2022 HEALTH CARE COST TRENDS HEARING

DATA PRESENTATION
Impact of Price and Spending Trends on Health Care Affordability and Equity in Massachusetts

Dr. David Auerbach

#CTH22
CURRENT HEALTH CARE LANDSCAPE

- Utilization and Workforce
- Prices and Spending

Trends Over the Past Decade

Implications for Affordability, Access, and Equity
Current Health Care Landscape

UTILIZATION AND WORKFORCE

- Prices and Spending

Trends Over the Past Decade

Implications for Affordability, Access, and Equity
Through June 2022, the total number of hospital stays in Massachusetts remained 8% below pre-pandemic volume. Scheduled admissions are down 17%.

Total inpatient hospital discharges by quarter, 2019-2022

Notes: COVID-19 discharges include those with a primary or secondary diagnosis of COVID-19. The following hospitals were excluded for the entire study period due to missing data for one or more quarters: Melrose Wakefield Healthcare (Melrose-Wakefield Campus and Lawrence Memorial Hospital Campus), Lowell General Hospital (Main Campus and Saints Campus), Tufts-New England Medical Center, and Sturdy Memorial Hospital. In calendar year 2019, these hospitals accounted for 7% of all hospital inpatient discharges. Discharges were excluded if they were transfers, had a length of stay greater than 180 days, rehabilitation, or out-of-state residents.

Sources: HPC analysis of the Center for Health Information and Analysis (CHIA) Hospital Inpatient Discharge Database, January 2019 to September 2021, preliminary data October 2021 through June 2022
Hospital visits for hip and knee replacements are 45% below pre-pandemic levels.

Outpatient hip replacement surgeries increased in 2020, offsetting much of the inpatient decline among privately-insured patients.

This offset did not occur for knee surgeries.
The reduction in hospital volume has been greatest for high-public payer community hospitals.

Total inpatient hospital discharges by cohort and quarter, 2019-2022

Notes: The following hospitals were excluded for the entire study period due to missing data for one or more quarters: Melrose Wakefield Healthcare (Melrose-Wakefield Campus and Lawrence Memorial Hospital Campus), Lowell General Hospital (Main Campus and Saints Campus), Tufts-New England Medical Center, and Sturdy Memorial Hospital. In calendar year 2019, these hospitals accounted for 7% of all hospital inpatient discharges.

Discharges were excluded if they were transfers, had a length of stay greater than 180 days, rehabilitation, or out-of-state residents.

Sources: HPC analysis of the Center for Health Information and Analysis (CHIA) Hospital Inpatient Discharge Database, January 2019 to September 2021, preliminary data October 2021 through June 2022.
Indicators of patient acuity remain similar to pre-pandemic trends.

Change in total ICU/CCU days per discharge and average “casemix index” (APR-DRG weight) for non-COVID patients by quarter: 2016-2022

Notes: Based on patient discharge date. The following hospitals were excluded for the entire study period due to missing data for one or more quarters: Melrose Wakefield Healthcare (Melrose-Wakefield Campus and Lawrence Memorial Hospital Campus), Lowell General Hospital (Main Campus and Saints Campus), Tufts-New England Medical Center, and Sturdy Memorial Hospital. In calendar year 2019, these hospitals accounted for 7% of all hospital inpatient discharges. Excludes behavioral health stays and extremely long length of stay because these cases are usually not paid based on DRGs. Other exclusions include COVID-related discharges, rehabilitation, transfers, patients that died, patients who went to Shriners Hospital for Children (Springfield and Boston), and discharges with some APR coding restrictions based on discrepancies with CMS major diagnostic categories.

Sources: HPC analysis of the Center for Health Information and Analysis (CHIA) Hospital Inpatient Discharge Database, January 2016 to September 2021, preliminary data October 2021 through June 2022.
At the same time, average length of stay has increased for patients discharged to skilled nursing and home health settings.

Average length of stay (days) for scheduled admissions and admissions from the ED (combined) by discharge disposition, 2019-2022

Notes: Based on patient discharge date and includes only admissions from the emergency department and scheduled admissions. COVID-related discharges are excluded. Excludes pediatric, maternity, BH, and rehabilitation admissions and admissions with length of stay greater than 180 days. The following hospitals were excluded for the entire study period due to missing data for one or more quarters: Melrose Wakefield Healthcare (Melrose-Wakefield Campus and Lawrence Memorial Hospital Campus), Lowell General Hospital (Main Campus and Saints Campus), Tufts-New England Medical Center, and Sturdy Memorial Hospital. In calendar year 2019, these hospitals accounted for 7% of all hospital inpatient discharges.

Sources: HPC analysis of the Center for Health Information and Analysis (CHIA) Hospital Inpatient Discharge Database, January 2019 to September 2021, preliminary data October 2021 through June 2022
Total hospital census (bed-days) is similar to the pre-pandemic level. Longer length of stay has offset the decline in discharges.

Estimated daily census for Massachusetts hospitals, 7-day rolling average, 2019-2022

Notes: Based on patient discharge date. Includes admissions from the ED and scheduled and maternity admissions. The following hospitals were excluded for the entire study period due to missing data for one or more quarters: MelroseWakefield Healthcare (Melrose-Wakefield Campus and Lawrence Memorial Hospital Campus), Lowell General Hospital (Main Campus and Saints Campus), Tufts-New England Medical Center, and Sturdy Memorial Hospital. In calendar year 2019, these hospitals accounted for 7% of all hospital inpatient discharges. Discharges were excluded if they were transfers, had a length of stay greater than 180 days, rehabilitation, behavioral health, or out-of-state residents.

Sources: HPC analysis of the Center for Health Information and Analysis (CHIA) Hospital Inpatient Discharge Database, January 2019 to September 2021, preliminary data October 2021 through June 2022
Through June 2022, emergency department visits also remain below pre-pandemic levels (-4%). Potentially avoidable visits are down 14% since 2019.

Number of ED visits by category and quarter, 2019-2022

Notes: Behavioral health (BH) visits were defined using AHRQ CCSR MBD001-MBD034. Injury and potentially avoidable ED visits are based on the Billings algorithm, which classifies an ED visit into multiple categories. “Potentially avoidable” is defined as primary care treatable or non-emergent. All other are the total sum of ED visits minus potentially avoidable, BH, COVID-19, and injury visits. The following emergency departments were excluded for the entire study period due to missing data for one or more quarters: Lowell General Hospital (Main Campus and Saints Campus), Tufts New England Medical Center, and Sturdy Memorial Hospital. In calendar year 2019, these emergency departments accounted for 6% of all emergency department visits.

Sources: HPC analysis of the Center for Health Information and Analysis (CHIA) Emergency Department Discharge Database, January 2019 to September 2021, preliminary data October 2021 through June 2022.
Behavioral health emergency department boarding has continued to increase since 2020, driven by boarding for patients with mental health conditions.

Percent of behavioral health emergency department patients boarding for at least 12 hours by primary condition, 2020-2022

Notes: MH = Mental Health. BH = Behavioral Health. SUD = Substance Use Disorder. The HPC defines ED boarding as greater than or equal to 12 hours in the hospital ED. ED visits where patients were admitted to the same hospital were excluded. Behavioral health visits were identified using AHRQ’s CCSR for the primary diagnosis (BH: MBD001-MBD034, Mental Health: MBD001-MBD013, Substance Use: MBD17-MBD34). The following EDs were excluded due to missing data or missing/irregular hours spent in the ED: Lowell General Hospital (Main and Saints campus), Tufts New England Medical Center, Sturdy Memorial, MetroWest (Framingham and Leonard Morse campuses) and Saint Vincent Hospital.

Sources: HPC analysis of the Center for Health Information and Analysis (CHIA) Hospital Emergency Department Discharge Database, January 2020 to September 2021, preliminary data October 2021 to June 2022
High rates of telehealth use persisted through 2020.

Percent of ambulatory visits that were delivered via telehealth by month and type of condition, 2020

Notes: Claim lines on the same day at the same site for the same patient were combined into one visit. Telehealth claims identified through place of service code 02, procedure modifiers and a set of telehealth specific procedure codes. Health conditions were categorized based on Clinical Classification System (CCS).

Sources: HPC analysis of the Center for Health Information and Analysis (CHIA) All-Payer Claims Database, 2020, V 10.0.
Unlike most types of care, mental health visits increased in 2020, especially for young adults, with the vast majority delivered via telehealth.
Total workforce size (including contract labor) remains far below pre-pandemic levels in home health, nursing facility, and psychiatric hospital settings.

Year to year change in first quarter (CY) employment (from previous year to year shown) with 2019-2022 cumulative change in brackets

<table>
<thead>
<tr>
<th>Industry</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offices of physicians</td>
<td>0.3%</td>
<td>0.8%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Outpatient care centers</td>
<td>2.8%</td>
<td>0.8%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Medical and diagnostic laboratories</td>
<td>-4.5%</td>
<td>-1.5%</td>
<td>-1.3%</td>
</tr>
<tr>
<td>Home health care services</td>
<td>-1.5%</td>
<td>-3.1%</td>
<td>-2.7%</td>
</tr>
<tr>
<td>General medical and surgical hospitals</td>
<td>-4.0%</td>
<td>-6.9%</td>
<td>-4.5%</td>
</tr>
<tr>
<td>Psychiatric and substance use/SUD hospitals</td>
<td>-16.5%</td>
<td>-12.8%</td>
<td>-4.5%</td>
</tr>
<tr>
<td>Nursing care facilities, skilled nursing</td>
<td>-23.7%</td>
<td>-12.8%</td>
<td>-6.9%</td>
</tr>
</tbody>
</table>

Note: Employment refers to average monthly employment (January - March) and includes temporary/contract staff.
Source: Massachusetts Department of Economic Research Labor Market Information (LMI) Employment and Wages (ES-202)
Average wages have also risen markedly in these three sectors. Average wages in psych/SUD hospitals grew 36% between Q1 2019 and Q1 2022.

### Year to year change in first quarter (CY) wages (from previous year to year shown) with 2019-2022 cumulative change in brackets

<table>
<thead>
<tr>
<th>Sector</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offices of physicians</td>
<td>3.1%</td>
<td>-4.7%</td>
<td>-4.7%</td>
</tr>
<tr>
<td>Outpatient care centers</td>
<td>8.9%</td>
<td>8.7%</td>
<td>8.7%</td>
</tr>
<tr>
<td>Medical and diagnostic laboratories</td>
<td>0.2%</td>
<td>4.9%</td>
<td>25.9%</td>
</tr>
<tr>
<td>Medical and diagnostic laboratories (total)</td>
<td>13.0%</td>
<td>8.0%</td>
<td>25.8%</td>
</tr>
<tr>
<td>Home health care services</td>
<td>-0.8%</td>
<td>4.3%</td>
<td>9.3%</td>
</tr>
<tr>
<td>Home health care services (total)</td>
<td>8.7%</td>
<td>15.8%</td>
<td>15.8%</td>
</tr>
<tr>
<td>General medical and surgical hospitals</td>
<td>-2.2%</td>
<td>4.3%</td>
<td>35.6%</td>
</tr>
<tr>
<td>General medical and surgical hospitals (total)</td>
<td>8.3%</td>
<td>2.5%</td>
<td>22.6%</td>
</tr>
<tr>
<td>Psychiatric and substance use/SUD hospitals</td>
<td>6.5%</td>
<td>8.3%</td>
<td>22.6%</td>
</tr>
<tr>
<td>Psychiatric and substance use/SUD hospitals (total)</td>
<td>3.9%</td>
<td>3.9%</td>
<td>22.6%</td>
</tr>
<tr>
<td>Nursing care facilities, skilled nursing</td>
<td>4.0%</td>
<td>4.3%</td>
<td>25.6%</td>
</tr>
<tr>
<td>Nursing care facilities, skilled nursing (total)</td>
<td>4.0%</td>
<td>4.3%</td>
<td>25.6%</td>
</tr>
</tbody>
</table>

Note: Wages refer to average weekly wages. Data include temporary/contract staff.
Source: Massachusetts Department of Economic Research Labor Market Information (LMI) Employment and Wages (ES-202)
Current Health Care Landscape

- Utilization and Workforce

**PRICES AND SPENDING**

Trends Over the Past Decade

Implications for Affordability, Access, and Equity
Massachusetts’ commercial spending is no longer growing more slowly than the U.S. rate.

Annual growth in per capita commercial health care spending, Massachusetts and the U.S., 2006-2020

Notes: Massachusetts data include full-claims members only. Commercial spending is net of prescription drug rebates and excludes net cost of private health insurance.
One large Massachusetts health plan reported that commercial prices accelerated further in 2021, coupled with a rebound in utilization.

Payer-reported percent change in commercial unit costs (prices) and utilization for a large Massachusetts insurer from previous year to the year shown

Source: Pre-Filed Testimony submitted to the HPC in advance of the 2021 and 2022 Annual Cost Trends Hearings.
Medicare spending increased 10.5% in 2021 driven by prescription drug spending and a rebound in professional spending. Average annual spending growth was 3.2% from 2019 to 2021.

Notes: Spending in each category is divided by enrollment separately by program (Part A, Part B, Part D, respectively). Only FFS members included.
Source: Data provided to the HPC by the Center for Medicare and Medicaid Services.
Average gross commercial spending per branded prescription increased 11% in 2020, faster than in prior years.

Gross spending distribution per branded prescription, 2017-2020

Source: HPC analysis of the Center for Health Information and Analysis (CHIA) All-Payer Claims database, 2017-2020, V 10.0.
Average out of pocket spending for a 30-day supply of prescription drugs for common chronic conditions grew approximately 50% from 2017 to 2020.

Average cost sharing per prescription (30-day supply) for selected classes of drugs, 2017-2020

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. Clinician-administered drugs, which are typically covered under a plan’s medical benefits, are excluded.

Sources: HPC analysis of Center for Health Information and Analysis (CHIA) All-Payer Claims database, 2017-2020, V 10.0
Commercial spending per encounter (prices) increased nearly 4% in both hospital inpatient and outpatient settings in 2020.

Increase in spending per encounter by setting, 2018-2019 and 2019-2020

Notes: Price growth includes both facility and professional spending. Price growth is computed at the level of a procedure code encounter. Procedure code encounters are defined as the same person, same date of service, same procedure code to capture the potential for both facility and professional claims billed on the same day for the same service based on the setting. Payment growth for inpatient stays include all services provided during the hospital stay. Only procedure codes that were billed in both 2018 and 2020 were included. Procedures codes with < 20 services or < $1,000 in aggregate spending in 2018 and 2020 were excluded.

Sources: HPC analysis of the Center for Health Information and Analysis (CHIA) All-Payer Claims Database, 2018-2020, V 10.0
Commercial payments to hospitals for joint replacement surgeries vary 2:1 across hospitals and are often twice what Medicare would pay.

Commercial and Medicare facility payments for inpatient major joint replace surgery without complications (DRG 470), 2019

Notes: Includes hospitals with >10 commercial discharges for DRG 470 in 2019 APCD. Only facility payment is shown.
Sources: HPC analysis of the Center for Health Information and Analysis (CHIA) All-Payer Claims Database, 2019, V 10.0
The prices of the same common laboratory tests varied more than 5:1, with the highest prices in hospital outpatient departments. Higher prices translated to higher consumer cost-sharing.

Total cost of a fixed laboratory services market basket, including cost-sharing, among Massachusetts providers in 2020

Notes: The index represents the cost of the same 50 labs in each hospital or provider shown, weighted by total statewide spending on each lab in 2018 and using the average price of each lab for each provider in 2020. Providers with fewer than 20 service encounters for any individual procedure code have imputed values (statewide mean price) for that procedure code and are not included if more than 20 procedure codes would need to be imputed.

Sources: HPC analysis of the Center for Health Information and Analysis (CHIA) All-Payer Claims Database, 2018-2020, V 10.0; HPC analysis of information from the Centers for Medicare and Medicaid Services, Clinical Laboratory Fee Schedule (2020)

The Medicare cost to provide the lab market basket in 2020 was $3,810
Hospital systems with higher outpatient prices in 2018 also tended to have higher price growth from 2018-2020.

Total price of a 50-item HOPD market basket in 2020 and price growth from 2018-2020 by hospital system

Notes: Data are based on the cost at each hospital of an identical market basket of the 50 highest-spending hospital outpatient services in Massachusetts in 2018. See HPC Annual Cost Trends report and technical appendix for details. Hospital systems are defined based on data from the Center for Health Information and Analysis: Hospital Profiles. Bubble size corresponds to percent of statewide index service volume attributed to each system. “Overall” index growth and index level is based on a weighted average. The “Overall” data point bubble size is stylistic only.

Source: HPC analysis of the Center for Health Information and Analysis (CHIA) All-Payer Claims Database, 2018-2020, V 10.0
Hospital inpatient and emergency department stays remain below pre-pandemic levels, particularly scheduled inpatient admissions and avoidable ED visits.

- However, staffing shortages in discharge settings, among other factors, are likely contributing to longer stays in the hospital and the ED.

The routine use of telehealth expanded significantly during the pandemic, particularly for mental health visits.

Continued price increases and rebounds in utilization have led to a likely double-digit increase in health care spending in 2021.

Commercial prices for common services such as lab tests vary more than two-fold across hospitals, are higher than when provided in office settings, and are typically more than double what Medicare would pay. These high prices result in higher patient out of pocket spending and higher premiums.
Current Health Care Landscape

**TRENDS OVER THE PAST DECADE**

Implications for Affordability, Access, and Equity
The proportion of hospital care provided within the largest five systems has increased from 45% to 61%, driven primarily by consolidation.

Notes: Partners HealthCare changed its name to Mass General Brigham (MGB) in 2019. Inpatient care is measured in hospital discharges for general acute care services. Hospital outpatient care is measured in outpatient discharge equivalents with the quantity of outpatient services expressed in inpatient stay equivalents. See technical appendix to the HPC 2022 Annual Cost Trends Report for details.

Sources: HPC analysis of the Center for Health Information and Analysis (CHIA) Hospital Cost Reports, FY2010-2020
**Market Consolidation Trends**

**SHIFT TOWARD HIGHER-COST SITES OF CARE**
The proportion of Massachusetts hospital outpatient visits occurring at high-priced hospitals increased from 2016 to 2020 (27.6% to 30.2%).

**SHIFT IN MATERNITY CARE AWAY FROM COMMUNITY HOSPITALS**
The percentage of births taking place in community hospitals declined from 2010 to 2020 (54% to 50%) while the percentage taking place in AMCs increased (34% to 37%).

**MORE PHYSICIANS EMPLOYED BY HOSPITALS**
The percentage of physicians employed by hospitals in the Northeast region of the U.S. grew from 22% to 49% from 2012 to 2021.

**HOSPITAL SERVICE CLOSURES**
Hospitals were more likely to close services if they had low commercial prices, high public payer mix, and were located in less urban areas. Most closures involved either pediatric or maternity services.
Total commercial spending per hospital discharge increased 48% from 2013 to 2020.

Total inpatient spending per commercial discharge and average length of stay for commercial hospital stays, 2013-2020

Notes: Certain discharges were excluded from the analysis including transfers, rehabilitation stays, those from Shriner’s Hospital, and those with LOS more than 180 days.
Sources: Center for Health Information and Analysis (CHIA) Hospital Inpatient Discharge Data, 2013-2020 (volume and LOS). Spending data are derived from full and partial-claims commercial spending by category for 2016-9, full claims only from 2013-6 (based on data availability) and from CHIA’s Annual reports from 2013-2022.
The growth in hospital revenue per discharge exceeded measures of inflation from 2013 to 2020.

Growth in aggregate acute hospital revenue per discharge (commercial and all-payer) and in two measures of price inflation, 2013-2020

- Revenue per discharge (all payer)
- Revenue per commercial discharge
- CPI (Boston metro area)
- CMS hospital update factor ("Market basket")

Notes: Estimate of revenue per commercial discharge described in HPC Annual Cost Trends Report, 2022 (Technical Appendix) and on previous slide.
Sources: Revenue per discharge: Total Medical Expenditures, Hospital Discharge Data and Acute hospital profiles from Center for Health Information and Analysis. CMS hospital update factor: https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/MedicareProgramRatesStats/MarketBasketData. CPI-U Boston/Cambridge/Newton from the BLS.
Coded severity of inpatient stays increased steadily from 2013 to 2021, resulting in higher spending.

### Proportional Composition of Inpatient Discharges by Patient Severity of Illness without COVID-19 Cases, 2013-2021

<table>
<thead>
<tr>
<th>Year</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>33.9%</td>
<td>38.0%</td>
<td>4.4%</td>
<td>9.3%</td>
</tr>
<tr>
<td>2014</td>
<td>33.0%</td>
<td>37.4%</td>
<td>4.8%</td>
<td>9.3%</td>
</tr>
<tr>
<td>2015</td>
<td>31.1%</td>
<td>37.0%</td>
<td>5.5%</td>
<td>9.3%</td>
</tr>
<tr>
<td>2016</td>
<td>29.6%</td>
<td>36.9%</td>
<td>6.2%</td>
<td>9.3%</td>
</tr>
<tr>
<td>2017</td>
<td>28.2%</td>
<td>36.1%</td>
<td>7.0%</td>
<td>9.3%</td>
</tr>
<tr>
<td>2018</td>
<td>27.0%</td>
<td>35.8%</td>
<td>7.7%</td>
<td>9.3%</td>
</tr>
<tr>
<td>2019</td>
<td>25.9%</td>
<td>35.4%</td>
<td>8.2%</td>
<td>9.3%</td>
</tr>
<tr>
<td>2020</td>
<td>25.2%</td>
<td>34.7%</td>
<td>8.9%</td>
<td>31.8%</td>
</tr>
<tr>
<td>2021</td>
<td>24.5%</td>
<td>34.5%</td>
<td>9.3%</td>
<td>31.8%</td>
</tr>
</tbody>
</table>

Notes: Data from the Massachusetts Hospital Inpatient Discharge Database (HIDD) from 2013-2021. Severity groups were defined using MassHealth (Medicaid) all-payer refined diagnosis related groups (APR-DRG) and patient severity of illness (SOI) on a four-level severity scale, with 4 being the highest acuity. The data comprised of all medical inpatient stays at acute care hospitals for Massachusetts residents, excluding behavioral health stays and extremely long length of stay because these cases are usually not paid based on DRGs. Other exclusions include transfers, patients that died, patients who went to Shriners Hospital for Children (Springfield and Boston), and discharges with some APR coding restrictions based on discrepancies with CMS major diagnostic categories. COVID-19 cases were defined as any inpatient stay with U071 for the primary or secondary diagnosis code. Years shown are fiscal years (Oct 1 – Sept 30).

Source: HPC analysis of the Center for Health Information and Analysis (CHIA) Hospitals Inpatient Discharge Database, FY2013-2019, preliminary FY2021
GROWING SPENDING ON PRESCRIPTION DRUGS
Retail prescription drug spending net of rebates grew from **14.5%** to **18.6%** of per-capita commercial health care spending in Massachusetts between 2013 and 2020.\(^1\) Growth in retail prescription drug spending has remained above the benchmark in most years.

SPENDING DRIVEN BY A SMALL NUMBER OF HIGH-COST PRODUCTS
Between 2016 and 2021, the number of specialty prescriptions filled in the U.S. increased 0.5% but gross spending on these medications in retail and non-retail settings increased **42.5%** and accounted for **50%** of total drug spending in 2021.\(^2\)

LAUNCH PRICES CONTINUE TO RISE
The median prescription drug launch price grew from **$2,000** to **$180,000** between 2008 and 2021.\(^3\)

PRICE INCREASES ALSO DRIVE SPENDING GROWTH
CBO found that net prices for branded drugs increased by an average of **6.3% per year** from 2010 to 2017 in the Medicare Part D program, after removing the effects of general inflation.\(^4\)

Sources:
1. HPC analysis of Center for Health Information and Analysis Total Medical Expenditure (TME) Data, which include commercial full claims only.
High-deductible plans have become far more common while tiered and limited networks have remained a small share of all health plans.

Share of all Massachusetts commercial plans with each of the noted benefit design features, 2013-2020

Notes: High deductible plans are defined federally as a plan having a single/family deductible of $1,250/$2,500 in 2013-2014; $1,300/$2,600 in 2015-7; $1,350/$2,700 in 2018-9 and $1,400/$2,800 for 2020. GIC plans all include tiered networks and do not allow high deductible plans. Excluding the GIC the 2020 percentages would be 41.5%, 14.7% and 5.8% for HDHP, Tiered, and Limited, respectively.

Source: Center for Health Information and Analysis Annual Reports, 2013-2022. Data include the Group Insurance Commission.
Adoption of alternative payment models has plateaued in the commercial market.

APM adoption in Massachusetts in the commercial, MassHealth managed care, and Original Medicare markets, 2012-2020

Notes: 2012 metrics reported in the Health Policy Commission 2014 Cost Trends Report. All other metrics as of when they were the latest reported year per data source.

Summary of Trends Over the Past Decade

- Health care providers have increasingly consolidated, including hospitals into larger systems and physician groups into hospitals and health systems.
- Commercial payments per hospital stay have increased steadily, reflecting higher prices for the same care and higher coded acuity.
- The growth in hospital revenue per discharge exceeded measures of inflation from 2013 to 2020.
- Prescription drug spending has increased, driven by high-cost specialty drugs and price increases.
- The percentage of health plans that have high deductibles has dramatically increased while tiered and limited network plans remain a small share of plans.
- The percentage of health plans using alternatives to fee-for-service reimbursement has plateaued at 40% in the commercial market but these payment arrangements now cover most who receive care through MassHealth.
Current Health Care Landscape

Trends Over the Past Decade

IMPLICATIONS FOR AFFORDABILITY, ACCESS, AND EQUITY
Family health insurance premiums in Massachusetts have increased 202% since 2000 while the price of a new compact car increased 9%.

Average Massachusetts family health insurance premium (employer and employee contribution combined) and national cost of a new compact car, 2000-2021

Premiums in the Massachusetts merged market grew in 2020, despite lower overall spending, and are continuing to grow faster in recent years.

Approved final average rate increases among plans in the Massachusetts merged market for the rate year shown:

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>4.7%</td>
</tr>
<tr>
<td>2020</td>
<td>5.2%</td>
</tr>
<tr>
<td>2021</td>
<td>7.9%</td>
</tr>
<tr>
<td>2022</td>
<td>6.9%</td>
</tr>
<tr>
<td>2023</td>
<td>7.6%</td>
</tr>
</tbody>
</table>

Employers and employees turn to HDHPs to avoid premium increases, which result in many residents going without needed care. People of color are disproportionately impacted.

Percent of privately-insured Massachusetts residents who said they went without needed doctor care, specialist care, mental health care or prescription drugs, 2019

<table>
<thead>
<tr>
<th>Income Level</th>
<th>Care Type</th>
<th>Low-Income</th>
<th>HDHP</th>
<th>Non-HDHP</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDHP</td>
<td>Doctor care</td>
<td>19.4%</td>
<td></td>
<td>9.1%</td>
</tr>
<tr>
<td>HDHP</td>
<td>Specialist care</td>
<td>29.1%</td>
<td></td>
<td>16.9%</td>
</tr>
<tr>
<td>HDHP</td>
<td>Mental health care</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDHP</td>
<td>Prescription drugs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDHP</td>
<td>Vision care</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDHP</td>
<td>Dental care</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDHP</td>
<td>Medical equipment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDHP</td>
<td>Care from NP, PA, or CNM</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: Low-income is defined as family income below 400% of the US Federal Poverty Level. People of color include those who identify as Black, Hispanic, or other/multiple races. The question asked, “Because of cost, did you go without needed ___ care” where the categories for types of care included those noted above as well as vision care, dental care, medical equipment, or care from an NP, PA or CNM. Population includes commercially-insured adults ages 18-64 with continuous coverage for the 12 months of 2019. Source: HPC’s analysis of the Center for Health Information and Analysis (CHIA) Massachusetts Health Insurance Survey, 2019
15 percent of commercially-insured residents living in the lowest income zip codes went without medical care entirely.

**Chart:**
- Commercially-insured adult residents with zero medical spending by community income decile, 2018 - 2020

**Notes:**
- Adults aged 18 – 64 with full year insurance coverage. COVID utilization is included. Income deciles were assigned based on average income of zip code. Values in boxes represent percentage point change from 2018 to 2020.
- Source: HPC analysis of the Center for Health Information and Analysis (CHIA) All-Payer Claims Database, 2018-2020, V 10.0
In a 2021 survey, more than half of Massachusetts adults experienced a health care affordability burden in the past year.

Percent of Massachusetts adults who reported the following outcomes based on survey of 1,158 Massachusetts adults, May 2021

- **46%** of Massachusetts adults delayed or skipped care due to cost, including:
  - Skipped needed dental care (27%)
  - Delayed going to the doctor or having a procedure done (25%)
  - Cut pills in half, skipped doses of medicine, or did not fill a prescription (22%)

- **Almost 10%** of adults reported that due to the cost of medical bills, they:
  - Were unable to pay for basic necessities like food, heat, or housing
  - Used up all or most of their savings
  - Were contacted by a collection agency
  - Delayed going to the doctor or having a procedure done (25%)
  - Skipped needed dental care (27%)

- **3 in 4** Massachusetts residents are worried about affording health care in the future.

Source: Altarum Healthcare Value Hub, Data Brief 97, September 2021, “Massachusetts Residents Struggle to Afford High Healthcare Costs; Worry About Affording Care, Leading to Support for Government Actions to Address High Healthcare Costs.” Data based on survey of 1,158 Massachusetts adults conducted in May 2021.
People with lower incomes, people of color, and people with activity limitations were more likely to report forgoing medical care due to cost.

Share of population going without medical care due to cost by indicated characteristic and income, 2021

Note: Respondents were considered to have an unmet health need if they went without needed care because of cost, including forgoing prescription drugs, medical equipment, mental health or counseling, substance use care, or care from a doctor, specialist, NP, PA and/or midwife.

Sources: HPC’s analysis of the Center for Health Information and Analysis (CHIA) Massachusetts Health Insurance Survey, 2021
The cost of health care (including premiums and out of pocket costs), combined with the average cost of other household necessities, exceeds the income of middle-class families in the Boston metro area.

Average income and typical spending for a middle-class family of 4 with income between 3 and 5 times the FPL, 2020

Notes: Spending for non-health care categories are estimated based on typical local area expenditures by the Economic Policy Institute. Health care spending for over-the-counter medicines or for providers not covered by health insurance is not included. Employer contributions to health insurance premiums are included in both health care spending and income.

Total family health insurance premiums, not counting out of pocket spending, averaged $22,163 in Massachusetts in 2021.

Average rate increases for plans in the individual and small group market averaged more than 7 percent from 2021 to 2023.

People with lower incomes, people of color, those covered by high deductible plans, and people with activity limitations were more likely to report forgoing medical care due to cost.

Avoiding care due to cost and other affordability issues are associated with using the emergency department for non-emergencies.

Including the high cost of health care, middle class families in the Boston Metro area would be unable to meet basic expenses with their income.