

**2023**

**ANNUAL HEALTH  
CARE COST TRENDS  
REPORT AND POLICY  
RECOMMENDATIONS**



**MASSACHUSETTS**  
HEALTH POLICY COMMISSION

**SEPTEMBER 2023**

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CHAPTER 1:  
**INTRODUCTION**

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## CHAPTER 1: INTRODUCTION

For this tenth annual Cost Trends Report, the Massachusetts Health Policy Commission (HPC) revisits the topic of excess spending from its first report in 2013, expanding the scope and updating research to quantify major categories of excess spending in the current health care market. With this and other analyses in this report, the HPC highlights opportunities to slow spending growth while maintaining, or even improving quality. A complementary set of policy recommendations offers a path for reducing health care cost growth, advancing health equity, and promoting affordability for businesses (particularly small businesses) and households in Massachusetts.

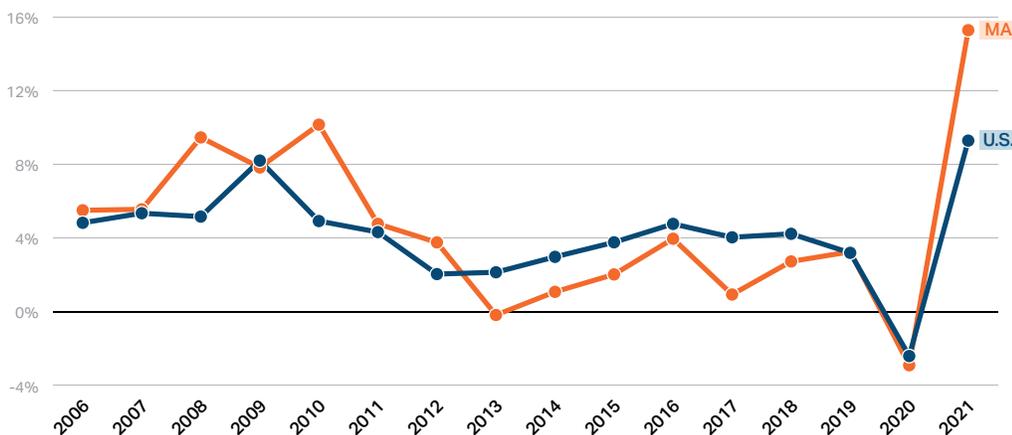
More than a decade ago, policymakers in Massachusetts recognized that meeting the health care challenges of the time required bold action. In response, the Legislature enacted comprehensive health care reform in 2012 (Chapter 224) which introduced a first-in-the-nation, statewide target for sustainable growth in total health care spending (originally 3.6 percent, lowered to 3.1 percent in 2018, and rising again to 3.6 percent in 2023). The law also established the HPC to monitor and guide this ambitious effort (see **Sidebar: What is the Massachusetts Health Policy Commission?**)

Following passage of the law, health care spending growth in Massachusetts was below the comparable U.S. rate for most years, leading to billions of dollars in avoided spending for Massachusetts residents. By the end of the decade, however, spending growth had accelerated, surpassing the benchmark from 2017 to 2019. Now,

the Commonwealth has emerged from the COVID-19 pandemic with commercial spending far above the benchmark and exceeding the national average for the first time since the passage of Chapter 224 (**Exhibit 1.1**). Growth in commercial spending also exceeds the growth in residents' incomes, threatening a key aim of Chapter 224 – to maintain health care spending in line with the ability of businesses and families to pay for it. These factors not only warrant a return to the topic of excess spending, but also underscore the need for Massachusetts, a leader in health reform, to take bold new action to address unsustainable spending growth.

Massachusetts ranks highly among states on measures of health care quality. The Commonwealth Fund Scorecard ranked Massachusetts as the top state in the nation in a number of metrics including healthy lives and prevention and treatment. However, it ranked Massachusetts 44th (i.e. 7th worst) on the measure of “avoidable use and cost”<sup>1</sup> — a particularly striking finding in the context of Massachusetts having the third-highest health care spending among states in the U.S. as of 2020, at 31 percent above the U.S. average. Policymakers should not settle for a false choice between a high-quality health care system and an affordable one. In this report, the HPC has outlined several areas for action on excess spending related to prices, potentially unwarranted utilization, and care that confers little to no benefit to patients – all of which have the potential to reduce excess spending while maintaining the quality that residents deserve.

**Exhibit 1.1.** Annual growth in per capita commercial health care spending, Massachusetts and the U.S.



**Notes:** Massachusetts data includes full-claims members only. Commercial spending is net of prescription drug rebates and excludes net cost of private health insurance.

**Sources:** Centers for Medicare and Medicaid Services, National Healthcare Expenditure Accounts Personal Health Care Expenditures, 2014-2021 and State Healthcare Expenditure Accounts 2005-2014; Center for Health Information and Analysis, Total Health Care Expenditures, 2014-2021

The end of the COVID-19 public health emergency may have marked the official “end” to the pandemic, but it did not put an end to the challenges facing the health care sector, many of which preceded the pandemic. Health care providers at every point on the continuum continue to confront serious workforce issues that require sustainable solutions. Some hospitals are managing unstable balance sheets that, in part, reflect the extreme variation in commercial prices among providers for the same services. Many employers and households are facing significant budget stress resulting from increasingly unaffordable healthcare costs (both premiums and cost sharing). Critical investments are needed in primary care and behavioral health, and the commitment to address health equity and the social determinants of health requires a comprehensive effort that includes but reaches beyond the health care sector. All of these challenges demand bold action to redirect resources away from unwarranted excess spending and towards efforts to rebuild the health care system in a manner consistent with the Commonwealth’s values and goals.

## HOW THE REPORT IS ORGANIZED

The report includes material presented in a narrative report and a graphic chartpack. Select material is also available in an interactive Tableau format on the HPC’s website. This report is informed by sources including the data and research of the Center for Health Information and Analysis (CHIA), as well as by presentations and testimony submitted during the HPC’s 2022 Annual Health Care Cost Trends Hearing. **Chapter 2** of the report compares health care cost growth in 2021 to the state’s health care cost growth benchmark, discusses trends and levels of health care spending in Massachusetts and the nation overall, and examines trends in health care affordability with a focus on health insurance trends for employees of small businesses. **Chapter 3** estimates excess spending due to excessive prices, as measured against various price benchmarks. **Chapter 4** estimates excess spending due to potentially excessive utilization, through site of care and potential overprovision of services, and highlights areas of inefficiency in administrative spending. **Chapter 5** presents the HPC’s policy recommendations as well as a dashboard summarizing performance on key measures of spending, quality, and health equity. The chartpack presents updated results and trends previously reported by the HPC, as well as a new chartpack exploring trends in spending on primary care and behavioral health care. Other topics presented in the chartpack include trends in price growth across a range of services, as well as areas for improvement in care delivery, such as decreasing avoidable hospital inpatient and emergency department visits and maximizing value in post-acute care. The chartpack also explores variation in practice patterns by provider organization, including use of low value care services.

## SIDEBAR: WHAT IS THE ROLE OF THE MASSACHUSETTS HEALTH POLICY COMMISSION?

The Massachusetts Health Policy Commission (HPC), established in 2012, is an independent state agency charged with monitoring health care spending growth in Massachusetts and providing data-driven policy recommendations regarding health care delivery and payment system reform. The HPC’s mission is to advance a more transparent, accountable, and innovative health care system through independent policy leadership and innovative investment programs. The HPC’s goal is better health and better care – at a lower cost – for all people across the Commonwealth. HPC staff and its Board of 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; investing in community health care delivery and innovations; and safeguarding the rights of health insurance consumers and patients regarding coverage and care decisions by health plans and certain provider organizations.

## REFERENCES

- 1 Radley DC et al. 2023 Scorecard on State Health System Performance. The Commonwealth Fund. June, 2023. Available at: <https://www.commonwealthfund.org/publications/scorecards>

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

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## 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>1</sup> establishes a benchmark for sustainable growth in health care spending, recognizing that containing spending growth is critical to easing the burden of health care spending on government, households, and businesses. Chapter 224 directs the Massachusetts Health Policy Commission (HPC) and the Center for Health Information and Analysis (CHIA) to monitor health care spending growth annually relative to the benchmark, which is indexed to the rate of the Commonwealth's long-term economic growth.

From 2013 to 2017, the benchmark for annual health care spending growth was set by law at 3.6 percent. From 2018 to 2022, the default benchmark was set at potential gross state product minus 0.5 percent, or 3.1 percent, but the HPC had the authority to increase it to as high as 3.6 percent. On June 10, 2020, the HPC's board voted to maintain the benchmark at 3.1 percent for the 2021 calendar year – the period of focus for much of the data presented in this chapter (the board has subsequently voted to raise the benchmark to 3.6 percent for each of calendar years 2023 and 2024). This chapter describes broad trends in health care spending, value, and performance in the Commonwealth in 2021 (see **Sidebar: Factors underlying health care spending**). Consistent with reporting by CHIA, in many cases the HPC presents

average annual changes across the 2019 to 2021 period to smooth out the large swings in both 2020 and 2021 from disruptions in care due to the COVID-19 pandemic.

### SPENDING GROWTH FROM 2020-2021

The Commonwealth examines health care spending growth against the benchmark by calculating the change in Total Health Care Expenditures (THCE) per state resident. CHIA calculates THCE using data from the state and federal governments as well as data reported by health insurers. THCE includes health care spending by individuals (e.g., co-payments, co-insurance, and insurance deductibles), health insurers (e.g., administrative expenses, incentive payments), the state (e.g., MassHealth), and the federal government (e.g., MassHealth and Medicare). CHIA reported that total spending in Massachusetts increased from \$62.7 billion in 2020 to \$67.9 billion in 2021, representing a rebound in spending after a decline in 2020.<sup>2</sup> Per capita THCE in Massachusetts was \$9,715 in 2021, a 9.0 percent increase from 2020, far above the benchmark.<sup>ii</sup> From 2019 to 2021, THCE per capita increased at an average annual rate of 3.2 percent, slightly above the 3.1 percent benchmark set by the HPC (**Exhibit 2.1**). In the nine years since the passage of Chapter 224 for which THCE growth has been evaluated (2012-2021), average annual spending growth has been 3.5 percent.<sup>iii</sup>

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



Sources: Center for Health Information and Analysis, Annual Reports 2013-2023

- i The spending totals reported by CHIA do not include pandemic-related supplemental funding from the federal government such as via the CARES Act, the Paycheck Protection Program, or the American Rescue Plan Act.
- ii The increase in THCE from 2020 to 2021 was reported as \$5.2 billion, or 8.3%. The 9.0% reported increase in THCE per capita represents the combination of this 8.3% increase in spending and a 0.7% decrease in Massachusetts' resident population from 2020 to 2021 as reported by the U.S. Census Bureau.
- iii This figure incorporates CHIA's revision of per capita THCE growth from 2019 to 2020 from an initially reported -2.4% to -2.3%.

Importantly, growth in commercial spending in 2021 was the result of a rebound in the use of care after the first year of the COVID-19 pandemic, as well as continued increases in the amount paid for given services (prices). The HPC found an acceleration in prices in 2021 in all broad categories of care (see **Price Trends Chartpack**).

### SPENDING GROWTH BY PAYER TYPE

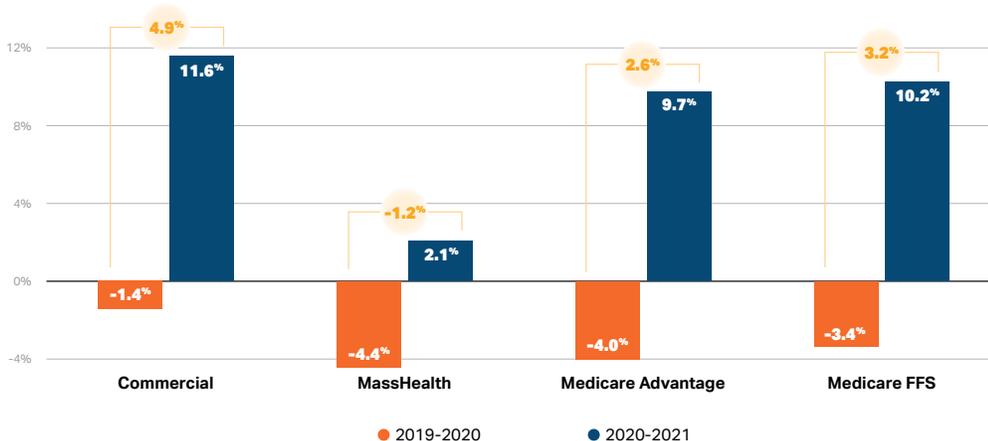
Spending growth per member increased for all major payer types in 2021, although the magnitude differed by payer type (see **Exhibit 2.2**). In the commercial sector, spending per enrollee increased 11.6 percent in 2021 after declining 1.4 percent in 2020, resulting in an average annual rate of 4.9 percent from 2019 to 2021, the largest increase among the major payer types. For MassHealth enrollees with full coverage through the Primary Care Clinician (PCC) program, managed care organizations (MCO),<sup>iv</sup> or the Accountable Care Organization (ACO) program, spending per enrollee increased 2.1 percent in 2021, resulting in an average annual decline in spending of 1.2 percent from 2019 to 2021. In the Medicare program, spending per enrollee increased 10.2 percent in 2021 and an average 3.2 percent per year from 2019 to 2021 for beneficiaries enrolled in Original (fee-for-service) Medicare. For enrollees in the privately administered Medicare Advantage program, spending per enrollee increased 9.7 percent in 2021 for an average annual increase of 2.6 percent from 2019 to 2021.

### SIDEBAR: FACTORS UNDERLYING HEALTH CARE SPENDING

Total health care spending is a function of the price of health care services as well as the utilization of those services. Utilization, in turn, is affected by both the number of people receiving health care services and the frequency, type, care setting, and intensity of the services provided. The HPC's Cost Trends Report examines the latest available data regarding changes in both price and utilization in Massachusetts, as well as factors that may explain and contextualize recent trends in health care spending. This report largely focuses on aspects of the health care system that can be influenced by policymakers and market participants in the state rather than population health factors such as aging of the population that are beyond the scope of this report.

While all payer types had increases in spending growth per member, spending was also impacted by significant shifts in enrollment from 2019-2021 primarily due to the national COVID-19 emergency provision that paused Medicaid eligibility redeterminations across the country.<sup>v</sup> In the commercial sector, enrollment declined 3.4 percent in 2021, a larger decline than in the previous year for a total decline of 5.4 percent from 2019 to 2021.<sup>vi</sup> For full-coverage MassHealth

**Exhibit 2.2** Annual change (2019-2020 and 2020-2021) and average annual change (2019-2021) in spending per enrollee by major payer type



**Notes:** Commercial spending includes the net cost of private health insurance (NCPHI), both full and partial claims, and is net of prescription drug rebates. MassHealth includes only full coverage enrollees in the Primary Care Clinician (PCC), Accountable Care Organization (ACO-A, ACO-B), and Managed Care Organization (MCO) programs. Figures are not adjusted for changes in health status.

**Sources:** Center for Health Information and Analysis Annual Report, March 2023

iv This excludes, for example, disabled enrollees or other enrollees receiving coverage on a fee-for-service basis and enrollees who are dually eligible for Medicare coverage and MassHealth benefits.  
v The Families First Coronavirus Response Act (FFCRA) required state Medicaid agencies to continue coverage for all members enrolled on or after March 18, 2020, irrespective of changes in their circumstances or regularly scheduled eligibility reassessments. The continuous coverage requirement for Medicare programs ended on March 31, 2023, per the Consolidated Appropriations Act of 2023.  
vi Enrollment calculations were based on the Center for Health Information and Analysis Annual Report, March 2023.

programs, enrollment increased 13.6 percent in 2021 and a total of 20.1 percent from 2019 to 2021. Consistent with national trends, enrollment in Medicare Advantage continued to increase in 2021 by 10.5 percent from the previous year, while enrollment in Original Medicare declined 1.7 percent (in 2021, 23.3 percent of the Medicare population in Massachusetts was enrolled in Medicare Advantage).<sup>vii</sup> Between 2019 and 2021, enrollment in Medicare Advantage increased 20.2 percent and enrollment in Original Medicare decreased 2.4 percent.

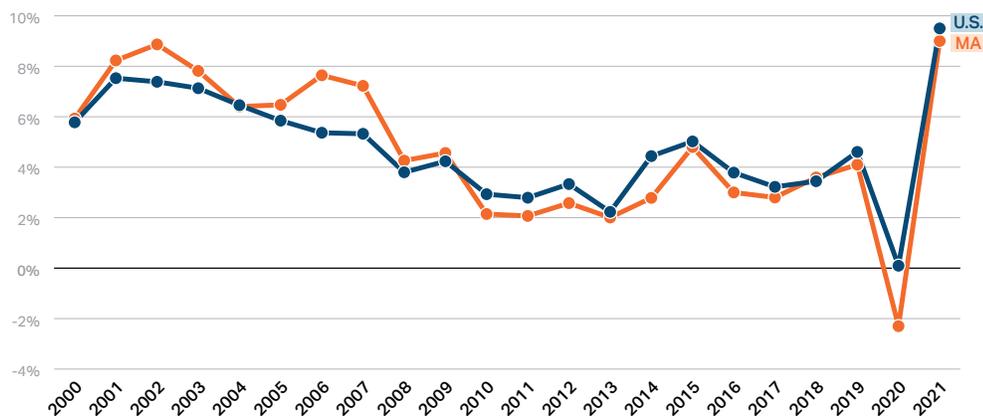
One reason for MassHealth's relatively lower spending per enrollee is that enrollment increased particularly among children and adults without disabilities, both of whom generally incur less spending than other MassHealth members.<sup>viii,3</sup> This same trend resulted in a slight increase in average commercial spending per enrollee.<sup>ix</sup> For the Massachusetts commercial market, analysis of enrollment from 2019 to 2021 showed more rapid declines in enrollment of children (5.6 percent annually) and younger adults (8.0 percent

annually) compared to all other adults (4.3 percent annually).<sup>x</sup> These shifts in enrollment explain roughly 0.7 percentage points of the increase in commercial spending per member from 2019 to 2021. Members who live in low-income communities, who generally spend less on health care,<sup>4,5</sup> were also more likely to shift from commercial coverage to MassHealth coverage (5.7 percent annually) than members in high income communities (4.9 percent annually) from 2019 to 2021.

## COMPARISON TO NATIONAL TRENDS

Driven primarily by health care utilization increases after the first year of the COVID-19 pandemic, per capita health care spending also increased nationally in 2021 with a larger increase (9.5 percent) than in Massachusetts (9.0 percent).<sup>xi</sup> Spending growth in Massachusetts has generally been lower than the U.S. average since 2010 with similar overall patterns of year-to-year variation as the U.S. (**Exhibit 2.3**).

**Exhibit 2.3.** Annual growth in total health care spending per capita in Massachusetts and the U.S.



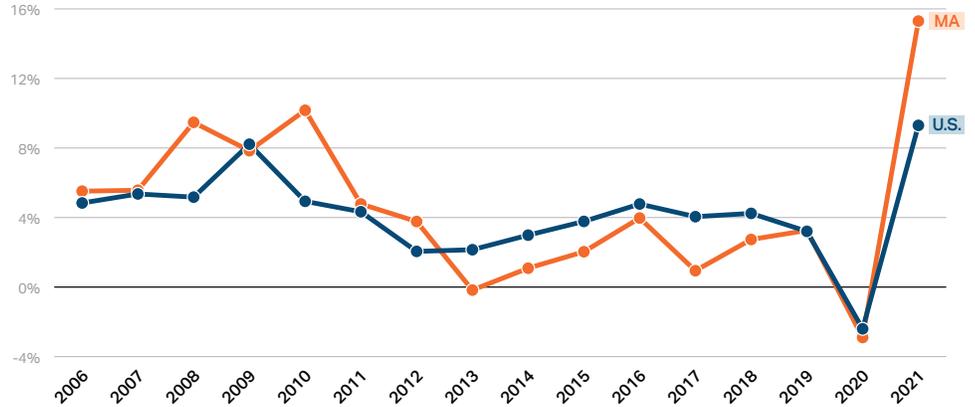
**Notes:** U.S. data includes Massachusetts. U.S. data excludes federal COVID-19 relief funding.

**Sources:** Centers for Medicare and Medicaid Services, National Healthcare Expenditure Accounts Personal Health Care Expenditures Data, 2014-2021 and State Healthcare Expenditure Accounts, 1999-2014; Center for Health Information and Analysis, Total Health Care Expenditures, 2014-2021

- vii This estimate is based on data reported by commercial payers to CHIA for total health care expenditures but may be an undercount of true enrollment in Medicare Advantage in Massachusetts. According to the Centers for Medicare and Medicaid Services (CMS), approximately 29.2 percent of the Medicare population in Massachusetts was enrolled in Medicare Advantage in 2021.
- viii CHIA reported that a portion of the increase in primary MassHealth coverage was due to the sunset of the MassHealth Student Health Plan Premium Assistance (SHIP PA) program. Under this program, BCBSMA's student health plan was the member's primary payer, while MassHealth provided secondary coverage. When SHIP PA ended, members shifted from BCBSMA plans, and MassHealth became the member's primary payer.
- ix That is, many of the children and adults without disabilities who enrolled in MassHealth over this time were previously enrolled in commercial coverage.
- x Commercial enrollment calculations were based on the CHIA All-Payer Claims database, 2019-2021. Children include members ages 0 to 17; younger adults include members ages 18 to 29; other adults include members ages 30 and older. Data for six large payers were included in the analysis and excludes members who did not have full coverage for the entire year. These claims include most GIC members but otherwise are more heavily representative of members with fully insured products and overall represent approximately 37% of the commercial market in Massachusetts.
- xi The 2021 national spending figure was calculated using CMS U.S. personal health expenditures minus federal COVID-19 spending, which includes Paycheck Protection Program (PPP) loans, Provider Relief Fund (including American Rescue Plan Act Rural Payments), and additional COVID-related Health Resources and Services Administration (HRSA) programs. Accounting for these federal COVID-19 relief funding, national per capita health care spending grew by 5.5% from 2020 to 2021.

In contrast to the overall average, per member spending in the commercial sector increased more in Massachusetts from 2020 to 2021 than in the U.S. overall (an increase of 15.3 percent in Massachusetts<sup>xii</sup> compared to an increase of 9.3 percent nationally) (**Exhibit 2.4**).<sup>xiii</sup> This finding contrasts with trends from 2013 to 2019, in which commercial spending in Massachusetts grew more slowly than the U.S. From 2019 to 2021, commercial spending in Massachusetts grew at an average annual rate of 5.8 percent, faster than spending in the rest of the U.S. (which grew at an average annual rate of 3.3 percent), and faster than in any single year in Massachusetts since 2010. This growth was primarily driven by increases in the prices paid for the same care, rather than the amount of care provided, from 2019 to 2021 (see **Price Chartpack**).

**Exhibit 2.4.** Annual growth in per capita commercial health care spending, Massachusetts and the U.S.



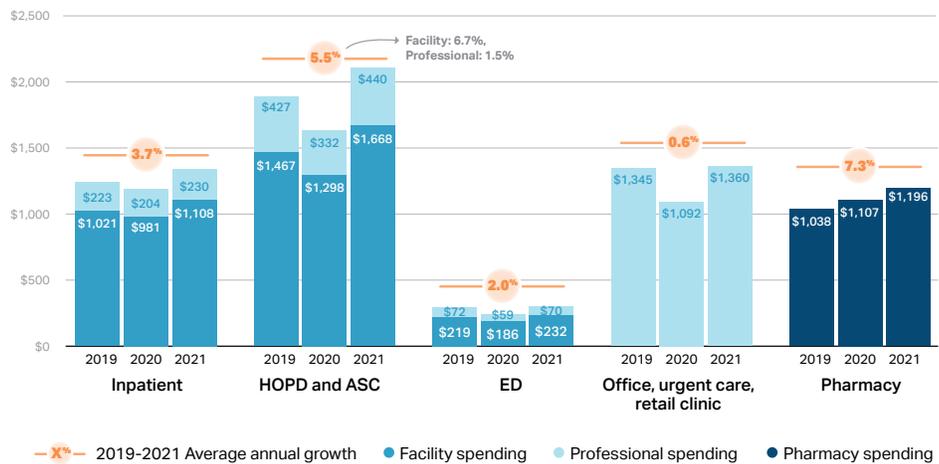
**Notes:** Massachusetts data includes full-claims members only. Commercial spending is net of prescription drug rebates and excludes net cost of private health insurance.

**Sources:** Centers for Medicare and Medicaid Services, National Healthcare Expenditure Accounts Personal Health Care Expenditures, 2014-2021 and State Healthcare Expenditure Accounts 2005-2014; Center for Health Information and Analysis, Total Health Care Expenditures, 2014-2021

## SPENDING GROWTH BY CATEGORY OF SERVICE

Analysis of spending from 2019 to 2021 by site of care for the Massachusetts commercial market shows that among categories of medical spending, the greatest increase was in hospital outpatient department (HOPD) spending, for which per enrollee spending grew an average 5.5 percent per year (**Exhibit 2.5**). Payment for care provided in settings with the capability to perform complex procedures – including inpatient, HOPD, ambulatory surgery center (ASC), and emergency department (ED) – typically has two components for a given service: a professional component and a facility component. Notably, spending

**Exhibit 2.5.** Commercial spending per member per year by category, 2019-2021



**Notes:** Medical spending reflects data from six payers: BCBSMA, HPHC, Tufts, MGB Health Plan, Anthem, and HNE. Pharmacy spending is net of rebates and reflects data from five payers: BCBSMA, HPHC, Tufts, MGB Health Plan, and HNE.

**Sources:** HPC analysis of Center for Health Information and Analysis Massachusetts All-Payer Claims Database, 2019-2021, V2021

xii Differences in commercial spending growth in Exhibit 2.2 (11.6 percent) and Exhibit 2.4 (15.3 percent) are due to the inclusion of the net cost of private health insurance (NCPHI) and partial claims in Exhibit 2.2, which are excluded in Exhibit 2.4.

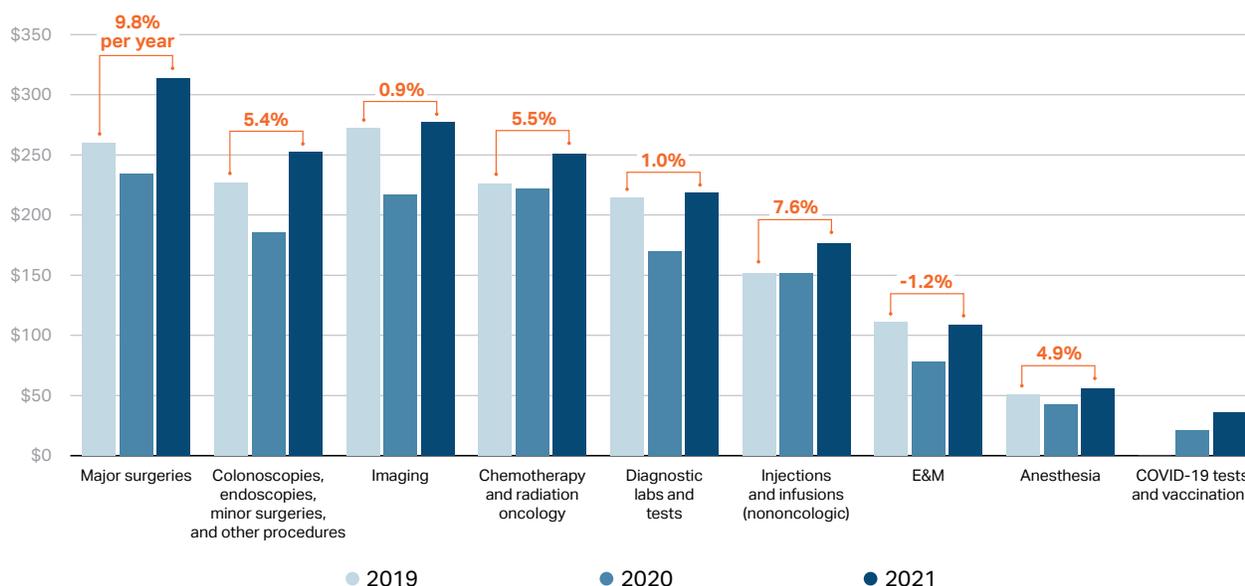
xiii The measure of commercial spending in Exhibit 2.4 includes only members for whom “full-claims” data are submitted to CHIA, thus excluding the roughly one-third of the commercial market with carve-outs (“partial-claim”). A “carve-out” means that an insurer has contracted with a third party to manage and accept risk for certain services, such as prescription drugs or behavioral health care. Additionally, commercial spending is net of prescription drug rebates and excludes net cost of private health insurance.

on the facility component, which accounts for about 80 percent of all HOPD spending, grew faster (6.7 annually from 2019 to 2021) than the professional component (1.5 percent). Hospital inpatient spending per enrollee increased an average 3.7 percent per year from 2019 to 2021 despite a reduction in the number of hospital discharges (see **Hospital Chartpack**). The smallest increases in spending were in emergency departments (ED) and office-type settings (such as physician’s offices and urgent care centers) where per enrollee spending increased on average 2.0 percent and 0.6 percent per year, respectively. Finally, accounting for rebates,<sup>xiv</sup> pharmacy spending increased faster than all medical spending categories from 2019–2021 and faster than in prior years, growing at an average annual rate of 7.3 percent.

The increase in HOPD spending varied by type of service. Major surgeries had the largest growth in per member per year (PMPY)

spending since 2019 (from \$260 to \$314 PMPY), with an average annual growth of 9.8 percent (see **Exhibit 2.6**), reflecting increases in both price and utilization (e.g., some hip and knee replacement surgeries shifted from inpatient settings to outpatient settings). Non-oncologic injections and infusions as well as chemotherapy and radiation oncology (two categories that notably did not experience a significant drop in spending in 2020) had average annual increases of 7.6 percent and 5.5 percent from 2019 to 2021, respectively. In contrast, spending for evaluation and management (E&M) services decreased by an average 1.2 percent per year between 2019 and 2021. COVID-19 tests and vaccinations, though representing a small portion of HOPD spending, grew steadily after the first year of the COVID-19 pandemic and accounted for \$36 PMPY or 2.1 percent of PMPY HOPD spending in 2021. See **Sidebar: Spending on COVID-19 Tests and Vaccinations** for an analysis of these services across all settings of care.

**Exhibit 2.6.** Commercial spending per member per year for HOPD services by type of service, 2019–2021



**Notes:** Includes spending from Massachusetts acute hospitals only. Service categories adapted from Restructured BETOS Classification System 2022 and Agency for Health Care Research and Quality Surgery Flags Software. Categories are mutually exclusive, e.g., diagnostic labs and tests category does not include COVID-19 tests. Categories with small spending amounts are omitted (e.g., DME and physical therapy).

**Sources:** HPC analysis of Center for Health Information and Analysis Massachusetts All-Payer Claims Database, 2019–2021, V2021

xiv Health plans often negotiate discounts on prescription drugs either directly with manufacturers, or indirectly via pharmacy benefit managers. These discounts, or “rebates” are paid to the health plan after a drug has been dispensed at a pharmacy and thus effectively reduce the price of the drug paid by the payer. However, patient cost sharing related to deductibles or coinsurance is frequently based on the list price of the drug, rather than the net price of a drug after rebates. Some charts in this section report “net” spending, which include an estimate of rebate amounts while some do not; rebate information is often unavailable to the public.

## SIDEBAR: SPENDING ON COVID-19 TESTS AND VACCINATIONS

COVID-19 tests and vaccinations represent new areas of spending that did not exist before 2020. To understand their impact on total spending, the HPC identified COVID-19 tests and vaccinations using the Massachusetts All-Payer Claims Database. In 2020, spending on COVID-19 tests (and a very limited number of vaccinations) was \$54 per member per year and represented 0.9 percent of total commercial spending. In 2021, spending in these areas increased to \$166 per member per year in 2021, representing approximately 2.4 percent of total commercial spending.

The growth in spending seen for these services followed the nationwide vaccine roll out (which was required to be provided to patients with no cost sharing) along with increased COVID-19 testing. In 2021, 51 percent of commercial members had at least

one COVID-19 test claim, compared to 35 percent in 2020. The number of tests for those who had any test claims also grew from an average of 2.0 tests in 2020 to 3.4 tests in 2021. In 2021, 62 percent of all commercial members had at least one COVID-19 vaccine claim with the highest uptake (74 percent) among those 50-64 years old (**Exhibit 2.7**)

The end of state and federal public health emergencies has led to changes in payer policies for COVID-19 tests and vaccines. For example, COVID-19 tests ordered and administered by providers will still be covered by insurance but may no longer be free for patients. The HPC will continue to monitor the impact of these policy changes on uptake, spending, and patient cost sharing.

**Exhibit 2.7.** Uptake of COVID-19 tests and vaccines among Massachusetts commercial members

Age category	COVID-19 Tests				COVID-19 Vaccines
	% with any test claims in 2020	Mean # of tests for those with test claims in 2020	% with any test claims in 2021	Mean # of tests for those with test claims in 2021	% with any vaccine claims in 2021
<12	25%	1.6	64%	3.4	
12-15	25%	1.7	57%	3.3	58%*
16-29	39%	2.2	54%	3.6	61%
30-49	36%	2.1	48%	3.4	66%
50-64	36%	2.1	46%	3.2	74%
All	35%	2.0	51%	3.4	62%

**Notes:** Analysis does not include at-home over-the-counter COVID-19 tests that were not reimbursed by insurance. COVID-19 vaccines were authorized for individuals aged 16 years and older on December 11, 2020. The authorization was not expanded to children aged 12-15 until May 10th, 2021, which may partly explain the lower vaccine rates among this age group. Vaccine results for those under 12 not shown because those 5-12 became eligible only in late 2021 and those under 5 were not eligible until 2022.

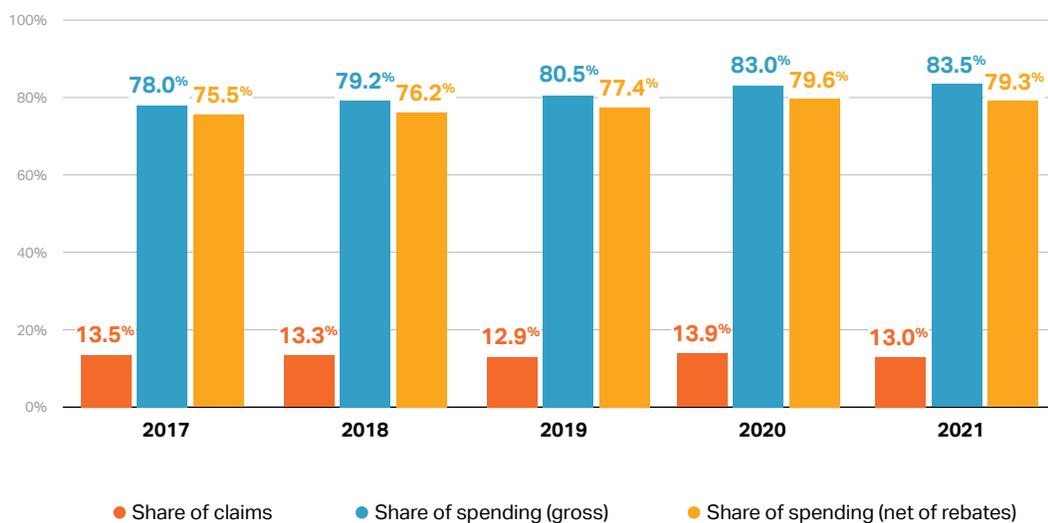
**Sources:** HPC analysis of Center for Health Information and Analysis Massachusetts All-Payer Claims Database, 2020-2021, V2021

Pharmacy spending was one of the only areas that did not experience a decline in spending in 2020, and spending continued to grow in 2021. As in prior years, the increase in spending was driven by branded drugs, which comprise less than 15 percent of total commercial pharmacy volume, but the vast majority of spending. Even after accounting for rebates, which have grown over time, the share of prescription drug spending represented by branded

drugs has increased from 75.5 percent to 79.3 percent from 2017 to 2021 (**Exhibit 2.8**).

Growth in branded drugs' share of prescription drug spending in this period is driven by price increases on existing drugs and high launch prices for new drugs. These factors have led to growth in the average spending per branded prescription of 54.8 percent from 2017 to 2021, from \$684 to \$1,060 (see **Exhibit 2.9**).

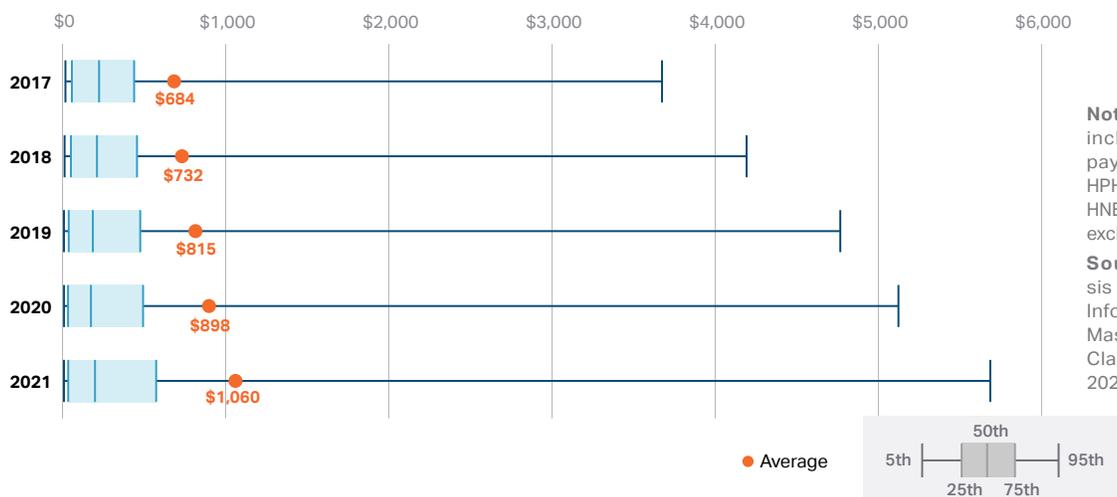
**Exhibit 2.8** Branded drug share of claims vs. share of net and gross spending, 2017-2021



**Notes:** Pharmacy claims include data from five payers: BCBSMA, Tufts, HPHC, MGB Health Plan, and HNE. COVID-19 vaccines are excluded. Rebates (applied to gross spending figure) were obtained from Center for Health Information and Analysis Annual Reports.

**Sources:** HPC analysis of Center for Health Information and Analysis Massachusetts All-Payer Claims Database, 2017-2021, V2021

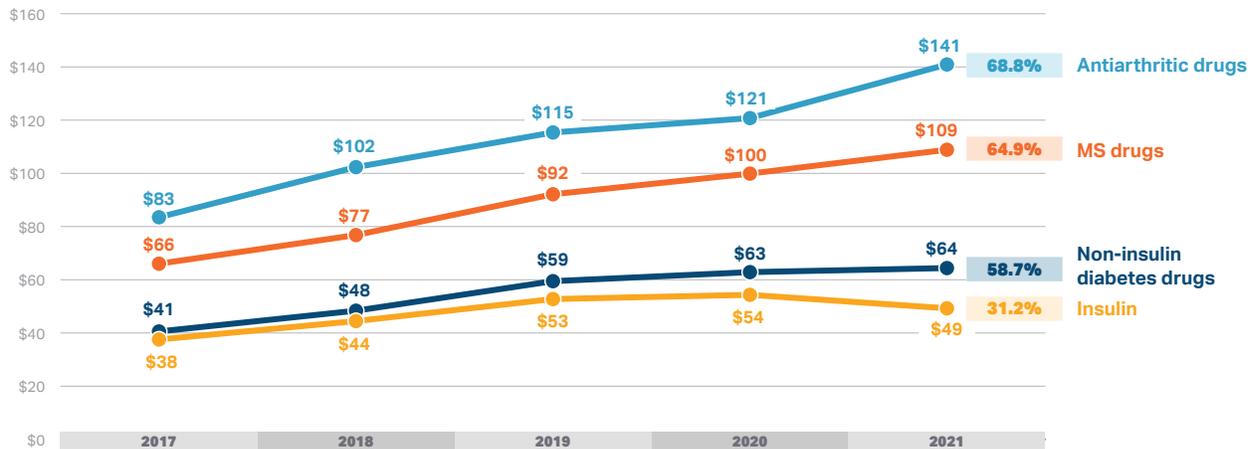
**Exhibit 2.9.** Gross spending distribution per branded prescription, 2017-2021



**Notes:** Pharmacy claims include data from five payers: BCBSMA, Tufts, HPHC, MGB Health Plan, and HNE. COVID-19 vaccines are excluded.

**Sources:** HPC analysis of Center for Health Information and Analysis Massachusetts All-Payer Claims Database, 2017-2021, V 2021

**Exhibit 2.10.** Average cost sharing per prescription (30-day supply) in selected classes of drugs, 2017-2021



**Notes:** Drugs were identified based on lists or clinical guidelines published by the Arthritis Foundation, American College of Rheumatology, American Diabetes Association, and National MS society. The analysis does not include clinician-administered drugs, which are typically covered under a plan’s medical benefit. Pharmacy claims include data from five payers: BCBSMA, Tufts, HPHC, MGB Health Plan, and HNE.

**Sources:** HPC analysis of Center for Health Information and Analysis Massachusetts All-Payer Claims database, 2017-2021, V2021

Patients with chronic health conditions who rely on branded drugs are particularly affected by higher drug prices. The HPC analyzed patient cost-sharing associated with three chronic conditions that rely primarily on branded drugs for treatment. From 2017 to 2021, the average cost sharing per prescription (30-day supply) for each condition grew by 50 percent or more with the exception of insulin drugs (see **Exhibit 2.10**).<sup>xv</sup>

Finally, the broad category of professional spending had relatively slow spending growth overall at an average 3.0 percent from 2019 to 2021, but certain services within this category had notable increases, namely psychotherapy. CHIA reported that total commercial spending for non-physician professional services, which account for roughly one-fourth of professional spending, grew 11.6 percent annually from 2019 to 2021 – faster than all other categories of care.<sup>xvi</sup> The HPC found that 61.0 percent of the growth in the non-physician category was for psychotherapy services.<sup>xvii</sup> Spending per member on psychotherapy increased 21.4 percent from 2020 to 2021 for a total increase of 61.3 percent since 2019, driven by

increased utilization from new and existing patients, not by growth in prices.<sup>xviii</sup> A deeper investigation into changes that occurred among psychotherapy services is presented in the accompanying **Primary Care and Behavioral Health Chartpack**.

## AFFORDABILITY OF CARE

The rapid growth in commercial health care spending from 2019-2021, including health care premiums and cost sharing, added further strain to Massachusetts residents’ ability to afford health care while meeting other essential needs. The 5.8 percent average annual rate of growth of commercial spending between 2019 and 2021 was faster than any year since 2010, and outpaced annual growth in residents’ income over these two years, meaning a growing portion of the full income residents earn is being absorbed by the health care sector.<sup>2</sup> The HPC found that a typical middle-class Massachusetts family devoted 21.7 percent of its total income to health care over the 2020-2022 period, above the national average of 19.8 percent.<sup>6</sup>

xv There was increased policy focus on cost-sharing for insulin drugs over this period, which may be partly responsible for the decrease in 2021.

xvi CHIA defines spending from non-physician professional services as all payments generated from claims to health care providers for services provided by a licensed practitioner other than a physician, excluding if the service was delivered via telehealth. CHIA reported that telehealth spending represented 20.3% of total payments to non-physician professionals for all insurance categories in 2021. Additionally, CHIA reported that spending on non-physician professional services delivered via telehealth increased in 2021, driven by increases in behavioral health telehealth visits.

xvii Spending calculations are based on the CHIA All-Payer Claims database, 2019-2021, V2021. Psychotherapy claims identified using CPT codes 90832, 90833, 90834, 90836, 90837, and 90838. Data includes services delivered via telehealth.

xviii From 2019 to 2021, prices grew moderately among psychotherapy services, but not enough to explain the large increases in spending for these services. Prices for individual psychotherapy services increased on average 4.0 percent between 2019 and 2021.

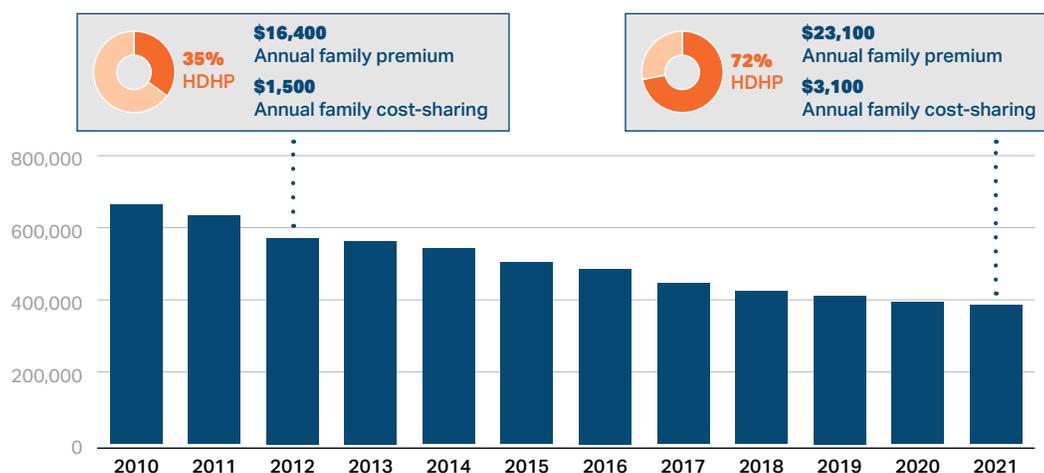
This high share of spending includes high health insurance premiums (which, including employer and employee portions, reached \$22,163 in 2021) and out of pocket spending on copayments and spending under the deductible. Taken together, annual health care spending for a family of four in Massachusetts neared an average of \$25,000.<sup>xix</sup> In 2021, 42.7 percent of Massachusetts residents with commercial insurance had high deductible plans (i.e., deductibles greater than \$1,400 for a single plan and \$2,800 for a family), up from 15.5 percent in 2013.<sup>7</sup> This dramatic increase reflects intentional efforts by both employers, employees, and health plans to offset the impact of increasing premiums (largely resulting from rising health care prices) by shifting costs to employees.<sup>xx</sup>

### SMALL GROUP HEALTH INSURANCE

Small businesses and their employees experience affordability challenges more acutely than other employers, given lower average wages and less ability to navigate health plan options on behalf of their employees. Enrollment in all small

group plans declined dramatically in Massachusetts. From 2010 – 2021, enrollment in small group health insurance among employees in businesses with between 1 and 50 employees declined 42.0 percent, from more than 663,000 to about 385,000 enrollees (see **Exhibit 2.11**). This decline is largely the result of an increase in the number of employees of small businesses who choose not to take the insurance option offered.<sup>xxi</sup> From 2012 to 2019, premium growth (27.2 percent) outpaced wage growth (17.1 percent) for employees of small businesses.<sup>xxii</sup> As small businesses sought to limit the impact of premium increases, they often turned to high deductible plans which grew from 34.5 percent of all small group enrollment in 2012 to 72.0 percent in 2021. This shift contributed to doubling out of pocket spending for families insured via small employers (from \$1,500 to more than \$3,000 per year).

**Exhibit 2.11.** Total small group enrollment and other market characteristics, Massachusetts, 2010-2021



**Notes:** Enrollment reflects membership in the small group market through commercial carriers and health maintenance organizations combined. Cost sharing and premium amounts are from Center for Health Information and Analysis databooks covering this time period and are converted to family premiums using ratios derived from the Medical Expenditure Panel Survey.

**Sources:** Massachusetts Division of Insurance, Small Employer & Individual Membership Highlights, 2010-2021. <https://www.mass.gov/service-details/individualsmall-group-membership>. Premium data from Medical Expenditure Panel Survey (MEPS) Insurance Component, 2012-2019. Wages from Census Bureau, County Business Patterns, 2012-2019. Center for Health Information and Analysis Annual Reports, 2015-2023.

- xix Individuals also pay out of pocket for health care for over-the-counter medications and for providers not in their insurance networks, such as cash-pay psychotherapy, orthodontia, or other specialty providers. This spending is not included in the \$25,000. See technical appendix for the methods and sources for this calculation.
- xx Small group and merged market annual premium increases, before benefit changes, averaged in the 6-8% range from 2020 to 2022. See <https://www.mass.gov/doc/national-context-and-affordability-implications-of-massachusetts-trends-dr-david-auerbach/download>.
- xxi The decline in enrollment is likely not due to changes in small employers offering insurance. CHIA's 2021 Massachusetts Employer survey found that percentage of small firms that offered coverage to their employees increased slightly from 70.0% in 2018 to 72.5% in 2021. Data available at: <https://www.chiamass.gov/massachusetts-employer-survey/>
- xxii Premium growth and wage growth were similar for large firms.

Partly because of greater affordability challenges, as compared to their peers in larger firms, employees of small businesses have generally been less likely to have commercial coverage, more likely to be enrolled in Medicaid, and more likely to be uninsured (see **Exhibit 2.12**). In 2013 and 2014, 78.5 percent of small business employees had private insurance versus 91.6 percent of large business employees. Small business employees were also much more likely to be enrolled in Medicaid (11.3 percent versus 5.6 percent)

and to be uninsured (8.1 percent versus 1.6 percent). From 2013 – 2022, as premiums consumed a growing portion of take-home pay among small-business employees, this gulf widened. The share of small business employees with private insurance dropped about nine percentage points over this time, from 78.5 percent to 63.7 percent, while the share of those receiving insurance through Medicaid increased 10 percentage points, from 11.3 percent to 21.3 percent.<sup>xxiii</sup> Six percent were enrolled in the Massachusetts

**Exhibit 2.12.** Type of coverage among employees of small businesses (fewer than 100 employees) and large businesses (at least 100 employees), 2013–2022



**Notes:** Seniors and the unemployed were excluded from the analysis. Other insurance includes Military/VA, Indian Health service, and all other types of insurance. Years are grouped to increase sample size. Marketplace coverage was not distinguished from other private coverage in the survey until 2019.

**Sources:** HPC analysis of CPS Annual Social and Economic Supplement (ASEC) from the Integrated Public Use Microdata Series (IPUMS), 2022

xxiii This analysis relies on data that defines small firms as having fewer than 100 employees. The analysis for Exhibit 2.11 defines small firms as 1 – 50 employees.

Health Connector.<sup>xxiv</sup> Small employers in Massachusetts have access to commercial plans through the Massachusetts Health Connector, which provides access to among the lowest premiums across all Marketplace plans in the U.S. While these plans with lower premiums are not exclusive to the Health Connector for Business platform, employers utilizing Health Connector for Business are more likely to actively comparison shop and select lower cost plans than small groups that shop through other channels. The low uptake of Health Connector plans among small businesses may reflect lack of awareness among small businesses, the incentive structure of the insurance brokers on which many small businesses rely, or other factors. Greater enrollment of small employers through the Health Connector for Business remains an opportunity for improvement.

The erosion of commercial coverage in the small group market is a signal that private health care has become increasingly unaffordable.<sup>xxv</sup> Deductibles are rising, leading families to face medical debt, to forego care, and to potentially suffer worse health outcomes as a result.<sup>5</sup> In turn, additional families seek Medicaid coverage which increases state spending and crowds out other state priorities. If not addressed, the experience of the small group market could extend to private coverage more broadly.

The focus of the remainder of this Cost Trends Report is to identify areas of excessive spending that add little value to Massachusetts residents in terms of improved health. These examples highlight targets for action on affordability in the Commonwealth to address the effects described above.

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- HPC analysis of Medical Expenditure Panel Survey (MEPS), CPS Annual Social and Economic Supplement (ASEC), BEA Regional Price Parities (RPP) and General Social Survey (GSS) data.
- Center for Health Information and Analysis Annual Reports, 2016-2023.

xxiv While there was also a shift from commercial coverage to Medicaid among people employed by larger firms, this shift was much smaller. The reduction in those with commercial coverage was less than half as large (4.4 percentage points, from 91.6% to 87.2%) as was the increase in those with Medicaid coverage (5.6% to 9.0%).

xxv The Merged Market Advisory Commission has also noted more small employers seeking coverage options outside of the small group market, e.g., through self-insuring or via professional employment organizations as other reasons for its decline in enrollment, though increases employers seeking out these options could also stem from rising premiums. See <https://www.mass.gov/doc/final-report-of-the-merged-market-advisory-council/download>.

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CHAPTER 3:  
**OPPORTUNITIES  
TO REDUCE EXCESS  
SPENDING: PRICES**

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## CHAPTER 3:

**OPPORTUNITIES TO REDUCE EXCESS SPENDING: PRICES****INTRODUCTION**

It is well documented that spending on health care in the U.S. far exceeds that of the rest of the world. In 2016, health care spending averaged \$9,400 per resident in the U.S. and 17.8 percent of GDP, nearly 40 percent above the next-highest country (Switzerland, at \$6,787 and 12.4 percent) and 74 percent above the average of 11 other high-income countries.<sup>1</sup> Despite the higher spending, measures of health care quality and outcomes in the U.S. are typically far behind most similarly wealthy countries.<sup>2</sup> Many researchers have sought to assess why spending is higher in the U.S., without delivering commensurately higher quality or outcomes of care. They generally find that high prices paid for health care services and prescription drugs are the largest driver of higher health care spending in the United States compared to other countries.<sup>3</sup> Other contributing factors include far higher administrative costs and high rates of use of high-tech care such as imaging. Researchers seeking to quantify wasteful health care spending in the United States have tended to reach similar conclusions.<sup>4</sup> In addition to high prices and administrative spending, they also identify additional contributions from failures of care delivery (e.g. inefficient use of high-cost physicians), failures of care coordination (e.g. unnecessary admissions and readmissions), overtreatment and low-value care, and fraud and abuse.

These same factors contribute to high health care spending in Massachusetts, which has the third-highest health care spending among states in the U.S. as of 2020, at 31 percent above the U.S. average. The two chapters that follow expand on analyses in the HPC's 2013 Annual Cost Trends Report which seek to quantify major categories of excessive spending in Massachusetts.<sup>5</sup> These new analyses, updating those published a decade ago, focus primarily on the commercial market, where the burden of increasing health insurance premiums — which tripled in Massachusetts between 2000 and 2022 — and out-of-pocket spending falls on Massachusetts residents and businesses. This high growth in the cost of health care leads to avoidance of care, worse health, medical debt, and the reduction of employer resources that could otherwise be directed toward wage growth.

**EXCESSIVE PRICES****BACKGROUND**

This first chapter focuses on prices, which are the amounts paid to providers (by patients and insurers combined) for particular health care services. The relatively high prices for health care services in the U.S. stem from its unique approach to determining prices for the roughly 50 to 60 percent of residents who obtain health insurance through the private commercial market.

Prices for health care services in other OECD countries are determined through government budget formulas, administratively set fee schedules, or via negotiations between large coalitions of employers or purchasers and similar coalitions of health care providers.<sup>6</sup> This same approach is also used in the U.S. Medicare and Medicaid programs, as well as for health care for veterans and active-duty military. For example, the Medicare program bases

its prices on an estimate of underlying cost of provision of care for an efficient care provider.<sup>i</sup>

In contrast, in the U.S. commercial market, each health insurer separately negotiates prices with each health care provider seeking to be in the insurer's network, consistent with their business interest in having competitive premiums as a backstop against high prices.<sup>ii</sup> The leverage insurers have in such negotiations flows from their ability to impact provider volume by excluding providers from their network (meaning patients' care would not be covered or would be subject to a higher co-pay) if the provider does not agree to the insurer's price. However, in many cases, an insurer's leverage is limited given the difficulty of excluding certain providers from their network, such as highly specialized physicians or large, "must have" hospitals, or consolidated health systems serving a high volume of subscribers.<sup>iii</sup>

i There are many additional nuances and complexities to Medicare payment policy that are beyond the scope of this discussion. However, as Medicare prices will be used as a point of comparison throughout the chapter, the Technical Appendix to this chapter contains many details of Medicare prices.

ii Because no single insurer has the market leverage of a government or national purchasing coalition, providers in the U.S. tend to have more market leverage than insurers, and thus, prices are higher.

iii The network-exclusion model also tends to break down in the cases of certain providers providing emergency or specialized care that patients do not choose directly (e.g. emergency physicians or anesthesiologists). Not needing to rely on being in a provider's network in exchange for offering a discounted price affords such providers with even more leverage to set high prices billed "out of network" The No Surprises Act of 2021 has sought to address this problem.

The ability and motivation of insurers to reduce prices in the U.S. commercial market is further diminished because employers pay the majority of those premiums, which, unlike wages, are tax-exempt, as part of overall compensation to their broad pool of employees.<sup>iv,7</sup> Thus, even if an insurer could negotiate lower prices with a dominant provider or exclude a high-priced provider from their network, the full benefit to the employer or employees would not be direct or salient (i.e. it would be accrued as higher future wages spread over the entire workforce but there would not be a clear counterfactual – what compensation would have been absent the lower provider price). Furthermore, switching a large employee group to a different insurer that may have been more successful at excluding providers or negotiating lower prices involves considerable frictional costs to employees, often disrupting established relationships with providers, for example.

These factors result in commercial prices that 1) are relatively high,<sup>v</sup> 2) vary based on relative insurer-provider market leverage and consolidation<sup>vi</sup>, and 3) generally do not directly relate to underlying provider costs, value, or other broad societal goals such as equity or access to care.<sup>vii</sup>

This commercial pricing dynamic leads to adverse consequences for residents, employers, and many health care providers in the state. As discussed throughout this report, high prices are the primary driver of commercial health care spending and spending growth, which leads health care to be increasingly unaffordable for more and more residents – who often must therefore cut back on spending elsewhere in their budgets to accommodate ever-rising health care spending. Residents subsidize high prices through premium payments and increasing cost sharing. High prices also affect the health care market, incentivizing the expansion and overprovision of high-priced, high-margin services (e.g., imaging, cancer treatment, orthopedic centers) at the expense of lower-paid services such as primary care or behavioral health care.<sup>8</sup> The greater

negotiating leverage of hospitals compared to physician groups (on average) also incentivizes the consolidation of health services under hospital ownership where the hospital can further extend its pricing advantage to other services such as simple laboratory tests, imaging and drug infusion services that could be provided more cheaply outside of the hospital. High commercial prices can also place pressure on public payers such as MassHealth to increase prices, otherwise the gap in prices between commercial and public payers can lead providers to aim to minimize the number of MassHealth patients on their panels, thus reducing access to care for such patients. Finally, the dynamic of pricing based on negotiating leverage often results in lower prices for providers such as community health centers that predominately serve public-payer patients, which can make it harder for these providers to remain financially viable and offer a similar level of services as highly consolidated providers.

## MEASURING EXCESSIVELY HIGH PRICES

To evaluate the prices of health services in the Commonwealth with respect to whether prices are excessive and to understand the potential for savings if prices were lower, the HPC compares prices for health care services to prices paid for those same services by the Medicare fee-for-service program (or MassHealth in some cases where more relevant, as discussed below). Medicare fee-for-service payment rates represent a reasonable point of comparison because they are developed based on estimates of the input costs of service provision, accounting for both operating and capital expenses – with increases each year to reflect inflationary increases in input costs – and are designed to reflect the cost of service provision by an efficient provider.<sup>viii</sup> They are also adjusted for provider and regional characteristics.<sup>ix</sup> While many providers maintain that Medicare payment rates do not adequately compensate for the cost of care, evidence suggests that the costs of care are responsive to incentives, see **Sidebar: Hospital costs in Rhode Island**.

iv An exception to this particular feature of U.S. commercial insurance is the individual market, currently regulated and expanded through the Affordable Care Act. Though often subsidized, individuals pay full after-tax premium costs of plans after such subsidies. Narrow network plans, where certain high-cost providers are excluded from networks in exchange for lower premiums, are more prevalent in this marketplace. See, e.g. Dafny, L. S., Hendel, I., Marone, V., & Ody, C. (2017). Narrow networks on the health insurance marketplaces: prevalence, pricing, and the cost of network breadth. *Health Affairs*, 36(9), 1606-1614.

v For example, the median price of an MRI scan in the U.S. is \$1,432, compared to \$753 in New Zealand, and less than \$500 in the U.K., South Africa, and Switzerland. Likewise, the median price of hospital admission for angioplasty in the U.S. is over \$32,000, but less than half that amount in comparable countries. See <https://healthcostinstitute.org/hcci-research/international-comparisons-of-health-care-prices-2017-ifhp-survey>

vi For examples of price variation for the same services across providers in Massachusetts, see the **Price Chartpack** in this report.

vii For example, while society may particularly value access to primary care services, behavioral health care or maternity care, these services typically are not well paid because the lesser degree of consolidation and specialization of these services among providers leads them to be more susceptible to being excluded from networks. Primary care also tends to be underpaid even in the Medicare program which relies on panels of physicians in its estimates of underlying costs of providing care. The representation on the panels and estimation processes can lead to overvaluation of procedural and specialist services at the expense of primary care or cognitive services. See Laugesen, Miriam. *Fixing medical prices: How physicians are paid*. Harvard University Press, 2016.

viii Medicare payment rates may, in fact, be a conservative comparison with commercial payment rates in that underlying treatment costs may often be higher for elderly patients for some services (such as surgeries, for example) relative to commercial patients who are typically between the ages of 0-64.

ix For inpatient hospital services, Medicare payment rates include adjustments for hospitals with a disproportionate share of low-income patients, as well as medical residents, regional wages, and geographically isolated hospitals. For HOPD and physician services, Medicare payment rates include geographic adjustments to reflect differences in area input costs.

## SIDEBAR: HOSPITAL COSTS IN RHODE ISLAND

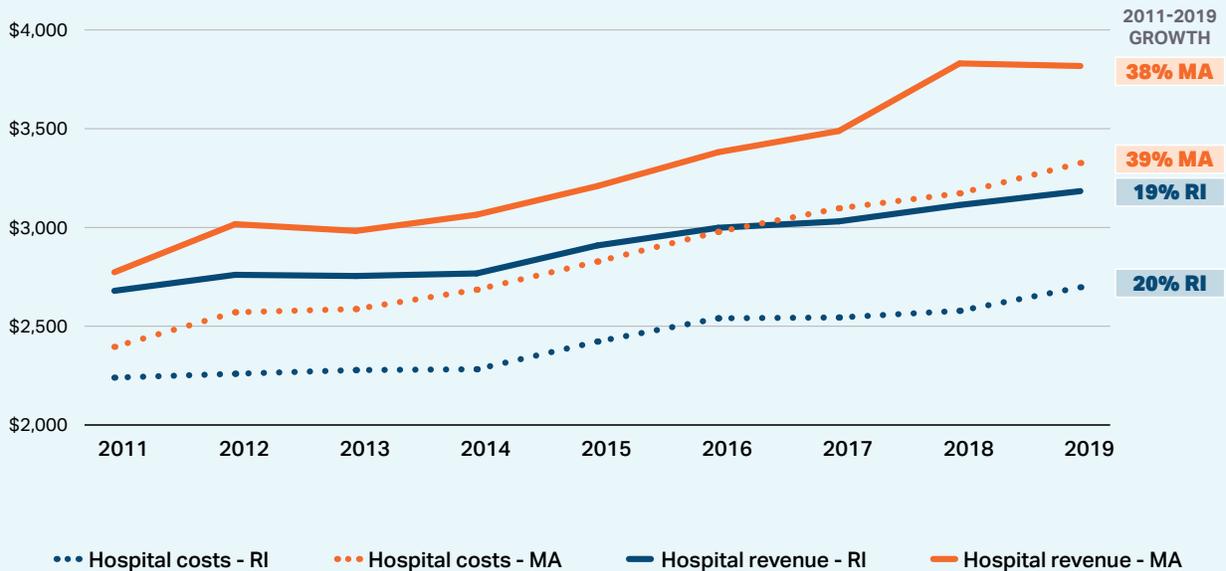
Although many providers maintain that Medicare payment rates reimburse for care at less than the cost of providing it, this discrepancy is often the result of growing cost structures and a lack of incentive to reduce costs, rather than systematically inadequate payment rates. In its 2023 report to Congress, the Medicare Payment Advisory Committee (MedPAC) describes how low margins on services provided to Medicare patients result from a high cost structure enabled by high commercial payment rates, and that costs are not uniformly outside of providers' control; rather, providers are able to achieve slower cost growth if they must, in response to financial or regulatory pressure.<sup>9</sup>

The HPC has observed that dynamic in Rhode Island, following the passage of limits on hospital price increases in 2010.<sup>10</sup> From 2011

onward, Rhode Island hospitals faced constraints on annual price growth, which was limited to one percentage point above inflation.

The impact of the constraint on hospital price growth is evident in **Exhibit 3.1**. Hospital revenues were similar in Massachusetts and Rhode Island in 2011, but diverged thereafter, rising 38 percent in Massachusetts from 2011 to 2019 compared to 19 percent in Rhode Island. Over the same period, growth in the underlying cost of care in Rhode Island also rose only half as fast as in Massachusetts (\$457 vs. \$931 per capita). The largest contributions to higher cost growth in Massachusetts were the costs of employee benefits and general administration which grew 24.8 and 28.6 percentage points faster in Massachusetts from 2011 to 2019. There was no effect on measured quality of care.<sup>10</sup>

**Exhibit 3.1.** Growth in hospital prices and costs per capita in Rhode Island and Massachusetts, 2011-2019



**Notes:** Hospital costs shown are the portion of operating expenses related only to hospital patient care and eligible for reimbursement per Medicare federal regulations, sometimes referred to as Medicare Allowed Costs.

**Sources:** HPC analysis of hospital costs and revenues from NASHP hospital cost tool for the 2011-2019 period. Population data from the U.S. Census Bureau for 2011-2019 period.

For this analysis, the HPC uses 200 percent of (i.e. double) Medicare’s price as a more conservative (i.e., generous) point of comparison than the current Medicare payment rate. This level is frequently used in research literature and by policymakers as a reasonable upper limit for acceptable prices,<sup>11,12</sup> and allows for possible unobserved differences in quality or input costs. The HPC then defines “excessive spending” based on prices that are excessive for each of these services as payments over each service’s benchmark – for example, if Medicare pays \$1,000 for a service and a commercial payer pays \$2,500 for the same service, \$500 of that spending would be considered excessive. The “price benchmark” in this case would be \$2,000 (double Medicare’s price of \$1,000); thus, \$500 of the spending on that service (\$2,500-\$2,000) was above the price benchmark.<sup>x</sup>

This analysis focuses on categories of care with the highest prices relative to Medicare payment rates: clinical laboratory services, colonoscopy/endoscopy, imaging, specialty procedures, inpatient services, and clinician-administered drugs.<sup>13</sup> The HPC also examines prices for prescription drugs relative to international pricing. Taken together, these categories of care represented 45 percent of commercial health care spending in Massachusetts in 2021.

For many services, Medicare pays a different amount for the same service depending on the site of care. For example, Medicare’s total payment (including professional and facility payments) for an endoscopy is substantially higher in a HOPD than in a physician office. However, for purposes of this analysis and in alignment with the site-neutral payment recommendations made later in this report, as well as recommendations of the Medicare Payment Advisory Commission, this analysis compares commercial prices to a “site-neutral” Medicare payment level in some cases (**Exhibit 3.2**).<sup>xi,14</sup>

For hospital inpatient services, the HPC uses 200 percent of Medicare rates as well as 200 percent of MassHealth rates as points of comparison because Medicare rates may be inaccurate (and are often lower than MassHealth) for complex maternity or pediatric services, which are relatively rare among the Medicare population.<sup>xii</sup> For prescription retail drugs, the HPC measured Massachusetts

savings on drug spending when compared to 120 percent of the average price from six comparator countries (Australia, Canada, France, Germany, Japan, and the UK), based on the Elijah E. Cummings Lower Drug Costs Now Act, which passed the U.S. House of Representatives in 2019.<sup>15</sup>

**Exhibit 3.2.** Price benchmarks for analyses of excessive spending based on high prices

SERVICE CATEGORY	HOW MEDICARE PAYS	PRICE BENCHMARK
<b>Clinical laboratory services</b>	Site-neutral	200% of Medicare
<b>Imaging</b>	Site-specific, MedPAC supports site-neutral for services modeled in this analysis	200% of Medicare HOPD price
<b>Endoscopy</b>	Site-specific (office, ASC, HOPD)	200% of Medicare site-specific price
<b>Specialty Services</b>	Site-specific, MedPAC supports site-neutral for services modeled in this analysis	200% of Medicare office price
<b>Inpatient Stays</b>	Hospitals are paid a fixed rate per DRG with hospital specific adjustments	1. 200% of Mass-Health payment 2. 200% of Medicare payment <sup>a</sup>
<b>Clinician-Administered Drugs</b>	Drug average sales price (ASP) + 6 percent	200% of Medicare
<b>Prescription Drugs</b>	N/A	120% of average price from 6 comparator countries

a. Medicare payment for benchmark does not include DSH or teaching adjustments.

See technical appendix for additional information.

x The price benchmark here is used for purposes of this analysis only and is unrelated to the HPC’s pharma statute for determining the value of a drug.

xi For the two categories of services in which the HPC selected a site-neutral Medicare benchmark, it was still necessary to choose whether to use Medicare’s HOPD payment level or the office-based payment level as a point of comparison. This choice has a large effect on estimated excessive spending because the price differences are large. The HPC selected the HOPD level as a point of comparison for imaging because most of these services in Massachusetts are currently provided in HOPDs. This choice makes the estimate of excessive spending in this case smaller than it would be if commercial prices were compared to the actual Medicare payment level for the given site of care. For specialty services, the HPC chose the office rate as the majority of these services were provided in office settings.

xii MassHealth rates are broadly similar to Medicare rates for non-maternity services (base Medicare rates that do not account for DSH and teaching adjustments).

### CLINICAL LABORATORY SERVICES

Clinical laboratory services (“labs”) include blood, urine, or stool screens such as cholesterol testing, metabolic panels, immunology, or oncologic cultures, accounting for approximately \$1 billion (3.9 percent) of total commercial medical expenditures in Massachusetts. These are generally routine services in which a sample is processed and analyzed with standard equipment and there is no meaningful variation in quality.<sup>16</sup> Although Medicare pays the same amount for lab tests regardless of care setting, most commercial payers pay more when labs are performed in HOPDs. In 2021 in Massachusetts, 51 percent of labs were performed in hospital outpatient departments, 33 percent in independent laboratories (e.g., Quest Diagnostics, Laboratory Corporation of America), and 16 percent in office settings.

For this analysis, the HPC considered 1,132 lab services that are common across HOPDs, offices, and independent labs, and are included on the Medicare Clinical Laboratory Fee Schedule.<sup>xiii</sup> While more than half of lab services performed in 2021 were below the 200 percent of Medicare benchmark, 39 percent of labs were paid above the price benchmark, and there was substantial variation in spending by site of care (**Exhibit 3.3**). Of lab services performed in HOPDs, 70 percent were paid more than 200 percent of Medicare’s price, compared to 14 percent of those performed in office settings and 5 percent of those performed in independent labs. Approximately 23 percent of all lab spending was above 200 percent of Medicare’s price. In other words, if commercial lab prices were limited to 200 percent of Medicare’s price (and prices stayed as they were in 2021), commercial lab spending would be reduced by 23 percent.

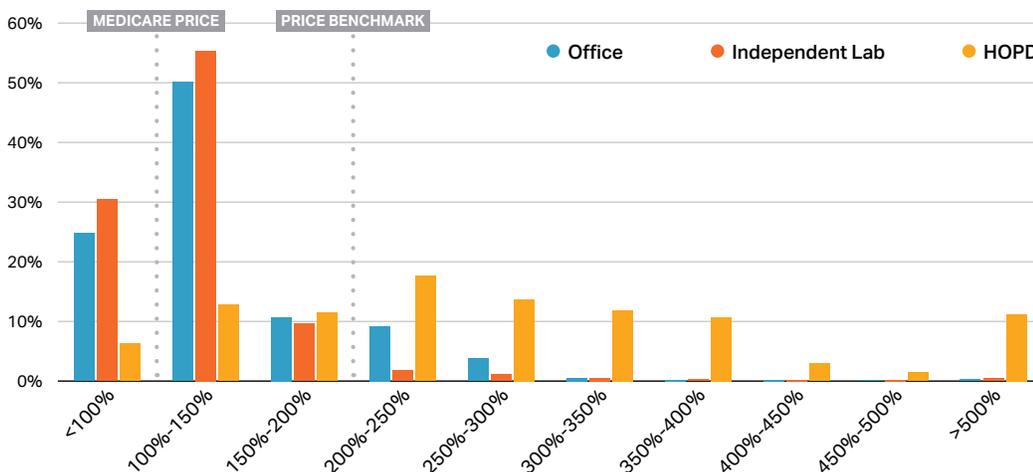
### IMAGING

Imaging services encompass an array of technologies including X-Rays, computerized tomography (CT) scans, magnetic resonance imaging (MRI) scans, ultrasounds, mammography, nuclear medicine scans, and positron emission scans (PET). Many imaging services are performed by a wide range of providers and can be offered safely and effectively in many sites of care. Imaging comprises about 5.5 percent of commercial health care spending.

For most imaging services, Medicare has different payment rates based on site of care, with HOPDs generally receiving substantially higher payments than physician offices for the same service. While MedPAC recently recommended that many imaging services should be paid on a site-neutral basis, this analysis uses a conservative approach and compares commercial spending to the higher Medicare HOPD rate.<sup>14</sup> The estimate of excessive spending would be higher if the HPC had chosen a price benchmark based on Medicare’s office rate.

The HPC considered 571 imaging services that are common across HOPDs and office settings. Imaging services performed in other ambulatory settings, during inpatient or observation stays, or as part of emergency department visits were excluded. Among these imaging services in 2021 in Massachusetts, 56 percent were performed in a HOPD, 34 percent in office settings, and the remaining 10 percent across other settings (e.g., independent imaging centers, urgent care centers, and other clinics). The HPC defined excessive commercial prices as those exceeding 200 percent of Medicare’s HOPD price.

**Exhibit 3.3.** Percentage of lab services paid at shown ranges relative to Medicare price, by setting of care, 2021



**Notes:** Includes encounters for all Medicare covered lab services. If the price of an encounter was on the border between two bins, it was placed in the upper group (i.e. left inclusive). Percentages are calculated as the aggregate utilization in each bin divided by total utilization for each setting of care.

**Sources:** HPC analysis of the Center for Health Information and Analysis (CHIA) All-Payer Claims Database, V2021, 2021; HPC analysis of information from the Centers for Medicare and Medicaid Services, Clinical Laboratory Fee Schedule (2021)

xiii Labs performed during inpatient stays, observation stays, or emergency department visits were excluded.



## ENDOSCOPY

Colonoscopies and other gastrointestinal endoscopies are common medical services performed by trained specialists. Although they are specialized procedures, these services are commonly performed in a variety of settings including HOPDs, ambulatory surgical centers (ASCs), and physician offices. Endoscopies accounted for 1.8 percent of Massachusetts commercial health care spending in 2021, not including anesthesia and other ancillary services. In 2021, 66 percent of endoscopies among commercially insured patients were performed in HOPDs, 29 percent occurred in ASCs, and 5 percent occurred in offices.

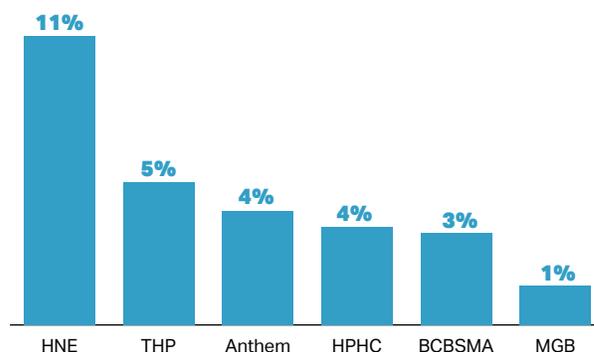
Provision of an endoscopy in a HOPD is likely not necessary for the majority of cases. For example, United Health Care recently changed its policy to not cover screening colonoscopy in HOPDs unless deemed medically necessary.<sup>xiv,18</sup> Nevertheless, to be conservative, the HPC modeled commercial prices relative to Medicare for each site separately. That is, for endoscopies that occur in ASCs, the benchmark is Medicare’s price for an ASC; for endoscopies that occur in a HOPD, the benchmark is Medicare’s price for a HOPD; for endoscopies that occur in an office, the benchmark is Medicare’s price for an office. The estimate of excessive spending would be higher if the HPC had chosen a price benchmark based on a single lower cost site of care (Medicare’s office or ASC price) and applied it to procedures performed in all settings.

Twenty-one percent of endoscopies occurring in HOPDs, 30 percent of endoscopies occurring in ASCs, and 41 percent of endoscopies occurring in offices had commercial prices higher than 200 percent of the Medicare price for that setting (**Exhibit 3.6**).<sup>xv</sup>

Altogether, approximately 4.4 percent of all endoscopy spending was above 200 percent of the Medicare price for the setting in which the procedure occurred.

Additionally, the share of endoscopy spending above 200 percent of the Medicare price for endoscopy services varied substantially by payer, ranging from 1 to 11 percent (**Exhibit 3.7**). Additional information on variation in colonoscopy prices across specific hospital outpatient departments may be found in the **Price Chartpack**.

**Exhibit 3.7.** Estimated percentage of endoscopy spending over 200 percent of Medicare price, by payer, 2021



**Notes:** Includes all encounters where at least one endoscopy was performed. The amount of spending over 200 percent of what Medicare would pay is the difference between the allowed amount and 200 percent of what Medicare would pay, calculated for each encounter. AllWays changed its name to MGB Health Plan in 2022.

**Sources:** HPC analysis of Center for Health Information and Analysis All-Payer Claims Database V2021, 2021. Centers for Medicare and Medicaid Services (CMS) Hospital Outpatient Prospective Payment (OPPS), Ambulatory Payment Classifications (APC), and Ambulatory Surgery Center (ASC) Payment information for 2021.

**Exhibit 3.6.** Percentage of endoscopies paid at shown ranges relative to Medicare price, by setting of care, 2021



**Notes:** Includes all encounters where at least one endoscopy was performed, as defined by CCS and/or BETOS, with matching procedure codes on the highest-priced professional and the highest-priced facility claims. Percentages are calculated as the aggregate utilization in each bin divided by total utilization for each setting of care. Values for office in the two upper ranges combined total less than 1%.

**Sources:** HPC analysis of Center for Health Information and Analysis All-Payer Claims Database V2021, 2021. Centers for Medicare and Medicaid Services (CMS) Hospital Outpatient Prospective Payment (OPPS), Ambulatory Payment Classifications (APC), and Ambulatory Surgery Center (ASC) Payment information for 2021.

xiv This Medical Policy applies to Individual Exchange benefit plans in all states except for Colorado, Massachusetts, Nevada, New York and Texas.

xv Although the share of office-based endoscopies with prices above 200% of the Medicare price was higher than for other settings, the total excessive spending due to office-based endoscopy was low because only 5% of commercial endoscopies were performed in office settings.

## SPECIALTY SERVICES

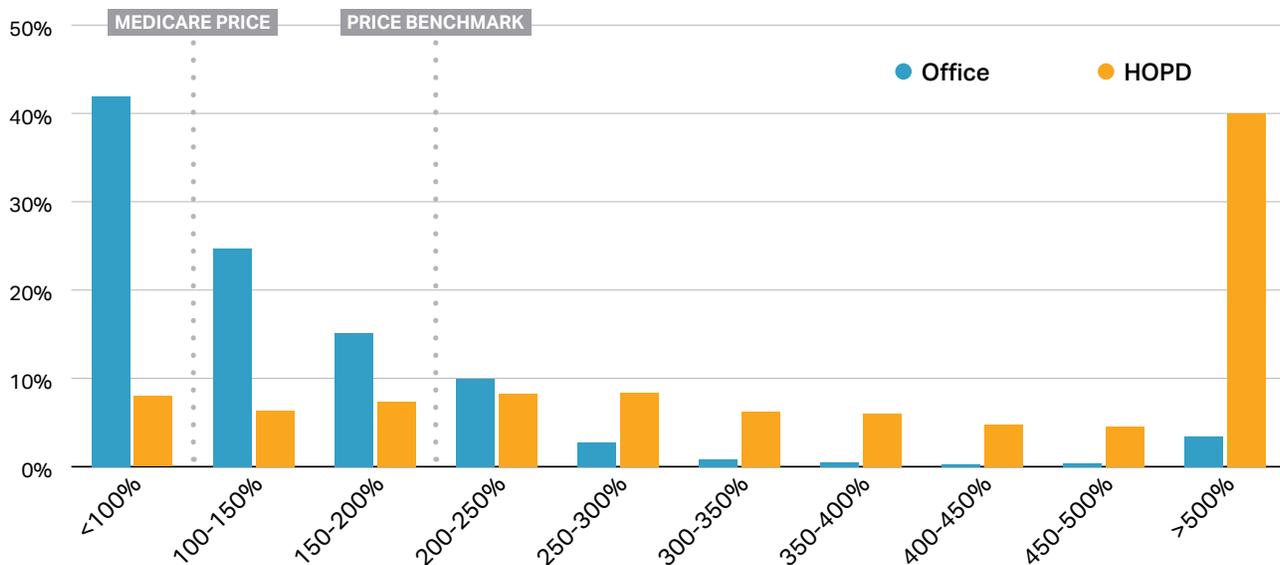
The HPC examined a set of 149 specialty services that are performed in both office and HOPD settings, including procedures such as steroid joint injections (often used to relieve chronic pain), testing services (such as breathing capacity or hearing), and non-gastrointestinal endoscopies (such as for sinuses), not subsumed within other sections of this analysis. In 2021, these services accounted for roughly 2.5 percent of Massachusetts commercial spending. Twenty-one percent of encounters for these services took place in HOPDs, and 79 percent in office settings.

The current Medicare fee schedule sets different payment rates for many of these services by setting, which MedPAC has noted may give an incentive for providers to offer services at settings with the highest payment rates, even though patient outcomes are similar regardless of the site of care.<sup>19</sup> As a result, MedPAC has recommended that certain services that can be safely performed in either setting, such as certain ear-nose-throat, dermatologic, or

musculoskeletal procedures, be paid using a site-neutral approach, with the same payments regardless of location. Based on this recommendation, and the fact that most of these services in Massachusetts are already provided in office settings, the HPC used Medicare office payments (i.e., the non-facility price) for benchmarking against office and HOPD prices for this analysis, while accounting for geographic differences between the Boston area and other parts of the Commonwealth.

Overall, 78 percent of services performed in HOPD settings were paid in excess of 200 percent of Medicare’s office price, compared to 18 percent of services performed in office settings (**Exhibit 3.8**), with 40 percent priced more than 5 times Medicare’s office rate. About one third of all spending for this set of specialty services was above 200 percent of Medicare’s office price, largely due to above-benchmark spending for services that took place in HOPDs.

**Exhibit 3.8.** Percentage of specialty services paid at shown ranges relative to Medicare price in an office, by setting of care, 2021



**Notes:** Distribution is calculated by encounter prices classified into one of ten bins based on comparison to Medicare price for a specific procedure code and location (“Boston” or “Other Massachusetts”). The 12 CPT codes are: 11042, 20553, 29075, 31237, 62321, 62323, 64450, 64483, 64493, 64615, 92557, and 92567.

**Sources:** HPC analysis of the Center for Health Information and Analysis (CHIA) All-Payer Claims Database V2021, 2021; HPC analysis of prices information from the Centers for Medicare and Medicaid Services Medicare Physician Fee Schedule (2021).

### INPATIENT STAYS

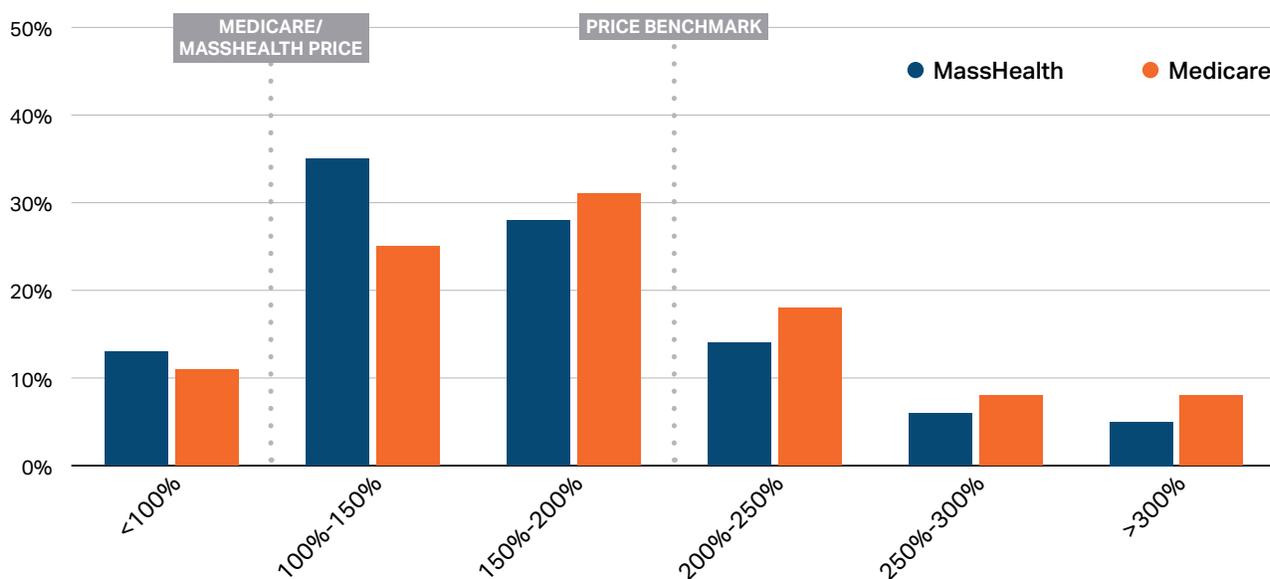
There were about 200,000 commercial acute inpatient hospital discharges in the Commonwealth in 2021, representing 19.9 percent of commercial healthcare spending in 2021. Eighty-three percent of this spending was received by hospitals directly, with the remainder going to physicians and other professionals.

Payers pay for hospital inpatient stays based on a combination of an assigned case type (Diagnosis Related Group, or DRG) and an associated level of severity. Most types of care in this section use a Medicare comparison benchmark. Medicare serves relatively few pediatric and maternity patients, and thus its payment rates for those services are not as applicable to a commercial population – for example, they do not include as much granularity to accurately capture complexity in maternity and pediatric stays. Thus, the

HPC uses 200 percent of MassHealth’s payment rates as the main price benchmark in this case, while also showing prices relative to Medicare as a comparison.<sup>xvi</sup> MassHealth payments, which are similar in magnitude to Medicare’s rates for the non-maternity adult population, include geographic adjustments and extra payments for some high complexity pediatric stays.

The HPC found that overall, one quarter of hospital inpatient stays were paid more than 200 percent of MassHealth’s rate and 33 percent were paid more than 200 percent of Medicare’s base rate (**Exhibit 3.9**). Nearly eleven percent of inpatient spending exceeded the benchmark of 200 percent of MassHealth’s rate, and nearly 17 percent of inpatient spending exceeded 200 percent of Medicare’s rate

**Exhibit 3.9.** Distribution of inpatient facility commercial prices relative to MassHealth and Medicare prices, 2021



**Notes:** Excludes outliers in length of stay within each DRG, and major payment outliers. Only facility payments are included in estimates of excess spending. Medicare payment rate excludes payments for medical residents and DSH status.

**Sources:** HPC analysis of: Center for Health Information and Analysis All-Payer Claims Database V2021, 2021. Centers for Medicare and Medicaid Services IPPS final rule FY 2021, MassHealth FY 2021 Final Notices to Acute Hospitals

xvi Medicare’s payment adjustments for medical residents and Disproportionate Share Hospital (DSH) status are not included in this comparison.

## CLINICIAN-ADMINISTERED DRUGS

Clinician-administered drugs are medications administered to patients by physicians or other health care professionals through injection or infusion and can be administered in either office or hospital outpatient settings. Administered drugs, excluding vaccines and the cost to administer the drug, made up approximately 4.9 percent of commercial health care spending as of 2021. In 2021, 64 percent of clinician-administered drugs (excluding vaccines) in Massachusetts were administered in a hospital outpatient department and 36 percent in an office setting.

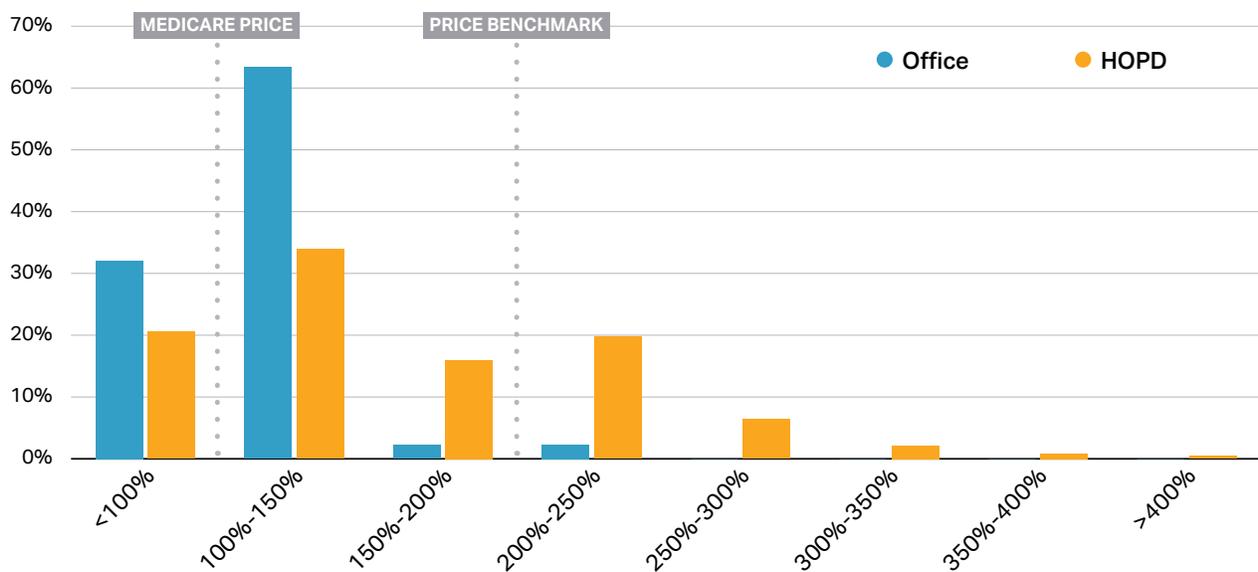
For most clinician administered drugs, Medicare Part B pays providers the manufacturer’s average sales price (ASP) plus 6 percent.<sup>xvii</sup> However, for payments from commercial insurers, providers often negotiate prices that are substantially higher than what is paid under Medicare Part B.

For this analysis, the HPC considered 15 clinician-administered drugs that were the highest-spending drugs across HOPDs and

office settings in 2021, representing about 2.6 percent of commercial health care spending.<sup>xviii</sup> The HPC found notable variation in spending on administered drugs by site of care. Thirty percent of administered drug encounters in HOPDs were paid more than 200 percent of Medicare’s price, compared to 2 percent of those in office settings. Roughly 6 percent of all administered drug spending was above 200 percent of Medicare’s price (**Exhibit 3.10**).

In addition, the prices Medicare pays for clinician-administered drugs are high in comparison to prices paid by other countries for the same drugs.<sup>20</sup> In addition to using Medicare prices for an excessive price estimate, the HPC also developed a separate supplemental estimate by reducing Medicare prices to 120 percent of the average of a set of international comparator countries (international prices were available for 13 of the 15 drugs of interest), and comparing commercial prices to this lower benchmark. In this analysis, an additional 54 percent of clinician-administered drug spending would be considered excessive.<sup>xix</sup>

**Exhibit 3.10.** Percentage of encounters for 15 clinician-administered drugs paid at shown ranges relative to Medicare price, by setting of care, 2021



**Notes:** Drugs included are Ocrevus (J2350), Keytruda (J9271), Entyvio (J3380), Opdivo (J9299), Remicade (J1745), Neulasta (J2505), Inflectra (Q5103), Tysabri (J2323), Perjeta (J9306), Xolair (J2357), Rituxan (J9312), Darzalex Faspro (J9144), Mvasi (Q5107), Alimta (J9305), and Yervoy (J9228).

**Sources:** HPC analysis of Center for Health Information and Analysis Massachusetts All-Payer Claims Database, V2021, 2021. HPC analysis of information from the Centers for Medicare and Medicaid Services, ASP Drug Pricing Files (2020-2021).

xvii Providers deemed as disproportionate share hospitals (DSH) are able to obtain administered drugs at a lower price via participation in the 340B Drug Pricing Program. Between 2018 and 2022, Medicare paid such providers less, to account for the lower acquisition cost. A court ruling overturned this payment policy, and as of quarter 3, 2022, all providers returned to receiving the same Medicare payment based on ASP plus 6%. Though this analysis is based on 2021 data, the HPC adopted the rules of the new legislation by assigning the same Medicare price (ASP plus 6 percent) across providers regardless of 340B status.

xviii Drugs administered during an inpatient stay, observation stay, or emergency department visit were excluded.

xix The international price and the associated excessive spending were estimated for 13 out of the 15 drugs of interest, based on available data. See technical appendix for more information.

### RETAIL PRESCRIPTION DRUGS

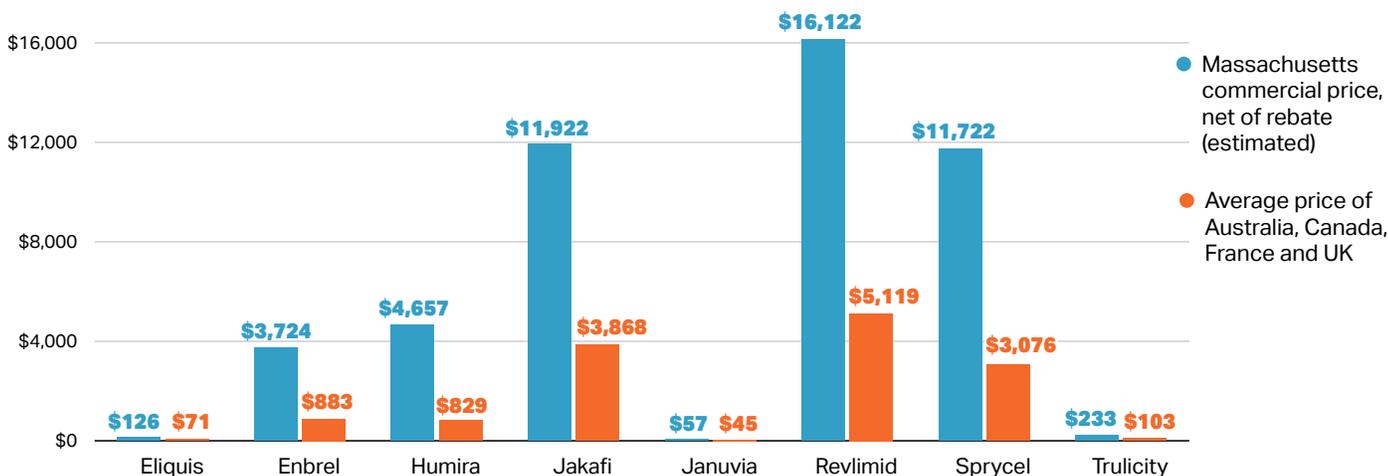
Retail prescription drugs refer to prescription medications filled at pharmacies or through mail order. These drugs have consistently been one of the fastest growing service categories of Massachusetts health care spending: from 2019 to 2021, total net-of-rebate pharmacy spending increased at an annualized rate of 7.5 percent.<sup>21</sup> Additionally, prescription drug spending is heavily driven by a small number of high-cost, branded products. While branded drugs made up fewer than 15 percent of commercial prescription drug claims in Massachusetts in 2021, they represented nearly 80 percent of net drug spending (even after accounting for manufacturer rebates) and comprised 14.4 percent of all commercial health care spending.<sup>xx</sup>

Brand-name prescription drugs prices are higher in the U.S. than in any other country in the world.<sup>22</sup> Unlike many other countries, the U.S. does not directly regulate or negotiate the price of drugs. Rather, commercial and some individual government payers negotiate prices with manufacturers, typically through pharmacy benefit

managers (PBMs).<sup>xxi</sup> A 2021 RAND Corporation study found that U.S. brand-name drug prices were 3.44 times the average of 32 other Organization for Economic Cooperation and Development (OECD) member countries, with U.S. drug prices 2.56 times the average across all drugs.<sup>23</sup> Exhibit 3.11 illustrates the difference between Massachusetts commercial prices and the average prices among four peer nations for a selected set of prescription drugs.

The HPC modeled spending on all branded drugs in excess of 120 percent of average prices from six comparator countries as a comparison benchmark, as has been proposed in recent national legislation that passed in the U.S. House of Representatives.<sup>xxii</sup> The HPC obtained the average price difference between the U.S. and the six comparator countries from the RAND Corporation study noted above. Using this benchmark, the HPC estimated that 52 percent of commercial prescription branded drug spending in Massachusetts was in excess of 120 percent of average spending of six comparator countries in 2021. Details on the modeling can be found in the technical appendix.

Exhibit 3.11. Massachusetts and international prices of select branded drugs, per month supply, 2021



Notes: Drugs were selected from among the top 25 highest spending drugs in Massachusetts or the top 100 highest spending drugs with a price per claim greater than \$10,000. Drug-specific commercial rebates were obtained from SSR Health and applied to gross prices calculated from the APCD.

Sources: HPC analysis of Center for Health Information and Analysis Massachusetts All-Payer Claims Database V2021, 2021. Australia Fee Schedule, Canada (Quebec) List of Medications, French Public Drug Database, National Health Service Prescription Services.

xx HPC analysis of Center for Health Information and Analysis Massachusetts All-Payer Claims Database, v2021.

xxi Medicare prescription drug plans are all administered by private third party payers (Part D and Part C) that typically contract with PBMs to negotiate prices with manufacturers, although as a result of the Inflation Reduction Act, Medicare can begin to negotiate rebates for a limited number of drugs beginning in 2023 on behalf of all of their plans. State Medicaid programs that offer a prescription drug benefit to their members receive a minimum rebate required by the Federal Medicaid Rebate Program, but each state can independently negotiate supplemental rebates with drug manufacturers for their members. Federal agencies that administer a prescription drug benefit – such as the Department of Veteran’s Affairs and the Department of Defense – also negotiate rebates for their enrollees independently from one another, however, drug prices are subject to certain statutory requirements that establishes a federally negotiated ceiling price.

xxii In December 2019, the U.S. House of Representatives passed H.R.3, the Elijah E. Cummings Lower Drug Costs Now Act, which included a provision to limit drug prices at 120% of the average list price across six countries (Australia, Canada, France, Germany, Japan, and the UK).

## OPPORTUNITIES FOR REDUCTIONS IN SPENDING DUE TO EXCESSIVELY HIGH PRICES

There are substantial opportunities for spending reductions across the seven service categories examined in this chapter. The HPC found that nearly 27 percent of 2021 spending for the service categories analyzed (which accounted for just under half of total commercial spending) was excessive as defined by prices higher than a reasonable benchmark. This spending amounts to \$3 billion, or 12 percent of total commercial medical expenditures for the year (**Exhibit 3.12**) – nearly twice as much as total annual commercial spending on primary care in Massachusetts.

Prices were consistently high in certain settings of care. For most ambulatory services examined in this chapter, prices for care provided in HOPDs typically exceeded the Medicare-based benchmark. This variation in pricing by care setting further highlights the value of HPC’s and MedPAC’s site-neutral payment recommendations for many services. Paying more for care delivered in HOPDs where such care can be safely provided in offices or ASCs (see **Chapter 4**)

not only unnecessarily increases out-of-pocket spending and insurance premiums, but encourages further consolidation of care into hospital-based systems, which can raise prices further.

Excessive health care prices represent a substantial amount of spending that does not add significant value for patient care. Even with very conservative definitions of excessive prices, which are generally far above the cost of providing care for an efficient provider, the amount of excessive spending due to high prices identified in this chapter represents \$3,000 in spending per family with private insurance in Massachusetts per year – spending that could be returned to families or reinvested in other categories of health care that provide more value. Addressing this excess spending should be a priority for interventions that aim to slow the growth of total health care spending, while increasing investments necessary to improve primary care, behavioral health care, address workforce shortages, and advancing health equity.

**Exhibit 3.12.** Estimated commercial excessive spending using example benchmark for seven service categories, 2021

Service category	Modeled spending (millions), 2021	Price benchmark	Percent of spending in the category over the price benchmark	Excessive spending (millions)	Excessive spending (percent of TME)
<b>Labs</b> (1,132 services performed in office, HOPD, and independent labs)	\$970M	200% of Medicare	22.9%	\$220M	0.9%
<b>Imaging</b> (571 services performed in office and HOPD)	\$1,380	200% of Medicare–HOPD	18.8%	\$260	1.0%
<b>Endoscopy</b> (all endoscopies)	\$340	200% of Medicare	4.4%	\$10	0.06%
<b>Specialty Services</b> (149 services performed in office and HOPD)	\$620	200% of Medicare–Office	35.4%	\$220	0.9%
<b>Inpatient Stays</b> (all inpatient stays)	\$3,620	200% of MassHealth	10.7%	\$390	1.4%
<b>Clinician-Administered drugs</b> (top 15 drugs by spending)	\$650	200% of Medicare	5.8%	\$40	0.2%
<b>Prescription Drugs</b> (all retail drugs)	\$3,580	120% of international prices	51.9%	\$1,860	7.5%
<b>Total</b>	<b>\$11,150 (45% of TME)</b>		<b>26.9%</b>	<b>\$3,000 (12.0% of TME)</b>	<b>12.0%</b>

**Note:** All spending estimates in this table are based on analysis of claims data processed by the HPC from the All-Payer Claims Database. These data account for roughly 40% of the commercial market in 2021. The figures in the table have been extrapolated to represent the full Massachusetts commercial market. Numbers may not add to total due to rounding.

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- 23 RAND Corporation. International prescription drug price comparisons, current empirical estimates and comparisons with previous studies. 2021. Available at: [https://www.rand.org/pubs/research\\_reports/RR2956.html](https://www.rand.org/pubs/research_reports/RR2956.html)

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CHAPTER 4:  
**OTHER OPPORTUNITIES TO  
REDUCE EXCESS SPENDING:  
SITE OF CARE, OVERPROVISION  
OF SERVICES, AND  
ADMINISTRATIVE SPENDING**

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## CHAPTER 4:

## OTHER OPPORTUNITIES TO REDUCE EXCESS SPENDING: SITE OF CARE, OVERPROVISION OF SERVICES, AND ADMINISTRATIVE SPENDING

Total spending is a function of the prices paid for health care services and the number and nature of those services (“utilization”) provided. While the previous chapter focused on excess spending due to high and variable prices, the primary driver of high health care spending, this chapter investigates another driver of excess medical spending: potentially excessive or unnecessary utilization of health care services in the Commonwealth. In this examination, the HPC considers two types of potentially excessive utilization: 1) use of high-acuity, high-cost sites of care for services that could have been provided in lower-acuity, lower-cost settings (including ambulatory services provided at hospitals versus lower cost settings, births at academic medical centers versus other hospitals, and avoidable emergency department visits) and 2) overprovision of services, including services that clinical guidelines and research find do not improve health, and may cause harm (“low-value care”), and services that could have been avoided, prevented, or are otherwise unnecessary, such as avoidable hospital admissions or readmissions.

The latter examples of overutilization are particularly salient in Massachusetts. While Massachusetts currently ranks first among states in the Commonwealth Fund’s Annual State Scorecard in several categories (including “healthy lives” and “prevention and treatment”), it ranks 44th among states (7th worst) in “avoidable use and cost.”<sup>1</sup> Excessive utilization of care not only devotes scarce provider resources to care that offers little to no benefit, but also has adverse patient impacts such as missed work, follow-on unnecessary care “cascades” involving out-of-pocket costs, and exposure to health system-acquired infections or medical errors.<sup>2</sup>

Finally, this chapter analyses administrative spending by both payers and providers as important examples of spending that does not benefit patients. More efficient payer and provider administrative spending could support more affordable health care for patients and more sustainable health care spending overall.

The chapter discusses specific examples within each category of excess medical spending and includes a final summary table estimating potentially excessive spending for each care category or scenario.<sup>i</sup>

i This report does not include estimates of excessive health care spending due to excessive administrative spending.

### USE OF HIGH-ACUITY SETTINGS FOR LOW-ACUITY SERVICES

As detailed in the previous chapter, for the many services that are identical or similar regardless of where they are performed — such as lab tests, administered drugs, and diagnostic imaging — there is little justification for prices to vary between ambulatory delivery settings. On the other hand, in some cases, different prices by care setting are related to the intensity of services different settings are able to provide. For example, emergency departments (EDs) have additional overhead costs due to the technology and staffing required for both the range of conditions they treat and the need to operate twenty-four hours per day, seven days per week. As such, payment for ED visits is intended to account for the cost of maintaining these high-intensity capabilities, regardless of whether a given ED visit involves using them. In either case, there are opportunities to reduce spending by increasing the portion of care treated in lower-priced settings while maintaining safety and quality.

Comparative examples explored in this section are use of facilities versus office settings for imaging and other common services; use of HOPDs rather than ambulatory surgical centers (ASCs) for low acuity procedures; use of the ED for visits that could be addressed in lower acuity settings; and labor and delivery for low-risk patients at academic medical centers (AMCs) rather than teaching or community hospitals.

### USE OF HIGHER-COST FACILITIES VERSUS PHYSICIAN OFFICES FOR COMMON SERVICES

Many common services can be provided safely in a physician office, HOPD, or ASC despite large differences in price for these services.<sup>3</sup> For example, the Medicare payment for a service performed in a HOPD is often more than double the payment for the same service performed in a physician’s office.<sup>4</sup> The HPC used Medicare data to analyze the settings of care for common services in Massachusetts as compared to the U.S. The Medicare data identify settings as either a physician office or a facility, with facility referring specifically to a setting that receives payment under the Medicare outpatient prospective payment system. For most services studied, the most common facility setting is a HOPD, but other facility settings may include ASCs and other settings.

To better understand the potentially excessive use of high-cost sites of care in Massachusetts, the HPC identified the top 25 services (according to total spending in 2019) commonly performed in either a facility or an office – including services such as evaluation and management (E&M) visits (which involve patient history, medical examination, and diagnosis), imaging, and various outpatient surgical procedures. For 19 of the 25 services, Massachusetts Medicare patients were more likely than patients in other states to have care provided in a facility setting (see Technical Appendix). Three of those with among the highest differences are shown in **Exhibit 4.1** along with the difference in Medicare price by setting.

The HPC found that differences in the proportion of care provided in facility settings was particularly higher in Massachusetts for evaluation and management (E&M) visits as well as imaging and ophthalmic procedures where payment differentials can be substantial. For example, Medicare’s payment for a common chest X-ray is \$134 when performed in a HOPD versus \$40 in an office setting.

The use of facility-based care for these common services likely reflects the large numbers of HOPD settings available in the Commonwealth and the consolidation of care in large, hospital-based systems. Accordingly, while this analysis was focused on facility utilization by Original Medicare beneficiaries, we would expect to

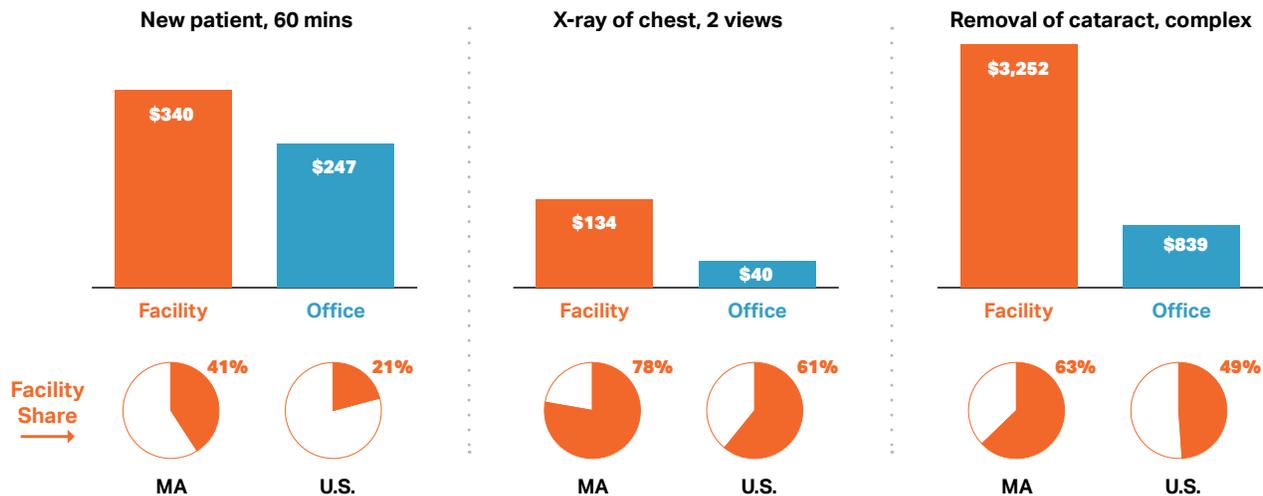
see similar patterns among patients insured through commercial payers or MassHealth.

The next three examples consider use of higher-cost settings of care mainly among commercially insured residents, using comparisons within Massachusetts that suggest excessive use of these higher-cost sites.<sup>ii</sup>

### USE OF HOSPITAL OUTPATIENT DEPARTMENTS VERSUS AMBULATORY SURGICAL CENTERS FOR LOW-ACUITY PROCEDURES

ASCs are facilities that provide outpatient surgical care and other procedures. While HOPDs have the capability to provide a wide range of outpatient care, ASCs generally specialize in lower-acuity procedures, such as cataract removal, endoscopy, and colonoscopy.<sup>iii</sup> Payments for ASCs are typically lower than for hospitals for the same procedures (but higher than non-facility physician office settings). For example, Medicare pays 71 percent more in a HOPD than in an ASC for a screening colonoscopy (\$1,119 vs \$654) and a similar differential is found in the Massachusetts commercial market (an average \$1,911 vs \$1,225). In the U.S. overall, 52 percent of ASCs are physician-owned, while 25 percent are solely or partially corporate-owned, and 23 percent are solely or partially hospital-owned.<sup>5</sup>

**Exhibit 4.1.** Percentage of Original Medicare beneficiaries receiving each service in a facility versus an office setting in Massachusetts and the U.S. and Medicare price per setting, 2019



**Notes:** Exhibit includes three of the highest services in total spending in Massachusetts in 2019. Facility includes all settings with payment covered under Medicare’s outpatient prospective payment system.

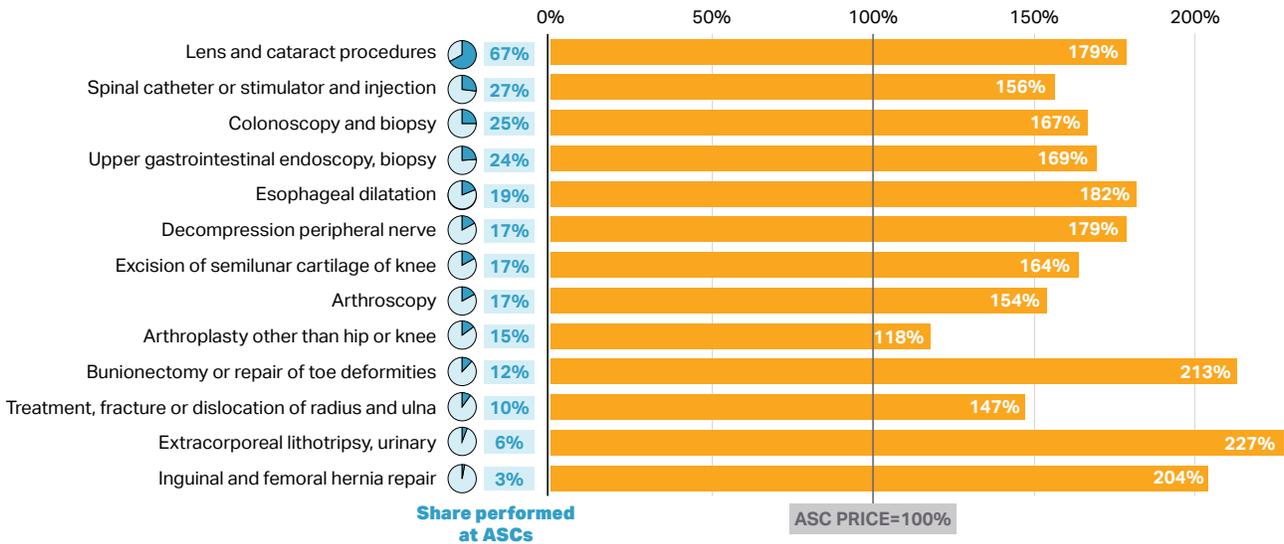
**Sources:** HPC analysis of CMS Medicare Physician & Other Practitioners — by Geography and Service, Public use File, 2019. Medicare physician and OPSS fee schedules.

ii Some examples focus on the Medicare population and others focus on commercial populations due to data limitations.  
 iii Based on HPC analysis of the APCD, 49% of commercial revenue at ASCs in 2021 derived from gastroenterology services (e.g. colonoscopy). Orthopedic procedures and eye procedures, such as cataract removal and Lasik surgery, each accounted for 19% of commercial revenue. Other lines of services include spinal and nervous system surgeries, kidney and urinary track surgeries, and ENT, reproductive system and skin & breast tissue surgeries.

The HPC analyzed commercial payments for ASCs and HOPDs in Massachusetts for 13 categories of procedures commonly performed in both settings.<sup>iv</sup> Among these procedures, prices were 75 percent higher on average at HOPDs than at ASCs, ranging from 18 percent to 127 higher (**Exhibit 4.2**). Prices for professional services were similar at ASCs and HOPDs, thus differences in the facility component of pricing drove the total differences.

Massachusetts has relatively few ASCs – the sixth fewest among all states, with 56 ASCs certified by CMS as of 2021 (**Exhibit 4.3**). The relatively low number of facilities reflects that the Massachusetts Determination of Need program imposed regulatory moratorium on new ASC construction from 1994 to 2017.<sup>6</sup> The program’s updated regulations now permit the construction of new free-standing ASCs that are affiliated with an independent community hospital or HPC-certified accountable care organization.

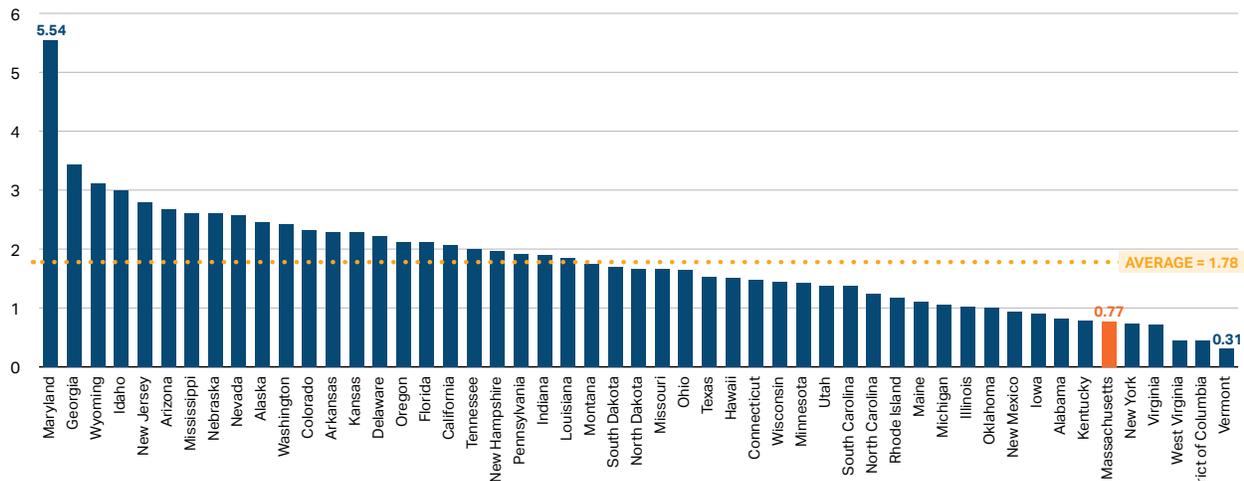
**Exhibit 4.2.** Share of selected surgical procedures performed in ASCs and HOPD price relative to ASC price (ASC=100%) for selected procedures commonly performed in both settings, 2021



**Notes:** Share is expressed as a percent of ASC and HOPD combined volume, excluding other settings of care such as office.

**Sources:** HPC analysis of Center for Health Information and Analysis All-Payer Claims Database, V2021, 2021.

**Exhibit 4.3.** Number of independent ASCs per 100,000 residents, by state, 2021



**Sources:** Becker’s ASC Review <https://www.beckersasc.com/benchmarking/first-ever-ranking-of-all-50-states-by-asc-per-capita.html> based on data from the Centers for Medicare & Medicaid Services (CMS), December 2022

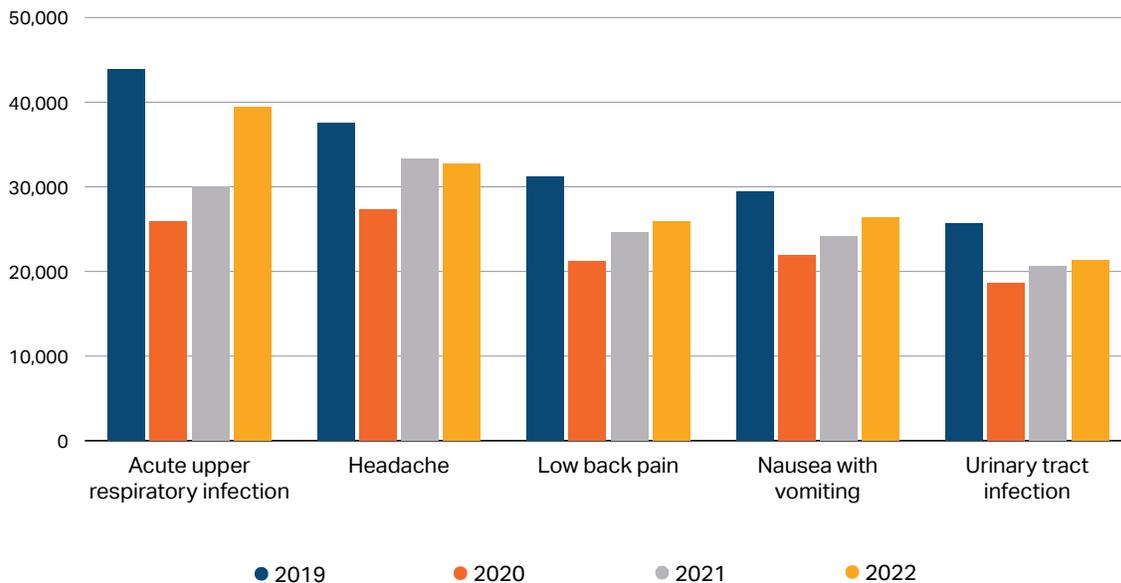
<sup>iv</sup> The HPC selected surgeries/procedures with the highest volume at ASCs that have similar or higher complexity as surgeries/procedures performed in HOPD, see Technical Appendix for details.

## POTENTIALLY AVOIDABLE EMERGENCY DEPARTMENT VISITS

The HPC has focused on potentially avoidable ED visits as a metric of health system efficiency and quality.<sup>v</sup> EDs are high-cost settings of care equipped with 24/7 capacity to diagnose and treat emergencies. Yet, many conditions for which patients seek care in the ED do not require the intensive capabilities of an ED and could be treated in lower-cost settings. The Massachusetts Center for Health Information and Analysis (CHIA) found in its 2021 annual survey of Massachusetts residents that 35 percent of respondents stated that their last ED visit was for a non-emergency condition, similar to estimates from the HPC’s analyses of ED data.<sup>7</sup> Some of these patient conditions could be treated in other settings such as urgent care centers, retail clinics, or physicians’ offices for a fraction of the cost, while others could likely have been avoided altogether with more effective and/or accessible primary or preventive care.<sup>8</sup>

Numerous factors have influenced recent trends in potentially avoidable ED visits, including the COVID-19 pandemic’s effects on illness and willingness to seek in-person medical care, the development of telehealth in response to the pandemic, and the recent expansion of urgent care centers in Massachusetts.<sup>9</sup> In 2020, ED visits for the highest-volume potentially avoidable conditions plummeted. By 2022, ED visits among Massachusetts residents for the highest-volume potentially avoidable conditions remained below 2019 levels, but were generally increasing toward their pre-pandemic (i.e., 2019) levels. (**Exhibit 4.4**).

**Exhibit 4.4.** Top diagnosis subcategories of potentially avoidable ED visits for Massachusetts residents, 2019–2022



**Notes:** Includes Massachusetts residents of all ages and payer types. Avoidable ED visits are based on the Billings algorithm. See Technical Appendix for additional details.

**Sources:** HPC analysis of CHIA Case-Mix Emergency Department Database, CY2019–2022

<sup>v</sup> See <https://www.mass.gov/info-details/hpc-datapoints-issue-2-avoidable-ed-use> and chartpacks in the annual HPC Cost Trends Report, e.g. <https://www.mass.gov/doc/2022-cost-trends-report-chartpack/download>.

For example, in 2020, ED visits for acute upper respiratory infections declined the most, with a 41 percent drop in visits compared to 2019. By 2022, these ED visits were only 10 percent below 2019 levels. Data on where Massachusetts residents sought care during the height of the pandemic in 2020 and 2021 suggest that shifts away from the ED may have taken place. For example, among the commercially insured population, the proportion of residents who sought care in the ED was similar or declined for each of the top conditions analyzed while there were large increases in the share of visits conducted by telehealth; in the case of acute upper respiratory infection, there was also an increase in the proportion seeking care at urgent care centers (**Exhibit 4.5**).

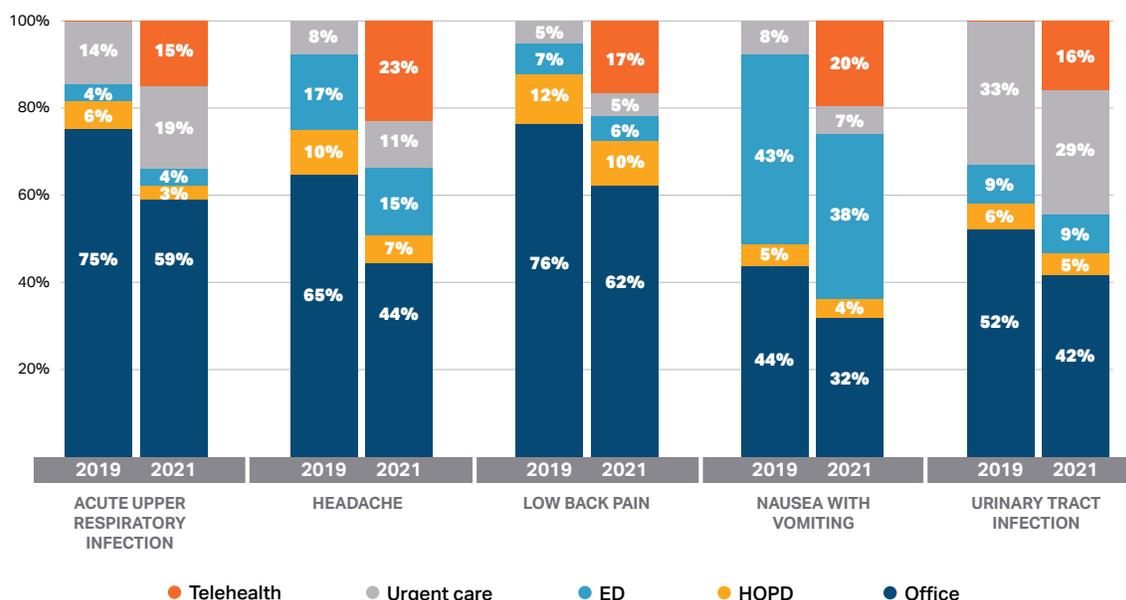
While not all of these shifts may have been beneficial, such as if they reflect avoidance of ED care due to fears of infection or other pandemic-related difficulties, variation in avoidable ED visits by region and across provider organizations suggests that factors such as access to primary care or alternative care sites could also impact rates of avoidable ED use. For example, the number of avoidable ED visits per 1,000 residents varied three-fold across

HPC regions, from 76.7 in the Norwood / Attleboro region to 189.5 in Fall River. Among commercially insured patients only, the rate of potentially avoidable ED visits ranged from 28 to 63 per 1,000 residents across provider organizations.

### BIRTHS IN HIGH-PRICED HOSPITALS

Childbirth is the most common reason for hospital admission for Massachusetts residents under age 65, representing nine percent of all inpatient hospital discharges in 2021.<sup>vi</sup> The price of in-hospital childbirth in the U.S. can vary by nearly three times within a single metropolitan area and research indicates that this variation is not explained by delivery type (e.g. vaginal or cesarean), patient acuity, or quality of care.<sup>10</sup> Similarly, prior HPC research has found substantial variation in spending for inpatient labor and delivery care among Massachusetts hospitals and substantially higher spending at academic medical centers (AMCs) than teaching or community hospitals.<sup>11</sup> This variation in the cost of birth affects nearly all births in the Commonwealth each year: over 99 percent of Massachusetts births take place in hospitals, with a small number of births at home or in birth centers.<sup>12</sup>

**Exhibit 4.5.** Share of problem-based visits for highest-volume potentially avoidable ED diagnoses among commercially-insured residents by site of care, 2019 and 2021



**Notes:** Population includes commercially insured residents aged 0-64 with full coverage. Behavioral health, therapy, counseling-related evaluation and management visits were excluded, as were visits that occurred as part of an inpatient stay. Visits were excluded if they occurred on the same day as a visit at another site of care. See technical appendix for additional details.

**Sources:** HPC analysis of Center for Health Information and Analysis All-Payer Claims Database, V2021, 2019 and 2021.

vi HPC analysis of Center for Health Information and Analysis Inpatient Discharge Database, 2021.

AMCs have the staffing and technological capacity to care for the most complex maternal and fetal conditions and complications throughout antepartum, intrapartum, and postpartum care.<sup>13,vii</sup> In addition to integrating with medical schools, training medical students and residents, and conducting medical research,<sup>14</sup> AMCs are equipped to care for patients with complex needs, provide regional standby services, and offer a high level of trauma care.<sup>15</sup> In Massachusetts, AMCs represent two-thirds of Level I trauma centers<sup>16</sup> and two-thirds of hospitals with Level III neonatal intensive care units.

While AMCs are uniquely prepared to care for the most complex deliveries, most low-risk deliveries will not require a high level of subspecialty care. All community hospitals with obstetric units have the capability to safely care for low- and moderate-risk pregnancies and deliveries – often at lower cost – and the ability to facilitate transport to a higher-level hospital when necessary. (Low-risk deliveries<sup>viii</sup> represent about one-quarter of deliveries in the Commonwealth each year, while moderate-risk deliveries represent 65-70 percent, and high-risk<sup>ix</sup> deliveries under 10 percent.) Moreover, AMCs do not perform better than community or teaching hospitals for non-complex deliveries. Nine of eleven Massachusetts hospitals meeting Leapfrog Group performance standards on all three measures (cesarean deliveries, episiotomies, and early elective deliveries) are community hospitals, while one is a teaching hospital and one is an AMC.<sup>17</sup> Yet AMCs tend to extend their market leverage to obtain higher prices for low-risk births as well as most other categories of care.<sup>18</sup>

## CONCENTRATION OF BIRTH CARE IN MASSACHUSETTS

Births in Massachusetts are concentrated in a small number of hospitals, with a relatively high proportion of care provided in AMCs. Of the 39 hospitals providing birth care in 2021, just eight hospitals<sup>x</sup> cared for half of all deliveries. By hospital cohort, 28 community hospitals cared for about half of all hospital births in 2022 (48.5 percent), while Massachusetts' six AMCs cared for just over one third (36.0 percent). HPC research has documented a gradual decline in the share of deliveries taking place in community hospitals over the past decade (see **Hospital Chartpack**). Massachusetts also has few birth centers, further limiting patients' options (see **Sidebar: Birth Centers**). Given that it is substantially more expensive to give birth in an AMC than in a community or teaching hospital (prices varied more than two-fold for low-risk births, with AMCs receiving roughly \$4,300 more per birth), and because few low-risk births cared for in AMCs are likely to require the level of care AMCs are equipped to provide, the HPC estimated excessive spending associated with low-risk births in AMCs (see **Exhibit 4.18**).

Shifting more births toward community hospitals would require reversing recent trends. Five community hospitals have closed their obstetric units since 2017, with another community hospital obstetric unit closure planned for the fall of 2023. Two community hospitals have also closed entirely in recent years due to flooding and fire damage. Research from other states has found that the closure of hospital obstetric services often increases patients' travel distance from their nearest delivery hospital and may exacerbate racial and ethnic disparities in adverse health outcomes.<sup>19,20</sup> Although a full discussion of interventions that could reverse these trends is beyond the scope of this chapter, the vast differences in payments different hospitals receive for low-risk births by hospital is certainly a factor (see **Price Chartpack**).

vii E.g., care in a level III NICU, available at nine hospitals in Massachusetts as of 2021 (see <https://mchb.tvisdata.hrsa.gov/Narratives/Overview/eb6abb63-c618-47eb-9cob-1012d9307f2d>)

viii Low-risk deliveries were defined as pregnancies that had reached their 37th week (i.e., full-term) and had not progressed to 42 weeks, consisting of one fetus (singleton), in the head-down position (vertex), with APR-DRG severity level 1. Diagnoses of hypertension (including preeclampsia), diabetes, and placental disorders were excluded from "low risk."

ix High-risk deliveries were defined as deliveries of APR-DRG severity level 2-4 that involved more than one of the following conditions: multiple pregnancy, breech presentation, hypertension (including preeclampsia), diabetes, placental disorder, pre-term delivery, or post-term delivery.

x Brigham and Women's Hospital, Beth Israel Deaconess Medical Center, UMass Memorial Medical Center, Baystate Medical Center, Newton-Wellesley Hospital, Massachusetts General Hospital, Southcoast Hospitals Group, and South Shore Hospital accounted for 33,742 out of 66,778 hospital deliveries in 2021 (50.5%).

## SIDEBAR: BIRTH CENTERS IN MASSACHUSETTS

Birth centers offer a high-quality, patient-centered, cost-effective model of care for patients with low-risk pregnancies and deliveries.<sup>21,22</sup> In Massachusetts, care in birth centers is provided by certified nurse midwives, who offer a model of birth care that seeks to avoid interventions in the absence of serious complications and emphasizes patient autonomy and shared decision-making.<sup>23</sup> Birth centers care for low-risk patients who are expected to have uncomplicated deliveries.<sup>14</sup> Since birth centers are optimized for a low-intervention model, patients who unexpectedly require significant interventions or emergency procedures must be transferred to a hospital. Some literature estimates that about 12 percent of birth center patients are transferred during labor.<sup>24</sup> In contrast to hospitals, birth centers offer a more private and home-like environment where patients are more able to choose their own laboring and birthing positions and locations, eat and drink as they feel they need to, and have as many support people with them as they choose. Birth centers typically do not provide interventions, such as inductions or epidurals, that are available at hospitals.

A substantial body of research finds that midwifery care is associated with many positive outcomes for newborns and patients, such as lower rates of preterm birth and low birthweight infants, and lower cesarean and episiotomy rates.<sup>25,26,27,28,29,30,31</sup> Midwifery is also associated with lower spending for labor-and-delivery care as compared to care provided by physicians,<sup>32</sup> possibly due to the lower rate of medical interventions involved.<sup>33</sup> Likewise, spending at freestanding birth centers is lower due to a number of factors including shorter lengths of stay and substantially higher hospital overhead costs that are reflected in hospital facility payments.

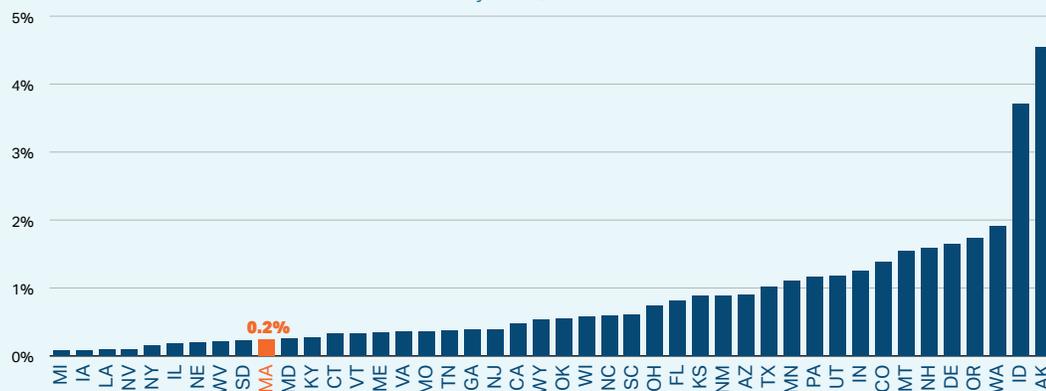
One U.S. study of Medicaid enrollees, for example, found that spending for patients who delivered in a birth center was \$2,010 lower than for patients who delivered in a hospital.<sup>22</sup>

Birth center care represents a small share of all birth care provided nationally, and an even smaller share of birth care provided in Massachusetts. About 0.7 percent of U.S. births took place in birth centers in 2021, compared to 0.2 percent, or 170 births, in the Commonwealth.<sup>xii</sup> By share of deliveries occurring in birth centers, Massachusetts ranks 35th out of the 44 states where birth center care is available, with the share of births in birth centers in each state ranging from 0.1 percent to over 3 percent (**Exhibit 4.6**).

HPC analysis indicates that about one quarter<sup>xiii</sup> of births in Massachusetts hospitals are low-risk, full-term, singleton, vertex-position deliveries that could have been appropriate for birth center care.<sup>14,34</sup> However, the Commonwealth has few birth centers: there were two birth centers providing care as of 2021, one of which closed in 2022.<sup>35</sup> Prior HPC research has found policy, regulatory, and financial barriers to establishing and operating birth centers in the Commonwealth.<sup>36</sup>

With only one birth center remaining, that care option is not available to most birthing patients in the Commonwealth. If Massachusetts matched the national rate of birth center deliveries in 2021, there would have been 314 additional deliveries in birth centers, or 484 total. While many patients may not choose to give birth at a birth center, the relatively high share of potentially appropriate deliveries in the Commonwealth suggests that if birth centers were more widely available, more patients could choose these settings of care associated with positive experiences and lower spending.

**Exhibit 4.6.** Share of births in birth centers by state, 2021



**Sources:** HPC analysis of Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Natality on CDC WONDER Online Database, 2021. Data are from the Natality Records 2016-2021, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Available at <http://wonder.cdc.gov/natality-expanded-current.html>

xi HPC analysis of Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Natality on CDC WONDER Online Database, 2021. Data are from the Natality Records 2016-2021, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Available at: <http://wonder.cdc.gov/natality-expanded-current.html>

xii HPC analysis of the Center for Health Information and Analysis Hospital Inpatient Discharge Database, CY 2019-2022. Of the 66,778 hospital inpatient discharges for labor and delivery care in 2021, 15,566 were low-acuity vaginal deliveries.

## OVERPROVISION OF CARE

Another major driver of excessive medical spending is the overprovision of care. There is a high degree of variation in how care is delivered, particularly for patients with complex or chronic diseases, that reflects ambiguity in the medical literature, evolving guidelines and practices, and the varying preferences and opinions of both medical professionals and patients for conservative or aggressive approaches to care.<sup>37</sup> These factors are reflected in different practice patterns found in different parts of the country and across provider organizations. Researchers at the Dartmouth Atlas have documented variation in care provided for similar patients over the past several decades, particularly studying care among patients enrolled in the Medicare program, which offers similar benefits across the country. In one key study, researchers first identified high- and low- intensity-of-care regions by sorting regions of the country based on average Medicare spending in patients’ last year of life.<sup>38</sup> For similar patients with diagnoses of colorectal cancer, hip fracture, or acute myocardial infarction, Dartmouth Atlas researchers found that patients treated in “high-spending” quintile regions of the country received 27 percent more physician visits, 113 percent more hospital inpatient visits, more diagnostic tests, and more time in the hospital and in the ICU; rates of major surgery did not vary. This increased utilization did not lead to better care: quality of care measures were generally worse in the high-spending quintile (seven of ten measures) compared to the low-spending quintile.

While care for any individual patient is difficult to categorize as excessive (with the exception of unequivocally “low value” care), compared to other states, Massachusetts has high utilization rates of care that tends to be avoidable and costly. There is also considerable variation in use of such care within the state and across provider organizations. These patterns suggest that some of this utilization may be unwarranted, as described below.

## LOW VALUE CARE

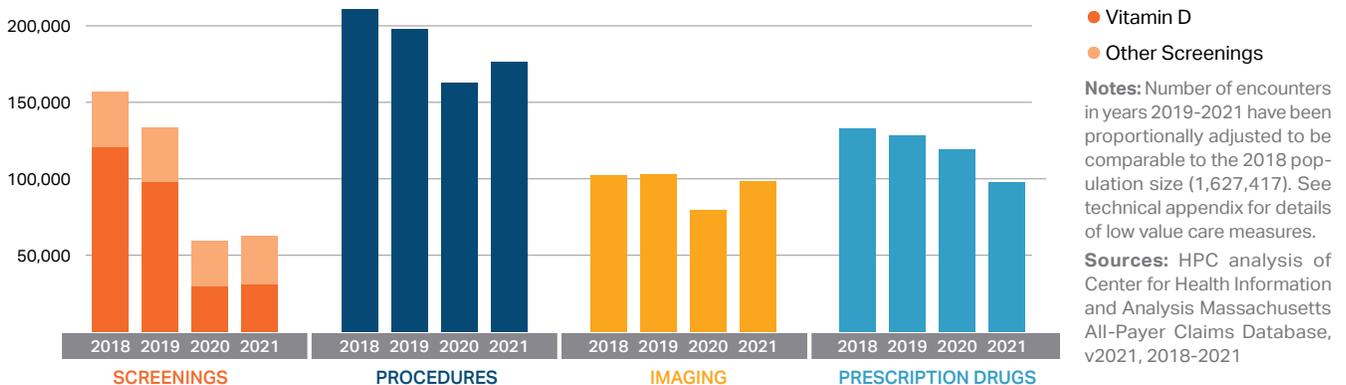
The HPC has reported for many years on low value care, which comprises services for which research literature (and in most cases, the Choosing Wisely campaign of the American Board of

Internal Medicine) has identified as having no net health benefits to patients.<sup>39,40</sup> These services which can be identified in claims rather than medical records, likely represent a small fraction of all low value care provided but serve as a clear example of excessive health care utilization. A number of factors influence why low value care is provided, including lack of provider awareness, provider financial self-interest, and pressure from patients or insufficient time to convince patients that care is unwarranted (although researchers have also found that physician groups that provide more low value care are not rewarded with better patient experience ratings).<sup>41,42,43</sup> In some cases, low value care can further harm patients as care can “cascade” as a result of unnecessary initial medical interventions, such as an inconclusive result from a low value cancer screening that leads to additional appointments, tests, imaging, and other follow-up care. These cascades can create additional utilization and spending as well as emotional, physical, financial, and time burdens on patients.

For the analysis presented in this section, the HPC identified low value care provided to Massachusetts residents in fifteen services observed in the APCD between 2018 and 2021 (see **POPV Chartpack** and the technical appendix for details on the services, measures, and methodology for identifying low value service use in the claims). These interventions fall into four categories: low value screenings (Vitamin D, T3 testing, and cardiac stress testing), low value procedures and tests (pre-operative testing, baseline labs, and spinal injections), low value imaging (DEXA scans, brain imaging, low-back imaging, and heel imaging) and low value prescribing (antibiotics, anticholinergics, antipsychotics, benzodiazepines, and gabapentinoids).

For all four categories of low value services, utilization fell in 2020 (**Exhibit 4.7**), consistent with lower service use overall at the start of the COVID-19 pandemic. Screenings fell most rapidly, driven by a dramatic drop in routine screening for Vitamin D. Utilization increased in 2021 for these types of screenings, procedures, and imaging (though screenings remained well below 2019 levels). The HPC estimates that among only the services included in **Exhibit 4.7**, a total of \$38 million was spent among

**Exhibit 4.7.** Trends in low value care services in Massachusetts, 2018–2021



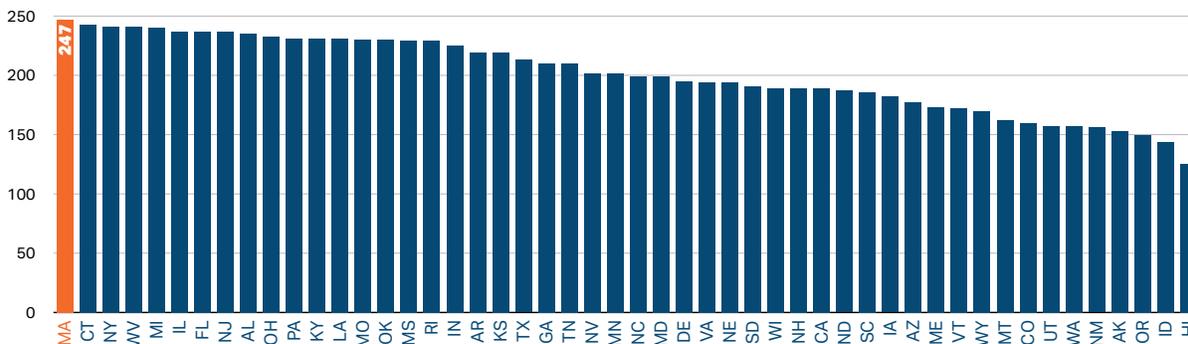
the Massachusetts commercial population in 2021, not including additional “cascades” of care that can result from low value care provision.<sup>44</sup>

### EXCESSIVE INPATIENT HOSPITAL USE

Inpatient care is a major driver of overall health care spending, accounting for 21 percent of total health care expenditures in Massachusetts in 2019.<sup>45</sup> While statewide hospital discharges per capita in Massachusetts are higher than the national average (see **Hospital Chartpack**), they are particularly high among the Medicare population for whom Massachusetts has the single highest inpatient discharge rate among all 50 states (**Exhibit 4.8**).

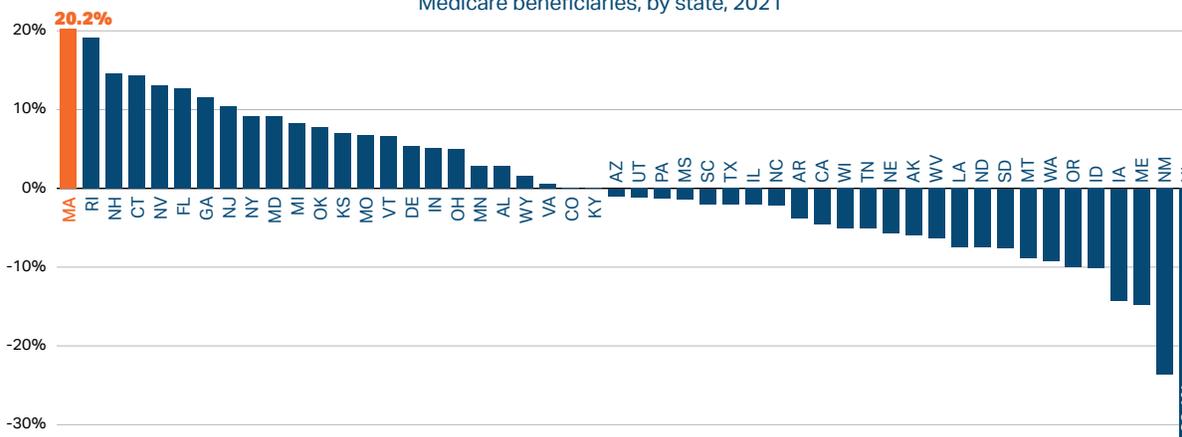
To examine whether this high rate of inpatient use is due to possible differences in Massachusetts’ Original Medicare population, the HPC estimated the Massachusetts Medicare hospitalization rate while further adjusting for differences in age, Medicare Advantage uptake, disability, physical activity limitations, and health status. Accounting for these characteristics, Massachusetts’ Medicare beneficiaries had 20.2 percent more inpatient discharges in 2021 than expected which still represented the highest excess hospitalization rate among all states (**Exhibit 4.9**). These excess hospitalizations amounted to 67,000 additional hospital stays for Medicare patients in 2021 in Massachusetts.<sup>xiii</sup>

**Exhibit 4.8.** Inpatient discharge rate per 1,000 Original Medicare beneficiaries aged 65+, by state, 2021



**Notes:** Inpatient discharge data is based on 100% of Medicare fee-for-service claims for Fee For Service (FFS) beneficiaries aged 65 and older.  
**Sources:** HPC analysis of CMS Medicare Geographic Variation Public Use File, by National, State, and County, 2021.

**Exhibit 4.9.** Difference between observed and expected number of inpatient discharges among Original Medicare beneficiaries, by state, 2021



**Notes:** Hospitalization data is based on 100% of Medicare fee-for-service claims for Fee for Service (FFS) beneficiaries aged 65 and older. For additional details on the analysis including population characteristics used to estimate expected hospitalizations, see Technical Appendix.  
**Sources:** HPC analysis of CMS Medicare Geographic Variation Public Use File, by National, State, and County, 2021. Population counts come from Census Bureau’s ACS 5-year estimates, 2021. Population characteristics come Behavioral Risk Factor Surveillance System (BRFSS) Prevalence Data, 2021.

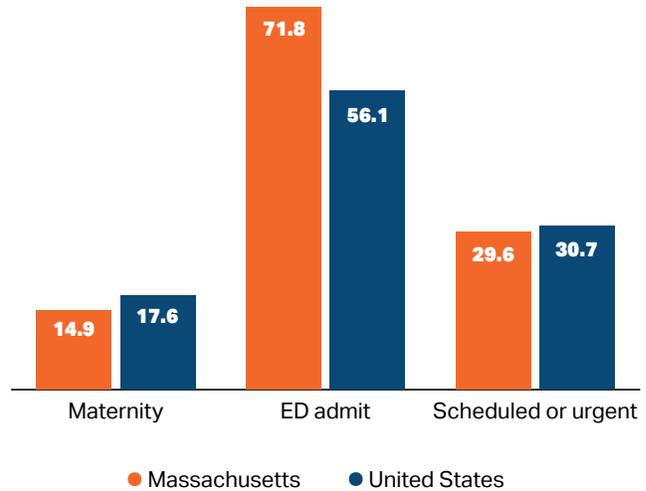
xiii The HPC applied the excess inpatient discharge rate in the Original Medicare population (20.2%) to the number of total Medicare inpatient discharges in Massachusetts (Original Medicare and Medicare Advantage), using the Center for Health Information and Analysis’ Hospital Inpatient Discharge Database.

In addition to a high rate of total inpatient discharges, Massachusetts also has a high rate of inpatient readmissions among Medicare beneficiaries as well as a high rate of potentially avoidable admissions. The Massachusetts rate of all-cause, 30-day hospital readmission among Medicare beneficiaries was 18.3 percent, fifth-highest in the US, and the rate of hospital stays for ambulatory-care sensitive conditions was the 4th highest in the U.S. in 2021 (see **Hospital Chartpack**).

While the underlying causes of Massachusetts' unusually high rate of total hospitalization and avoidable hospitalization among Medicare beneficiaries are unclear, HPC analysis suggests that the high rate of inpatient care in Massachusetts overall (i.e., among all populations) is driven by the frequency of admitting patients from the ED to inpatient. While inpatient admission rates for maternity care and scheduled admissions were lower in Massachusetts than in 34 comparison states, the rate of admissions originating in the ED was 28 percent higher in Massachusetts (71.8 versus 56.1 inpatient discharges per 1,000 population) and represented a greater share of all inpatient admissions (62 versus 54 percent) (**Exhibit 4.10**).

In fact, Massachusetts providers admitted the highest percentage of ED patients (17 percent) for an inpatient stay among all 35 states with available data. (**Exhibit 4.11**).

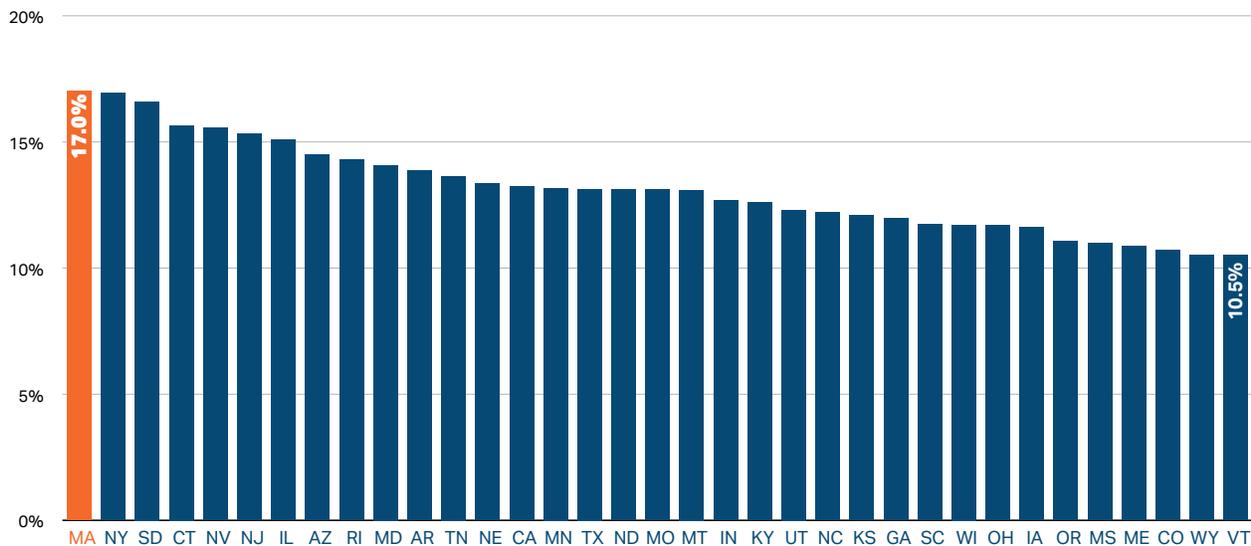
**Exhibit 4.10.** Inpatient discharges per 1,000 population by type of discharge, 2019



**Notes:** Data are for all ages and payers. Not all states report data to HCUP and not all reporting states include data in both inpatient and ED settings. States without 12 months of data in the year were excluded. This resulted in 35 states in the analysis, including Massachusetts. U.S. comparison includes 34 states and excludes Massachusetts.

**Sources:** HPC analysis of AHRQ HCUP Inpatient and Emergency Department Summary Trend Tables, 2019.

**Exhibit 4.11.** Percentage of ED visits resulting in an inpatient admission, 2019



**Notes:** Represents the share of all visits originating in an ED that were ultimately admitted to an inpatient unit. Data are for all ages and payers. Not all states report data to HCUP and not all reporting states include data in both settings. States without 12 months of data in the year were excluded. This resulted in 35 states with inpatient discharge data.

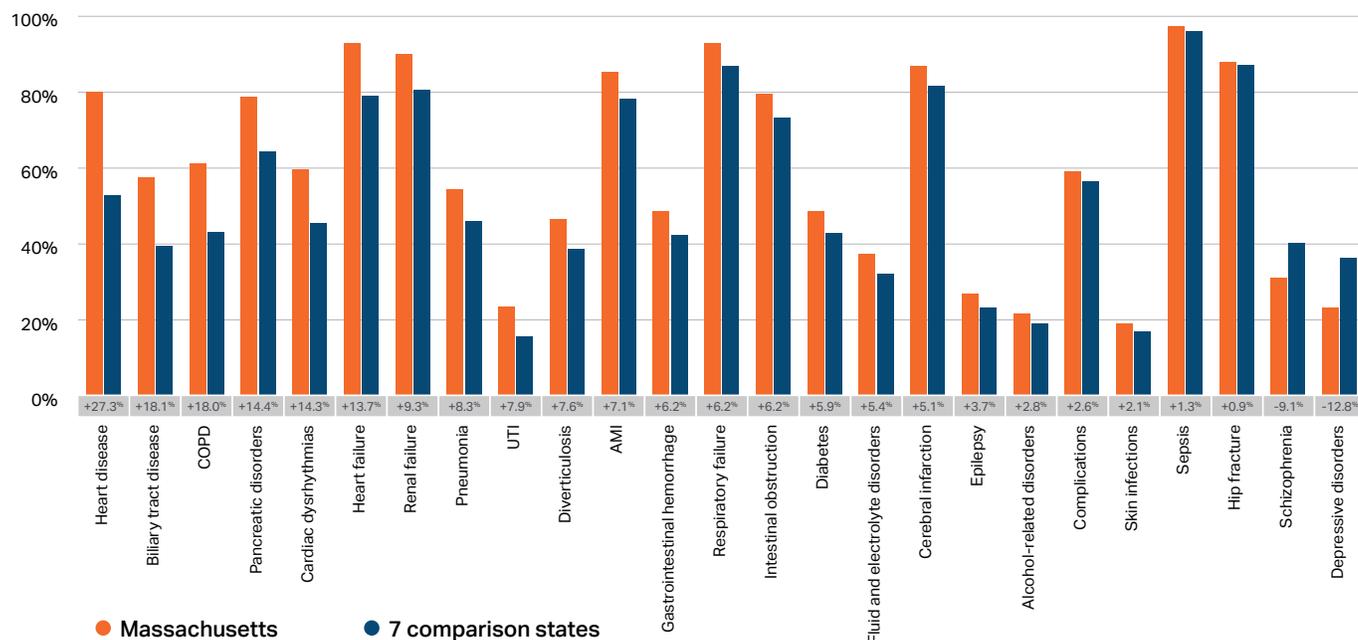
**Sources:** HPC analysis of AHRQ HCUP Inpatient and Emergency Department Summary Trend Tables, 2019.

It is unlikely that the high propensity to admit patients to the hospital from the ED in Massachusetts reflects higher acuity of ED patients in the Commonwealth. Massachusetts has one of the healthiest populations in the country according to a number of metrics, and yet also has more ED visits per capita than the national average (see **Hospital Chartpack**).<sup>46</sup> Prior HPC work has identified considerable variation by hospital in propensity to admit ED patients by diagnosis.<sup>xiv,47</sup> Building on that research, the HPC evaluated Massachusetts' rate of admission from the ED in contrast to seven comparator states (Maryland, Minnesota, North Carolina, New Jersey, New York, Oregon, and Vermont) for the highest-volume conditions presenting to the ED in Massachusetts. Massachusetts admitted a higher percentage of these patients from the ED for a full hospital stay for 23 of 25 conditions, with the largest difference for patients with a heart disease diagnosis (**Exhibit 4.12**).

The difference is particularly large within the Medicare population, where 38 percent of Medicare beneficiaries with ED stays were admitted for a hospital stay in Massachusetts compared to 32 percent in the comparison states. If Massachusetts (all payers) had admitted patients from the ED at the same rate as the comparison states, this would have resulted in 9.3 percent fewer adult inpatient hospitalizations in 2019 (from 708,367 down to 642,723 inpatient discharges).

Higher rates of admissions may not constitute unwarranted utilization if more intensive service use is correlated with better patient outcomes. Nevertheless, the fact that Massachusetts also ranks among the highest in measures of avoidable and excessive utilization and that extensive research has failed to find an association between higher-intensity population-level care and better outcomes suggest some of this utilization is excessive and could be reduced without sacrificing quality or care outcomes, as detailed earlier.

**Exhibit 4.12.** Percentage of ED visits among adults resulting in an inpatient admission by condition, Massachusetts vs comparison states, 2019



**Notes:** Graph includes 25 highest-volume conditions in Massachusetts Emergency Departments. Conditions are sorted from left to right based on the difference between Massachusetts and the average among the comparison states. Patients under age 18, those with a missing diagnosis, and patients who left against medical advice or expired in the ED were excluded. COPD: chronic obstructive pulmonary disease, UTI: urinary tract infection; AMI: acute myocardial infarction. Comparison states are MD, MN, NC, NJ, NY, OR, and VT.

**Sources:** HPC analysis of AHRQ HCUP State Inpatient and Emergency Department databases (SID, SEDD), 2019.

xiv Admission rates from the ED among Massachusetts hospitals for a selected set of conditions varied between 18 and 30 percent, controlling for patient characteristics (age, sex, race, payer, income, and drive time to nearest ED).

## EXCESSIVE IMAGING USE

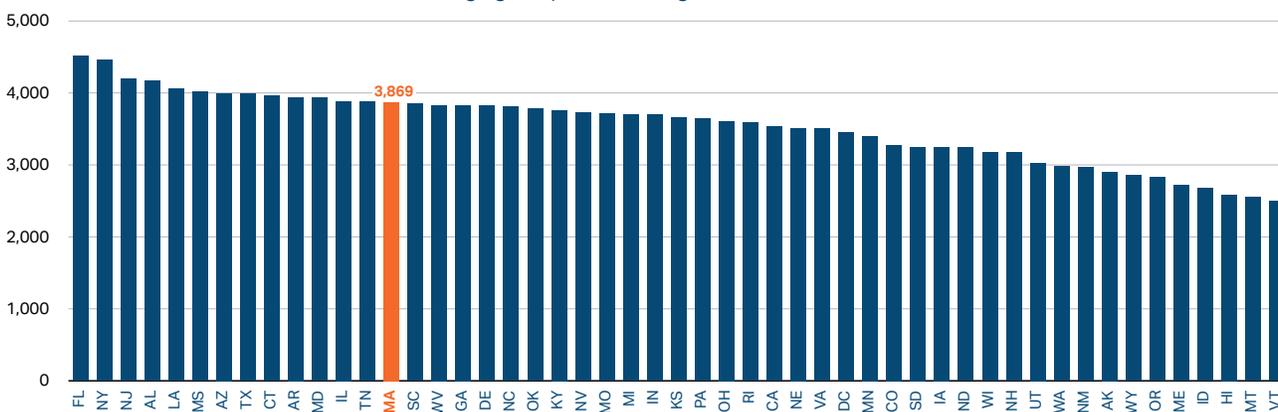
Imaging (i.e., X-ray, ultrasound, MRI, CT, and PET) for diagnostic and other uses, accounts for roughly 5 percent of commercial health care spending in Massachusetts, and, based on research literature, is frequently overused.<sup>48</sup> As with other services reviewed in this chapter, while it is difficult to identify any individual use of imaging as unwarranted, high variation in service use suggests that some unwarranted use is likely. The U.S. has among the highest CT and MRI imaging utilization rates in the world. In a study of 11 high income countries, the U.S. had the second highest rate of MRI scans (118 MRIs per 1,000 population compared with a mean for all 11 countries of 82 per 1,000 population) and the highest number of CT scans (245 CTs per 1,000 population compared with a mean of 151 per 1,000 population).<sup>49</sup> Compared to Canadian adults, U.S. adults aged 18-64 had 30 percent more CT use (134 vs 103 scans per 1,000 patients) and 29 percent more MRI use (85 vs 66 scans per 1,000) in 2016.<sup>50</sup> The **POPV Chartpack** identifies variation in CT and MRI use between provider organizations in Massachusetts in 2021, finding that CT utilization rates varied by 25 percent between provider organizations with the highest and lowest use and rates of MRI use varied by 38 percent.<sup>xv</sup>

The HPC analyzed state variation in the use of imaging in adults aged 65 and older with Original Medicare including CT, MRI, and other imaging services such as ultrasound and X-ray. In 2021, Massachusetts had the 14th highest rate of imaging use, with 3,869 imaging services per 1,000 beneficiaries (**Exhibit 4.13**).

## EXCESS ADMINISTRATIVE SPENDING

In addition to high prices and excessive utilization of care, high administrative spending is identified as a reason for high excess health care spending in the U.S. Due in large part to its complex, fractured, multi-sector, multi-payer health care system, the U.S. spends far more on administrative functions than any other OECD nation whose costs have been studied (\$925 per capita, compared to an average of \$204 in other high-resource countries in one study).<sup>51,52,53,54</sup> One recent study estimated that hospitals in the U.S. spend an average \$215 per discharge on coding, billing and insurance-related functions alone for a surgical stay (with coding consuming the majority of the spending), compared to \$6 in Canada for the same scope of care.<sup>55</sup> Another recent literature summary estimated 15-30 percent of all U.S. health spending is devoted to administrative functions<sup>56</sup> and that half of this spending is likely wasteful, that is, unnecessary or inefficient.<sup>xvi,57</sup> Some specific areas that drive particularly high administrative spending in the U.S. include complex and variable practices for billing and coding; utilization management, such as prior authorization determination; credentialing requirements that differ between providers and between payers; and other insurance inefficiencies.<sup>58</sup> In addition, duplicative or inconsistent expectations regarding collection, reporting, and measurement of quality data create administrative burden for both physicians and provider administrative personnel and duplication of effort among payers.<sup>59</sup>

**Exhibit 4.13.** Imaging use per 1,000 Original Medicare beneficiaries, 2021



Sources: HPC analysis of data from Centers for Medicare and Medicaid Services. Medicare Geographic Variation—by National, State & County. 2021.

xv Methods of analysis differ and the HPC results within Massachusetts may not be directly comparable to national studies.

xvi In one notable example, the authors explain, “Administrative costs are a form of economic ‘arms race.’ Pushed by businesses and individuals to reduce spending, insurers introduce requirements providers must fulfill before they can get paid. These additional requirements cost the insurer money to enforce, but are worth it in the savings from not paying out additional claims. In response to new rules, providers hire additional personnel to maximize the amount they are reimbursed. Witnessing this, insurers beef up rules yet again, putting in place additional requirements for payment. The net effect is a spiral of cascading administrative costs on both side of the market, with no benefit to patients and no net benefit to insurers or providers.”

A recent comprehensive paper estimates that 22 percent of administrative spending could be saved through interventions that payers and providers could implement on their own (such as a provider organization reducing manual work for nurse managers through automated tools for scheduling and staffing, or a payer sunseting out-of-date prior authorization requirements) or through increased alignment between organizations (such as improving data sharing platforms).<sup>60</sup> The authors estimated that an additional 11 percent could be saved through broader structural changes (such as standardizing medical necessity criteria, prior authorization requirements, and other medical policies; standardizing physician licensure; and streamlining quality reporting). The extent to which interventions to reduce administrative spending would ultimately lead to lower premiums and out of pocket spending would depend on the incentives of payers and providers to retain such savings versus return them to consumers.

Provider organizations vary in many aspects of discretionary administrative spending, including CEO pay.<sup>61</sup> Based on data in a recent Boston Globe article, for the top five highest paid hospital executives in Massachusetts in 2021, compensation increased an average 58.5 percent from 2020 to 2021, from an average of \$2,933,982 to \$4,650,313.<sup>62</sup> Among the 35 hospital executives in Massachusetts with compensation over \$1 million in 2020, most received double-digit increases between 2020 and 2021.

While a full assessment of excessive administrative spending in Massachusetts is beyond the scope of this report, the next sections present data on payer and hospital administrative spending in Massachusetts across organizations and over time.

## HOSPITAL ADMINISTRATIVE SPENDING

Hospitals, health systems, and other providers spend time and resources internally on tasks and functions other than those directly related to patient care. These include expenses related to electronic health records systems, financial transactions and other practice management systems (coding, billing claims, system infrastructure), maintenance, upgrade, expansion, and repair of buildings and other capital, customer and patient services (including activities related to utilization management and care transition), and corporate functions such as salaries and expenditures for executives and administrators, marketing, and legal services, among other areas. One study estimated that physicians in the U.S. spend an average of 20.6 hours per week interacting with insurance plans compared to 2.5 hours per Canadian physician.<sup>63</sup>

Unlike administrative spending by private health insurers, which is reported publicly and regulated as a share of premiums that consumers pay, information about most provider administrative spending is not comprehensively reported or regulated. However, hospitals share some information about administrative spending as part of their annual cost reporting to the Center for Medicare and Medicaid Services (CMS). The HPC used these hospital cost reports to analyze hospital administrative spending (**Exhibit 4.14**) in as much detail as available in the underlying reporting. CMS hospital cost reports do not provide a detailed breakdown of general administrative spending components, however, and more data on hospital administrative spending are needed for transparency on excessive hospital administrative spending in Massachusetts.

**Exhibit 4.14.** Administrative spending categories based on CMS hospital cost reports

Category	Contents and examples
<b>Central services and general administration</b>	Central services: Medical supplies and services requested throughout the hospital General administration: Executive, legal, and accounting services; billing and coding activities
<b>Medical records</b>	Medical records systems
<b>Employee benefits</b>	Salary and benefits for employees in the human resources department, and sometimes benefits for employees in other departments. Hospitals may vary in which employees are included in this category
<b>Capital</b>	Buildings, fixtures, land, moveable equipment, depreciable assets
<b>Maintenance</b>	Maintenance and repairs of facility/grounds; internal hospital environment (e.g., heating and cooling systems)
<b>Nursing administration</b>	Nurse managers, schedulers, etc.

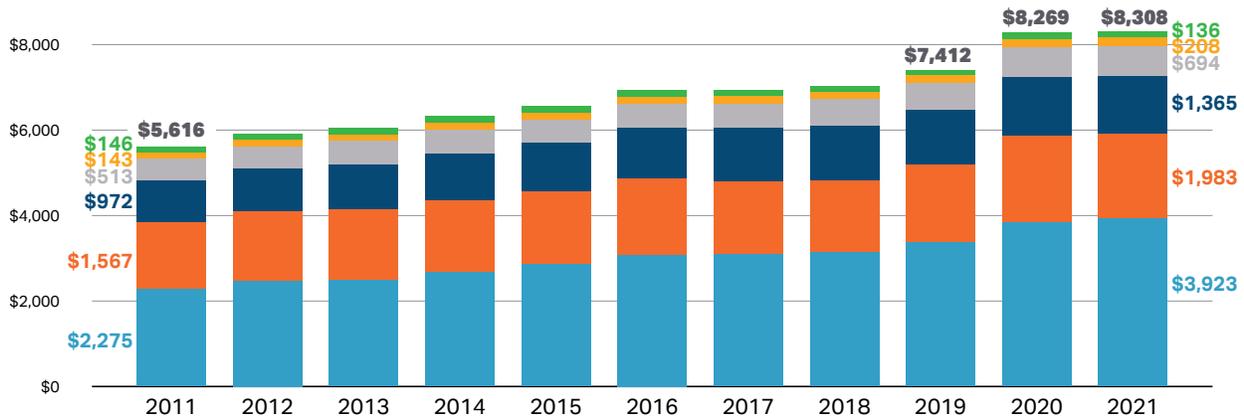
**Sources:** Centers for Medicare & Medicaid Services, The Provider Reimbursement Manual – Part 2, Chapter 40: Hospital and hospital health care complex cost report, Form CMS-2552-10, Section 4013.

In 2021, Massachusetts hospitals spent over \$9 billion on non-clinical administrative expenses, representing 40.1 percent of total net patient revenue. Per discharge equivalent, hospitals in Massachusetts spent slightly more on administration than the U.S. average (\$8,308 versus \$7,640 in 2021).<sup>xvii</sup> Overall, administrative spending per discharge has grown 47.9 percent in total from 2011 to 2021, but patient revenue per discharge has grown similarly over time; thus, while administrative spending continues to increase substantially, the percentage of net patient service revenue spent on administration has remained fairly consistent over the past decade.<sup>xviii</sup> General administration and central services are the largest portion of total administrative spending, and have also grown the fastest, at an annual average growth of 5.6 percent per

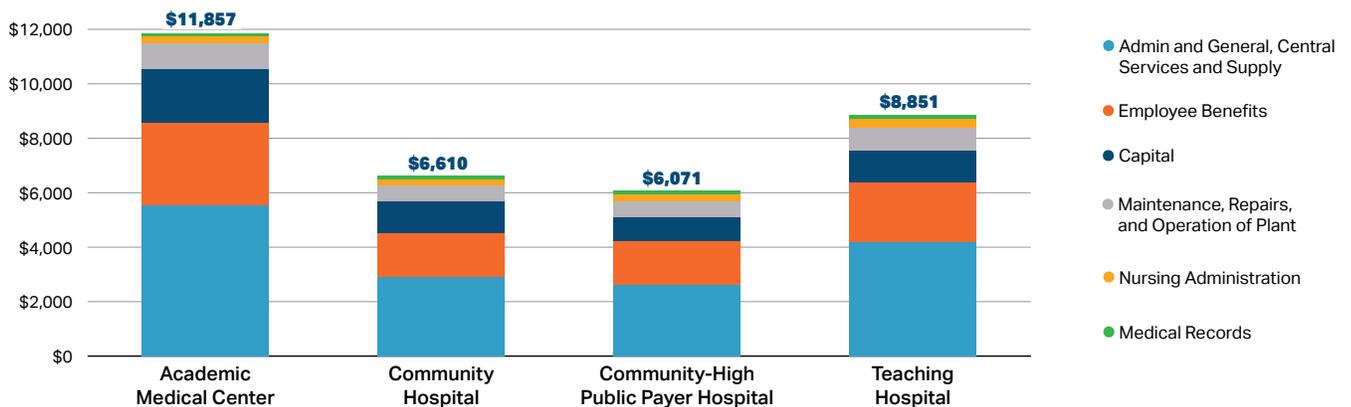
discharge equivalent from 2011 to 2021 (**Exhibit 4.15**). While representing one of the smallest shares, administrative spending for medical records has decreased over time, declining 7.2 percent in total on a per discharge basis from 2011 to 2021.

Administrative spending varies in Massachusetts by type of hospital. Administrative spending per discharge equivalent was twice as high in AMCs as in high public payer community hospitals, for example (**Exhibit 4.16**). Some of these differences may be the result of additional costs associated with operating teaching programs.<sup>xix</sup> Results may also be impacted by how systems with multiple hospitals allocate shared administrative resources between the cost reports for individual hospitals in the system. Further research is needed to better understand these trends.

**Exhibit 4.15.** Administrative spending per discharge equivalent in Massachusetts hospitals, 2011–2021



**Exhibit 4.16.** Administrative spending per discharge equivalent in Massachusetts hospitals by hospital type, 2021



**Notes:** A discharge equivalent converts outpatient utilization to a comparable number of inpatient discharges based on resource intensity.

**Sources:** HPC analysis of RAND Hospital Data: Web-Based Tool. Santa Monica, CA: RAND Corporation, 2018.

xvii A discharge equivalent converts outpatient utilization to a comparable number of inpatient discharges based on resource intensity.

xviii Administrative spending was 40.2% of net patient revenue in 2011 and averaged 40.8% from 2011 to 2021. The highest share was 43.3% in 2020, in the context of early COVID-19 pandemic dynamics in administrative spending and patient revenue.

xix Medicare makes direct and indirect payments to hospitals with teaching programs to offset costs associated with these programs.

Evidence suggests a good deal of administrative spending is discretionary on the part of hospitals and can be reduced when necessary.<sup>64,61</sup> For example, Rhode Island implemented a package of affordability standards in 2011 which included provisions that limited hospital price growth.<sup>65</sup> In the eight years that followed, not only did medical spending per discharge at Rhode Island hospitals increase more slowly than at Massachusetts hospitals, but Rhode Island hospitals' administrative spending for general administration/central services also grew far more slowly than in Massachusetts (23 percent versus 52 percent) as did hospital spending on employee benefits (-5 percent versus 19 percent). There was no effect on measured quality of care.<sup>65</sup>

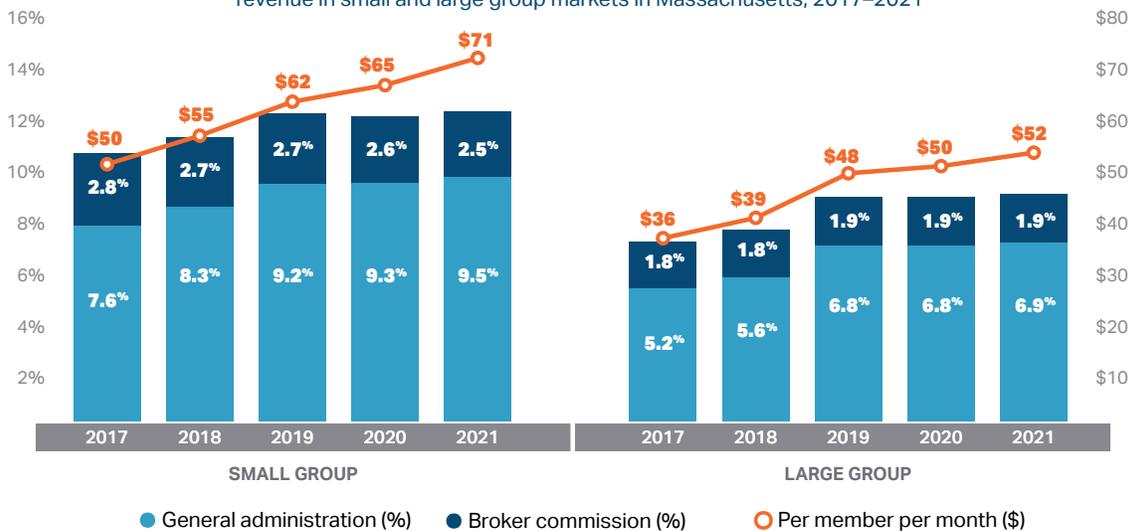
### PAYER ADMINISTRATIVE SPENDING

Payer administrative spending is subject to greater regulation than hospital administrative spending, but it remains an area with opportunity for greater oversight and transparency, as numerous inefficiencies contribute to high administrative costs, especially in the commercial market. In the U.S., administrative spending for Original Medicare and Medicaid are estimated to be approximately 2 to 5 percent, while spending in the commercial market averages around 17 percent.<sup>66</sup> Examples of payer administrative spending include employee and executive salaries, spending related to financial transactions, claims processing, provider network management, and customer and patient services (including enrollment and utilization management activities).

The Affordable Care Act established a medical loss ratio (MLR) requiring that payers in the commercial individual and small group markets spend no less than 80 percent of the premium dollar on patient care and quality improvement (i.e. limiting administrative costs and profit (sometimes called surplus for non-profit health plans) to no more than 20 percent), with an 85 percent MLR requirement for the large group market. Massachusetts sets a more stringent MLR limit of 88 percent for the merged market (small group and individual).<sup>67</sup> The MLR is calculated on a three-year rolling average. If the share of premiums spent on patient care is below the MLR requirement, the payer is required to provide a rebate to members.

The HPC examined payer administrative spending in the CMS MLR Annual Reporting Forms for 2017-2021, calculating spending for a measure of administration that includes general administration and broker commissions (payer profit is not included in the HPC measure). In the small and large group markets in Massachusetts, the share of premium dollars spent on administration has been rising over the last five years (**Exhibit 4.17**). In the small group market, the average share grew from 10.4 percent in 2017 to 12.0 percent in 2021 while in the large group market, the average share of premium dollars spent on payer administration has grown from 7.0 percent in 2017 to 8.8 percent in 2021. Administrative spending tends to be more efficient in the large group market than in smaller markets because operational costs for a given plan are spread over a greater volume of members.<sup>68</sup>

**Exhibit 4.17.** Administrative spending in dollars per member per month and share of premium revenue in small and large group markets in Massachusetts, 2017–2021



**Notes:** Per member per month (PMPM) values were calculated by totaling general administration and commission expenses and dividing them by the number of member months for each type of net market. Percentage values were calculated by dividing the expenses by net premiums earned.

**Sources:** HPC analysis of Centers for Medicare & Medicaid Services Medical Loss Ratio Annual Reporting Forms, 2017-2021

## ESTIMATES OF EXCESSIVE SPENDING IN MASSACHUSETTS DUE TO OVERUTILIZATION OF CARE AND UTILIZATION OF OVERLY HIGH-COST SITES OF CARE

In this final section, the HPC provides illustrative quantitative estimates of excessive spending in Massachusetts for each of the categories of care discussed above (excluding the administrative spending section).<sup>xx</sup> These estimates are more uncertain and difficult to quantify than in the previous chapter as the ‘right’ level of utilization is less clear. The HPC makes use of state or regional variation as a guide to the extent of excessive utilization in many of the scenarios.

Further, the mechanisms involved in reducing excessive utilization are complex and difficult to achieve through policy change in that they involve shifting the locations where patients seek care or

changing provider decisions about the type of care they provide or recommend. For example, Medicare’s program to reduce hospital readmissions through penalties has had limited effectiveness.<sup>69</sup> Utilization patterns could also be influenced by payment policies themselves. For example, site-neutral payment or other policies that reduce the gap in provider payment between facility and office-based care settings could encourage the expansion of the latter at the expense of the former.

Each estimate in **Exhibit 4.18** uses a set of assumptions that are described briefly within the table, with fuller details provided in the Technical Appendix.

**Exhibit 4.18.** Estimated reductions in excess spending from lower use of high-cost sites of care and lower overprovision of care, 2021

Excess spending area	Reduction scenario modeled	Excess spending reduction (\$million):
<b>Use of high-cost sites of care</b>		
Use of hospital and other facilities rather than office settings ( <b>Medicare</b> )	The percentage of Massachusetts Medicare beneficiaries receiving certain ambulatory services in HOPDs and other facilities shifts halfway from the current percentage to the national percentage. <sup>a</sup>	\$54.5
Use of HOPDs rather than ASCs ( <b>Commercial</b> )	The share of services commonly performed in both ASCs and HOPDs shifts toward ASCs by 50% (for example, if 10% of the volume of a given service is currently provided in ASCs, that percentage would shift to 15% and the percentage performed in HOPDs would decline by 5 percentage points). <sup>b</sup>	\$39.4
High rates of avoidable ED visits in some regions ( <b>all-payer</b> )	The rate of avoidable ED visits in the regions with the highest rates of such visits in Massachusetts declines to the 75th percentile rate among regions in 2021. <sup>c</sup>	\$9.7
Low risk deliveries occurring at academic medical centers ( <b>Commercial</b> )	50% of low-risk deliveries taking place at AMCs in which patients live closer to a community hospital shift to community hospitals. <sup>d</sup>	\$11.1
<b>Overprovision of care</b>		
Inpatient hospitalization rate among Medicare beneficiaries ( <b>Medicare</b> )	The rate of hospitalization among Massachusetts Medicare beneficiaries, controlling for age and other factors, declines to halfway between the current rate and the U.S. average rate. <sup>e</sup>	\$334.8
Low-value care ( <b>Commercial</b> )	The rate of provision of the specific low-value care services discussed in the chapter is reduced by half. <sup>f</sup>	\$18.8
Imaging ( <b>Commercial</b> )	The rate of use of imaging (CT and MRI encounters) for the providers with the highest use would be reduced to the level of the provider with the 75th percentile rate in 2021. <sup>g</sup>	\$5.1
Administrative spending	Excessive spending not estimated.	-

a. For the services in which Massachusetts has a lower share provided in facilities than the U.S. rate, the HPC assumed no change. Spending figure may be slightly overestimated because Medicare does not pay more than the office visit payment rate for evaluation and management visits that occur at off-campus and new (as of 2015) HOPDs.

b. This estimate includes only surgeries and other procedures that had comparable complexity in both ASCs and HOPDs. One case type (cataract surgery) was also excluded since the percentage performed in ASCs was already 67% (see technical appendix for the details of the methodology). The vast majority (89%) of the excessive spending estimate is due to services in which statewide volume is at least 10% as high in ASCs as in HOPDs.

c. Estimate assumes that the cost of the ED visit is replaced by the average cost of an urgent care or physician office visit.

d. If the scenario is expanded such that 50% of all commercially-insured patients with low-acuity deliveries in AMCs had given birth in community hospitals (i.e. not just those with a closer community hospital), excess spending would be \$18.2 million. A small

portion of the excessive spending noted in this table (5–9%) overlaps with the analysis in the previous chapter concerning excessive spending due to inpatient prices beyond 200% of MassHealth rates.

e. Estimate assumes that for each hospitalization avoided, spending declines by 75% of the amount that would have been spent on the hospital stay, with the 25% representing other services provided in lieu of hospitalization such as home health or other office visits. Excessive spending associated with excessive rates of avoidable hospital use and readmissions among Medicare beneficiaries amounts to \$96 million and is not indicated separately as it is largely a subset of this total.

f. See the POPV Chartpack and Technical Appendix for more details.

g. Includes all CT and MRI imaging encounters for attributed patients to one of the thirteen largest provider organizations with rates adjusted for differences in age, sex, health status, and community-level variables related to education and socioeconomic status. See the POPV Chartpack and Technical Appendix for more details.

xx While there is potential for reduced spending from excessive administrative spending (for example, see <https://www.healthaffairs.org/doi/10.1377/hpb20220909.830296/>), the extent to which administrative spending in Massachusetts is excessive is more difficult to quantify than other categories examined here.

The magnitude of excessive spending due to excessive utilization of care for the scenarios described in **Exhibit 4.18** is substantial, though more modest than the estimates of excessive spending based on prices in the previous chapter. Together, this excessive spending amounted to roughly \$500 million in 2021 or approximately 1 percent of total Massachusetts health care expenditures. However, these are limited examples that the HPC selected based on availability of data, such as restricting analyses to certain payer types.<sup>xxi</sup> Further, there are larger categories of potentially excessive spending omitted entirely from these analyses, such as use of high-cost, invasive treatment options where lower-cost, equally effective options are available.<sup>38</sup> And as noted earlier, there could be significant interactions between many of the various payment and other policies detailed in the Policy Recommendations presented at the end of this report that would also have beneficial impacts on utilization patterns.

Beyond the financial impact of unnecessary use of care is the very real non-financial impact on patients. Unnecessary care can involve considerable patient time, stress, and the potential for additional unnecessary follow-on care and adverse events such as hospital-acquired infections or medical errors. These consequences may be particularly dire for patients with less ability to afford to spend additional time and resources navigating the health care system.

## CONCLUSION

This chapter outlines examples of excess spending due to care provision in more intensive settings than needed for specific services, as well as the overprovision of services, and summarized hospital and insurer administrative spending. The HPC also provides estimates of excessive spending associated with these categories of care. There are opportunities to consider policy interventions that could realize some of these potential spending reductions. Many of the Policy Recommendations presented at the end of this report would help move the Massachusetts health care system in a direction that achieves some of these reductions in spending without harming quality and access to care, and while improving health equity and affordability of care.

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xxi For example, low value care is provided to Medicare beneficiaries as well, but the HPC does not currently have access to Medicare data in the same level of detail as for commercial data. There is also avoidable and excessive hospitalization among commercial residents, but the HPC does not currently have comparable commercial data in other states in the U.S.

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CHAPTER 5:  
**2023 HEALTH CARE  
COST TRENDS  
RECOMMENDATIONS**

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## CHAPTER 5:

# 2023 HEALTH CARE COST TRENDS RECOMMENDATIONS

This year marks a critical inflection point in the Commonwealth's ambitious journey of health care reform which has made it a national policy leader. As documented in this 10th annual HPC report, there are many alarming trends which, if unaddressed, will result in a health care system that is unaffordable for Massachusetts residents and businesses, including:

- Massachusetts residents have high health care costs that are consistently increasing faster than wages, exacerbating existing affordability challenges that can lead to avoidance of necessary care and medical debt, and widening disparities in health outcomes based on race, ethnicity, income, and other factors. These high and increasing costs are primarily driven by high and increasing prices for some health care providers and for pharmaceuticals, with administrative spending and use of high-cost settings of care as additional drivers.
- Massachusetts employers of all sizes, but particularly small businesses, are confronting ever-rising premiums by shifting costs to employees through high deductible health plans. As a result, many employees are increasingly at risk of medical debt, relying on state Medicaid coverage, or are becoming uninsured, an alarming signal of the challenges facing a core sector of the state's economy.
- Many Massachusetts health care providers across the care continuum continue to confront serious workforce challenges and financial instability, with some providers deciding to reduce services, close units (notably pediatric and maternity hospital care) or consolidate with larger systems. The financial pressures faced by some providers are driven, in part, by persistent wide variation in prices among providers for the same types of services (with lower commercial prices paid to providers with higher public payer mix) without commensurate differences in quality or other measures of value.

It is imperative that the state take action to enhance our high-quality health care system in Massachusetts such that it is also an affordable and equitable one. In this report, the HPC has outlined several areas of excess spending related to unreasonably high prices, avoidable use of high-cost care settings, and services that confer little to no benefit to patients – all of which have the potential to reduce total health care spending while maintaining the quality that residents deserve. A renewed commitment by all stakeholders is needed to redirect resources away from unwarranted excess spending that benefits the few and towards efforts to

revitalize the health care system that benefit the many, consistent with the Commonwealth's values and goals.

The **nine policy recommendations** below reflect a comprehensive approach to reduce health care cost growth, promote affordability, and advance equity. The HPC further recommends that legislative action in 2023 and 2024 prioritize modernizing and evolving the state's policy framework, necessary to chart a path for the next decade.

### POLICY RECOMMENDATIONS

1. **MODERNIZE THE COMMONWEALTH'S BENCHMARK FRAMEWORK TO PRIORITIZE HEALTH CARE AFFORDABILITY AND EQUITY FOR ALL**
2. **CONSTRAIN EXCESSIVE PROVIDER PRICES**
3. **ENHANCE OVERSIGHT OF PHARMACEUTICAL SPENDING**
4. **MAKE HEALTH PLANS ACCOUNTABLE FOR AFFORDABILITY**
5. **ADVANCE HEALTH EQUITY FOR ALL**
6. **REDUCE ADMINISTRATIVE COMPLEXITY**
7. **STRENGTHEN TOOLS TO MONITOR THE PROVIDER MARKET AND ALIGN THE SUPPLY AND DISTRIBUTION OF SERVICES WITH COMMUNITY NEED**
8. **SUPPORT AND INVEST IN THE COMMONWEALTH'S HEALTH CARE WORKFORCE**
9. **STRENGTHEN PRIMARY AND BEHAVIORAL HEALTH CARE**

1. **MODERNIZE THE COMMONWEALTH'S BENCHMARK FRAMEWORK TO PRIORITIZE HEALTH CARE AFFORDABILITY AND EQUITY FOR ALL.** The state's health care cost growth benchmark, first established in 2012, is a measurable goal for moderating total spending growth and easing the burden of health care costs on government, households, and businesses in Massachusetts. Building on this approach which has successfully moderated cost growth in Massachusetts and which other states have adopted and expanded upon, the Commonwealth can establish a more comprehensive framework for setting goals and tracking progress on other priorities, such as affordability and health equity. A modernized, aligned framework should:

**a. Strengthen the Health Care Cost Growth Benchmark.**

As recommended in past years, the Commonwealth should strengthen and improve the mechanisms for holding health care entities responsible for health care spending performance to support the Commonwealth's efforts to meet the health care cost growth benchmark. These collective fixes to the benchmark and its accountability mechanisms are critically necessary to establish a more effective process to constrain excessive spending. Specifically, the Legislature should strengthen the existing health care cost growth benchmark framework by:

- i. Directing CHIA to use metrics in addition to growth in health status adjusted total medical expense (HSA TME) to refer entities to the HPC for review and a potential performance improvement plan (PIP). Such a change would enable CHIA to refer entities other than payers and providers with primary care networks (e.g., hospitals and specialists) to the HPC and would ensure that real dollar spending increases are not masked by medical coding efforts that reduce growth rates in health status adjusted measures;
- ii. Directing CHIA to develop referral standards that recognize that health care entities vary considerably in their baseline spending levels, pricing levels, and populations served, and that reflect that spending growth may be more or less concerning for a given entity based on these contextual factors;
- iii. Requiring that referrals of entities to the HPC for review and a potential PIP be made public; and
- iv. Strengthening the PIP process to allow the HPC to set savings target expectations and identify the types of strategies that should be included in a PIP, to give the HPC greater oversight tools to ensure that any PIP results in meaningful improvement on the most important factors driving spending for a given entity, and to further deter excessive spending by allowing the HPC to apply tougher, escalating financial penalties for above-benchmark spending or non-compliance, similar to efforts in other states with health care growth targets.

These collective fixes to the benchmark and its accountability mechanisms have been detailed in previous Cost Trends Reports and are critically necessary to establish a more effective process to constrain excessive health care spending and allow resources to be directed to other important priorities that also impact the health and well-being of Massachusetts residents.

**b. Establish New Affordability Benchmark(s).** While health care spending by public and private health care payers moderated in the years following the enactment of Massachusetts' health care cost growth benchmark, health insurance premiums and cost-sharing by individuals and families have frequently increased in excess of the benchmark. To both complement and bolster the health care cost growth benchmark, the Commonwealth should develop an accountability framework for affordability of care for Massachusetts residents. As part of a strategy that tracks improvement on indicators of affordability, including the differential impact of both health plan premiums and consumer out-of-pocket spending by income, geography, market segment, and other factors, an affordability index should be measured annually in a benchmark-like process. To enable public transparency and accountability, the state's performance on the affordability index and other measures should be incorporated into CHIA's Annual Report and the HPC's Annual Cost Trends Hearing. Such targets should inform the development of new health plan affordability standards at the Division of Insurance (DOI) that play a central role in DOI's review and approval of health plan rates.

**c. Establish New Health Equity Benchmark(s).** To further embed the goal of advancing health equity in the state's policy framework, the Commonwealth should undertake a coordinated effort across state agencies and sectors, both in health care and in other key sectors that influence health and well-being such as education, housing and social services, to identify high-priority areas of health inequities, set measurable goals for improvement, develop a framework for accountability, and report annually on progress. To enable public transparency and accountability, the state's performance on health equity benchmark(s) and other measures should be incorporated into CHIA's Annual Report and the HPC's Annual Cost Trends Hearing.

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**2. CONSTRAIN EXCESSIVE PROVIDER PRICES.** Prices continue to be a primary driver of health care spending growth in Massachusetts, and the significant variation in prices between Massachusetts providers for the same sets of services (without commensurate differences in quality) continues to divert resources away from smaller and/or unaffiliated community providers, many of which serve vulnerable patient populations toward generally larger and more well-resourced systems. These high and variable prices have been highlighted in more than a decade of work by the HPC and other state agencies. Past market initiatives (e.g., tiered and narrow network products,

price transparency efforts, risk contracting) have failed to meaningfully restrain provider price growth or reduce unwarranted variation in provider prices in Massachusetts, and many states (e.g., Rhode Island, Oregon, Colorado, and Maryland) are similarly recognizing that some level of price regulation, rather than market initiatives alone, may be necessary to ensure an equitable and affordable health care system. Accordingly, the HPC recommends the following actions:

**a. Limit Excessive Provider Prices.** The Legislature should take action to limit excessive commercial provider prices beyond reasonable benchmark amounts, as illustrated in this report. Such limits could target prices with the greatest impact on spending, as well as annual price growth. Such price limits—targeted specifically at the highest-priced providers and those services for which competitive forces are not likely to meaningfully constrain prices—would be an important complement to the health care cost growth benchmark. Such limits would reduce unwarranted price variation and promote equity by ensuring that future price increases can accrue appropriately to lower-priced providers including many community hospitals, community health centers, and other providers that care for populations facing the greatest health inequities, ensuring the viability of these critical resources.

**b. Require Site-Neutral Payment.** Many routine health care services are safely provided in both hospital outpatient departments and non-hospital settings such as physician offices. Commercial prices and patient cost-sharing are generally substantially higher (often twice as high or more) at hospital outpatient sites due to the addition of a hospital payment component or “facility fee.” In many cases, patients may not realize that pricing can be substantially higher at some sites (those licensed as hospital outpatient departments), and face higher costs as a result. To limit higher prices related to hospital/physician consolidation and enhance consumer protections, policymakers should take action to require site-neutral payments for certain ambulatory services that are commonly provided in office-based settings (e.g., office visits, lab tests, basic imaging and diagnostic services, and clinician-administered drugs). Additionally, remaining outpatient sites that charge facility fees should be required to disclose this fact conspicuously and clearly to patients prior to delivering care, and payers and providers should include the location where the visit occurred, including whether it was an on- or off-campus hospital outpatient department, on claims submitted to payers and reported to CHIA’s Massachusetts All-Payer Claims Database.

**c. Adopt Default Out-of-Network Payment Rate.** To further constrain excessive provider prices, the Legislature should enact the default out-of-network payment rate for “surprise billing” situations recommended by the Executive Office of Health and Human Services in its 2021 report. Data from early implementation of the arbitration process established by the federal No Surprises Act (to resolve out-of-network provider payment disputes) demonstrate significant administrative challenges and disadvantages of relying on the federal arbitration process. The Commonwealth should join other states that have enacted a default rate for the fully insured market, with a potential opt-in for self-insured plans. A default rate would provide predictability, transparency and simplicity, and reduce health care spending in Massachusetts. Establishing a default out-of-network rate is also a critical component of a policy response to unwarranted provider price variation.

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### 3. ENHANCE OVERSIGHT OF PHARMACEUTICAL SPENDING.

Retail drug spending has become one of the fastest areas of spending growth in the Commonwealth, growing at an annualized rate of 7.5% between 2019 and 2020. This is largely driven by escalating prices for the highest cost branded prescription drugs. Some patients who need high-cost branded drugs are experiencing steep increases in their out-of-pocket expenses as health plans design benefit packages that shift rising pharmacy costs back to patients in the form of specific medication deductibles or specialty tiers with coinsurance or high co-pays, or face barriers to prescribed care due to utilization management designed to limit access to treatments. Without any additional oversight or regulatory tools, high drug prices will continue to shape patient access through barriers related to health plan benefit designs, and pharmacy costs will continue to steadily increase, driving individuals and employers to purchase more restrictive plans that aggressively manage pharmacy spending through cost sharing and utilization management. Accordingly, the HPC recommends the following actions:

**a. Enhance Oversight/Transparency and Data Collection.** At minimum, the Commonwealth should take action to increase both transparency of drug price growth and spending and oversight of the key stakeholders responsible for setting drug prices and establishing the policies that influence how patients access critical medications. The Commonwealth should add pharmaceutical manufacturers and pharmacy benefit managers explicitly into the HPC’s oversight responsibilities, and authorize CHIA to collect data on pharmaceuticals from payers and pharmacy benefit managers (PBMs), including the average cost of pharmaceuticals

after all discounts and rebates; prices on average charged by PBMs to health plans and paid to pharmacies by drug; and gross and net spending for drugs administered in provider offices and hospital outpatient departments, including through the 340B drug pricing program.

- b. PBM Oversight.** The state should also require licensure of PBMs in order to monitor their business practices with pharmacies and health plans, and their impact on patients.
- c. Expand Drug Pricing Reviews.** The Commonwealth should build on MassHealth’s successful process by exploring expansion of the HPC’s drug pricing review authority to other state and commercial payers such as the Group Insurance Commission in order to strengthen price negotiations by creating the pathway for a public escalation in negotiations that ultimately results in an investigation by the HPC if negotiations are unsuccessful.
- d. Limit Out-of-Pocket Costs on High-Value Drugs.** Finally, the Commonwealth should cap monthly out-of-pocket costs for high value prescription drugs that are widely recognized to improve health outcomes for patients with no or minimal impact on health care spending.

#### 4. MAKE HEALTH PLANS ACCOUNTABLE FOR AFFORDABILITY.

As both health insurance premiums and the use of higher deductibles increase, further squeezing families in Massachusetts, the Commonwealth should require greater accountability of health plans for delivering value to consumers and ensuring that any savings that accrue to health plans (e.g., from provider price caps as described above or reduced use of high-cost care) are passed along to consumers.

- a. Enhance Scrutiny of Drivers of Health Plan Premium Growth.** State affordability targets should inform the DOI’s oversight of health plans and should be a key factor in the DOI’s review and approval of health plan rate filings. The Legislature should equip DOI with dedicated tools and resources to analyze drivers of health plan premium growth across market segments, including provider rate increases and administrative expenses, such as broker fees and contributions to reserves. The DOI should consider the need for additional reporting requirements and coordination with CHIA and the HPC and other agencies.
- b. Facilitate Small Business Enrollment in Massachusetts Connector Plans.** The small group market continues to shrink due, in part, to increasingly unaffordable premiums that outpace wage growth, leading to higher premiums, and higher rates of employee enrollment in MassHealth

or uninsurance. The HPC recommends further steps to facilitate enrollment of small business groups in plans via the Massachusetts Health Connector’s Health Connector for Business platform. These steps could include additional savings on premiums through enhanced Health Connector offerings, additional promotional efforts, reduction of enrollment barriers such as percentage-of-group participation requirements, and administrative facilitation such as automatic opt-out enrollment for the smallest employee groups in the Massachusetts small group market.

#### c. Improve Health Equity Through Premium Support for Employees with Lower Incomes.

As the number of Massachusetts consumers with high-deductible health plans (HDHPs) has sharply increased, the HPC has documented increasing challenges to affordability, equitable access, and experience of care, particularly for employees with lower incomes. Total health care spending, including premiums and cost-sharing, consumes more than 20 percent of total compensation for middle class families, squeezing household budgets. Employers and health plans could improve health equity by reducing premium contributions for lower wage workers via tax credits or wage-adjusted contributions.

#### d. Alternative Payment Methods (APMs).

Health plans should continue to promote the increased adoption and effectiveness of APMs (e.g., increased use of primary care capitation, APMs for preferred provider organization populations, episode bundles, and two-sided risk models), especially in the commercial market where expansion has stalled. Plans should leverage multi-payer alignment opportunities, to unify APMs across MassHealth, Medicare, and commercially-insured populations for participating practices.

#### 5. ADVANCE HEALTH EQUITY FOR ALL.

A recent study by the Blue Cross Blue Shield of Massachusetts Foundation estimated that the economic burden of health inequities experienced by Black, Hispanic/Latino, and Asian populations in Massachusetts totaled \$5.9 billion each year, and that “about one-quarter of this burden, is associated with avoidable health care spending, which translates to approximately 2.2 percent of total medical spending in Massachusetts.” Achieving health equity for all will require focused, coordinated efforts among policymakers, state agencies, and the health care system to ensure that the Commonwealth addresses inequities in both the social determinants of health (SDOH) and in health care delivery, as well as the impacts of those inequities on residents. As such, all stakeholders should have both a role in and accountability for efforts to achieve health equity for all.

**a. Address Social Determinants of Health.** Recognizing that the Commonwealth's health equity goals will be difficult to achieve without addressing inequities in the SDOH, policy-makers must continue to prioritize investments in such areas as affordable housing, improved food and transportation systems, and climate change reduction and mitigation strategies. Health care providers can contribute meaningfully to these efforts as anchor institutions, supporting community-led initiatives to respond to these and other social determinants.

**b. Use Payer-Provider Contracts to Advance Health Equity.** Payers and providers should continue adopting and building on current efforts to create accountability for health equity via payer-provider contracts, including by requiring stratification of performance data by race/ethnicity and tying payment to performance on health equity targets. APM contracts, in particular, offer opportunities to align incentives to motivate investments in services and infrastructure (e.g., care coordination, integrated technology, and performance reporting) aimed at addressing health inequities within patient populations.

**c. Improve Data Collection.** To implement these health equity goals, policymakers, providers, and payers should commit to the adoption of the data standards recommended by the Health Equity Data Standards Technical Advisory Group of the EOHHS Quality Measurement Alignment Taskforce. Universal adoption of these standards would enable efficient and consistent collection of reliable, standardized patient data on race, ethnicity, language, disability status, sexual orientation, gender identity, and sex to inform the integration of equity considerations into quality improvement, cost-control, and affordability initiatives.

**d. Support Investment in Innovative Strategies to Address Health Equity.** To support providers in developing innovative solutions to achieving health equity, the Legislature should expand the approved uses of the Distressed Hospital Trust Fund and Payment Reform Trust Fund to include supporting innovative initiatives focused primarily on addressing inequities in health and health care.

**e. Reduce Inequities in Maternal Health.** Despite the Commonwealth's strong overall performance in measures of maternal health, recent data indicate significant, persistent inequities in maternal health outcomes. As part of a broader effort to address these outcomes, the Commonwealth should ensure that efforts to address health care workforce challenges encompass investments to expand and diversify the workforce of doulas and midwives.

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**6. REDUCE ADMINISTRATIVE COMPLEXITY.** Administrative complexity that does not add value permeates the Massachusetts health care system, from the wide array of plan options that are not easily comparable by consumers and employers, to non-standard contract terms and differing rules for provider credentialing, claims submission, and utilization management which consume significant provider time and resources. Prior authorization, often a multi-step, manual process, is particularly burdensome for providers and can result in patient challenges and delayed care, particularly for those with fewer resources. Standardizing among plans and streamlining processing can ease the administrative burden for providers, payers, and patients, and allow for the reallocation of health care resources to higher value tasks and improve equity.

**a. Require Greater Standardization in Payer Processes.**

The Legislature should require standardization in payer claims administration rules and processes. In particular, the standardization requirements should focus on uniform medical necessity criteria and a uniform set of limited services appropriate for prior authorization.

**b. Automate Prior Authorization.** When prior authorization can be warranted to protect patient safety and avoid overuse, automation could streamline the prior authorization process by reducing uncertainty about prior authorization requirements and decreasing the time between prior authorization submission and decision. Efforts to automate prior authorization are already underway for certain public payers, as the proposed federal rule from the Centers for Medicare and Medicaid Services (CMS) would require certain public payers to automate their prior authorization processes by January 2026. The Legislature should build upon this momentum and mandate that others in Massachusetts, including commercial payers, automate their prior authorization processes according to a statewide roadmap, with technical and financial assistance, to support successful implementation.

**c. Mandate Adoption of the Aligned Quality Measure Set.**

While the Quality Measure Alignment Taskforce has achieved substantial voluntary adoption of its standard, aligned quality measure set for use in global budget-based risk contracts, payer adherence remains variable, even after several years. To promote alignment and mitigate the reporting burden for providers, the Legislature should mandate adoption of the aligned measure set, as further refined by the Taskforce, and approved by the Secretary of Health and Human Services.

## 7. STRENGTHEN TOOLS TO MONITOR THE PROVIDER MARKET AND ALIGN THE SUPPLY AND DISTRIBUTION OF SERVICES WITH COMMUNITY NEED.

Recent health care market activity implicating both access and cost, including both closures and proposed expansions, have highlighted the need for a better understanding of the allocation of health care resources across the Commonwealth and its implications for quality, affordability, and equity of care. In addition, there is an opportunity to enhance the current regulatory framework to ensure equitable distribution of health care resources to address need. The HPC recommends enhancing regulator tools as follows:

**a. Conduct Focused Assessments of Need, Supply, and Distribution.** The Commonwealth should conduct focused, data-driven assessments of supply and distribution of services based on identified needs or disparities in outcomes. Such targeted assessments would identify specific provider types or service lines that warrant examination (e.g., obstetrics, outpatient substance use disorder treatment, inpatient pediatric care, oncology, etc.) and relevant regions and incorporate other factors in the public interest, such as populations served. Formal findings of an assessment could include designating a specific set of services or class of providers as critical to the proper functioning of the Massachusetts health care system, identifying barriers impacting accessibility of available supply by specific populations, and/or making recommendations to address misalignment of need, supply, and distribution.

**b. Strengthen Tools to Monitor and Regulate Supply of Health Care Services.** Massachusetts' existing frameworks for monitoring and regulating provider supply and distribution, including its Determination of Need (DoN) Program, Essential Services Closures process, and Material Change Notice (MCN) process can be strengthened as follows:

- i. Better Equip the State to Monitor and Respond to Essential Service Closures.** The Essential Services process could be improved with enhanced financial monitoring of providers who may be at risk, earlier confidential notice of potential reduction in services or closure, broadening the scope of services covered, and allowing for sensitive information to be provided confidentially to better inform regulator response.
- ii. Strengthen the Review of Proposed Expansions to Ensure Alignment with State Cost Containment and Health Equity Goals.** The DoN program should be updated to align with the focused assessments of need,

cost growth, affordability, and health equity goals. In addition, given the significant potential for impacts on health care spending, quality, access and equity of market expansions, the existing material change notice and review process should be amended to require notice to the HPC before a provider substantially increases capacity.

**c. Enhance the HPC's Market Oversight Authority of For-Profit Investment.** The requirement that providers and provider organizations file notices of material change before engaging in certain transactions should be updated to reflect the increasing role of private equity and for-profit investment in health care. All new and significant for-profit investments in a provider or provider organization, including private equity investment, should require a material change notice filing.

## 8. SUPPORT AND INVEST IN THE COMMONWEALTH'S HEALTH CARE WORKFORCE.

The Massachusetts health care workforce continues to experience substantial disruption, with high turnover and shortages of care providers in many roles throughout the care continuum, especially in behavioral health care and long-term care. The COVID-19 pandemic exacerbated pre-existing challenges such as stress, inflexibility, and administrative burden – and with a tighter labor market, many care providers have left their roles seeking higher pay (e.g., at comparatively well-resourced organizations, in different health care settings, or in contract roles), have redirected their careers away from patient care to administration or research, or have left health care altogether. These trends have impeded patient access, interrupted care continuity, and resulted in patient access issues and bottlenecks, threatening the Commonwealth's efforts to advance health care affordability, access, and equity. Building on substantial new investments by the Healey-Driscoll Administration and the Legislature in the fiscal year 2024 budget, such as \$140.9 million in loan repayment for primary care and behavioral health workers and free community college education for all nursing students, there are opportunities for both the Commonwealth and the health care delivery organizations that employ care providers to stabilize and strengthen the health care workforce.

**a. Public Investments and Policy Change.** The Commonwealth should provide upfront support to alleviate the financial burden of education and training, including for advanced degrees and for the period between education and licensure for licensed roles, and should otherwise reduce barriers to entry. The Commonwealth should also consider

policy changes supporting enhanced wages for under-resourced sectors. Finally, Massachusetts should join 41 other states (including most New England states) and jurisdictions across the country by adopting the Nurse Licensure Compact to facilitate permanent hires from other states.

**b. Health Care Delivery Organizations Should Invest in their Workforces.** Health care delivery organizations should invest in their workforces and implement care delivery innovations to provide attractive schedules, improved work environments, and career advancement opportunities. As part of this investment, care delivery organizations should focus on job quality and retention, especially for roles with high turnover, with improvements in areas including mentoring and professional development, schedule flexibility, and compensation.

**c. Ensure Adequate Compensation for Non-Clinical Workforces.** Innovative, evidence-based care models for primary and behavioral health care frequently integrate non-clinical staff workforces – e.g., community health workers, community navigators, and peer recovery coaches – whose lived experience confers significant value to patients. These workers frequently assume significant operational and emotional responsibility, particularly in caring for patients with complex health and social needs but are often not compensated commensurate with that responsibility. Efforts to address compensation should also encompass increased spending on these important workforce types.

**d. Support Workforce Diversity.** Research shows that clinician diversity improves care for patients of color. Increasing the diversity of health care professionals and leaders requires concerted efforts by secondary and higher educational institutions, medical and nursing schools, and health care providers. Outreach and recruitment efforts to encourage students of diverse backgrounds to become health care providers should be supported by upfront funding for education and training, including the development of clear and accessible career ladders, and with improved mentoring and leadership training to support retention. Care delivery organizations should prioritize targeted recruitment and retention efforts that will create a more diverse and reflective workforce.

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## 9. STRENGTHEN PRIMARY AND BEHAVIORAL HEALTH

**CARE.** There is considerable evidence that health care delivery systems oriented toward primary care tend to have lower costs, higher quality, and a more equitable distribution of health care resources. Better management of behavioral health conditions

has also been found to lower overall health care spending and improve quality of life. Specific areas of focus should include:

**a. Focus Investment in Primary Care and Behavioral Health Care.** Payers and providers should increase resources devoted to primary care and behavioral health while adhering to the Commonwealth’s total health care cost growth benchmark. These investments should prioritize non-claims based spending such as capitation, infrastructure, and workforce investments. CHIA and the HPC should continue to track and report on primary care and behavioral health care spending trends annually.

**b. Increase Access to Behavioral Health Services.** In response to the critical need for behavioral health services—in particular among children, young adults, and people of color — payers and providers should take steps to increase access to behavioral health services appropriate for and accessible to these populations. The Commonwealth can advance these goals by continuing to implement the Executive Office of Health and Human Services’ Roadmap for Behavioral Health Reform: Ensuring the right treatment when and where people need it, including increasing inpatient beds for behavioral health patients (including pediatric patients), investing in community-based alternatives to the emergency department, and aligning the behavioral health workforce with current needs, by increasing reimbursement to behavioral health providers, developing targeted recruitment and retention strategies, and using telehealth and innovative care models to extend capacity and ensure that patients have equitable access to the appropriate level of care based on their needs.

**c. Improve Access to Treatment for Opioid Use Disorder.** Recent studies have documented both rising rates of opioid overdose among Black and Hispanic populations and disparities in access to treatment for opioid use disorders (OUD). In response to these troubling data, payers and providers should use RELD (race, ethnicity, language, disability) data to identify inequities in access to Medication for Opioid Use Disorder (MOUD). Based on those findings, providers should undertake focused efforts to close any access gaps by engaging with community-based organizations and people with lived experience to tailor interventions to identified communities.

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CHAPTER 6:  
**DASHBOARD OF  
HPC PERFORMANCE  
METRICS**

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Exhibit 6.1: Massachusetts Health System Performance

- ▲ Better performance
- Similar performance
- Worse performance

			MASSACHUSETTS TIME TREND			U. S. COMPARISON		
			Previous	Most Recent	Performance	Most Recent	Comparison	
HEALTH EQUITY AND AFFORDABILITY	1	Individuals under age 65 with high out-of-pocket spending relative to income	DISPARITY	5.0% (2019-2020)	6.2% (2020-2021)	■	7.3% (2020-2021)	▲
	2	Share of total compensation devoted to health care for middle class families		22.3% (2017-2019)	21.7% (2020-2022)	▲	19.8% (2020-2022)	■
	3	Adults who reported needing to see a doctor but could not due to cost in the past year	DISPARITY	8.3% (2020)	7.3% (2021)	▲	10.0% (2021)	▲
	4	Rate of uninsurance among non-elderly adults with income less than 200% FPL		6.5% (2019)	4.8% (2021)	▲	17.1% (2021)	▲
	5	Adults without all age- and gender-appropriate cancer screenings	DISPARITY	24.4% (2018)	24.8% (2020)	●	31.2% (2020)	▲
	6	Infant mortality (per 1,000 live births)	DISPARITY	3.7 (2019)	3.9 (2020)	■	5.4 (2020)	▲
	7	Premature deaths from treatable causes (deaths per 100,000 population)	DISPARITY	59.5 (2019-2020)	59.2 (2020-2021)	●	88.8 (2020-2021)	▲
	8	Adults ages 18–64 who report fair or poor health	DISPARITY	9.7% (2020)	9.9% (2021)	●	14.2% (2021)	▲
	9	Share of population living in a food insecure household		5.8% (2021)	9.2% (2022)	■	11.2% (2022)	▲
	10	Share of population living in a Primary Care Health Professional Shortage Area		7.5% (2021)	7.6% (2022)	●	29.4% (2022)	▲

DISPARITIES BY INCOME

MEASURE	HIGH INCOME	LOW INCOME	DISPARITY (PPT)	STATE RANK ON DISPARITY (Rank from prior year)
Individuals under age 65 with high out-of-pocket spending relative to income	1.5%	18.1%	17	19 (9)
Adults who reported needing to see a doctor but could not due to cost in the past year	4.1%	13.9%	10	4 (2)
Adults without all age- and gender-appropriate cancer screenings	20.6%	32.6%	12	39 (10)
Adults ages 18–64 who report fair or poor health	4.5%	22.7%	18	30 (25)

DISPARITIES BY RACE / ETHNICITY

MEASURE	MOST RECENT	DISPARITY
Infant mortality (per 1,000 live births)	3.9	
White (Group with best outcome)	2.7	–
AANHPI	3.0	0.3
Hispanic	4.7	2.0
Black	7.2	4.5
Premature deaths from treatable causes (deaths per 100,000 population)	59.2	
AANHPI (Group with best outcome)	33.9	–
White	57.6	23.7
Hispanic	60.8	26.9
Black	99.5	65.6

Exhibit 6.1: Massachusetts Health System Performance cont.

- ▲ Better performance
- Similar performance
- Worse performance

		MASSACHUSETTS TIME TREND			U. S. COMPARISON		
		Previous	Most Recent	Performance	Most Recent	Comparison	
BENCHMARK AND SPENDING	11	Growth of THCE per capita (performance assessed relative to 3.1% benchmark)	-2.3% (2020)	9.0% (2021)	■	9.5% (2021)	▲
	12	Growth in commercial health care spending per capita (performance assessed relative to 3.1% benchmark)	-2.9% (2020)	15.3% (2021)	■	9.3% (2021)	■
	13	Employer-based health insurance premiums, single coverage (performance assessed relative to 3.1% benchmark)	\$7,452 (2020)	\$8,088 (2021)	■	\$7,380 (2021)	■
	14	Benchmark premium for second-lowest-cost exchange plan, single coverage (performance assessed relative to 3.1% benchmark)	\$4,116 (2020)	\$4,356 (2021)	■	\$5,424 (2021)	▲
EFFICIENT, HIGH-QUALITY CARE DELIVERY	15	Readmission rate (Medicare)	18.5% (2020)	18.3% (2021)	●	16.9% (2021)	■
	16	Readmission rate (All payer)	16.0% (2020)	16.0% (2021)	●	N/A	N/A
	17	ED utilization (per 1,000 persons)	299 (2021)	317 (2022)	■	MA = 432 US = 383 (2021)	■
	18	BH-related ED utilization (per 1,000 persons)	21 (2021)	20 (2022)	▲	N/A	N/A
	19	Avoidable ED Utilization (per 1,000 persons)	111 (2021)	120 (2022)	■	N/A	N/A
	20	Hospital admissions among Medicare beneficiaries age 65 and older for ambulatory care sensitive conditions (per 1,000 beneficiaries)	48.5 (2019)	35.8 (2021)	▲	28.2 (2021)	■
VALUE-BASED MARKETS	21	Percentage of inpatient discharges to institutional PAC	15.1% (2021)	14.7% (2022)	●	MA = 15.8% US = 14.2% (2020)	■
	22	Percentage of discharges in top 5 networks	60.9% (2020)	60.8% (2021)	●	N/A	N/A
	23	Share of newborn deliveries in community hospitals	48.9% (2021)	48.5% (2022)	●	N/A	N/A
	24	Share of commercial discharges from hospitals with relative price above 1.2	23.5% (2020)	24.5% (2021)	■	N/A	N/A
APM	25	Total share of APMs for all insurance types	45.3% (2020)	45.3% (2021)	●	N/A	N/A

Notes: APM = alternative payment method; BH = behavioral health; ED = emergency department; HMO = health maintenance organization; MCO = managed care organization; PAC = post-acute care; THCE = total health care expenditures. For additional notes and sources, see **Technical Appendix**.

ED utilization - MA trend uses CHIA ED Database, MA/US comparison use KFF State Health Facts. Percentage of inpatient discharges to institutional PAC - MA trend uses Case-Mix data, MA/US comparison uses HCUP data

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# ACKNOWLEDGEMENTS

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## EXECUTIVE DIRECTOR

Mr. David Seltz

Under the leadership of Dr. David Auerbach, the HPC's Research and Cost Trends staff conducted the analyses and prepared the annual cost trends report and chartpacks. They are as follows: Dr. Sasha Albert, Charlotte Burlingame, Alicia Duran, Dr. Katya Fonkych, Yue Huang, Hannah James, Justin Kiel, Dhruv Mandalia, Lyden Marcellot, Dr. Laura Nasuti, Sara Sadownik, and Diana Sanchez Váscones. Ashley Johnston designed the report.

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## **ABOUT THE MASSACHUSETTS HEALTH POLICY COMMISSION**

The Massachusetts Health Policy Commission (HPC), established in 2012, is an independent state agency charged with monitoring health care spending growth in Massachusetts and providing data-driven policy recommendations regarding health care delivery and payment system reform. The HPC's mission is to advance a more transparent, accountable, and innovative health care system through independent policy leadership and innovative investment programs. The HPC's goal is better health and better care – at a lower cost – for all people across the Commonwealth. HPC staff and its Board of 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; investing in community health care delivery and innovations; and safeguarding the rights of health insurance consumers and patients regarding coverage and care decisions by health plans and certain provider organizations.



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**MASSACHUSETTS HEALTH POLICY COMMISSION**

50 MILK STREET, 8TH FLOOR, BOSTON, MA 02109

[WWW.MASS.GOV/HPC](http://WWW.MASS.GOV/HPC)