, Medicare Physician and Other Supplier Public Use File, 2015.

## **Payer policies regarding hospital outpatient departments**

### ***Refine site definition: Limit the types of provider locations that can bill payers and patients as a hospital outpatient department***

The ability to earn higher payment rates as a hospital outpatient department than as a physician office has incentivized the practice of hospitals acquiring physician practices and billing for those practices as hospital outpatient departments. In November 2015, Congress took action to limit this practice for Medicare payments,<sup>5</sup> codifying CMS' definition of provider-based off-campus hospital outpatient departments. Under the law, providers located 250 yards away or more from a hospital's main campus are not eligible to receive hospital outpatient payment rates from Medicare. This change, effective January 1, 2017, is projected to save \$9.3 billion over 10 years.

Notably, there are two significant exceptions to the law: 1) providers that have already billed as an outpatient department prior to passage of the law (November 2, 2015) are still eligible for reimbursement as hospital outpatient departments; and 2) providers with dedicated EDs.

### ***Site-neutral payment: Require uniform rates between hospital outpatient departments and non-hospital settings for select services***

For the Medicare program, both CMS and the Medicare Payment Advisory Commission (MedPAC) have proposed options for "site neutral payments," where payment rates would be the same or similar for services regardless of where the services are performed. The payment rate would be based on the rate for the lower-cost setting. For example, MedPAC has recommended lowering hospital outpatient department rates for E&M visits and a select set of other services such that Medicare payment rates for these services would be the same in free-standing physician offices and hospital outpatient departments.<sup>6</sup>

Commercial payers have also increasingly focused on reducing higher payments based solely on site of care. For example, Blue Cross Blue Shield of Massachusetts reports that, beginning in 2015, it does not reimburse for hospital facility fees billed with routine E&M services.<sup>xi</sup>

Taking a different approach, Anthem Blue Cross Blue Shield, a national insurer, will no longer pay for MRIs or CT scans performed at hospital outpatient departments when they can be performed at freestanding imaging centers.<sup>7</sup> Anthem began implementing this non-payment policy in some states in July 2017, and the insurer plans to extend the policy to additional states by March 2018.<sup>xii</sup> Compared to site-neutral payment policies, Anthem's non-payment policies may be easier to administer but place the responsibility for electing site of care with patients, potentially leaving patients with large bills for services if they mistakenly use a non-covered site.

xi Pre-filed testimony for the 2015 Cost Trends Hearing

xii By March 2018, Anthem plans to have the policy implemented in California, Colorado, Connecticut, Georgia, Indiana, Kentucky, Maine, Missouri, Nevada, New York, Ohio, Virginia, and Wisconsin. Anthem also operates in New Hampshire, but has stated that it does not plan to implement the policy there.

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CHAPTER 4:  
**PROVIDER ORGANIZATION  
PERFORMANCE VARIATION**

## CHAPTER 4: PROVIDER ORGANIZATION PERFORMANCE VARIATION

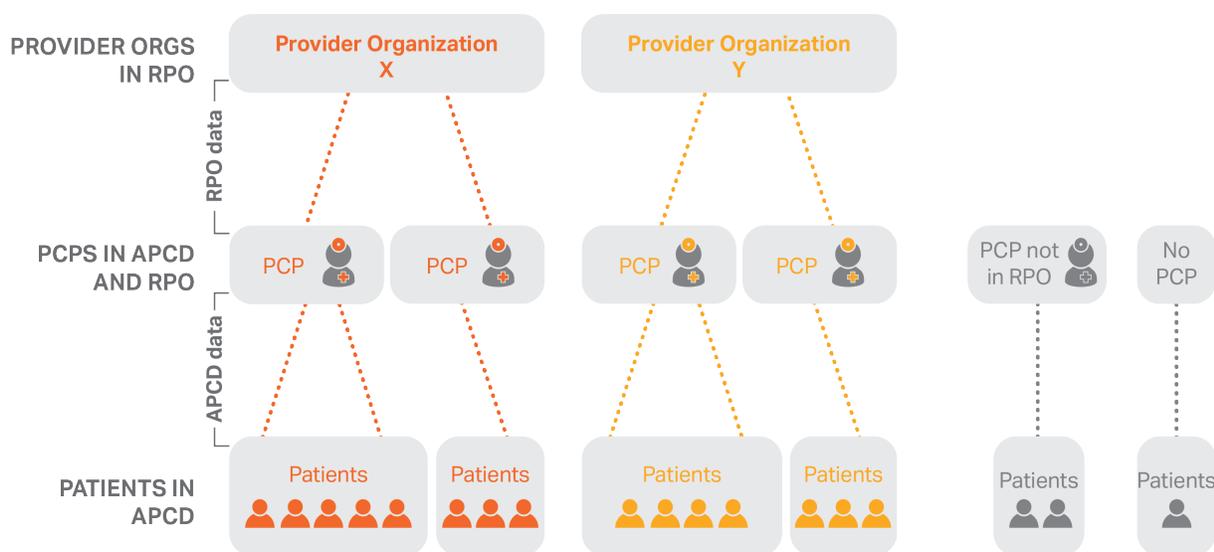
### BACKGROUND

In recent years, the Health Policy Commission (HPC) has reported on several measures of variation across health care provider organizations in Massachusetts including total spending and rates of provision of low-value services. This year, for the first time, the HPC has linked the Registration of Provider Organizations (RPO) data and the All-Payer Claims Database (APCD) using patient attribution models, significantly expanding the ability to compare spending and utilization outcomes across provider organizations. A greater understanding of provider variation and the drivers of variation can foster improvement among peer organizations, provide more information to payers and purchasers of care, and enable policymakers to encourage better performance through incentives.

The following analyses compare provider organizations by averaging spending and utilization across commercially

insured patients whose primary care providers (PCPs) are affiliated with, or owned by, a given organization. Importantly, all spending and utilization across all sites of care (e.g., specialist, inpatient, post-acute) for these patients is attributed to the PCP and its affiliated provider organization, regardless of whether the care was actually delivered by that provider organization. For example, if a patient with an Atrius Health PCP is seen by a Partners HealthCare specialist, the spending and utilization associated with the specialty visit is attributed to Atrius Health. Attributing patients in this manner is a commonly accepted method by providers and health plans and is utilized in most risk contracts. The process by which patients are attributed to provider organizations is described in more detail in **Sidebar: Methodology for PCP attribution** and illustrated in **Exhibit 4.1**. For this analysis, the HPC examined only commercially insured adult patients, age 18 and older.

EXHIBIT 4.1 Patient attribution methodology



**Notes:** Patients are matched with PCPs based on either explicit assignment as reported by their insurers to CHIA or by attribution methodologies similar to Medicare's assignment of beneficiaries to Accountable Care Organizations.

## Methodology for PCP attribution

Patients were matched to primary care providers (PCPs) in a two-step hierarchical process using:

1. *assignment flags denoted by payers in the underlying claims data (primarily for enrollees of health maintenance organization (HMO) or point of service (POS) plans),*

Or, for those lacking assignment flags:

2. *attribution algorithms that assign patients to PCPs empirically based on observed patterns of health care usage.<sup>i</sup>*

Of the 1,942,273 adult patients with commercial coverage via either Blue Cross Blue Shield of Massachusetts, Tufts Health plan, or Harvard Pilgrim Health Plan observed in the 2015 APCD, roughly 1.25 million were assigned in the first step. The second step applied primarily to patients with preferred provider organization (PPO) coverage. Patients were assigned to the PCP who served the plurality of their Evaluation & Management (E&M) visits (routine doctor visits). The HPC used a limited set of visit codes for either well or sick-visits typically used in attribution algorithms (see Technical Appendix for details). For patients lacking any such visits, the HPC attributed a small number of additional patients to PCPs if they had at least three prescriptions filled by a single PCP. Overall, this second step resulted in the attribution of an additional 17 percent of adult patients in the APCD, or 48 percent of those not assigned in the first step. Ultimately, 1,583,976 out of a total of 1,942,273 (82 percent) adult patients in the database were attributed to a PCP using either method described above.

PCPs were associated with their parent organizations using the physician rosters available in data collected in the RPO Program. This data was supplemented with a commercial database obtained from SK&A, which has information on additional Massachusetts providers including nurse practitioners.

Of the 1,583,976 patients who matched to a PCP, 1,404,015 (89 percent) were matched to one of the 14 largest provider organizations in Massachusetts. Of the 11 percent who were not matched to a provider organization, most had PCPs who could not be identified in the RPO or SK&A databases; a small remainder was matched to provider groups with fewer than 18,000 identifiable patients and was thus not separately identified in the analyses based on the smaller sample size. Finally, in the exhibits presented here, the patient population was limited further to exclude a small number of individuals with missing data on any of the patient characteristics used in the adjustments, resulting in a final sample of 1,355,527 adult patients.

<sup>i</sup> This method is conceptually similar to that used widely in literature and in the Medicare ACO programs.

## ATTRIBUTED PATIENT CHARACTERISTICS

In comparing provider organizations, it is important to note that their adult, commercially insured patient populations differ in some respects, noted in **Exhibit 4.2**.

For example, commercially insured adult patients attributed to Southcoast Health system had 9 percent greater health risk than patients of other systems, while those attributed to Boston Medical Center (BMC) physicians had 18 percent lower health risk on average, in part because they were

considerably younger. Patients in Southcoast Health, who are typically from the New Bedford/Fall River region, lived in zip codes with the lowest average household income (\$61,679), similar to those in the Baystate and BMC systems, while those attributed to Mount Auburn Community Independent Practice Association (MACIPA) were from the highest-income areas among all provider groups (\$89,359 average income). The HPC also characterized areas where patients reside using the Area Deprivation Index,<sup>1</sup> which measures additional socioeconomic factors such as home

**EXHIBIT 4.2** Descriptive statistics of commercially insured population attributed to a provider organization

	Risk score	Zip-code income	Average deprivation index	% over 55	% self insured	% female	Number of patients
Atrius	0.93	\$86,091	77.0	26%	50%	56%	174,927
BMC	0.82	\$65,518	88.5	19%	54%	53%	36,666
Baystate	0.95	\$62,560	99.1	31%	32%	52%	49,543
BIDCO	1.00	\$84,690	76.6	26%	43%	54%	145,143
CMIPA	1.00	\$70,164	95.9	27%	35%	51%	13,111
Lahey	1.04	\$88,455	77.8	31%	41%	52%	88,354
MACIPA	0.97	\$89,359	69.8	28%	44%	53%	32,141
Partners	1.05	\$88,340	76.8	29%	41%	55%	311,997
Reliant	0.91	\$80,265	89.9	24%	32%	52%	42,366
South Shore	0.99	\$85,507	82.5	27%	45%	56%	40,673
Southcoast	1.09	\$61,679	97.6	30%	48%	51%	17,916
UMass	1.01	\$74,609	93.7	30%	39%	52%	89,759
Wellforce	1.02	\$82,086	84.9	28%	42%	49%	129,378
Steward	1.06	\$71,796	90.3	30%	47%	52%	183,553

**Notes:** Green denotes a patient population with the lowest expected cost or utilization across provider groups as a result of the given characteristic, while red denotes the highest. Columns without shading represent characteristics with inconsistent effects. Risk score was normalized to 1.0 across all adult patients in the sample. The area deprivation index combines a number of socio-economic-related measures by census block in the U.S. (including home values and amenities, employment, poverty, and education levels) measured at the 9-digit-zip code level. It is collapsed to 5 digits in this data. Values in Massachusetts range from 120 (greatest deprivation) in parts of Boston and Springfield to -12 (least deprivation) in Weston. See **Sidebar: Methodology for PCP attribution** for more details.

**Sources:** HPC analysis of the Massachusetts All-Payer Claims Database, 2015; Registration of Provider Organizations, 2016; SK&A, 2015; U.S. Census Bureau, American Community Survey. University of Wisconsin-Madison HIPxChange, 2017

values, poverty and unemployment. Based on the index, Baystate's patients reside in the most deprived areas of the state, while patients of MACIPA live in the least-deprived areas.

In order to provide reasonable comparisons across provider organizations, all of the findings reported here were adjusted for differences in patient populations: spending outcomes are adjusted for patient risk, while utilization outcomes are adjusted for all measures shown in **Exhibit 4.2**, in addition to the payer mix and percentage of patients in HMO or POS plans.

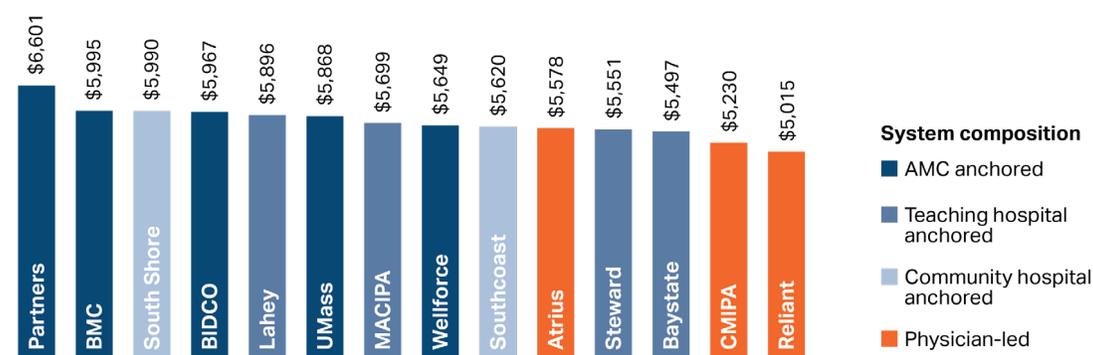
### VARIATION IN SPENDING

Average risk-adjusted spending per member per year varied substantially across provider organizations (see **Exhibit 4.3**). The highest-cost organization spent 32 percent more per patient than the lowest-cost organization (\$6,601 and \$5,015, respectively), adjusting for patient risk. This difference in spending, more than \$1,500 per patient per year, is substantial and does not appear to be related to measures of quality.<sup>2</sup> The spending differences likely reflect a combination of factors including prices per service, intensity of services provided for a given condition, rates of utilization, practice

patterns and culture, and patient factors not accounted for in risk adjustment.

For this analysis, the HPC further categorized provider organizations by organizational structure to investigate whether provider organizations owned by hospital systems tended to have higher spending than physician-led organizations.<sup>ii</sup> The findings showed that academic medical center (AMC)-anchored systems generally tend to have higher spending, and physician-led systems tend to have lower spending (see **Exhibit 4.3**). Comparing the composition of the systems, provider organizations anchored by an AMC were 13 percent more expensive than physician-led organizations (\$6,176 versus \$5,455), and 9 percent more than teaching or community hospital-based systems (\$5,676). This pattern is consistent with recent research findings that hospital-based systems tend to be more expensive, potentially due to higher prices charged, higher utilization, or greater use of hospital-based sites, where physician-led systems tend to use lower-cost office-based settings for services that can be performed in either setting.<sup>3,4,5,6,7,8</sup> For more information on variation in site of service, see **Chapter 3: Hospital Outpatient Department Spending**.

**EXHIBIT 4.3** Average risk-adjusted commercial spending per member per year, by provider organization, 2015

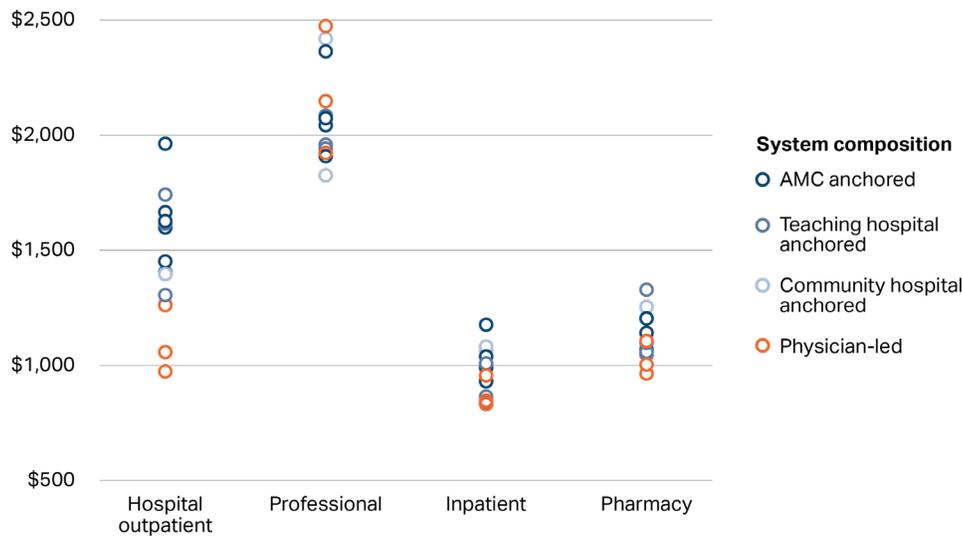


**Notes:** AMC = academic medical center. Spending adjusted using the Johns Hopkins Adjusted Clinical Groups (ACG®) grouper applied to claims data. Data includes only adults age 18 and older. Commercial payers include Blue Cross Blue Shield of Massachusetts, Harvard Pilgrim Health Care and Tufts Health Plan.

**Sources:** HPC analysis of Massachusetts All Payer Claims Database, 2015; Registration of Provider Organizations, 2016; SK&A Office and Hospital Based Physicians Databases, December, 2015

ii The HPC grouped provider organizations based on the dominant hospital in the system, according to ownership and affiliation relationships as described in the RPO. Academic medical centers (AMCs) are a subcategory of teaching hospitals. Other hospital anchored provider organizations are those with systems anchored by either a teaching or community hospital.

**EXHIBIT 4.4** Average risk-adjusted commercial spending per member per year, by category of service and provider organization, 2015



**Notes:** AMC = academic medical center. Spending adjusted using the Johns Hopkins Adjusted Clinical Groups (ACG<sup>®</sup>) grouper applied to claims data. Data includes only adults age 18 and older. Commercial payers include Blue Cross Blue Shield of Massachusetts, Harvard Pilgrim Health Care and Tufts Health Plan.

**Sources:** HPC analysis of Massachusetts All-Payer Claims Database, 2015; Registration of Provider Organizations, 2016; SK&A Office and Hospital Based Physicians Databases, December, 2015

The HPC also examined spending variation by category of service to further understand drivers of spending differences across organizations. The greatest variation across provider groups occurred in the hospital outpatient spending category, where the highest-cost provider organization for hospital outpatient spending, Partners (\$1,963), was twice as expensive as the lowest-cost provider, Reliant (\$974) (see **Exhibit 4.4**). Generally, AMC-anchored provider organizations spent 66 percent more on hospital outpatient spending than physician-led organizations, which accounts for 96 percent of the total difference in spending between these two types of systems.

Differences were smaller in other categories but still substantial. Inpatient spending varied 41 percent between the highest- and lowest-spending groups. Inpatient spending was on average 9 percent higher at AMC-anchored

organizations than at physician-led organizations (\$1,011 versus \$930). Pharmacy spending varied 38 percent between the highest- and lowest-spending group and followed similar patterns by type of organization. Laboratory and radiology spending (not shown) followed similar patterns as well. In contrast, professional spending was 9 percent higher in physician-led groups, suggesting that these groups may be substituting site-of-care for some services between physician offices and hospital outpatient departments, which are more expensive (see **Chapter 3: Hospital Outpatient Department Spending**). This difference is not enough to offset the more expensive outpatient spending, however. The HPC will continue monitoring differences in site of care to better understand underlying differences between outpatient and professional spending.

## UTILIZATION OF CARE

The HPC also analyzed health care utilization by provider organization. In 2015, the number of ED visits per 100 members varied nearly two-fold across organizations (28.4 versus 14.9, even after adjusting for demographic and health risk differences in patient characteristics (**Exhibit 4.5**).

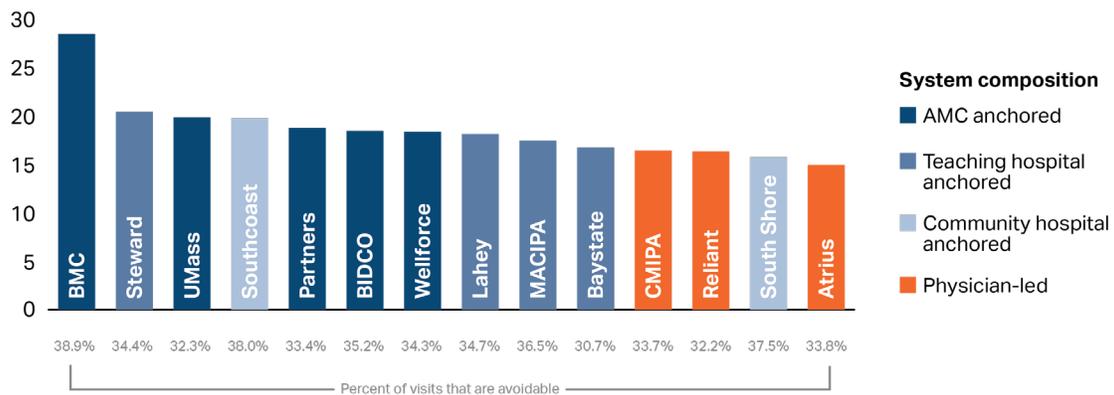
These differences are substantial and may reflect a number of factors including patient preference and access to alternative sites of care, such as urgent care centers, retail clinics, after-hours care, telehealth, and primary care services.<sup>9</sup> AMC-anchored organizations had 26 percent more ED visits per 100 patients than physician-led organizations and 3 percent more ED visits than other hospital-anchored systems. The share of ED visits that were deemed avoidable also varied across organizations from 31 percent to 39 percent, but was only weakly correlated with organization type.

The HPC also analyzed additional utilization measures, including rates of avoidable hospitalization.<sup>iii</sup> The number of hospital visits per 100 patients, also adjusted for the same

array of demographic and health risk factors, varied by 24 percent across organizations (from 4.0 to 4.9), while the percent of such hospital visits that were avoidable varied more than two-fold, from 4.5 percent to 9.4 percent. Hospital visits did not vary significantly by organization type, consistent with findings in prior studies,<sup>6</sup> although the HPC found that physician-led organizations had a lower percentage of hospital visits that were avoidable (4.9 percent compared to 5.6 percent at hospital-anchored organizations).

In summary, AMC-and other hospital-anchored systems had generally higher spending per commercial patient, even after adjusting for health status. Their patients also went to the ED more often than did patients of physician-led provider organizations. The HPC has previously found that AMC-and other hospital-anchored systems tend to have lower shares of their patients covered under alternative payment methods, which could be related to the observed findings.<sup>10</sup> These contracts are designed to incentivize providers to reduce unnecessary spending, including by reducing ED

**EXHIBIT 4.5** Adjusted ED visits, per 100 members, by provider organization, 2015



**Notes:** Avoidable ED visits are identified using the NYU Center for Health and Public Service Research Billings algorithm’s categorization of a patient’s primary diagnosis code. Avoidable visits include Billings categories of non-emergent and emergent, primary care treatable. Rates are adjusted for patient risk score, age, gender, income of patient zip code, area deprivation index of patient zip code, whether patient’s insurance plan is an HMO or POS plan, and whether patient’s firm is self or fully-insured.

**Sources:** HPC analysis of Massachusetts All-Payer Claims Database, 2015; Registration of Provider Organizations, 2016; SK&A Office and Hospital Based Physicians Databases, December, 2015

iii The avoidable hospital measure is based on criteria developed by the Agency for Healthcare Research and Quality’s Prevention Quality Indicators to identify ambulatory care sensitive conditions.

and hospital use and shifting care away from higher-cost settings. However, hospital-based systems may find that such strategies would work against maintaining hospital revenues and other financial interests.

Comparing provider organizations is complex, as the adjustments included may not account for all differences in underlying patient populations, and the methodology to aggregate provider organizations may not account for some structural characteristics that may influence results. Nevertheless, HPC research documents significant variation between provider organizations in Massachusetts on a range of performance metrics, including total patient spending, avoidable ED and hospital visits. Such variation, especially where correlated with certain organizational structures (e.g. AMC-anchored health systems), warrants additional scrutiny and analysis.

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CHAPTER 5:  
**POLICY**  
**RECOMMENDATIONS**

## CHAPTER 5: POLICY RECOMMENDATIONS

### RECOMMENDATIONS BY TOPIC:

1. **Pharmaceutical Spending**
2. **Out-of-Network Billing**
3. **Provider Price Variation**
4. **Facility Fees**
5. **Demand-Side Incentives**
6. **Social Determinants of Health**
7. **Health Care Workforce**
8. **Innovation Investments**
9. **Unnecessary Utilization**
10. **Alternative Payment Methods**

In light of the findings presented in this Report, as well as the HPC's other research, policy, and program work throughout the year, the HPC has developed recommendations for market participants, policymakers, and government agencies. These include **NEW** recommendations for 2017, indicated in green, and renewed recommendations from previous years' Cost Trends Reports, for which continued action, attention, and effort is required. The HPC has also updated its set of measures to track health system performance (see Dashboard, **Exhibit 5.1**).

In late 2017, the HPC restructured the policy committees of the HPC's Board to better align with its priority policy outcomes and focus its work moving forward. The Board established two new committees, the **Market Oversight and Transparency Committee** (MOAT) and the **Care Delivery Transformation Committee** (CDT). Consistent with this strategic framework, the HPC recommends that the Commonwealth take action across the following two primary areas:

- **Strengthening market functioning and transparency** to promote a health care system in which payers and providers openly compete, providers are supported and equitably rewarded for providing high-quality and affordable services, and health system performance is transparent in order to implement reforms and evaluate performance over time.

- **Promoting an efficient, high-quality system with aligned incentives** that reduces spending and improves health by delivering coordinated, patient-centered, and efficient health care that accounts for patients' behavioral, social, and medical needs through the support of aligned incentives between providers, payers, employers, and consumers.

### STRENGTHENING MARKET FUNCTIONING AND TRANSPARENCY

**1 PHARMACEUTICAL SPENDING.** The Commonwealth should take action to reduce increases in drug spending, and payers and providers should consider further opportunities to maximize value. Payers and providers should increase emphasis on clinical and cost effectiveness of drugs, as well as increase scrutiny on prices, to support a more value-based market. Many other states are acting to moderate drug spending growth and enhance transparency, and Massachusetts should consider replicating promising approaches. Specific areas of focus should include:

- a. **Accountability and transparency:** Building on action in other states, policymakers should increase transparency for pharmaceutical manufacturers in cases where a drug's price increases or a new drug's launch price may have a large impact on drug spending in the Commonwealth. In these cases, policymakers should require increased transparency in drug pricing and rebates as inputs to determine whether prices are excessive and unjustified. Increased transparency and accountability should apply to manufacturers and pharmacy benefit managers.
- b. **NEW MassHealth Reforms:** Policymakers should authorize the Executive Office of Health and Human Services to pursue new strategies for maximizing value in drug spending for the MassHealth program, including the enhanced ability to negotiate directly with drug manufacturers for additional supplemental rebates, impose robust transparency requirements, and the ability to exclude certain drugs from the MassHealth formulary, similar to standard practice in commercial plans. Any limited or closed formulary should be developed on

the basis of a rigorous review of evidence and demonstration of clinical effectiveness, and should include an exceptions process that allows for coverage of additional drugs when medically necessary. With these strategies, MassHealth will be better positioned to negotiate prices for covered drugs and promote market competition that can moderate drug prices and spending.

- c. **Witnesses for Cost Trends Hearing:** Pharmaceutical and medical device manufacturers and pharmacy benefit managers are important market participants. Policymakers should add representatives of these entities to the list of mandatory witnesses at the HPC's annual Cost Trends Hearing.
- d. **Value-based contracting strategies:** Payers should pursue the use of value-based benchmarks when negotiating prices and consider opportunities for the use of risk-based contracting with manufacturers.
- e. **Treatment protocols and guidelines:** Payers and providers should work together to develop and use treatment protocols and guidelines that make appropriate use of lower-cost drugs when available and to achieve consensus on appropriate use when new high-cost drugs enter the market.
- f. **Prescriber education and variation in prescribing patterns:** Providers should disseminate information to prescribers on drug and treatment alternatives, invest in system technology to alert prescribers to alternatives, support adoption of treatment protocols, and support other educational activities. Providers should also monitor prescribing patterns, particularly for identification of outlier behavior, to help ensure that prescribing is consistent with value-based and evidence-based guidelines.

**2 OUT-OF-NETWORK BILLING. The Commonwealth should take action to enhance out-of-network protections for consumers.** Consumers and insurers may face high charges from out-of-network hospitals and physicians in certain circumstances where consumers do not have the ability or information to select an in-network provider, including in emergency situations and when services are received at in-network facilities but provided by out-of-network providers without the consumer's informed agreement. These high out-of-network charges can create financial burdens for consumers and, when such costs are borne by

insurers, they impair tiered and limited network products and increase overall spending. Drawing on models from other states (such as California, Connecticut, and New York), policy action should include:

- a. **Advance patient notice:** Providers should be required to inform patients if they are out-of-network before services are delivered.
- b. **Consumer billing protections:** Payers should be required to hold their members harmless in cases of out-of-network emergency services and enhance consumer awareness of existing "surprise billing" protections.
- c. **Reasonable and fair reimbursement:** Policymakers, either by statute or through an appropriate state agency regulatory process, should establish a maximum reasonable price for such out-of-network services that will enhance the viability of limited and tiered network products, facilitate value-driven payer and provider rate negotiations, and ensure that out-of-network protections for consumers do not increase overall spending.

**3 PROVIDER PRICE VARIATION. The Commonwealth should take action to reduce unwarranted variation in provider prices.** Extensive variation in prices paid to health care providers for the same sets of services is a persistent issue in the Commonwealth, driving increased health care spending and perpetuating inequities in the distribution of health care resources. However, unwarranted variation in provider prices is not likely to decrease absent direct policy action. Policymakers should advance specific, data-driven interventions to address the pressing issue of persistent provider price variation in the coming year.

**4 FACILITY FEES. The Commonwealth should take action to equalize payments for the same services for similar patients between hospital outpatient departments and physician offices.** In many cases, the same service can be provided at both hospital outpatient departments and physician offices, but hospital outpatient department rates and cost-sharing are substantially higher than those of physician offices for the same service due to the addition of hospital "facility fees." The ability to charge these fees drives acquisition of physician groups by hospital systems which can result in higher prices paid for services. Policymakers and payers should act to limit both newly licensed and existing sites that can bill as hospital outpatient

departments and implement site neutral payments for select services for similar patients, both to reduce inappropriate health care spending and to reduce confusion for patients who can face increased cost sharing at hospital outpatient sites.

**5 DEMAND-SIDE INCENTIVES.** The Commonwealth should encourage payers and employers to enhance strategies that empower consumers to make high-value choices, including increasing the transparency of comparative prices and quality. Specific areas of focus should include:

- a. **Employee incentives for choosing high-value plans:** Employers should further encourage selection of high-value plans by contributing the same premium amount regardless of the plan chosen or by offering greater premium sharing for higher value plans. Additionally, employers should consider purchasing health insurance through the Massachusetts Health Connector, which provides consumers the opportunity to shop among a range of product options at competitive market rates.
- b. **Value-based provider choices:** Employers should also explore options to encourage employees to make value-based provider choices, including by rewarding employees directly for choosing high-quality, efficient providers, or by directly establishing preferred provider contracts.
- c. **Tiered and limited insurance plans:** Payers should continue to improve value-oriented products such as tiered and limited plan designs that create incentives, such as financial rewards, for choosing high-value services.
- d. **PCP tiering:** Payers should tier PCPs on the basis of provider group TME. Payers should also increase the cost-sharing differentials between preferred and non-preferred tiers to better reflect value-based differences among providers.
- e. **Transparent price and quality information:** Payers should increase the availability of information on price and quality at the point of referral to allow patients and providers to enhance the selection of value-based providers and make better-informed decisions about treatment options. Payers and purchasers should also take advantage of price and quality information available

via CHIA's new CompareCare website to empower and reward employees for choosing high-value care. Consistent with the Commonwealth's goal to be a national leader in health care data transparency, CHIA should continue efforts to make detailed health care price information easily available to the public.

## PROMOTING AN EFFICIENT, HIGH-QUALITY, HEALTH CARE DELIVERY SYSTEM

**6 NEW SOCIAL DETERMINANTS OF HEALTH.** The Commonwealth should continue to emphasize the impact of social determinants of health on health care access, outcomes, and costs. Emerging evidence demonstrates that addressing health-related social needs (e.g., housing, nutrition) improves health outcomes, reduces health disparities, and lowers avoidable health care utilization. Policymakers and market participants should advance efforts to address social determinants of health, building on the leadership of the Executive Office of Health and Human Services through MassHealth's Delivery System Reform Incentive Program (DSRIP) and other initiatives, specifically with a focus on:

- a. **Payment for health-related social needs:** MassHealth plans to offer flexible services funding to DSRIP-participating ACOs to address health-related social needs (e.g., through housing supports or medically-appropriate meals) that are not otherwise reimbursed by MassHealth or other publicly-funded programs. Other payers should replicate and expand such payment innovations to provide flexible funding to medical providers to address a range of health-related social needs for patients, including under global budget models.
- b. **Inclusion of social determinants of health in payment policies and performance measurement:** Provider payment policies and performance measurement that do not account for social determinants of health can disadvantage providers and payers that serve high-need populations. Risk adjustment methodologies and performance metrics should account for socio-economic and environmental factors where possible, and payers and providers should seek to expand collection of data necessary to understand the socio-demographics of the populations they serve (e.g., data on race, language, education level, and income).

c. **Research and dissemination:** Government agencies, researchers, providers, and payers should continue to pilot and evaluate innovative interventions, strategies, and policies that address health-related social needs. Research and evaluation of programs that demonstrate improvements in health and reductions in unnecessary health care spending should be widely disseminated.

**7 NEW HEALTH CARE WORKFORCE. The Commonwealth should support advancements in the health care workforce that promote top-of-license practice and new care teams models.** In order to enhance the successful implementation of new care delivery and payment reform initiatives, the Commonwealth should engage frontline health care workers in health care cost containment efforts and continue to support workforce innovations, such as multi-disciplinary care teams that include new types of roles and professions. Additionally, in order to improve access to high-quality care, policymakers should ensure that all providers can efficiently and effectively deliver care without restriction, consistent with their license and training. Specific areas of focus should include:

a. **Scope of practice:** Policymakers should review and amend scope of practice laws that are restrictive and not evidence-based, including for Advanced Practice Registered Nurses. Policymakers should also certify a new level of dental practitioner to increase access to oral health care, particularly for low income and underserved populations.

b. **New care team models:** The Commonwealth should continue to support the increased adoption of new care team models, in which roles are designed to meet the unique needs of the communities and patient populations they serve (e.g., community health workers, patient navigators, peer support specialists, and recovery coaches). Early evidence from the HPC's CHART program indicates that employing these types of workers on the care team, particularly to address patients' behavioral health and health-related social needs, helps reduce unnecessary hospital utilization and improve outcomes. Specifically, policymakers should consider establishing streamlined credentialing processes for these roles aligned with other states' and national standards, supporting additional training and educational opportunities, and endorsing payment policies that enable such services to be provided.

**8 NEW INNOVATION INVESTMENTS. The Commonwealth should continue to invest in testing, evaluating, and scaling innovative care delivery models.**

Early evidence from the HPC's CHART and HCII programs indicates that investments in innovative care models can successfully improve outcomes, reduce unnecessary utilization, and strengthen community-based care. Policymakers, payers, providers, and other market participants should continue to support targeted investments, including for models that enhance behavioral health care access and treatment. Examples of emerging ideas that should be considered for funding include:

a. **Pharmacologic treatment in primary care:** Expansion of access to pharmacologic treatment in the primary care setting is critical to stemming the tide of the opioid epidemic in the Commonwealth, reducing avoidable acute care utilization, and improving outcomes. Payers should reduce or eliminate cost sharing for patients to increase access to and engagement in pharmacologic treatment for opioid use disorder.

b. **Telehealth:** The state, payers, and providers should partner to develop, test, and leverage the expertise of the Massachusetts-based digital health innovation community to scale the use of telehealth in the Commonwealth, particularly to enhance access to care for certain high-need services and patient populations. Behavioral health and teledentistry are especially important areas of focus. Further, the Commonwealth should examine and address policy and payment barriers to increased use of telehealth, including under global budget models.

c. **Mobile integrated health:** The state, payers, providers, and local communities should collaborate to implement models of mobile integrated health, in which community paramedicine and other providers treat patients in their homes and communities and appropriately avoid acute care utilization.

**9 UNNECESSARY UTILIZATION. The Commonwealth should focus on reducing unnecessary utilization and increasing the provision of care in high-value, low-cost settings.**

Unnecessary utilization and the provision of care in higher cost settings (e.g., low-acuity ED visits, BH-related ED visits, readmissions, use of teaching hospitals and academic medical centers for community-appropriate inpatient care, institutional post-acute care)

continue to be significant drivers of health care spending. Payers and providers should be accountable for making progress on the HPC's improvement targets as detailed in the health system performance dashboard found in **Exhibits 5.1 and 5.2**, and for shifting care, as appropriate, to high-value, low-cost settings.

**10 ALTERNATIVE PAYMENT METHODS. The Commonwealth should continue to promote the increased adoption of alternative payment methods (APMs) and improvements in APM effectiveness.** Payers and providers have not made sufficient progress to meet the HPC targets as detailed in the system performance dashboard found in **Exhibits 5.1 and 5.2**. While APM coverage is likely to increase in 2018 due to the implementation of the MassHealth ACO program, considerable opportunities remain in the commercial market for payers and providers to increase APM adoption for self-insured and PPO populations. Payers should also align and improve features of APMs in order increase their effectiveness. Specific areas of focus should include:

- a. **NEW Quality measurement:** Payers should implement the consensus quality measure set in global budget APMs as developed by the Executive Office of Health and Human Services' Quality Alignment Taskforce. The consensus measure set represents a vision for multi-payer alignment of quality measurement for ACOs that seeks to promote measurement of outcomes and reduce administrative burden for payers and providers.
- b. **HPC ACO Certification:** Payers and purchasers should require that provider organizations participating in APM contracts obtain the HPC's ACO Certification to ensure common care delivery competencies across provider networks.
- c. **Bundled payments:** As a complement to global payment and a core strategy to reduce unnecessary post-acute care utilization, payers and providers should expand implementation of bundled payments for common and costly episodes of care such as joint replacement, cardiac care, cancer treatment, and maternity.
- d. **Disparities in budget levels:** As part of a strategy to reduce spending, payers should develop plans to lessen the unwarranted disparities in global budgets paid to different providers such as by establishing stricter targets for spending growth for highly paid providers and by moving away from historical spending as the basis of global budgets.

## CONCLUSION

In the coming year, the HPC will pursue the activities noted above and work collaboratively with the Baker-Polito Administration, state Legislature, Massachusetts health care industry, employers, consumers, and other stakeholders to advance the goals of a more affordable, effective, accountable, and transparent health care system in Massachusetts.

**EXHIBIT 5.1** Dashboard of HPC system performance metrics

		MASSACHUSETTS TIME TREND			U.S. COMPARISON	
		Previous	Most Recent	Performance	Most Recent	Comparison
AFFORDABILITY	1 Individuals with high out-of-pocket spending relative to income	11% (2014-2015)	11% (2015-2016)	●	14% (2015-2016)	▲
	2 Family premium contribution for lowest wage quartile of employer	\$5,491 (2015)	\$6,687 (2016)	■	\$5,284 (2016)	■
	3 Percentage of beneficiaries in Original Medicare covered by APMs	39.5% (2015)	36.9% (2016)	■	19.9% (2016)	▲
ALTERNATIVE PAYMENT METHODS	4 Percentage of commercial HMO patients in APMs	58.2% (2015)	58.6% (2016)	●	N/A	N/A
	5 Percentage of commercial PPO patients in APMs	1.1% (2015)	14.7% (2016)	▲	N/A	N/A
	6 Percentage of MassHealth members in APMs (PCC)	23% (2015)	24% (2016)	▲	N/A	N/A
	7 Percentage of MassHealth members in APMs (MCO)	37% (2015)	36% (2016)	■	N/A	N/A
BENCHMARK AND SPENDING	8 Growth of THCE per capita (performance assessed relative to 3.6% benchmark)	4.8% (2015)	2.8% (2016)	▲	3.5% (2016)	▲
	9 Growth in commercial health insurance premiums	1.8% (2015)	2.6% (2016)	●	5.2% (2016)	▲
	10 Employer-based health insurance premiums, single coverage	\$6,519 (2015)	\$6,621 (2016)		\$6,101 (2016)	■
	11 Growth in employer-based health insurance premiums, single coverage	2.7% (2015)	1.6% (2016)	▲	2.3% (2016)	▲
	12 Benchmark premium for second-lowest-cost exchange plan, single coverage	\$3,084 (2015)	\$2,976 (2016)		\$4,332 (2016)	▲
	13 Growth in the benchmark premium for second-lowest-cost exchange plan, single coverage	-1.5% (2015)	-3.5% (2016)	▲	20.7% (2016)	▲
EFFICIENT, HIGH-QUALITY CARE DELIVERY	14 Readmission rate (Medicare)	17.9% (2014)	18.2% (2015)	■	16.8% (2015)	■
	15 Readmission rate (All payer)	15.3% (2014)	15.8% (2015)	■	N/A	N/A
	16 ED utilization (per 1,000 persons)	365 (2015)	368 (2016)	●	N/A	N/A
	17 BH-related ED utilization (per 1,000 persons)	27 (2015)	29 (2016)	■	N/A	N/A
	18 Low-acuity avoidable ED Utilization	40 (2015)	38 (2016)	▲	N/A	N/A
	19 Percentage of inpatient discharges to institutional PAC	19.3% (2015)	18.7% (2016)	▲	MA = 20.4% U.S. = 17.1% (2014)	■
VALUE-BASED MARKETS	20 At-risk adults without a doctor visit	7% (2015)	7% (2016)	●	12% (2016)	▲
	21 Enrollment in tiered or limited network products	18.4% (2015)	19.4% (2016)	▲	N/A	N/A
	22 Percentage of discharges in top 5 networks	59.9% (2015)	60.5% (2016)	●	N/A	N/A
	23 Percentage of community appropriate discharges from community hospitals	57.8% (2015)	57.7% (2016)	●	N/A	N/A

- ▲ Better performance
- Similar performance
- Worse performance

**EXHIBIT 5.2** Dashboard of HPC improvement targets

Metric	Current	HPC Target	Performance
Growth of total health care expenditures per capita	2.8% (2016)	3.6% (2016)	▲
All-payer readmission rate (the rate at which patients who have been discharged are readmitted again within 30 days for all payers)	15.8% (2015)	13.0% (2019)	■
Percentage of commercial HMO patients in Alternative Payment Methods	58.6% (2016)	80.0% (2017)	■
Percentage of commercial PPO patients in Alternative Payment Methods	14.7% (2016)	33.0% (2017)	■
Percentage of inpatient discharges to institutional PAC	20.4% (2014)	17.1% (2020)	▲

▲ Better performance

▲ Projected to meet target

● Similar performance

■ Worse performance

■ Projected to not meet target

**Notes:** THCE = total health care expenditures; ED = emergency department; PAC = post-acute care; HMO = health maintenance organization; PPO = preferred provider organization; APM = alternative payment method. For additional notes, see Technical Appendix.

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**LIST OF TECHNICAL  
APPENDICES &  
ACKNOWLEDGMENTS**

## LIST OF TECHNICAL APPENDICES

.....	<b>A:</b>	Acute Care Hospitals in Massachusetts by Type of Hospital
.....	<b>B1:</b>	Trends in Spending and Care Delivery
.....	<b>B2:</b>	Hospital Outpatient Department Spending
.....	<b>B3:</b>	Provider Organization Performance Variation
.....	<b>B4:</b>	Dashboard
.....	<b>C1:</b>	Hospital Utilization
.....	<b>C2:</b>	Post-Acute Care
.....	<b>C3:</b>	Alternative Payment Methods
.....	<b>C4:</b>	Demand-Side Incentives
.....	<b>D:</b>	Data Sources
.....		

# ACKNOWLEDGMENTS

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