Performance of the Massachusetts Health Care System

Annual Report March 2022



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CENTER FOR HEALTH INFORMATION AND ANALYSIS



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2022 Annual Report Key Findings

THCE totaled \$62.6 billion in 2020, or \$8,912 per capita. This represented a decrease of 2.4% from 2019, below the health care cost growth benchmark. From 2019 to 2020, spending on hospital inpatient services declined 1.8%, spending on hospital outpatient services declined 11.1%, and spending on physician services declined 12.0%; only prescription drugs and non-claims payments to providers experienced expenditure growth.

Overall hospital utilization declined in 2020. Both inpatient discharges and emergency department visits fell during peak periods of the COVID-19 pandemic. Hospitals also reported decreases in outpatient visits during their fiscal year 2020. Between 2019 and 2020, the portion of health care spending borne by private commercial health plan members (member cost-sharing) experienced an unprecedented 17.2% decline as utilization decreased due to the COVID-19 pandemic.

2022 Annual Report Key Findings

(CONTINUED)

The statewide median acute hospital total margin in HFY 2020 was 2.6%, a decrease of 0.9 percentage points in comparison to the prior fiscal year. Without COVID-19 relief funds, the median total margin would have been –4.5%.

There were 11.7 million nursing facility resident days in 2020, a 14% reduction in utilization compared to the prior year.

Premium rates in effect for 2020 were developed prior to the pandemic. The portion of premium dollars spent on non-medical expenses or that remained as surplus increased 35.4% to \$85 PMPM in 2020 amid unexpectedly low utilization of health care services. On selected clinical quality metrics, statewide scores were higher in 2020 than in 2018 for measures in the Behavioral Health domain, and lower for measures in the Screening and Prevention domain.

Executive Summary

Each year, pursuant to M.G.L. c. 12C, the Center for Health Information and Analysis (CHIA) examines the performance of the Massachusetts health care system and reports on trends in coverage, cost, and quality indicators to inform policymaking. The current report focuses on data through 2020, a period in which health care utilization, service delivery, and payer and provider finances were significantly impacted by the COVID-19 pandemic.¹ Reversals in long term spending and utilization trends should be viewed within the context of these extraordinary, time-limited circumstances, as findings from 2020 may not accurately predict future cost growth.

Following Governor Baker's declaration of a state of emergency on March 10, 2020, the Commonwealth implemented a variety of policies in response to the pandemic and its effects on the health care system. Between March 15, 2020 and May 18, 2020, hospitals and ambulatory surgical centers were directed to postpone nonessential, elective procedures in order to conserve personnel, personal protective equipment, and other resources.² Other orders, which persisted into 2021, required payers to cover all medically necessary telehealth services, reimburse in-network providers at equivalent rates for telehealth and in-person services, and eliminate member cost-sharing for coronavirus-related services.^{3,4}

Total Health Care Expenditures

In 2020, Total Health Care Expenditures (THCE) in Massachusetts were \$62.6 billion. THCE per capita decreased 2.4% to \$8,912 per resident, below the 2020 benchmark of 3.1% set by the Health Policy Commission.

The 2020 THCE figure is not inclusive of funding from the CARES Act, Paycheck Protection Program (PPP), or other federal funding related to COVID-19, as these dollars were distributed on a fiscal year schedule rather than the calendar year period on which the benchmark

is assessed. For hospital fiscal year (HFY) 2020, CHIA collected data around facility operating revenue and COVID-19 relief funding from acute hospitals and hospital-associated physician groups. This funding amounted to \$1.9B for acute hospitals and \$168.6M for hospital-associated physician groups.⁵ While THCE does not account for these federal funds, the data does include \$495.3M in MassHealth Supplemental Payments for COVID-19 relief.

Spending decreased across all major service categories (hospital inpatient, hospital outpatient, physician) apart from pharmacy expenditures between 2019 and 2020. Hospital inpatient spending decreased 1.8%, correlating with decreased utilization, and hospital outpatient, a driver of THCE growth in prior years, decreased 11.1% in 2020 as a result of the temporary suspension of nonessential, elective procedures due to COVID-19. Physician spending experienced the most rapid decrease, dropping 12.0% in 2020. If federal relief funds were included in THCE and allocated to calendar year 2020, combined inpatient and outpatient hospital spending would be +1.9%, and physician spending would be -10.2%.

Unlike hospital and physician services, prescription drug spending did not slow in 2020. Net of rebates, pharmacy spending increased 7.7% between 2019 and 2020, faster than the national spending trend of 3.0%. This trend was faster than in previous years, likely due to policy changes at the state and federal level due to COVID-19, such as the implementation of 90-day drug supplies and increased use of telehealth.

Commercial Insurance

Total expenditures for private commercial health plans, which comprised nearly 40% of THCE, decreased 4.5% in 2020, coinciding with decreases in enrollment (-2.1%). This reversal in expenditure and enrollment trends from previous years was a result of the COVID-19 pandemic. Consistent with trends in the overall market, decreases in commercial spending were driven by declines in spending for hospital outpatient (-11.3%) and physician services (-12.6%).

Non-claims comprised the smallest portion of overall commercial spending but experienced the largest increase among the service categories, growing 11.6% in 2020. Payers cited changes in terms of contracts with providers for commercial plans as a primary reason for increased non-claims spend in 2020.

Amid the overall decline in commercial spending, member cost-sharing fell 17.2% in 2020 to \$49 per member per month (PMPM); this trend was observed in every market sector. The percentage of costs covered by members also decreased from 11.5% of overall claims costs in 2019 to 9.9% of overall claims costs in 2020. These shifts in observed benefit levels were likely driven by changing utilization patterns as well as policies that required payers to cover medically indicated coronavirus testing and treatment without out-of-pocket costs for members enrolled in fully-insured plans.

Fully-insured health insurance premiums grew 2.6% in 2020. This followed a 2.3% premium increase in 2019 and substantially higher increases in 2017 and 2018. Premiums were lowest in the merged (individual and small group) market, which also had the lowest average benefit levels.⁶

Health insurance premiums are set prospectively based on historical data and projected growth in claims and administrative costs. This means that premiums for plans in effect in 2020 were developed without knowledge of how the COVID-19 pandemic would impact health care utilization. As the year progressed and it became evident that utilization would be much lower than anticipated, some payers issued premium refunds or credits to employers and/or individual purchasers.⁷ Despite these measures, non-medical expenses and surplus-defined as the portion of premium dollars not spent on members' medical expenses-grew 35.4% from \$62 PMPM in 2019 to \$85 PMPM in 2020. While most of these funds covered administrative expenses, taxes and fees, and broker commissions, payers reported average gains of \$19 PMPM from fully-insured lines of business in 2020, up from \$4 PMPM in 2019.

Massachusetts payers are required to meet minimum Medical Loss Ratio (MLR) thresholds of at least 88% in the merged market and 85% for larger employer plans; these requirements serve as guardrails to keep administrative costs in check for fully-insured plans. For the 2020 reporting year, payers issued \$58.0 million (\$117 per qualifying member on average) in MLR rebates to Massachusetts employers and individual purchasers, up from \$51.6 million (\$109 per qualifying member) in the prior year.⁸ Because the MLR formula considers data from a rolling three-year period, the 2020 financial experience will continue to impact rebate amounts for another two years.

Public Insurance Programs

Total MassHealth expenditures, representing over a quarter of overall spending, increased 3.2% in 2020 along with a 4.5% increase in enrollment. Enrollment growth was related to provisions of the Families First Coronavirus Response Act (FFCRA) that required states to maintain Medicaid members' coverage for the duration of the federal state of emergency. Compared to 2019, there were fewer new enrollees each month and far fewer members disenrolled from MassHealth, resulting in net growth for the program.⁹

The growth in MassHealth spending was also driven by increases in non-claims, pharmacy, and hospital inpatient. Non-claims experienced the largest increase in spending,

growing 32.5% to \$2.9B, with \$495M in new supplemental funding to hospitals, community health centers, and nursing facilities for COVID relief. Gross pharmacy spending increased 8.4% for MassHealth members, similar to the overall market. Hospital inpatient spending grew 7.8% in 2020, driven by high COVID volume and temporary rate increases to stabilize hospitals.

Among Medicare beneficiaries, spending for all service categories declined in 2020, apart from pharmacy, other medical, and non-claims. Hospital inpatient accounted for the largest service category in 2020 but declined 6.1% from 2019 due to decreased utilization. Spending for Medicare beneficiaries in Massachusetts decreased at a faster rate than the national 2020 Medicare spending trend (–1.7%).

Hospitals and Health Systems

Overall hospital utilization declined in 2020. Both inpatient discharges and emergency department visits fell during peak periods of the COVID-19 pandemic. In HFY 2020 overall acute hospital profitability, as measured by the median total margin, was 2.6%, a decrease of 0.9 percentage points compared to the prior fiscal year. The median operating margin was 1.3%, a decrease of 1.2 percentage points. Both the total and operating margins include COVID-19 relief funding reported as operating revenue.

Hospitals reported \$1.9B in federal funding and \$206.8M in state funding in their operating revenue in 2020, which

improved their operating income and profitability margins. If these COVID-19 relief funds had not been distributed, the statewide acute hospital median total margin would have been -4.5%, a decrease of 7.1 percentage points from the reported median total margin.

The financial performance of hospital health systems is important for understanding the greater context in which hospitals operate. In HFY 2020, the median total and operating margins for hospital health systems were 1.4% and -1.8%, respectively. Both decreased from the prior year.

In 2020, total utilization in nursing facilities was 11.7 million resident days, most of which (68%) were Medicaid resident days. Overall resident days declined by 14% between 2019 and 2020. Industry-wide occupancy rates, which is a measure of utilization compared to capacity, declined from 86.9% to 75.0% between 2019 and 2020. Total reported revenue by nursing facilities in 2020 was \$4.64 billion, which includes COVID-19-related funding received by facilities. In 2020, the total reported revenue slightly exceeded total reported expense, which was \$4.56 billion. This is a reversal from the prior two years, in which total expense exceeded total revenue.

Coordination and Quality

Alternative payment methods (APMs) shift payer-provider insurance contracts away from the traditional fee-for-service model toward a value-based payment system. The most common APMs in Massachusetts are global budgets, which

establish spending targets for a comprehensive set of health care services to be delivered to a specified population. Nearly all the commercial and MassHealth MCO/ACO-A members covered under APM arrangements, and 86.5% of Medicare Advantage members covered under APM arrangements, were covered by a global budget in 2020. Among these three insurance categories, payers only reported increasing APM adoption among their MassHealth MCO and ACO-A plans.

Looking at statewide scores on selected clinical quality measures from 2020 compared to 2018 scores suggests that changes in access to care due to the COVID-19 pandemic contributed to both improvements and declines in clinical quality scores. Overall, in domains where remote care was feasible–such as Behavioral Health–higher scores were observed in 2020 than in 2018, which may be related to the expansion of telehealth options. For example, the score for Antidepressant Medication Management (Acute Phase) increased from 70.5% in 2018 to 74.6% in 2020. Conversely, in domains that require in-person treatment or testing—such as Screening and Prevention measures scores were often lower in 2020 than in 2018, which may be related to limitations in access to in-person care. The score for Colorectal Cancer Screening, for example, declined from 80.2% in 2018 to 74.6% in 2020. It is also notable, however, that measures of pediatric well-care (first 15 months) and childhood immunizations (MMR) received high scores in 2020 (93.6% and 91.3%, respectively), which were very similar to 2018 scores on these measures despite the challenges to inperson office visits driven by the COVID-19 pandemic. •

Executive Summary Notes

- Health Policy Commission, "Impact of COVID-19 on the Massachusetts Health Care System: Interim Report," (Boston, April 2021), https://www. mass.gov/doc/impact-of-covid-19-on-the-massachusetts-health-caresystem-interim-report/download.
- 2 Department of Public Health, "Nonessential, Elective Invasive Procedures in Hospitals and Ambulatory Surgical Centers during the COVID-19 Outbreak," (Boston, March 2020), https://www.mass.gov/doc/guidanceregarding-the-elective-procedures-order/download.
- 3 Office of the Governor, "Order Expanding Access to Telehealth Services and to Protect Health Care Providers," (Boston, March 2020), https://www. mass.gov/doc/march-15-2020-telehealth-order/download.
- 4 Division of Insurance, "Bulletin 2020-13: Coverage for COVID-19 Treatment and Out-of-Network Emergency and Inpatient Reimbursement during the COVID-19 Health Crisis," (Boston, April 2020), https://www.mass.gov/doc/ bulletin-2020-13-coverage-for-covid-19-treatment-and-out-of-networkemergency-and-inpatient/download.
- 5 \$1.9B only includes relief funding reported as operating revenue by the entity and that the entity may have received other funds in the form of loans, advance payments, and revenue that was not yet recognized. For additional information on federal relief funds, please see CHIA'S Acute Hospital Financial Performance Report - https://www.chiamass.gov/assets/ Uploads/mass-hospital-financials/2020-annual-report/Acute-Hospital-Health-System-Financial-Performance-Report-FY2020.pdf.
- 6 Apart from ConnectorCare where measured benefit levels were higher due to state Cost-Sharing Reduction (CSR) subsidies.

- 7 Although CHIA did not ask payers to report whether they provided premium refunds or credits in 2020, it was publicly reported that BCBSMA, HPHC, and United all took these actions. Haefner, Morgan, "15 health insurers sending premium credits to members," Becker's Payer Issues, October 15, 2020. https://www.beckershospitalreview.com/payer-issues/14-healthinsurers-sending-premium-credits-to-members.html.
- 8 Centers for Medicare & Medicaid Services (CMS), "MLR Refunds by State and Market for 2020 (PDF)" and "MLR Refunds by State and Market for 2019 (as of October 16, 2020) (PDF)," accessed December 22, 2021, https://www.cms.gov/CCIIO/Resources/Data-Resources/mlr.
- **9** Disenrolled members after March 18, 2020 include members that voluntarily disenrolled from MassHealth, moved out of state, died, or were otherwise exempt from the continuous coverage requirement under FFCRA.

KEY FINDINGS

Total health care expenditures fell \$0.4 billion in 2020, driven by decreases in commercial and Medicare spending, while spending grew for MassHealth and other components of THCE. Decreases in physician and hospital outpatient spending were the largest drivers of the decline in THCE, due to postponed or cancelled nonessential procedures and preventative visits during the COVID-19 pandemic.

Pharmacy spending continued to increase, surpassing hospital outpatient to become the second largest service category of THCE spending. Non-claims spending grew the fastest among service categories in all three main market sectors.

A key provision of the Massachusetts health care cost containment law, Chapter 224 of the Acts of 2012, was the establishment of a benchmark against which the annual change in health care spending growth is evaluated.

The Center for Health Information and Analysis (CHIA) is charged with calculating Total Health Care Expenditures (THCE) and comparing its per capita growth with the health care cost growth benchmark, as determined by the Health Policy Commission.

From 2013 to 2017, the health care cost growth benchmark was set at 3.6%. For the 2018 to 2020 performance periods, the benchmark was set at 3.1%.¹

THCE encompasses health care expenditures for Massachusetts residents from public and private sources, including all categories of medical expenses and all nonclaims-related payments to providers; all patient costsharing amounts, such as deductibles and copayments; and the cost of administering private health insurance (called the net cost of private health insurance or NCPHI).²

It does not include out-of-pocket payments for goods and services not covered by insurance, such as over-thecounter medicines; it also excludes other categories of expenditures not covered by private commercial medical insurance, such as vision and dental care.

In prior years, CHIA published an initial assessment of THCE based on data with at least 60 days of claims run-out for the previous calendar year, which included payers' estimates for claims completion and for quality and

Notes:

Detailed methodology and data sources for THCE are available at https://www.chiamass.gov/thce-tme-apm/.

performance settlements. Final THCE was then published the following year, based on final data which was submitted 17 months after the end of the performance year.

For 2020, the THCE data is considered final due to a longer claims run-out (six months on average) because of a shifted reporting timeline.

This report provides final results for calendar years 2019 and 2020. •

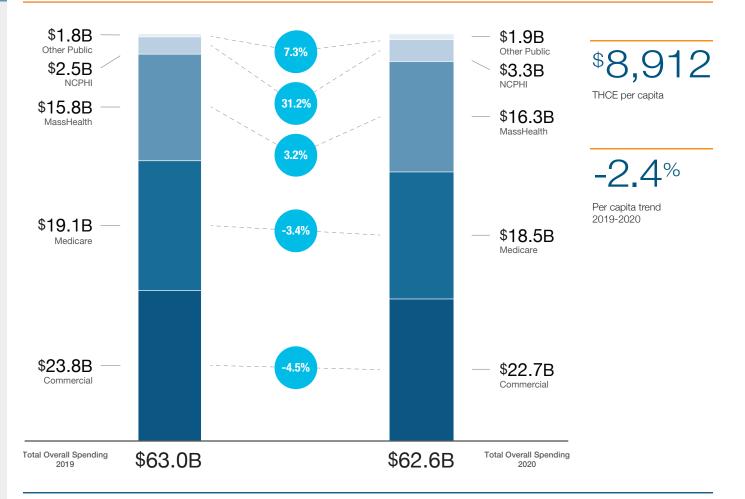
Massachusetts THCE totaled \$62.6 billion in 2020. This represents a decrease of \$0.4 billion from 2019, during which the state's population grew by 2.0%.³ THCE spending per resident decreased 2.4% to \$8,912 per capita, the first negative growth trend since CHIA began reporting on the benchmark. The dramatic reversal in the Commonwealth's overall THCE and component trends was driven by the impact of the COVID-19 pandemic on the health care system. These impacts include declines in service utilization, shifts in insurance coverage, and changes in state and federal regulations to support the delivery system responding to the pandemic.

Total commercial health care spending, which comprised 36.2% of THCE, decreased 4.5% to \$22.7 billion in 2020, driven by a 2.1% decrease in enrollment and a 2.3% decrease in claims spending.

Medicare spending (29.5% of total spending) decreased by 3.4% to \$18.5 billion, accompanied by enrollment growth (+1.1%). MassHealth (26.0% of total spending) reported an increase in total spending (+3.2% to \$16.3 billion in 2020), while enrollment grew by 4.5%.

The net cost of private health insurance (NCPHI), which measures the private administrative costs of providing health insurance, comprised 5.3% of THCE, with the total amount increasing by 31.2% from 2019 to 2020. This large increase was driven by 2020 premiums being set in advance of the COVID-19 pandemic and the unanticipated impact the pandemic had on insurer expenditures.

Components of Total Health Care Expenditures, 2019-2020



Total Health Care Expenditures per capita decreased by 2.4% from 2019 to 2020, driven by decreases in commercial and Medicare spending.

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

Notes: Massachusetts 2020 state population was sourced from the 2020 Census, whereas previous data years were sourced from the U.S. Census Bureau's yearly population estimates. Percent changes are calculated based on non-rounded expenditure amounts. Please see databook for detailed information.

In prior years, CHIA calculated an initial THCE trend, which was then updated with more complete data the following year. For this year's reporting cycle, the 2020 THCE trend reflects data that is considered final due to longer claims run-out.⁴

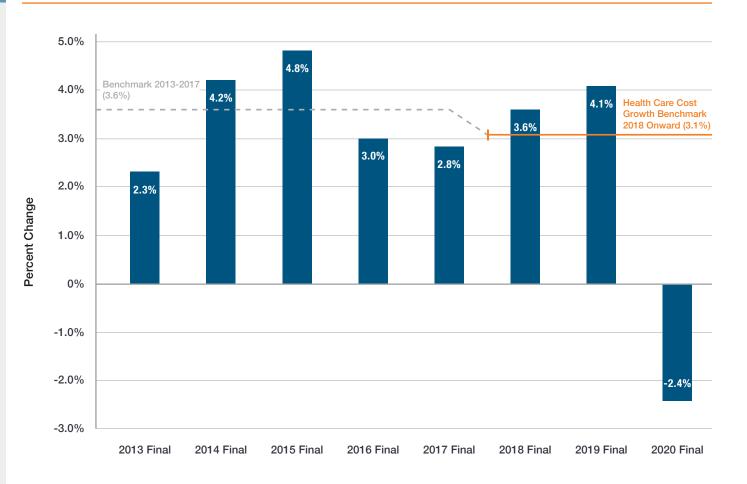
The 2019 final trend was 4.1%, above the 3.1% health care cost growth benchmark. The preliminary trend for 2019 was, on average, based on five months of claims run-out.

The 2020 THCE trend reflects six months of claims run-out, on average. In 2020, THCE decreased 2.4%, the first year of negative growth since reporting on the benchmark. The 2020 THCE trend is below the cost growth benchmark set by the Health Policy Commission.

Per capita THCE growth was lower than growth in the Massachusetts economy (-1.8%), and below national wages and salaries (2.7%) and regional inflation (1.1%).⁵

National health care spending, as measured by the Centers for Medicare and Medicaid Services' (CMS) National Health Expenditure Accounts, increased 9.7% between 2019 to 2020. However, this sharp increase was largely driven by an increase in federal funding for public health programs and financial assistance to health care providers, including federal funding from the CARES Act and Paycheck Protection Program, which is spending not captured in Massachusetts THCE. Excluding spending for federal public health activities and other federal programs, national health expenditures increased 1.9% in 2020.⁶

Per Capita Total Health Care Expenditure Trends, 2013-2020



In a reversal from previous years, Total Health Care Expenditures per capita declined in 2020.

Source: Total Health Care Expenditures from payer-reported data to CHIA and other public sources.

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

Overall commercial spending decreased by 4.5% between 2019 and 2020, accompanied by a 2.1% decline in commercial membership.

The most common commercial insurance products in Massachusetts are Health Maintenance Organization (HMO) plans, accounting for 44.4% of commercial membership in 2020, consistent with previous years. These plans typically require that a member select a primary care provider to manage the member's care. Overall spending on HMO products decreased by 4.7% to \$9.9 billion in 2020, accompanied by a decrease in membership (-2.0%).

Spending for Preferred Provider Organization (PPO) plans, which allow members to schedule visits without a referral, decreased by 3.9% to \$8.2 billion in 2020, accompanied by a 2.2% decrease in membership.

Point-of-Service (POS) plans experienced the greatest decreases in spending (-8.9%) and enrollment (-6.6%).

Spending for the Indemnity & Other product type category increased by 3.6% to \$1.6 billion in 2020, driven by an increase in Other product type enrollment (+15.4%), which includes Exclusive Provider Organization (EPO) plans.

For additional insight on commercial enrollment trends, see page 36.

Components of Total Health Care Expenditures: Private Commercial Insurance by Product Type, 2019-2020



Spending decreased for HMO, PPO, and POS plans, accompanied by declines in membership.

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

Notes: For commercial partial-claim data, see CHIA's new 2021 Commercial Partial Gross Up Revised Methodology. CHIA estimates spending by product type by multiplying the share of member months reported in TME data by the estimated total commercial partial-claim expenditures. Percent changes are calculated based on non-rounded expenditure amounts. Please see databook for more detailed information.

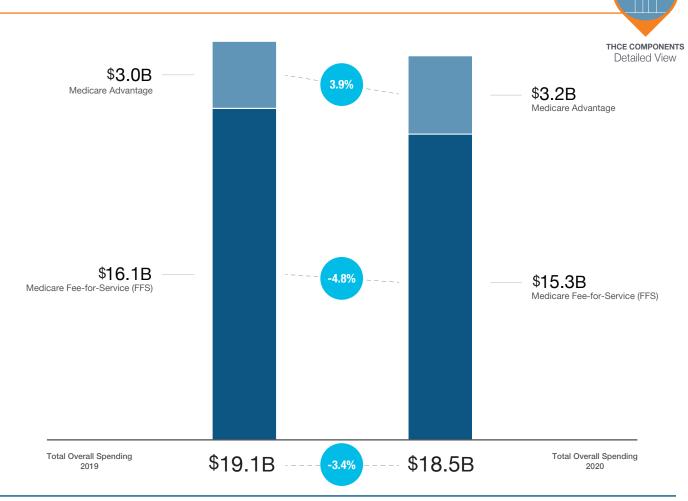
In Massachusetts, approximately 1.3 million residents were enrolled in Medicare, the federal health insurance program for people ages 65 and older, as well as for individuals with long-term disabilities.

Within the Medicare program, eligible individuals choose between traditional Medicare coverage administered by the federal government ("traditional Medicare" or "Fee-for-Service"). Medicare Advantage products are managed by private insurers. In the Commonwealth, most beneficiares receive coverage through traditional Medicare (83.5% in 2020), though a growing share are enrolling in Medicare Advantage plans (16.5% in 2020—an uptick from 15.6% in 2019).

Total Medicare expenditures decreased by 3.4%, from \$19.1 billion in 2019 to \$18.5 billion in 2020. Medicare Fee-for-Service (FFS) spending decreased by 4.8%, while enrollment decreased 0.8% in 2020. Medicare Advantage spending grew 3.9%, with enrollment increasing 8.5%.

Medicare spending nationally, across both traditional and Part D drug expenditures, decreased slower than in Massachusetts, estimated at -1.7%.⁷

Components of Total Health Care Expenditures: Medicare Programs, 2019-2020



Medicare Advantage expenditures increased by 3.9% while traditional Medicare spending decreased by 4.8%.

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

Notes: For additional information on enrollment in Medicare programs, see CHIA's Enrollment Trends reporting. Traditional Medicare includes Part D expenditures for traditional Medicare enrollees. In THCE, beneficiaries that are dually eligible for Medicare and Medicaid and enroll in plans specifically designed to better coordinate their care (e.g., Senior Care Options) are included in MassHealth spending. As a result, the share of spending attributable to Medicare may not be comparable to figures published by other sources. Percent changes are based on non-rounded expenditure amounts. Please see databook for detailed information.

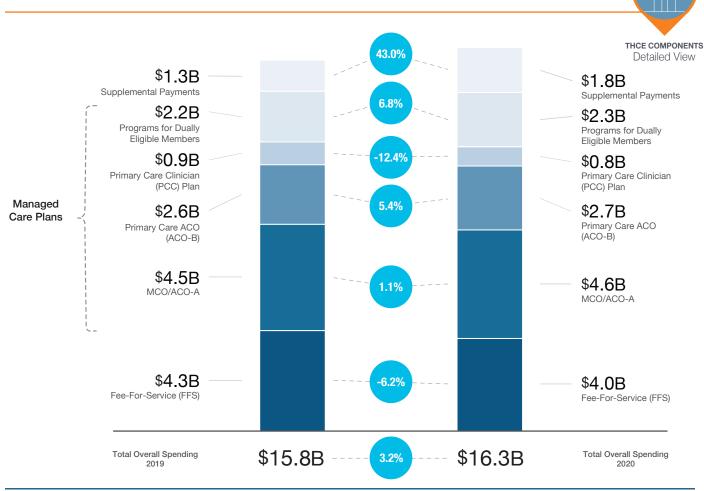
In 2020, approximately 1.9 million Massachusetts residents relied on MassHealth for either primary or partial/secondary medical coverage.

From 2019 to 2020, overall MassHealth spending increased by 3.2%, while membership increased 4.5% (+4.2.% among members with primary medical coverage, and +4.4% among members with secondary or partial coverage). In the Families First Coronavirus Response Act, enacted by the federal government in March 2020, states were required to provide continuous coverage for current Medicaid enrollees, ceasing eligibility redetermination processes and preventing the termination of coverage through the national public health emergency period.^{8,9} For additional information on MassHealth enrollment in 2020, see page 37.

The largest spending increases were in Supplemental Payments and Programs for Dually Eligible members, where spending increased 43.0% and 6.8%, respectively. The supplemental payments category included new COVID Supplemental Payments to acute hospitals, chronic disease and rehabilitation hospitals, nursing homes, and community health centers, totaling \$495.3 million in 2020. The spending growth for Dually Eligible programs was driven by an 8.3% increase in enrollment; One Care enrollment increased 16.6%, and Senior Care Options (SCO) enrollment increased 8.7%. Spending also increased for Primary Care ACOs (ACO-B) and MCO/ACO-As, accompanied by membership increases in both programs.

The Primary Care Clinician (PCC) plan was the only MassHealth program to experience a decrease in enrollment at 10.0%. FFS spending decreased 6.2% from 2019 to 2020, while membership increased 1.2% after declining in 2019.

Components of Total Health Care Expenditures: MassHealth by Program Type, 2019-2020



Overall MassHealth spending increased 3.2% between 2019 and 2020, driven by increased enrollment and new supplemental payments related to COVID-19.

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

Notes: Members of MCO-Administered ACOs (ACO-C) are counted within the MCO population. For additional information on enrollment in MassHealth programs, see CHIA's Enrollment Trends reporting. MassHealth programs for dually eligible members include Senior Care Options (SCO), for members ages 65 and older; the Program of All-inclusive Care for the Elderly (PACE) for members 55 and older; and One Care, for members ages 21 to 64. One-third of duals are captured in the PACE/SCO/One Care programs, with the remaining receiving MassHealth coverage through FFS programs. Totals and percent changes are calculated based on non-rounded expenditure amounts. Please see databook for detailed information.

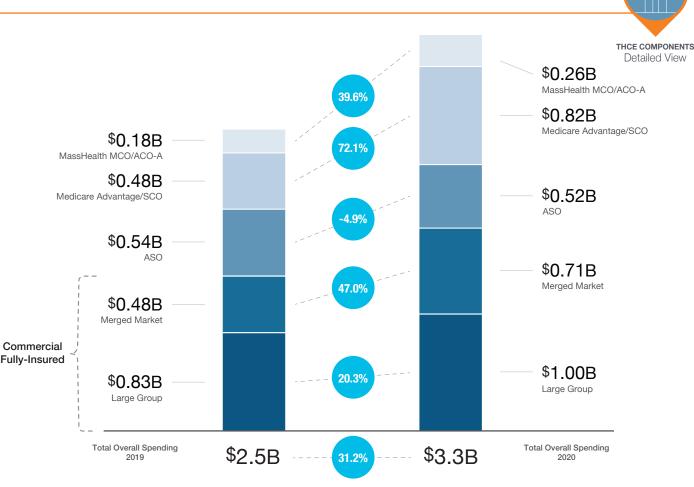
NCPHI captures the private administrative costs of health insurance for Massachusetts residents and is broadly defined as the difference between the premiums health plans receive on behalf of Massachusetts residents and the expenditures for covered benefits incurred for those same members. Premiums are set prospectively based on historical data and actuarial assumptions, so NCPHI fluctuates from year to year depending on how closely actuarial projections match actual spending on health care services. Health care utilization was much lower than expected in 2020 due to impacts of the COVID-19 pandemic.

In 2020, NCPHI spending increased by 31.2% to \$3.3 billion. This follows a 4.3% decrease in spending in 2019. For commercial market sectors, Merged Market and Large Group NCPHI increased by 47.0% and 20.3%, respectively, while commercial Administrative Services Only (ASO) lines of business showed a decrease of 4.9% in NCPHI. NCPHI for Medicare Advantage/SCO increased by 72.1%.

NCPHI balances are used to pay general administrative expenses, broker commissions, as well as taxes and fees. Rebates and premium credits paid to members are accounted for in these figures. Additional remaining balances result in surpluses that may be used to build reserves for future claims.

State and federal medical loss ratio regulations limit the share of premiums that can be used for nonmedical expenses. For more information on payer use of funds, see page 114.

Components of Total Health Care Expenditures: Net Cost of Private Health Insurance by Market Sector, 2019-2020



NCPHI increased by 31.2% to \$3.3 billion in 2020, with increases reported in all market sectors except administrative services only.

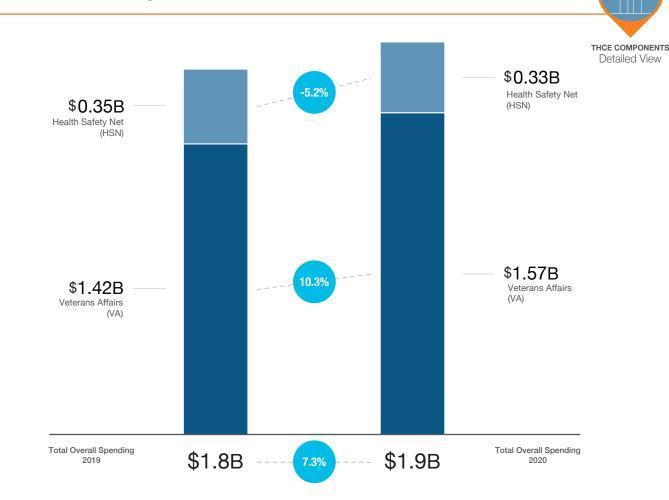
Source: Massachusetts Medical Loss Ratio Reports from Massachusetts Division of Insurance. Federal Medical Loss Ratio Reports from Center for Consumer Information and Insurance Oversight. Annual Statutory Financial Statement and Supplemental Health Care Exhibit from National Association of Insurance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

Notes: NCPHI Large Group combines the fully-insured mid-size, large, and jumbo groups. The ASO category reflects fees collected by payers for providing administrative services only to self-insured employers.

The U.S. Department of Veterans Affairs, through its Veterans Health Administration division, provides health care for certain eligible U.S. military veterans. Medical spending for Massachusetts veterans increased 10.3% to \$1.6 billion in 2020. Total Veterans Affairs (VA) medical spending nationally increased 11.6% between 2019 and 2020. In March 2020, the VA received \$19.6 billion in supplemental funding to respond to the COVID pandemic.¹⁰

The Health Safety Net (HSN) pays acute care hospitals and community health centers for medically necessary health care services provided to eligible low-income uninsured and underinsured Massachusetts residents up to a predetermined amount of available funding. HSN provider payments decreased 5.2% in 2020 due to decreased demand.

Components of Total Health Care Expenditures: Other Public Programs, 2019-2020



Health care spending for the Veterans Health Administration grew by 10.3% in 2020; Health Safety Net expenditures decreased by 5.2%.

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

Notes: Veterans Affairs data sourcing updated, see technical appendix for details. HSN spends and reports on the hospital fiscal year (HFY). Percent changes are calculated based on non-rounded expenditure amounts. Please see databook for detailed information.

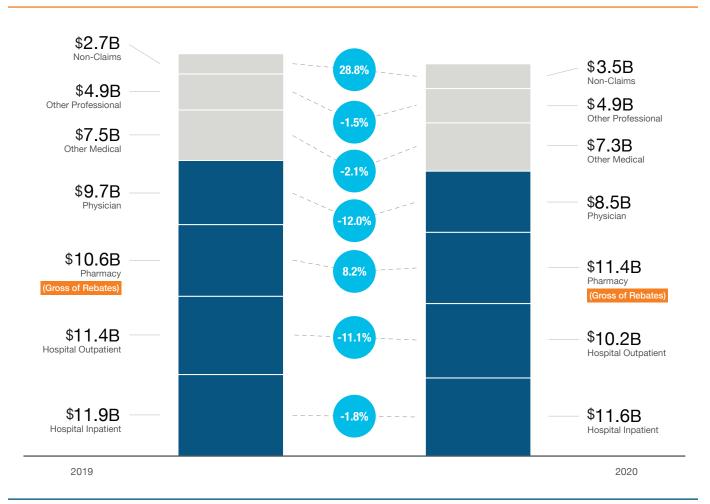
Hospital services accounted for the largest share of overall THCE spending in 2020, with inpatient and outpatient expenses together totaling \$21.8 billion. Hospital outpatient spending decreased by 11.1% between 2019 and 2020 to \$10.2 billion, while hospital inpatient decreased by 1.8% to \$11.6 billion. For further information on hospital performance in 2020, see page 41.

Non-claims spending experienced the highest growth overall at 28.8% between 2019 and 2020, a faster increase than in 2018 to 2019 (+6.4%). The increase in non-claims expenses was driven by the new MassHealth COVID Supplemental Payments along with increased spending for risk settlements and other non-claims payments related to provider contracts, which grew 42.2% and 31.1%, respectively.

Prescription drug spending experienced the only growth among the four largest service categories. Gross pharmacy spending increased by 8.2% in 2020, over one percentage point faster than in 2019 (+6.9%). In 2020, prescription drug spending surpassed hospital outpatient to become the second largest service category.

Spending for physician services decreased 12.0% to \$8.5 billion in 2020. Spending for other professional services, which includes care provided by a licensed practitioner other than a physician (such as nurse practitioner or psychologist), decreased by 1.5%, to \$4.9 billion in 2020. Other medical spending combined across service types including skilled nursing facilities and home health services decreased by 2.1%.

Total Health Care Expenditures by Service Category, 2019-2020: Gross of Prescription Drug Rebates



From 2019 to 2020, spending decreased across all service categories except for non-claims and pharmacy.

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

Notes: Excludes net cost of private health insurance, VA, and HSN. For commercial partial-claim data, see CHIA's new 2021 Commercial Partial Gross Up Revised Methodology. Percent changes are calculated based on non-rounded expenditure amounts. Please see databook for detailed information.

Net of prescription drug rebates, pharmacy spending totaled \$8.9 billion in 2020, a 7.7% increase from 2019, after growing 3.0% between 2018 and 2019. Nationally, prescription drug spending net of rebates increased 3.0% in 2020, a slower rate than the previous year.¹¹

After accounting for rebates, pharmacy expenditures were reduced by \$2.5 billion in 2020. Prescription drug rebates grew 9.9% between 2019 and 2020, a significantly slower rate than the previous year (+23.8%).

Pharmacy expenditures represent spending under a payer's prescription drug benefit; other service categories may include additional spending associated with drugs that are administered in other care settings such as a hospital or physician's office, which are not included under the Pharmacy service category.

There were several policy changes at both the state and federal level that may explain the rise in pharmacy spending. During the COVID-19 pandemic, Medicare mandated drug plans to allow for a 90-day supply of drugs, rather than the typical 30, for safety reasons.¹² MassHealth and many commercial plans also required or allowed increased supplies of particular drugs.¹³ These new policies likely lead to increased utilization and spending on pharmacy benefit drugs.

In terms of rebates, payers, pharmacy benefit managers (PBMs), and manufacturers adopted new strategies on drug pricing that narrowed the gap between net and gross spending on prescription drugs.

Total Health Care Expenditures by Service Category, 2019-2020: Net of Prescription Drug Rebates



Net of rebates, pharmacy spending increased 7.7% in 2020.

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

Notes: Excludes net cost of private health insurance, VA, and HSN. For commercial partial-claim data, see CHIA's new 2021 Commercial Partial Gross Up Revised Methodology. Percent changes are calculated based on non-rounded expenditure amounts. Please see databook for detailed information.

Change in Total Health Care Expenditures by Service Category, 2019-2020

From 2019 to 2020, THCE in Massachusetts decreased by \$1.2 billion gross of pharmacy rebates.

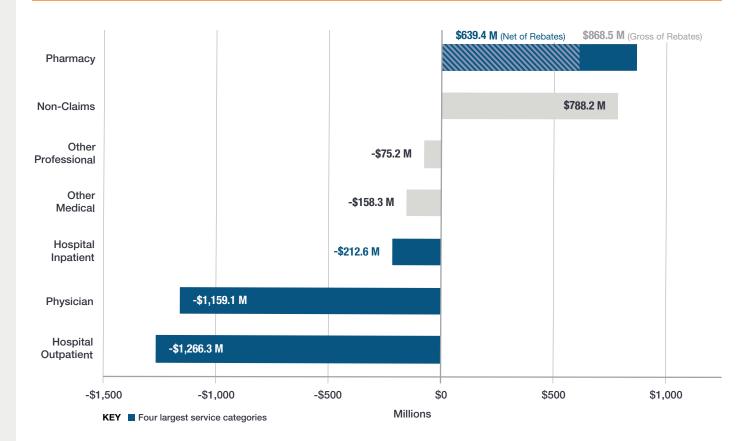
Hospital outpatient and physician spending were the largest components of medical expenditure declines, with both decreasing more than \$1 billion each between 2019 and 2020. Due to the COVID-19 pandemic, all hospitals and ambulatory surgical centers were directed to temporarily postpone or cancel any nonessential, elective invasive procedures until the end of the State of Emergency.¹⁴ Additionally, there was a drop in preventive care visits and screenings.¹⁵

Hospital inpatient services also contributed to the decline in THCE, decreasing \$212.6 million. Hospital inpatient discharges decreased 9.7% between 2019 and 2020, dropping steeply at the onset of the pandemic in April 2020 and remaining below prepandemic levels throughout the year.¹⁶

Other medical and other professional spending also contributed to the overall decrease in THCE.

Pharmacy and non-claims expenses were the only service categories to experience an increase in spending. Pharmacy spending gross of rebates represented the greatest increase in spending across all service categories. THCE net of rebates decreased nearly \$1.4 billion.

Non-claims spending increased \$788.2 million between 2019 and 2020.



Decreases in hospital outpatient and physician spending were the largest drivers of the decline in THCE between 2019 and 2020.

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

Notes: Excludes net cost of private health insurance, VA, and HSN. For detailed information about how expenses were grouped into service categories, see technical appendix.

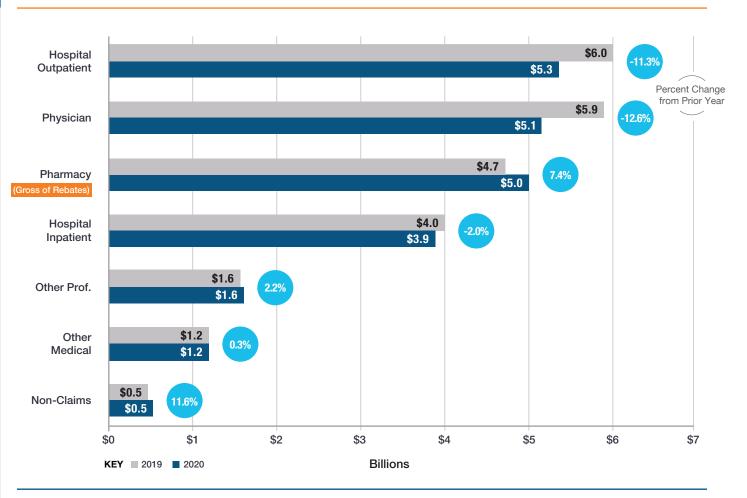
Commercial spending totaled \$22.7 billion in 2020, representing 36.2% of overall THCE spending. Hospital outpatient and physician spending were the two largest components of spending and the biggest drivers of spending decreases in 2020.

Pharmacy spending gross of rebates was the only major service category to experience an increase in spending from 2019 to 2020 at 7.4%, faster than the 5.5% growth the year prior.

Other professional and other medical expenses both experienced increases in spending, at 2.2% and 0.3%, respectively.

Non-claims comprised the smallest portion of overall spending across all commercial service categories but experienced the largest growth in spending, increasing 11.6% in 2020 due to increases in risk settlements.

Components of Total Health Care Expenditures: Commercial Spending by Service Category, 2019-2020



Commercial spending decreased in 2020, driven by decreases in hospital outpatient and physician spending.

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

Notes: For commercial partial-claim data, see 2021 Commercial Partial Gross Up Revised Methodology. Pharmacy data displayed above is gross of prescription drug rebates. Excludes net cost of private health insurance. Percent changes are calculated based on non-rounded expenditure amounts. Please see databook for detailed information.

MassHealth spending totaled \$16.3 billion in 2020, representing 26.0% of overall THCE spending.

Other medical, which includes dental, long term care, and home health services, was the largest component of MassHealth spending, totaling \$2.9 billion in 2020, a decrease of 7.2% from 2019. For additional insight on spending trends in nursing facilities, see page 55.

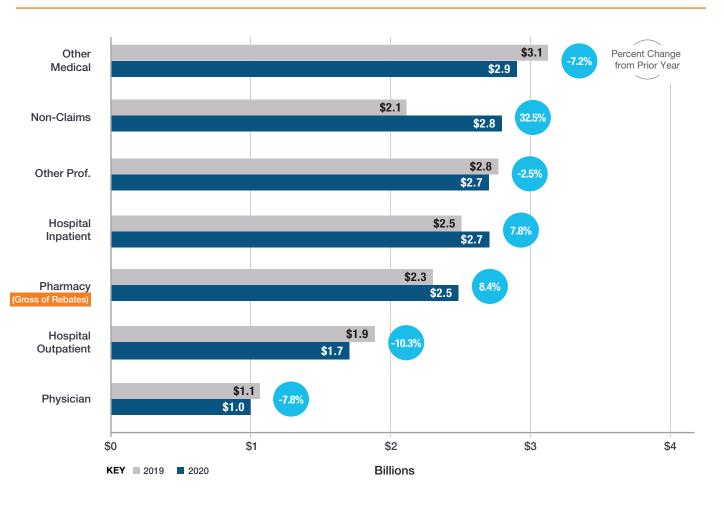
Non-claims spending became the second largest spending component in 2020, increasing 32.5% to \$2.8 billion. The growth in expenditures was primarily driven by increased payments to Safety Net providers and new supplemental funding for COVID relief as well as increases in non-claims spending for ACO-B and Medicaid MCO/ACO-A programs.

Hospital outpatient and physician spending represented a smaller portion of overall spending for MassHealth when compared to the commercial market, but similarly represented the fastest spending decreases, at 10.3% and 7.8%, respectively. Other professional spending decreased 2.5% from 2019 to 2020, to \$2.7 billion.

Pharmacy spending, gross of rebates, represented that fastest spending increases among major service categories, growing 8.4% to \$2.5 billion. In 2020, hospital inpatient expenses also increased, up 7.8% from 2019, due to high COVID volume and temporary rate increases to financially stabilize hospitals during the first COVID surge in 2020.

CHIA

Components of Total Health Care Expenditures: MassHealth Spending by Service Category, 2019-2020



MassHealth spending grew from 2019 to 2020, with increases in non-claims, pharmacy, and hospital inpatient spending.

Source: Payer-reported data to CHIA and other public sources. Service category spending for the MassHealth population includes data reported directly by MassHealth, commercial MCO/ACO-A data, and adjusted service category spending for dually eligible populations computed using MassHealth-reported totals and the service mix from the commercial data. Pharmacy data displayed above is gross of prescription drug rebates.

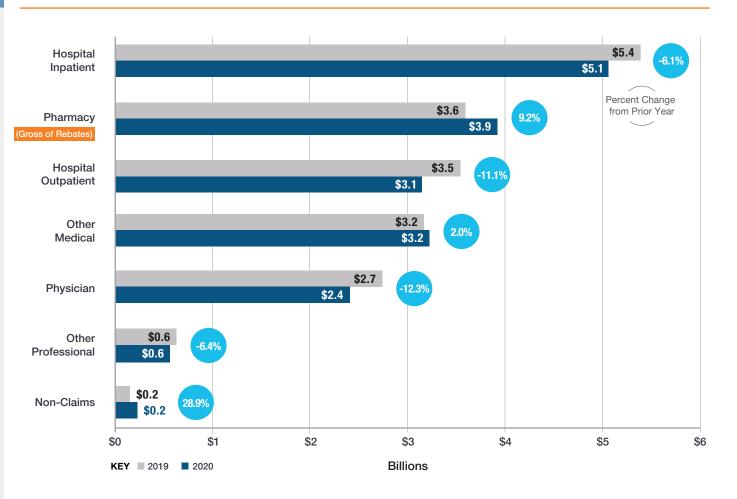
Medicare spending totaled \$18.5 billion in 2020, representing 29.5% of overall THCE spending.

Hospital inpatient made up over one-fourth of Medicare spending in 2020, totaling \$5.1 billion, a decrease of 6.1% from 2019. Consistent with MassHealth and commercial trends, Medicare hospital outpatient and physician spending experienced the greatest decreases, at 11.1% and 12.3%, respectively, while non-claims spending showed the greatest increase between 2019 and 2020 at 28.9%.

Pharmacy, gross of rebates, was the second largest component of Medicare spending at \$3.9 billion in 2020, increasing 9.2% from 2019.

Other medical spending increased 2.0% between 2019 and 2020. Other professional spending decreased 6.4%.

Components of Total Health Care Expenditures: Medicare Spending by Service Category, 2019-2020



Medicare spending declined from 2019 to 2020, driven by decreases in hospital inpatient, hospital outpatient, and physician spending

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

Notes: Pharmacy data displayed above is gross of prescription drug rebates. Percent changes are calculated based on non-rounded expenditure amounts. Please see databook for detailed information.

Understanding the Methodology: 2022 Annual Report Changes

Massachusetts Population Sourcing

Massachusetts' population increased 2.0% from 2019-2020, whereas in prior years of measuring the benchmark, population growth was consistently less than 0.5%. This was due to a data sourcing change, from yearly census estimates to the official 2020 census population count. These yearly estimates use a population base from the last decennial census. Census 2010, and then factor in components of change, including births, deaths, and net migration. The 2020 Census started a new count for the base year population. There can be differences in yearly estimates and census data, interpreted as errors in the estimates. For example, the 2020 population estimate for Massachusetts, using estimate methodology and not taking the 2020 Census into account, was 6,893,574, whereas the 2020 Census counted the Massachusetts population at 7,029,917. CHIA sourced the 2020 population from the 2020 Census as this is more accurate and will be used as the base year population for future yearly population estimates.

For more information on Census methodology, see the following resources from the U.S. Census Bureau:

 https://www.census.gov/programs-surveys/popest/ technical-documentation/methodology.html https://www2.census.gov/programs-surveys/popest/ technical-documentation/methodology/2010-2020/ methods-statement-v2020-final.pdf

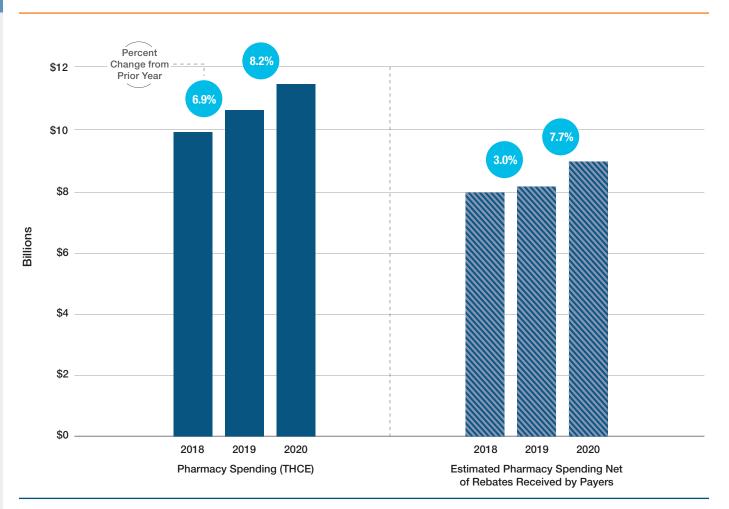
Commercial Partial Methodology

Commercial partial claims indicates that services are "carved-out" of the contract between the insurer and the purchaser, most commonly pharmacy and/or behavioral health services. Because of these arrangements, the insurer may not have access to the spending data for the carvedout services for reporting. To capture the full spending of the commercial partial population, CHIA performs a calculation to gross up (estimate the full value of) the claims to represent the full claim amount. The commercial partial gross-up methodology was revised for the 2022 Annual Report due to the availability of more detailed data, which impacted previously reported THCE totals for 2018 and 2019. Under the revised methodology, commercial partial spending is only grossed up for the services that payers report as carve-outs in their TME-APM submission. Please see CHIA's updated 2021 Commercial Partial Gross Up Revised Methodology for more information.

THCE reflects gross prescription drug expenditures, which represent payer payments to pharmacies, along with member cost-sharing. Both public and private payers, however, commonly through PBMs, negotiate with drug manufacturers to receive rebates on their members' prescription drug utilization. Additionally, federal law dictates minimum requirements for rebates to state Medicaid programs, and allows private payers that offer plans to negotiate supplemental rebates as well. These rebates reduce payer total expenses for prescription drugs.

In 2020, gross prescription drug expenditures totaled \$11.4 billion, an 8.2% increase from \$10.6 billion in 2019. This growth was higher than the prior year, when spending grew by 6.9%. Prescription drug rebates are estimated to have grown over the last three years, from \$1.9 billion in 2018 to \$2.5 billion in 2020. Net of rebates, expenditures for prescription drugs grew 7.7% in 2020, a significant increase from the 2019 trend (+3.0%). The growth in net spending in 2020 was driven by new policies between payers, PBMs, and drug manufacturers to negotiate drug pricing primarily in the Medicaid Managed rebates category.

Estimated Impact of Rebates on Pharmacy Spending and Growth, 2018-2020



From 2019 to 2020, prescription drugs expenditures grew by 8.2%; net of rebates the increase was 7.7%.

Source: Payer-reported data to CHIA.

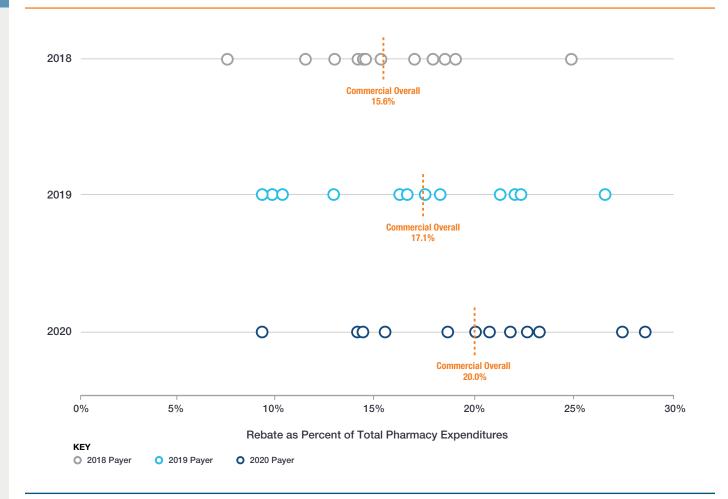
Notes: Total pharmacy payments reported by payers in THCE may include prescription drug price concessions or discounts transmitted at the point-of-sale, including coverage gap discounts. Pharmacy spending net of rebates estimates the impact of reducing the total pharmacy costs to payers by retrospective rebates, in addition to any price discounts included in THCE. Percent changes are based on full non-rounded expenditures. Please see databook for detailed information.

Overall, commercial payers received 20.0% of pharmacy spending back from manufacturers in the form of rebates in 2020, a 2.9 percentage point increase from 2019. This percentage reflects the amount payers received from PBMs.

Variation in payer-reported rebate proportions may be driven by several factors, including member demographics, utilization trends, coverage decisions, and market power. In addition, variation may be driven by the complexity and variability of payer-PBM contracts. Variation in rebate percentages among commercial payers increased from 2018 to 2020.

In 2019 and 2020, four payers reported rebate proportions within two percentage points of the overall commercial rebate proportion.

Range of Payer-Reported Commercial Rebates as a Percentage of Gross Pharmacy Expenditures, 2018-2020



Across the commercial market in 2020, 20.0% of pharmacy expenditures were returned to payers in the form of rebates.

Source: Payer-reported data to CHIA.

Notes: Overall rebate percentages determined by comparing the reported rebate amounts from all commercial payers by the reported pharmacy expenditures in Total Medical Expenditures by commercial payers. See Methodology for more information.

Total Health Care Expenditures Notes

- Pursuant to M.G.L. c.6D §9, the benchmark for 2019 and 2020 is equal to the PGSP minus 0.5% (or 3.1%). Detailed information available at https:// www.mass.gov/info-details/health-care-cost-growth-benchmark.
- **2.** NCPHI includes administrative expenses attributable to private health insurers, which may be for commercial or publicly funded plans.
- Massachusetts 2020 state population was sourced from the 2020 Census, whereas previous data years were sourced from the U.S. Census Bureau's yearly population estimates.
- 4. For performance year 2020, the data is considered final due to a longer claims run-out period, on average six months, because of a shifted reporting timeline. This differs from previous performance years where an initial assessment was published with a shorter period of claims run-out and payer estimates for claims completion, and then a final THCE was published the following year to allow for a 17-month run-out period after the end of the performance year.
- Public data sourced from the U.S. Bureau of Economic Analysis and the U.S. Bureau of Labor Statistics.
- 6. Centers for Medicare and Medicaid Services, National Health Expenditure Data. https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/ NationalHealthAccountsHistorical.
- 7. National trends in Medicare spending are estimated based on data reported to CHIA by CMS.
- Musumeci, MaryBeth. "Key Questions About the New Increase in Federal Medicaid Matching Funds for COVID-19." Kaiser Family Foundation (KFF), May 4, 2020. https://www.kff.org/coronavirus-covid-19/issue-brief/keyquestions-about-the-new-increase-in-federal-medicaid-matching-fundsfor-covid-19/.
- MassHealth Eligibility Flexibilities for COVID-19. Updated August 2020. https://www.mass.gov/doc/masshealth-eligibility-flexibilities-forcovid-19-0/download.

- U.S. Government Accountability Office, Veterans Affairs: Use of Additional Funding for COVID-19 Relief (GAO-21-379). May 5, 2021. https://www.gao.gov/products/gao-21-379.
- 11. Centers for Medicare and Medicaid Services, National Health Expenditure Data. https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/ NationalHealthAccountsHistorical.
- Centers for Medicare and Medicaid Services, Information Related to Coronavirus Disease 2019 - COVID-19, April 21, 2020. https://www. cms.gov/files/document/updated-guidance-ma-and-part-d-plansponsors-42120.pdf.
- **13.** MassHealth, Pharmacy Facts 178, January 24, 2022. https://www.mass. gov/doc/pharmacy-facts-178-january-24-2022-0/download.
- Memorandum re: Nonessential, Elective Invasive Procedures in Hospitals and Ambulatory Surgical Centers during the COVID-19 Outbreak. https:// archives.lib.state.ma.us/handle/2452/835865.
- Health Policy Commission, Impact of COVID-19 on the Massachusetts Health Care System: Interim Report. (May 2021). https://www.mass.gov/ service-details/hpc-policy-and-research-reports.
- Center for Health Information and Analysis, Massachusetts Acute Care Hospital Inpatient Discharge Reporting. October 2021. https://www. chiamass.gov/massachusetts-acute-care-hospital-inpatient-dischargereporting/.

Private and Public Insurance Enrollment

This chapter is based on data from CHIA's Enrollment Trends reporting to provide context for the changes in the private commercial and public insurance markets during 2019 and 2020.

Twice a year, CHIA updates its detailed Enrollment Trends analysis for the most recent two-year period to give researchers and policymakers insight into the market. During the pandemic, CHIA also produced monthly data summaries by key market sectors to provide rapid insights into the pandemic's impact on insurance coverage in the Commonwealth.

Coverage is defined by unique Massachusetts residents with primary, medical membership in the 12 largest commercial payers, MassHealth (Medicaid), or Medicare. Enrollment Trends data specifications for reporting categories differ from enrollment reporting in other chapters of the Annual Report. For example, this chapter does include enrollment in student health plans offered by colleges and universities.

Private commercial, MassHealth, and Medicare Advantage enrollment is reported for the 15th day of the last month of each quarter. This chapter includes quarterly snapshot dates for calendar year 2019 and 2020. Please see the Enrollment Trends technical appendix for further detail on data sourcing and methodology. •

Approximately 6.5 million Massachusetts residents have primary medical insurance coverage through the private commercial market, Medicare, and MassHealth.

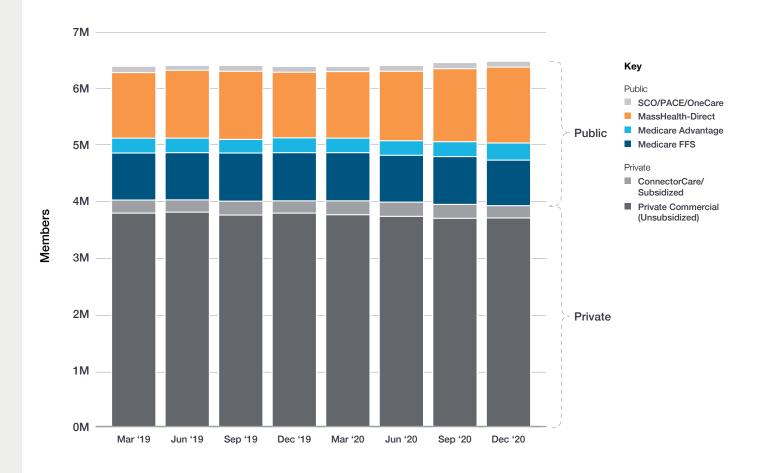
Enrollment in private commercial insurance plans, including subsidized commercial plans sold through the Massachusetts Health Connector, decreased 2.6% from March 2019 to December 2020.

Approximately 2.5 million Massachusetts residents had primary, medical coverage under Medicare and/or MassHealth (Medicaid). Between March 2019 and December 2020, enrollment in MassHealth primary coverage (MassHealth-Direct) increased 11.9%, primarily due to the Families First Coronavirus Response Act (FFCRA) which mandated Medicaid programs continue coverage for all members enrolled on or after March 18, 2020 regardless of changes in beneficiary circumstances or scheduled redetermination assessments.

Enrollment in SCO, One Care, and PACE programs increased by 14.6% during this timeframe.

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Enrollment in Private and Public Markets, 2019-2020



Private commercial insurance enrollment declined by 2.6% between March 2019 and December 2020, and public insurance coverage increased 8.0%.

Source: MA APCD, Supplemental Reports, Massachusetts Health Connector, Centers for Medicare and Medicaid Services (CMS).

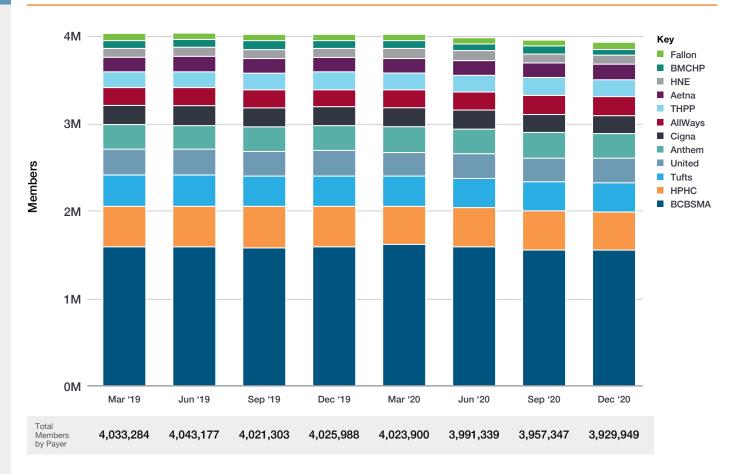
Within the four-million member private commercial market for Massachusetts residents, BCBSMA continued to enroll nearly 40% while Harvard Pilgrim Health Care (HPHC), Tuffs, and Tufts Health Public Plans (THPP) combined to enroll 24.4% as of December 2020.

With the onset of the pandemic, private commercial enrollment decreased, resulting in an overall decline of 2.3% from March to December 2020.

Between June 2020 and September 2020, BCBSMA's private commercial membership declined by over 32,000 members, primarily due to decreased student health enrollment.

See Enrollment Trends reports for more detail.

Enrollment Trends: Private Commercial Market by Payer, 2019-2020



Source: MA APCD.

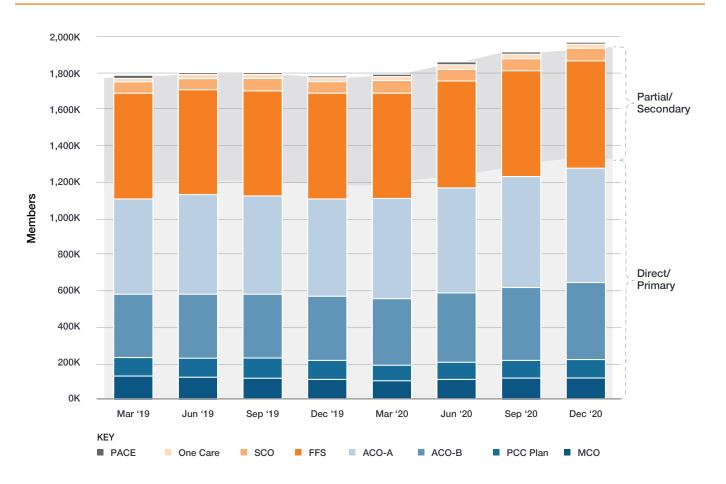
Notes: HPHC and Tufts/THPP merged in January 2021. BCBSMA's student health population declined for two main reasons: First, MassHealth's Student Health Insurance Plan Premium Assistance program (SHIP PA) sunset because of rising costs at the end of the 2019-2020 academic year. Students shifted off BCBSMA plans, and MassHealth became their primary insurer, rather than secondary. Second, due to the COVID-19 pandemic, there was a decline in total Massachusetts undergraduate enrollment.

As of December 2020, approximately 1.3 million Massachusetts residents relied on MassHealth for their primary medical coverage, an increase of 11.9% compared to March 2019.

An additional 637,000 residents received partial or secondary coverage from MassHealth, an increase of 7.7% since March 2019.

These increases are largely attributable to the FFCRA, which mandated Medicaid programs continue coverage for all members enrolled on or after March 18, 2020, regardless of changes in beneficiary circumstances or scheduled redetermination assessments. Since March, there were fewer new enrollees, but also far fewer members rolled off of MassHealth, resulting in net growth for the program.*

Enrollment Trends: MassHealth by Delivery System, 2019-2020



Source: MA APCD

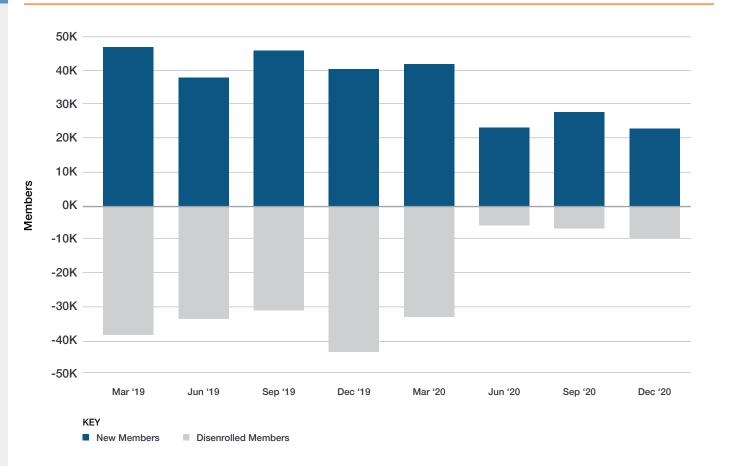
Notes: * A portion of the increase in primary MassHealth coverage between June and September 2020 was due to the sunset of the MassHealth Student Health Insurance Plan Premium Assistance (SHIP PA) program. Under this program, BCBSMA's student health plan became the member's primary payer, while MassHealth provided Partial/Secondary coverage. When SHIP PA ended, students shifted off BCBSMA plans, and MassHealth became their primary insurer, rather than secondary.

Due to the FFCRA, fewer MassHealth members were disenrolled from the program, resulting in a net increase in MassHealth membership during the pandemic.

During this period, there were fewer new enrollees each month compared to prior time periods, and far fewer members rolled off of MassHealth, resulting in net growth for the program.⁻ A portion of the increase in primary MassHealth coverage occurred when the Student Health Insurance Plan Premium Assistance (SHIP PA) program ended and students shifted from secondary MassHealth coverage to primary MassHealth coverage.⁺

- * Disenrolled members after March 18, 2020 include members that voluntarily disenrolled from MassHealth, moved out of state, died, or were otherwise exempt from the continuous coverage requirement under FFCRA.
- † MassHealth indicates that approximately 31,000 members shifted from secondary MassHealth coverage to primary MassHealth coverage between June and September 2020 as a result of the SHIP PA program ending, or because they were eligible earlier in the year for MassHealth and SHIP PA and are maintaining coverage due to FFCRA.

MassHealth New Enrollments and Disenrollments, 2019-2020



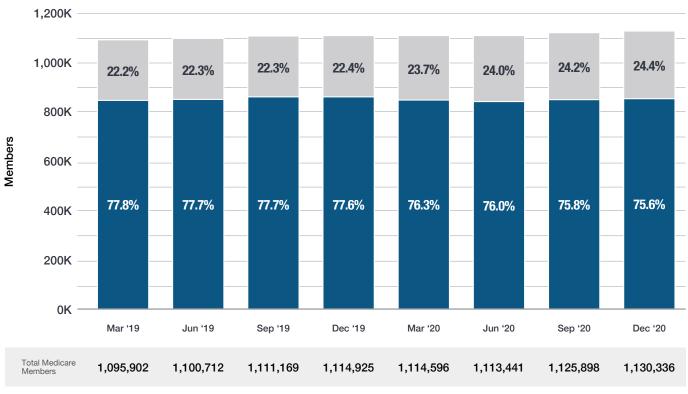
Source: MassHealth

Notes: The data depicted in this chart represents newly enrolled and newly disenrolled members from MassHealth primary and secondary coverage.

The number of Massachusetts residents receiving primary, medical insurance coverage from Medicare grew to over 1.1 million by June 2019 and remained above that for all subsequent quarters. However, Medicare experienced a pause in growth in the second quarter of 2020, coinciding with the pandemic's highest rates of mortality—particularly among older populations.

Medicare Advantage enrollment increased each quarter, however Medicare FFS declined slightly in March 2020 and again in June 2020. The effect was a pause in quarterly growth for Medicare overall.

Enrollment Trends: Medicare, 2019-2020



KEY

Medicare Advantage
Medicare FFS

Source: MA APCD, Centers for Medicare & Medicaid Services (CMS)

CHIA.

KEY FINDINGS

The COVID-19 pandemic substantially impacted utilization and financial trends among acute hospitals, hospital health systems, and nursing facilities.

During peak periods of COVID-19 cases, hospital inpatient discharges and emergency department visits decreased.

There were 11.7 million nursing facility resident days in 2020, a 14% reduction in utilization compared to the prior year. The statewide median acute hospital total margin in HFY 2020 was 2.6%, a decrease of 0.9 percentage points in comparison to the prior fiscal year. Without COVID-19 relief funds, the median total margin would have been -4.5%.

New in this year's report, CHIA is including information about trends in the utilization of health care services and financial performance among hospitals and nursing facilities. While all health care providers have been impacted by the COVID-19 pandemic, this chapter focuses on hospitals and nursing facilities because of the key role these settings have played in serving individuals with severe COVID-19.

The first section of this chapter provides an overview of acute hospital inpatient discharges and emergency department visits from 2018 to 2020, using data from the Case Mix database. This section also includes information about the distribution of COVID-19 hospitalizations by the expected primary payer type and discharge setting. To illustrate the impact of the pandemic on health system sustainability, the chapter next outlines trends in financial performance among acute hospitals and their affiliated health care systems during fiscal year 2020. This data is sourced from hospital financial reporting to CHIA and reflects both federal and state COVID-related funding that was distributed to hospitals as part of the Coronavirus Aid, Relief, and Economic Security (CARES) Act. Finally, similar data for nursing facilities related to occupancy, capacity, and financial performance is presented utilizing cost report data submitted to CHIA. •

Prior to the COVID-19 pandemic, total acute care hospital inpatient discharges were relatively stable between October 2018 and December 2019. An observed drop in the total number of discharges between January 2020 and April 2020 coincided with a rise in COVID-19 cases. Total inpatient volume partially rebounded by June 2020, but dropped again to a low in February 2021, coinciding with another "wave" of COVID-19 cases in the Commonwealth.

These drops in inpatient volume are mainly attributable to a decrease in the number of adult, non-obstetric discharges, particularly planned admissions for procedures such as hip and knee replacements. This timing is consistent with directives to postpone nonessential, elective procedures during peak periods of COVID-19 cases in the Commonwealth.

Total Acute Care Hospital Inpatient Discharges, October 2018 to September 2021



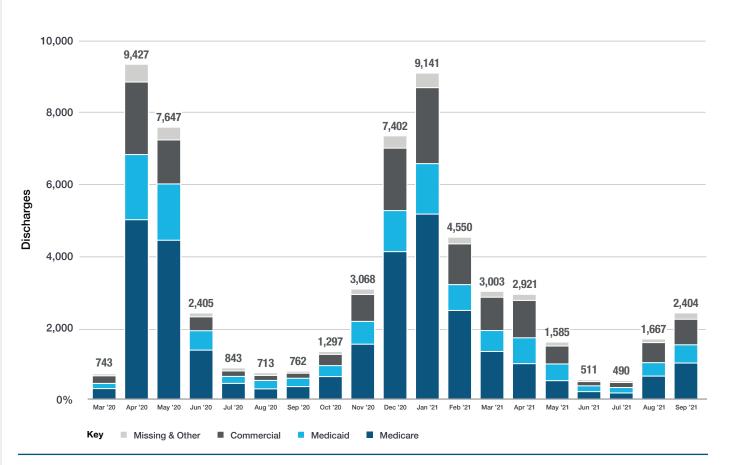
During peak periods of COVID-19 cases, inpatient discharge volume declined due to a decrease in the number of adult, non-obstetric discharges.

Source: Hospital Inpatient Discharge Database (HIDD), FFY 2019-2021.

Notes: Data from the FFY 2021 HIDD (October 2020 to September 2021) are not considered final and are subject to change. Data for a small number of acute care hospitals were not available at the time of this publication. Hospitals with no data reported for select months made up 5.9% of total inpatient data for FFY 2019 and 2020 and include: Sturdy Memorial Hospital (October 2020 to September 2021) and Beth Israel Deaconess Medical Center (July 2021 to September 2021). Please see the CHIA website (https://www.chiamass.gov/massachusetts-acute-care-hospital-inpatient-discharge-reporting/) for the most up-to-date information on inpatient utilization.

Prior to the COVID-19 pandemic, discharges for patients with Medicare as their primary expected payer type typically made up a little under half of the total inpatient volume. Among inpatient discharges associated with a diagnosis of COVID-19, discharges for patients with Medicare as their expected primary payer type made up a higher share of inpatient discharges compared to non-COVID-related inpatient discharges, and made up over half of all inpatient discharges with a COVID-19 diagnosis. This pattern was observed most particularly in peak periods of COVID-19 cases in Massachusetts. During non-peak times, the distribution of expected primary type was more closely associated with non-COVID and prepandemic baseline inpatient volume.

Acute Care Hospital Inpatient Discharges Related to COVID-19 by Payer Type, March 2020 to September 2021



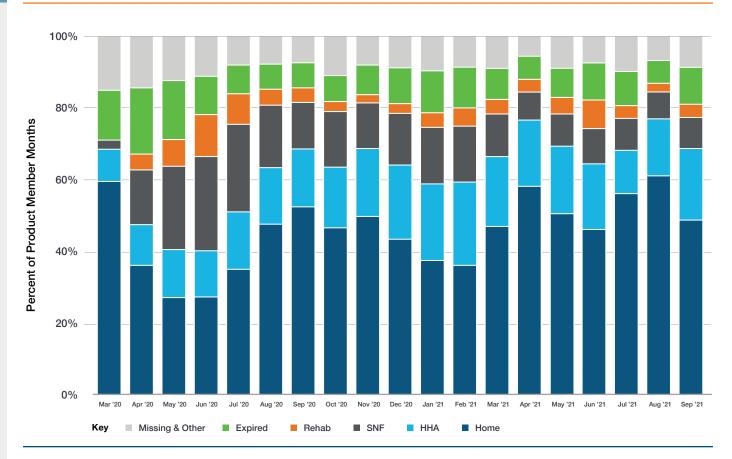
Inpatient visits associated with an expected primary payer type of Medicare made up over half of inpatient discharges associated with a COVID-19 diagnosis.

Source: Hospital Inpatient Discharge Database (HIDD), FFY 2020-2021.

Notes: Payer type is the expected primary payer on the discharge as reported by the hospital. For this analysis, payer type categories were derived from payer source codes and assigned to four categories: Medicare, Medicaid, commercial, and other/missing. Medicare includes traditional Medicare and Medicare Advantage. Data from the FFY 2021 HIDD (October 2020 to September 2021) are not considered final and are subject to change. Data for a small number of acute care hospitals were not available at the time of this publication. Hospitals with no data reported for select months made up 5.9% of total inpatient data for FFY2019 and 2020 and include: Sturdy Memorial Hospital (October 2020 to September 2021) and Beth Israel Deaconess Medical Center (July 2021 to September 2021). Please see the CHIA website (https://www.chiamass.gov/massachusetts-acute-carehospital-inpatient-discharge-reporting/) for the most up-to-date information on inpatient utilization.

Acute care hospital inpatient discharges associated with a diagnosis of COVID-19 were less likely to result in a discharge to a home setting compared to non-COVID-related discharges in peak periods of COVID-19 cases. They were more likely to result in a discharge to a rehabilitation facility or skilled nursing facility (SNF) during these periods. Additionally, COVID-19 discharges were also associated with higher in-hospital mortality, including 18% of all inpatient discharges associated with COVID-19 in April 2020.

Acute Care Hospital Inpatient Discharges Related to COVID-19 by Discharge Setting, March 2020 to September 2021



Inpatient visits associated with COVID-19 were more likely to result in a discharge to a rehabilitation facility or SNF.

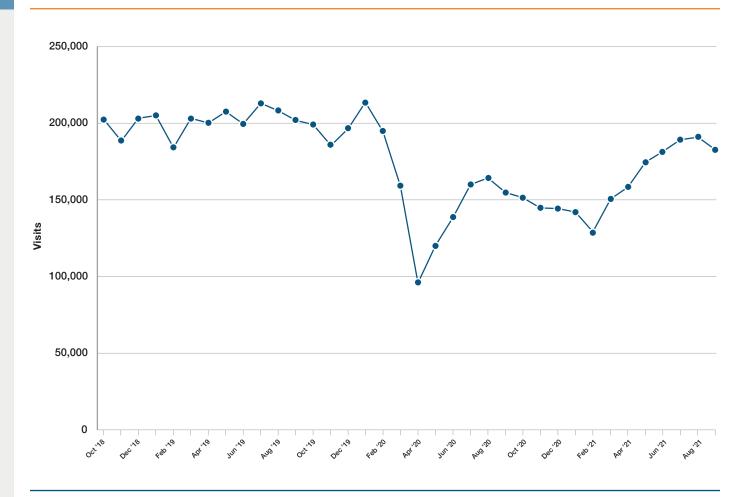
Source: Hospital Inpatient Discharge Database (HIDD), FFY 2020-2021

Notes: For this analysis, discharge setting information reported by the facility was classified into one of six mutually exclusive categories: home, home with home health agency care (HHA), skilled nursing facility (SNF), rehabilitation (or rehab), expired, or other. In March 2020 only, inpatient discharges for which the discharge setting was to rehabilitation are included in the Missing and Other category due to a small number of observations.

Data from the FFY 2021 HIDD (October 2020 to September 2021) are not considered final and are subject to change. Data for a small number of acute care hospitals were not available at the time of this publication. Hospitals with no data reported for select months made up 5.9% of total inpatient data for FFY2019 and 2020 and include: Sturdy Memorial Hospital (October 2020 to September 2021) and Beth Israel Deaconess Medical Center (July 2021 to September 2021). Please see the CHIA website (https://www.chiamass.gov/massachusetts-acute-care-hospital-inpatient-discharge-reporting/) for the most up-to-date information on inpatient utilization.

Prior to the start of the COVID-19 pandemic, emergency department (ED) visits were relatively stable from month to month. After a peak in visits in January 2020, ED visits fell 55% by April 2020 during the first wave of the COVID-19 pandemic. Subsequently, ED visits increased through the summer months of 2020, then declined again in response to the second COVID-19 wave before returning to near prepandemic volume by August 2021.

Emergency Department Treat-and-Release Visits, October 2018 to September 2021



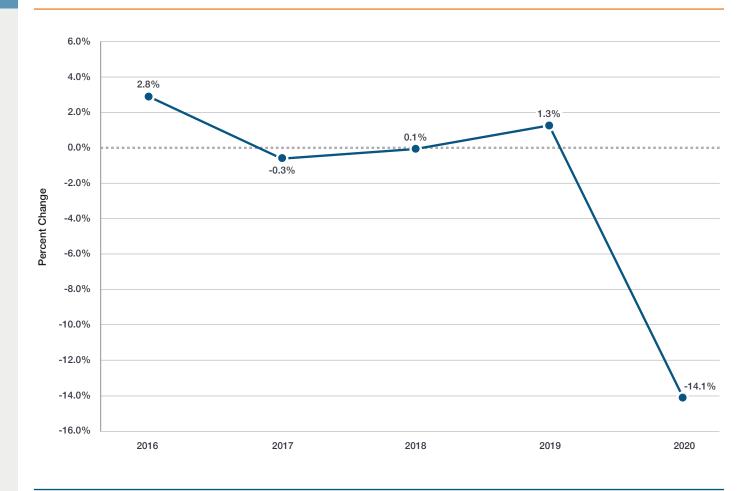
Similar to trends in inpatient discharges, the volume of ED visits has fallen during peak periods of COVID-19 cases.

Source: Emergency Department Databases (EDD), FFY 2019 to 2021.

Notes: Data from the FFY 2021 EDD are not considered final and are subject to change. Data for one acute care hospital were not available at the time of this publication. Sturdy Memorial Hospital has no data reported for October 2020 to September 2021, which made up 1.6% of total ED volume in FFY 2019 and 2020. Please see the CHIA website (https://www.chiamass.gov/chia-releases-report-on-hospital-emergency-department-data/) for the most up-to-date information on emergency department utilization.

The median percent change in acute hospital outpatient visits in hospital fiscal year (HFY) 2020 compared to HFY 2019 was -14.1%, a decrease of 15.4 percentage points from the prior year. Fifty-three of 61 hospitals reported a decrease in outpatient visits in HFY 2020.

Median Acute Hospital Change in Outpatient Visits from Prior Year



In HFY 2020, the majority of acute hospitals reported a decrease in outpatient visits from the prior year.

Source: Hospital cost reports.

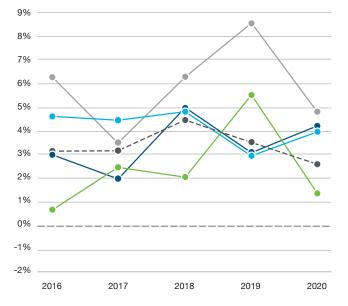
HFY 2016-2020 Total and Operating Margin Trends by Hospital Cohort

Total margin evaluates the overall profitability of an entity using both operating surplus (or loss) and non-operating surplus (or loss). Operating margin reflects the excess of operating revenues over expenses, including patient care and other activities, as a percentage of total revenue. The total and operating margins also include the COVID-19 relief funding reported as operating revenue.

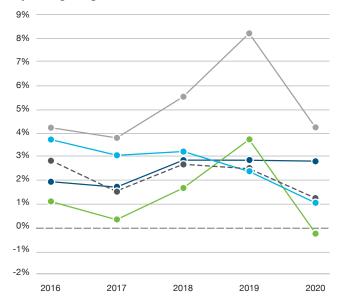
The median total margin in HFY 2020 was 2.6%, a decrease of 0.9 percentage points in comparison to the prior fiscal year. The Academic Medical Center (AMC) and community-High Public Payer (HPP) cohorts experienced an increase in total margin compared to the prior hospital fiscal year, while the teaching and community hospital cohorts reported a decrease.¹ The community hospital cohort reported the largest change in profitability, a decrease of 4.2 percentage points, and the lowest median total margin. The teaching hospital cohort reported the highest median total margin, which is consistent with prior years.

The median operating margin in HFY 2020 was 1.3%, a decrease of 1.2 percentage points in comparison to the prior fiscal year. The teaching, community, and community-HPP cohorts experienced a decrease in median operating margin, while the AMC cohort remained stable year over year. The community hospital cohort was the only cohort to report a negative median operating margin.

Total Margin Trends



Operating Margin Trends



----- Statewide Acute —--- Academic Medical Center —--- Teaching Hospital —--- Community Hospital —--- Community-High Public Payer

2016	2017	2018	2019	2020
3.1%	3.2%	4.5%	3.5%	2.6%
3.0%	2.0%	5.0%	3.1%	4.2%
6.2%	3.5%	6.3%	8.6%	4.8%
0.7%	2.6%	2.1%	5.6%	1.4%
4.7%	4.5%	4.8%	3.0%	4.0%
	3.1% 3.0% 6.2% 0.7%	3.1% 3.2% 3.0% 2.0% 6.2% 3.5% 0.7% 2.6%	3.1% 3.2% 4.5% 3.0% 2.0% 5.0% 6.2% 3.5% 6.3% 0.7% 2.6% 2.1%	3.1% 3.2% 4.5% 3.5% 3.0% 2.0% 5.0% 3.1% 6.2% 3.5% 6.3% 8.6% 0.7% 2.6% 2.1% 5.6%

The median acute hospital total margin in HFY 2020 was 2.6%, a decrease of 0.9 percentage points from the prior fiscal year. All hospital cohorts had positive median total margins in HFY 2020.

Source: Standardized Financial Statements.

\$

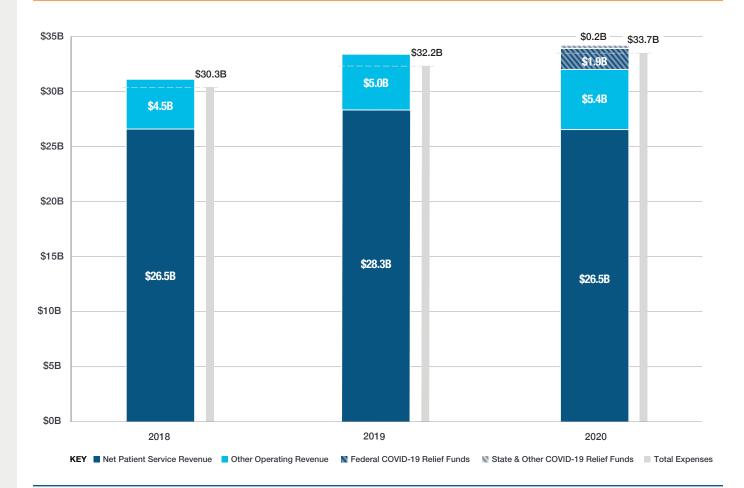
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Notes: The statewide acute hospital median includes specialty hospitals. This report contains 12 months of fiscal year-end data for all systems and hospitals based on each entity's year-end date. Most entities' fiscal year end is September 30, with the exception of Steward Health Care, Trinity Health, Cambridge Health Alliance, Tenet Healthcare, and Shriners Hospitals for Children. For more information see: technical appendix.

In HFY 2020, aggregate total operating revenue increased by \$774 million (2.3%) when compared to the prior fiscal year. This can be attributed to federal and state COVID-19 relief funds reported in HFY 2020, which bolstered hospitals' operating revenue.

Aggregate net patient service revenue, the most significant component of hospital operating revenue, decreased by \$1.8 billion (-6.3%), while aggregate expenses increased \$1.4 billion (4.4%) in HFY 2020 as compared to HFY 2019.

Hospital Operating Revenue and Expense Trends



Federal and state COVID-19 relief funds bolstered hospitals' operating revenue in HFY 2020, as aggregate net patient service revenue decreased by \$1.8 billion.

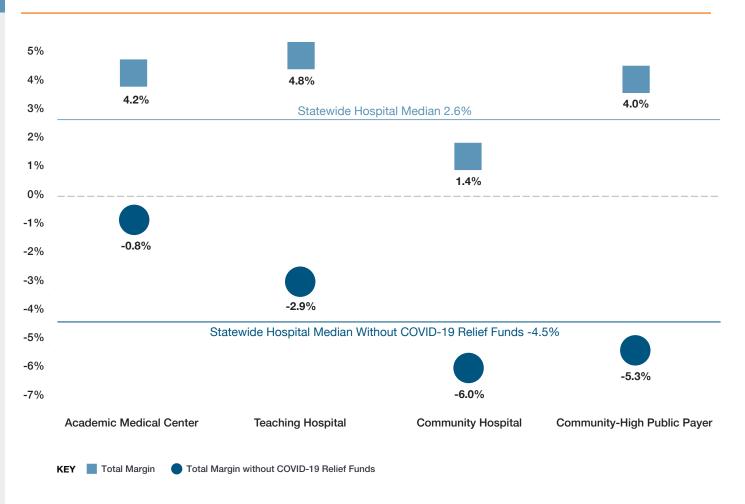
Source: Standardized Financial Statements.

Notes: Beth Israel Lahey Health became financially consolidated in March 2019. Due to this, seven months of financial data was reported for the system and its affiliated hospitals and physician organizations representing the period from March 1 through September 30, 2019. For comparative purposes, its HFY 2019 revenue and expenses were annualized to represent 12 months of data.

Hospitals reported \$1.9 billion in federal COVID-19 relief funding and \$206.8 million in state relief funding in their operating revenue in 2020, which improved their operating income and profitability margins. If these COVID-19 relief funds had not been distributed, the statewide acute hospital median total margin would have been -4.5%, a decrease of 7.1 percentage points from the reported median total margin.

All hospital cohorts would have experienced negative median total margins without the relief funds, ranging from -0.8% for the Academic Medical Center cohort to -6.0% for the community hospital cohort.

HFY 2020 Median Total Margin by Hospital Cohort, with and without COVID-19 Relief Funds

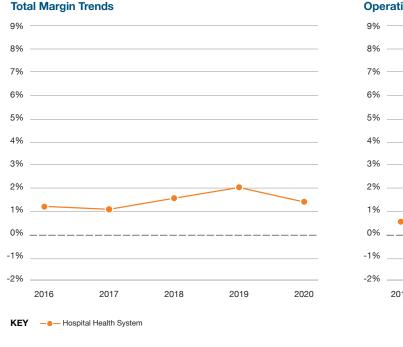


All hospital cohorts would have experienced negative median total margins without COVID-19 relief funds.

Source: Standardized Financial Statements.

In HFY 2020, the median total and operating margins for hospital health systems decreased from the prior year, by 0.8 and 2.1 percentage points, respectively. Of the 25 hospital health systems, 15 (60%) reported a positive total margin and eight (32%) reported a positive operating margin. Hospital health system total margins ranged from -7.6% to 12.1%, while operating margins ranged from -30.6% to 6.0%.

HFY 2016-2020 Hospital Health System Median Trends



In HFY 2020, the median total and operating margins for hospital health system decreased from the prior year.

Source: Standardized Financial Statements.

Notes: Steward Health Care's system level data are not included in HFY 2016, 2017, and 2019 as it did not submit audited or standardized financial statements those years. In 2018 and 2020 Steward Health Care did not submit audited or standardized financial statements, but its data was derived from a publicly available source and is included.

Operating Margin Trends

2016

2017

2018

2019

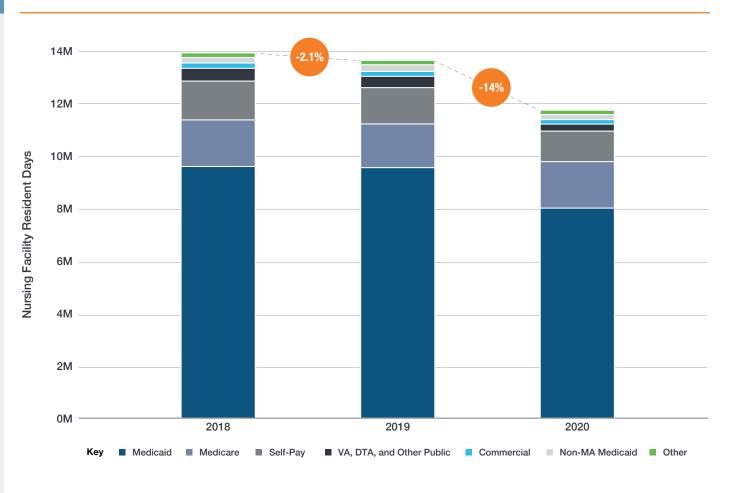
2020

Nursing facility utilization can be measured in resident days, which is the number of residents in a facility multiplied by the number of days they resided there. This measure accounts for utilization by both short-stay and long-stay residents.

Overall resident days declined by 15.8% from 2018 to 2020, with the majority of the decrease taking place between 2019 and 2020; total resident days decreased by 2.1% between 2018 and 2019, and then by a further 14.0% between 2019 and 2020. Payers experienced this overall decline at different rates. Among the larger payer types, Medicaid resident days declined by 16.6% from 2018 to 2020, while Medicare resident days declined by 0.6%, and self-pay days had the largest proportional decrease of 23.6%. The utilization decline seen in 2020 may be due to a variety of reasons related to the COVID-19 public health emergency, including admissions freezes, a reduction in inpatient discharges into the nursing facility setting, and increased mortality in nursing facilities.

In 2020, there were 11.7 million overall resident days, of which 93.5% were covered by three payers. Medicaid, the largest payer, covered 8.0 million resident days in 2020, or 68.4% of all days. Medicare was the second largest payer in 2020, covering 15.3% of overall resident days. This was followed by self-pay residents, which comprised 9.8% of overall days. Private insurance and other government programs covered the remaining 6.5% of overall resident days.

Nursing Facility Utilization, by Payer Type

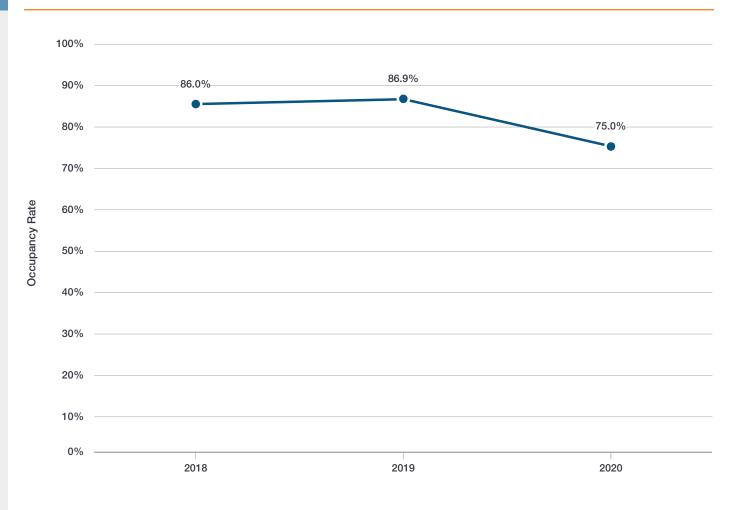


Overall nursing facility resident days declined by 15.8% between 2018 and 2020.

Notes: The nursing facility data used in this section is as-reported by facilities that submit a cost report to CHIA; as such, private-only facilities are not included. For changes of ownership that occur prior to December in a given calendar year, the seller is not required to file a cost report, and partial-year data would be reported by the buyer only. Where appropriate, an annualization adjustment has been applied to the partial-year buyer data.

Occupancy rates are used to examine the actual utilization of a facility compared to capacity. Occupancy rates can be an indicator of financial stability as higher occupancy generates increased income to offset both fixed and variable expenses. The system-level occupancy rates depicted here measure the percentage of filled beds across all nursing facilities for a given year. Nursing facility occupancy decreased by 11 percentage points between 2018 and 2020, falling from 86.0% to 75.0%.

Nursing Facility Occupancy Rates



Nursing facility occupancy decreased from 86.0% in 2018 to 75.0% in 2020.

In 2020, there were 357 total nursing facilities that served publicly aided residents in Massachusetts. The median occupancy rate statewide was 76.7%. Excluding the two counties with only one facility each, Franklin County had the fewest nursing facilities and operating beds, with four total facilities and 428 beds in 2020. Franklin County also had the second-highest median occupancy rate, at 83.8%. Middlesex County had the highest number of total facilities and operating beds, totaling 71 nursing facilities and 8,724 beds.

Excluding the two counties with only one facility each, Hampden County had the lowest median occupancy rate among all counties in 2020, at 72.8% across 29 nursing facilities. Hampshire County had the next-lowest median occupancy rate, at 73.0% across six facilities in 2020.

Median occupancy rates—statewide and in each county—were lower in 2020 than in previous years. In all but three counties (Berkshire, Franklin, and Nantucket), the median occupancy rate decreased by more than 10% as compared to 2018.

Total Facilities, Total Beds, and Median Occupancy by County, 2020

County	Total Facilities	Operating Beds	Median Occupancy
Barnstable	16	1,767	75.0%
Berkshire	12	1,370	85.8%
Bristol	31	4,038	79.0%
Dukes	1	74	57.9%
Essex	47	5,207	74.5%
Franklin	4	428	83.8%
Hampden	29	3,467	72.8%
Hampshire	6	784	73.0%
Middlesex	71	8,724	73.2%
Nantucket	1	45	80.0%
Norfolk	36	4,147	75.2%
Plymouth	29	3,498	76.0%
Suffolk	24	2,979	79.3%
Worcester	50	6,102	79.3%
Total	357	42,630	76.7%

KEY

Increase by >5% compared to 2018

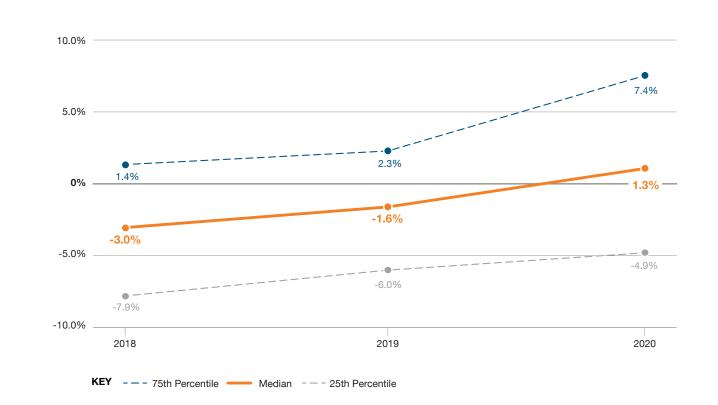
Decrease between 5 and 10% compared to 2018

Decrease by >10% compared to 2018

Middlesex County had the highest number of total facilities and operating beds in 2020, while Franklin County had the lowest among counties with more than one facility.

Total margin evaluates the overall profitability of a nursing facility, reflecting income and expenses from resident care activities of the facility, as well as other business activities, such as investment income, sale of assets, and others. In 2020, total revenue reported by nursing facilities also included state and federal payments received related to the COVID-19 public health emergency. These funds were included the total margin reported in 2020. The system-wide median total margin increased from -3.0% in 2018 to 1.3% in 2020.

Nursing Facility Median Total Margin

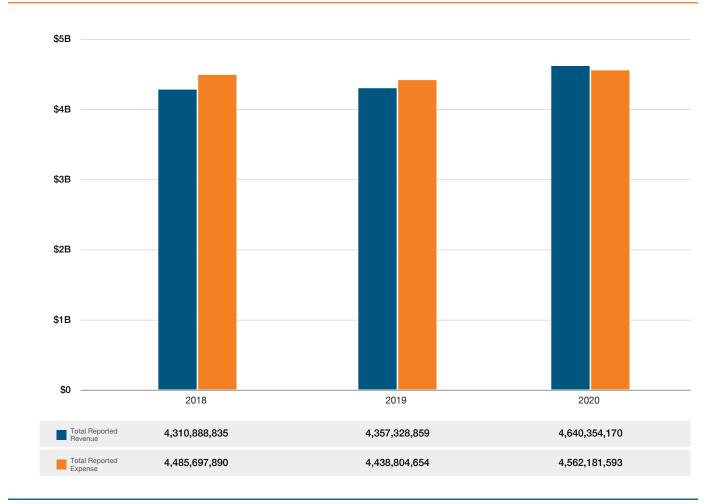


The nursing facility median total margin increased from -3.0% in 2018 to 1.3% in 2020.

In 2020, with the inclusion of COVID-19 related funding received by nursing facilities, the total reported revenue slightly exceeded reported expenses, unlike the prior two years.

During the public health emergency, both the Commonwealth and the federal government provided support to nursing facilities, which included both financial support (reflected in this chart), and in-kind services such as clinical staff augmentation and rapid testing supplies (not reflected in this chart).

Nursing Facility Total Revenue and Expenses



In 2020, the total revenue including COVID relief funding slightly exceeded total expenses.

- Acute hospitals were assigned to one of the following cohorts or hospital types according to the criteria below. For this report, FY 2019 Hospital Cost Report data is used to determine cohorts. Please note that some AMCs and teaching hospitals also have High Public Payer (HPP) status.
 - Academic Medical Centers (AMCs) are a subset of teaching hospitals. AMCs are characterized by (1) extensive research and teaching programs, and (2) extensive resources for tertiary and quaternary care, and are (3) principal teaching hospitals for their respective medical schools, and (4) full service hospitals with case mix intensity greater than 5% above the statewide average.
 - Teaching hospitals are those hospitals that report at least 25 fulltime equivalent medical school residents per 100 inpatient beds in accordance with Medicare Payment Advisory Commission and which do not meet the criteria to be classified as AMCs.
 - Community hospitals are hospitals that do not meet the 25 full-time equivalents medical school residents per 100 beds criteria to be classified as a teaching hospital and have a public payer mix of less than 63%.
 - Community-High Public Payer (HPP) are community hospitals that are disproportionately reliant upon public revenues by virtue of a public payer mix of 63% or greater. Public payers include Medicare, MassHealth and other government payers, including the Health Safety Net.
 - Specialty hospitals are not included in any cohort comparison analysis due the unique patient populations they serve and/or the unique sets of services they provide. However, specialty hospitals are included in all statewide median calculations.

KEY FINDINGS

On selected clinical quality metrics, statewide scores were higher in 2020 than in 2018 for measures in the Behavioral Health domain, and lower for measures in the Screening and Prevention domain. Among members surveyed in the commercial population, patient experience ratings for office visits in 2020 were higher than 2018 ratings for five of the eight measures reported.

The unplanned all-payer readmission rate for Massachusetts acute care hospitals was 15.9% in 2020, during the COVID-19 pandemic. Nineteen of 39 reporting Massachusetts acute care hospitals achieved all three Leapfrog standards for reducing unnecessary maternity-related procedures in 2020.

Information about health care quality is central to efforts by consumers, industry decision makers, policymakers, and others working toward realizing a common goal of high-value health care. CHIA monitors and reports on health care quality using measures selected from the Commonwealth's Standard Quality Measure Set (SQMS), as well as other measures of interest to these stakeholders. While the measures in this section do not fully evaluate the quality of health care in Massachusetts, the data presented focuses on several important aspects of care.

This chapter summarizes the performance of Massachusetts acute care hospitals and primary care providers on selected metrics related to quality and safety. These measures cross different domains of quality assessment, reporting on clinical quality metrics, patient perceptions of their own care experiences, hospital readmissions, maternity-related care, and adherence to safe practices standards.

CHIA calculates performance on all-payer adult acute hospital readmissions by applying a standard methodology to the Massachusetts Hospital Inpatient Discharge Database. CHIA acquires data for the other measures included in this chapter from datasets created by other organizations that collect data directly from health care providers, including CMS, the Leapfrog Group, and Massachusetts Health Quality Partners.

While some results presented in this report were likely affected by changes in utilization due to the COVID-19 pandemic, it is important to note that there were also adjustments to data collection and reporting requirements to allow the health care system to respond to the crisis, and in some cases because of insufficient data for reporting. These adjustments could include allowing providers to submit 2019 data for 2020, foregoing public reporting, or pausing non-essential data collection. Throughout the chapter, any such data reporting adjustments will be identified in the chart notes, and specific reporting period dates for each measure can be found in the report databook. •

CHIA.

New this year, CHIA is reporting statewide scores for a selection of clinical quality performance measures drawn from the Healthcare Effectiveness Data and Information Set (HEDIS[®]).

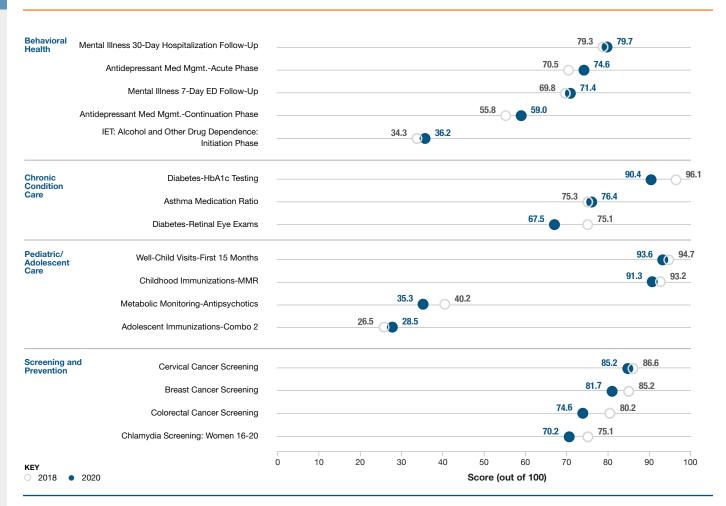
Some differences in scores between 2018 and 2020 may be related to changes in access to care due to the COVID-19 pandemic, impacted by both limitations in access to in-person care, and the addition of telehealth options. A general trend observed is that measures that require an in-person test or visit received lower scores in 2020 than in 2018, whereas measures that require treatment that could be provided remotely improved in 2020.

For example, screenings may have declined in 2020 because they require a visit to a provider's office, while increased scores pertaining to mental illness follow-up and medication management may be related to expanded access to telehealth. It is notable, however, that pediatric well-visits and immunization scores were very similar in 2020 to 2018, remaining quite high despite the challenges to in-person office visits driven by the COVID-19 pandemic.

While this chart highlights some high level findings for a subset of the measures collected, CHIA will publish a full report looking at these and other clinical quality measures in spring 2022.

CHIA

Statewide Scores on Selected Clinical Quality Measures, 2018 and 2020



HEDIS scores were higher in 2020 than in 2018 for measures in the Behavioral Health domain, and lower for measures in the Screening and Prevention domain.

Source: Massachusetts Health Quality Partners (MHQP). Measures drawn from the Healthcare Effectiveness Data and Information Set (HEDIS) developed by the National Committee for Quality Assurance (NCQA). Population is sampled from commercially insured enrollees in HMO and POS (excluding Marketplace) products in six participating health plans. HEDIS® is a registered trademark of NCQA.

Notes: Scores are out of 100%, and data for 2019 was not reported because the data is collected biannually. Measurement periods vary somewhat by measure, but in general a 2020 score refers to performance during calendar year 2020. See databook for specific measure reporting periods.

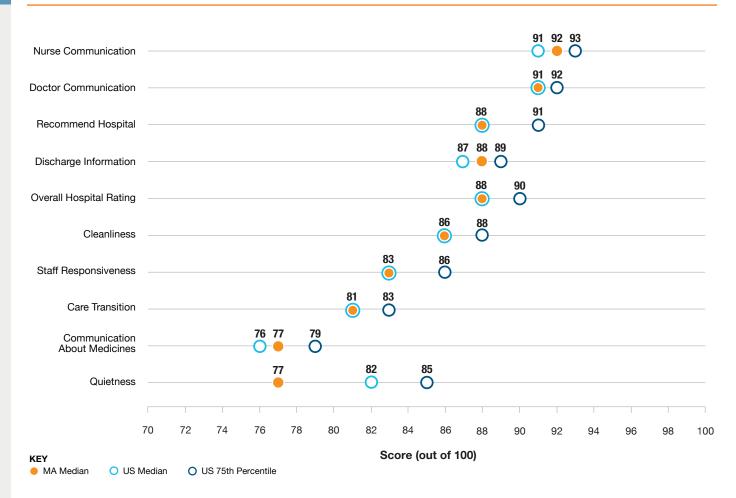
On most measures collected for the period of July-December 2020, patient-reported scores of Massachusetts hospitals were similar to the median scores of patients at hospitals nationally, with Massachusetts scores generally deviating no more than one point from national medians.

However, patient experience ratings of Massachusetts hospitals continued to fall below the patient experience ratings of the topperforming (75th percentile) hospitals nationally.

Massachusetts patients rated Nurse and Doctor Communication more highly than other domains of care (median score of 92 and 91, respectively, out of 100), as did patients nationally (median score of 91 for both measures out of 100). Statewide median scores were lowest for Quietness and Communication about Medicines (both 77 out of 100).

In 2020, the median score in Massachusetts for Quietness was five points below the national median score (77 statewide vs. 82 nationally, out of 100).

Patient-Reported Experience During Acute Hospital Admission, July-December 2020



The reported experience of patients admitted to Massachusetts hospitals was similar to the median patient-reported experience nationally; only Quietness deviated notably.

Source: CMS Hospital Compare.

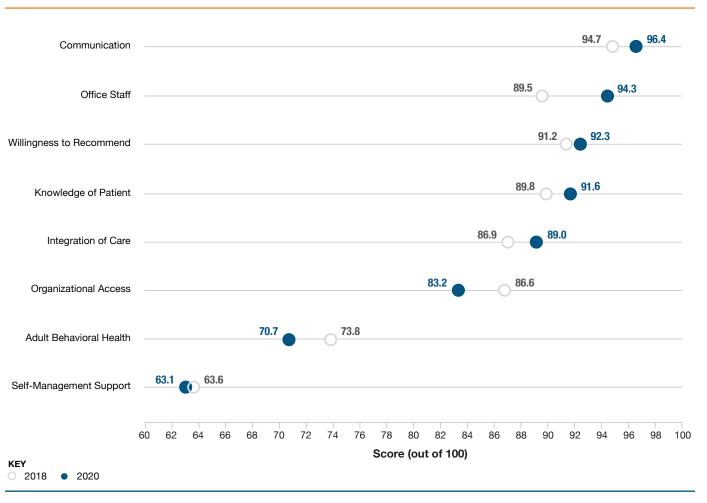
Notes: Includes all payers, patients ages 18+. Hospitals were not required to report data for the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey for the period of January 1-June 30, 2020. Hospitals could optionally submit data, but CMS did not publicly report data reflective of this period.

Overall, adult patients expressed positive experiences with their primary care providers in both 2018 and 2020.

Statewide, adult patients rated their experiences during Massachusetts primary care visits higher in 2020 than in 2018 for most measures, with the greatest increase reflected in a 4.8 point improvement in the Office Staff measure.

As in previous years, Adult Behavioral Health and Self-Management Support were the lowest-scoring measures in 2020 (70.7 and 63.1, respectively, out of 100). Ratings decreased from 2018 to 2020 for three of the eight measures: Organizational Access, Adult Behavioral Health, and Self-Management support. The lower scores may be related to decreased access to in-person care during the COVID-19 pandemic.

Primary Care Patient-Reported Experiences for Adults, 2018 & 2020



2020 scores were higher than 2018 scores for five of the eight measures. The statewide rating for Office Staff was most improved, and the rating for Organizational Access decreased the most.

Source: Massachusetts Health Quality Partners, Patient Experience Survey (PES).

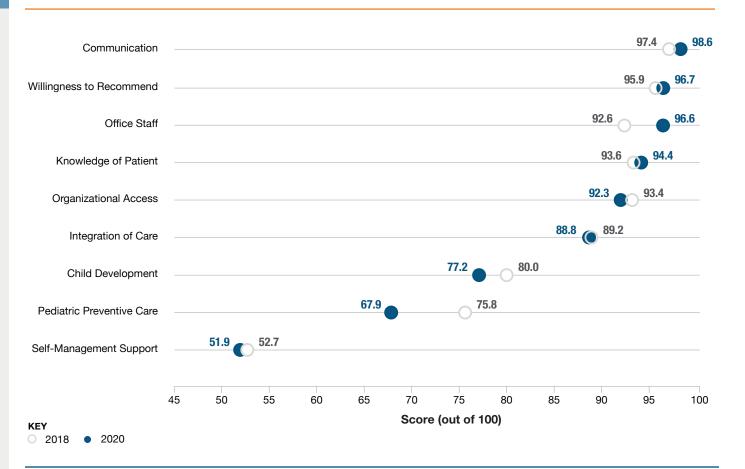
Notes: Adult patients' ages 18+. Survey conducted on a sample of commercial health plan members. There are no results for 2019 because MHQP did not field a survey in 2020 (reflective of 2019 visits) in response to the COVID-19 pandemic. The adult behavioral health composite refers to how patients answered questions about provider engagement with patients to talk about their behavioral health needs. The adult self-management support composite refers to how patients answered questions about provider engagement with patients to talk about their goals for their health and things that make it hard to take care of their health. See technical appendix for specific survey questions.

Similar to adult patient-reported experiences with primary care providers, Communication was the highest scoring measure for pediatric patients in both 2018 and 2020 (97.4 and 98.6 out of 100, respectively).

Most 2020 scores were very similar to 2018, and the largest change was a 7.9-point decrease for the Pediatric Preventive Care measure, from 75.8 in 2018 to 67.9 in 2020. Scores for Child Development and Self-Management Support measures were also lower in 2020 than in 2018, and these three measures were the lowest scoring in both years.

However, as in the adult commercial population, the rating for the Office Staff measure improved, from 92.6 in 2018 to 96.6 in 2020.

Primary Care Patient-Reported Experiences for Pediatrics, 2018 & 2020



Pediatric primary care patient-reported experiences were similar in 2020 to scores in 2018, with a notable improvement in experiences with Office Staff, though the rating for Pediatric Preventive Care declined nearly eight points.

Source: Massachusetts Health Quality Partners, Patient Experience Survey (PES).

Notes: Pediatric patients' ages 0-17; parent or caregiver was surveyed on patient's behalf. Survey conducted on a sample of commercial health plan members. There are no results for 2019 because MHQP did not field a survey in 2020 (reflective of 2019 visits) in response to the COVID-19 pandemic. The self-management support measure refers to how supported the caregiver feels in independently managing the pediatric patient's care. The pediatric prevention measure refers to how patients answered questions about provider engagement with patients to talk about their child's home environement (addressing exercise, food, computer, safety, etc.). See technical appendix for specific survey questions.

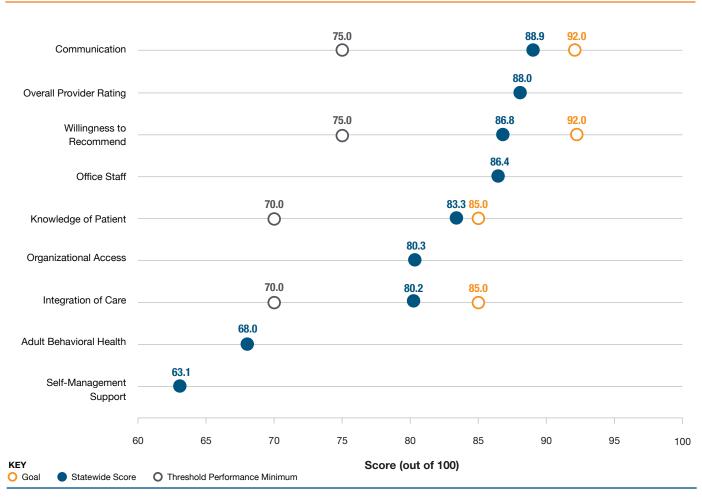
MassHealth issued a primary care Patient Experience Survey to a sample of ACO members that had a primary care visit in 2019. The scores shown here include statewide rates, and MassHealth also identified a threshold minimum and goal target for a subset of measures for ACO performance.

Overall, adult patients expressed positive experiences with their primary care providers in 2019. MassHealth ACO scores are similar to, but slightly lower than, comparable surveys of commercial health plans in 2018 and 2020 (surveys were not conducted in the commercial population for 2019 visits).

Where applicable, MassHealth ACO primary care providers surpassed the threshold on all measures and are making progress toward achieving the goal targets.

MassHealth did issue a survey in 2021 to reflect patient experiences for visits in 2020. The data was not yet available at the time of this report's publication, but is anticipated to be publicly available later this year.

MassHealth Member Primary Care Patient-Reported Experiences for Adults, 2019



As in the commercial population, scores were highest for Communication, and lowest for Adult Behavioral Health and Self-Management Support.

Source: Massachusetts Health Quality Partners, MassHealth Patient Experience Survey (PES).

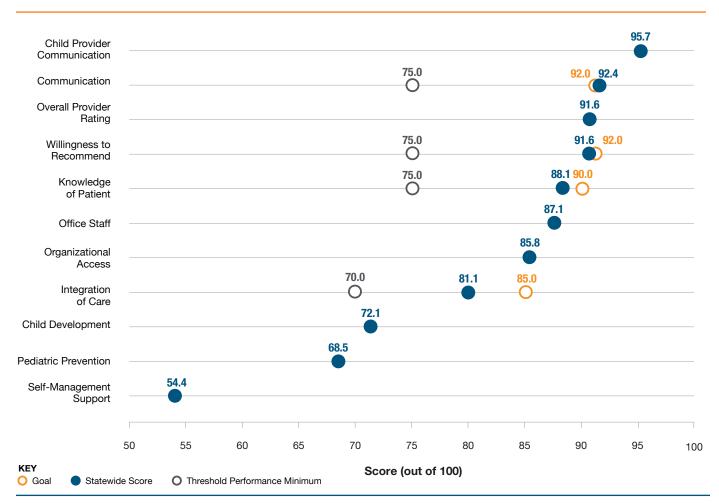
Notes: Adult patients' ages 18+. Survey conducted on a sample of MassHealth ACO plan members and was in the field February-May 2020. MassHealth results may have been impacted by member concerns during the COVID-19 pandemic. The adult behavioral health composite refers to how patients answered questions about provider engagement with patients to talk about their behavioral health needs. The adult self-management support composite refers to how patients answered questions about provider engagement with patients to talk about their goals for their health and things that make it hard to take care of their health. See technical appendix for specific survey questions.

Similar to adult patient-reported experiences with MassHealth ACO primary care providers, pediatric visits scored highest in the Communication measures.

Among the four applicable measures, all scored at least 10 points higher than the minimum performance threshold score. The score for Communication also surpassed the goal score of 92, with a score of 92.4.

As observed in the commercial population during 2018 and 2020 visits, scores were lowest for measures of Pediatric Prevention and Self-Management Support (68.5 and 54.4, respectively).

MassHealth Member Primary Care Patient-Reported Experiences for Pediatrics, 2019



2019 scores were highest for Communication, and lowest for Pediatric Prevention and Self-Management Support.

Source: Massachusetts Health Quality Partners, MassHealth Patient Experience Survey (PES).

Notes: Pediatric patients' ages 0-17; parent or caregiver was surveyed on patient's behalf. Survey conducted on a sample of MassHealth ACO plan members and was in the field February-May 2020. MassHealth results may have been impacted by member concerns during the COVID-19 pandemic. The self-management support measure refers to how supported the caregiver feels in independently managing the pediatric patient's care. The pediatric prevention measure refers to how patients answered questions about provider engagement with patients to talk about their child's home environment (addressing exercise, food, computer, safety, etc.). See technical appendix for specific survey questions.

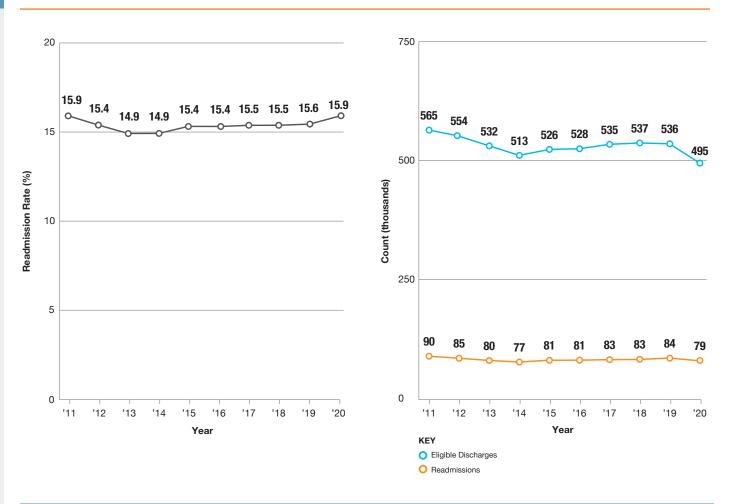
Unplanned hospital readmissions, many of which may be preventable, are costly and could adversely impact patient health and experience of care. Any unplanned readmission within 30 days of an eligible discharge is counted as a readmission.

The 10-year trend in all-payer readmission rates shows a decline from state fiscal years (SFYs) 2011-2013, an increase from 2013-2015, and stable readmission rates from 2016-2019. The statewide observed readmission rate increased to 15.9% in 2020, during the COVID-19 pandemic.

The statewide number of eligible discharges followed a similar trend, with the total number of eligible discharges decreasing to 494,712 in 2020.

Trends in readmissions, including the impact of the COVID-19 pandemic on readmission rates, will be explored in additional detail in the upcoming readmissions report.

Trends in Statewide All-Payer Adult Acute Hospital Readmission Rate, Discharges, and Readmissions, SFY 2011-2020



The unplanned all-payer readmission rate for Massachusetts acute care hospitals was 15.9% in 2020, during the COVID-19 pandemic.

Source: Massachusetts Hospital Inpatient Discharge Database (HIDD), July 2010 to June 2020.

Note: Analyses include eligible discharges for adults with any payer, excluding discharges for obstetrics or primary psychiatric care.

Childbirth is the most common reason for a hospital admission in Massachusetts.

To reduce potentially harmful and unnecessary maternity procedures, Leapfrog sets standards and collects voluntary data from hospitals to measure performance.

In 2020, 19 reporting hospitals achieved all three standards, and all reporting hospitals achieved at least one standard, representing an improvement from prior years of reporting on these maternity care measures in the Annual Report. In response to the COVID-19 pandemic, hospitals were permitted to choose to submit either 2019 or 2020 data for Leapfrog's hospital survey.

To achieve the Leapfrog standard for early elective deliveries, no more than 5% of deliveries may be performed early (between 37 and 39 weeks) without a medical reason. The Leapfrog standard recommends that no more than 23.9% of women with low risk pregnancies deliver via cesarean section. Finally, Leapfrog identifies 5% or below as the target for the share of childbirths in which episiotomies are performed.

Rates of Maternity-Related Procedures Relative to Performance Targets, by Hospital, 2020

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	C Section	Early Elective Deliveries	Episiotomy			
Leapfrog Standard	≤ 23.9 %	≤ 5.0%	≤ 5.0%			
Achieved Three Standards (19 Hospitals)						
Baystate Franklin Medical Center	20.5%	4.5%	0.3%			
Berkshire Medical Center	21.7%	0.0%	2.0%			
Beth Israel Deaconess Hospital Plymouth	20.7%	0.0%	2.4%			
Beth Israel Deaconess Medical Center	20.7%	0.0%	2.5%			
Boston Medical Center	20.3%	0.0%	2.2%			
CHA Cambridge Hospital	20.8%	0.0%	2.2%			
Cooley Dickinson Hospital	20.7%	0.0%	4.1%			
Emerson Hospital	23.1%	0.0%	1.8%			
Fairview Hospital	23.3%	0.0%	3.2%			
Heywood Hospital	23.1%	2.8%	2.1%			
Lowell General Hospital - Main Campus	20.1%	0.0%	2.0%			
Mercy Medical Center of Springfield	21.8%	4.3%	3.4%			
Mount Auburn Hospital	18.0%	0.0%	2.1%			
Signature Healthcare Brockton Hospital	15.1%	0.0%	2.6%			
St. Luke's Hospital	23.6%	0.0%	3.6%			
Sturdy Memorial Hospital	22.6%	1.9%	4.7%			
Tufts Medical Center	17.1%	0.0%	1.9%			
U Mass Memorial Medical Center - Memorial Campus	22.5%	0.0%	3.8%			
Winchester Hospital	21.1%	0.0%	2.8%			

Achieved Two Standards (14 Hospitals)

Anna Jaques Hospital	26.7%	0.0%	2.0%
Baystate Medical Center	24.5%	2.4%	0.9%
Beverly Hospital	30.3%	0.0%	2.0%
Brigham And Women's Hospital	25.8%	1.3%	4.8%
Cape Cod Hospital	25.4%	0.0%	1.7%
Charlton Memorial Hospital	21.6%	0.0%	6.4%
HealthAlliance-Clinton Hospital	28.0%	0.0%	4.7%
Holy Family Hospital - Methuen	34.4%	0.0%	4.1%
Holyoke Medical Center	32.8%	3.8%	2.6%

	C Section	Early Elective Deliveries	Episiotomy		
Leapfrog Standard	≤ 23.9%	≤ 5.0%	≤ 5.0%		
Achieved Two Standards (14 Hospitals) Continued					
Lawrence General Hospital	28.6%	0.0%	4.2%		
Massachusetts General Hospital	24.3%	0.0%	2.1%		
North Shore Medical Center Salem Hospital	16.2%	0.0%	5.7%		
St. Elizabeth's Medical Center	24.0%	0.0%	3.0%		
Steward Good Samaritan Medical Center, Inc.	28.9%	0.0%	4.5%		

Achieved One Standard (6 Hospitals)

Melrose-Wakefield Hospital	26.3%	0.0%	6.4%
Metrowest Medical Center	25.0%	3.7%	5.6%
Milford Regional Medical Center	23.8%	0.0%	6.1%
Newton-Wellesley Hospital	29.0%	3.8%	5.3%
South Shore Hospital	32.6%	0.0%	6.4%
St Vincent Hospital	28.6%	2.1%	5.9%

KEY

Achieved the Standard Considerable Achievement Some Achievement Limited Achievement

In 2020, 19 of 39 reporting Massachusetts acute care hospitals achieved all three Leapfrog standards for reducing unnecessary maternity care.

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

Notes: All payers, all ages. See technical appendix for information on Leapfrog's standards and scoring methodologies. Hospitals were permitted to report either 2019 or 2020 data in response to the COVID-19 pandemic, so scores shown here may have been calculated using data between 1/1/19-12/31/19, or between 1/1/20-12/31/20. See databook for specific data period information.

There are many aspects of a hospital's operations that contribute to overall quality and safety of care. The National Quality Forum (NQF)-endorsed safe practices cover a range of practices that, if utilized, would reduce the risk of harm in certain processes, systems, or environments of care.¹

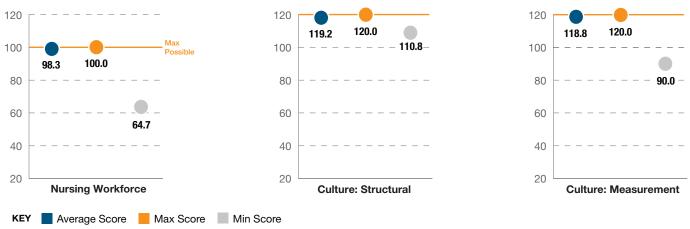
The Leapfrog Hospital Survey asked hospitals to report on three NQF Safe Practices, and on a Hand Hygiene measure. The NQF Safe Practices are as follows (1) Nursing Workforce (100 points possible); (2) Culture of Safety Leadership Structures and Systems (120 points possible); and (3) Culture Measurement, Feedback, and Intervention (120 points possible).

Descriptions of each safe practice and information about Leapfrog scoring can be found in the technical appendix of this report.

Overall, Massachusetts hospitals adhered to Leapfrog's NQF safe practices standard in 2020, though some low scores pulled down the average in each domain and identify opportunities for improvement.

Hospital Adherence to the Leapfrog Standard for Safe Practices and Hand Hygiene, 2020





Leapfrog Hand Hygiene Score



Out of 60 Reporting Hospitals

In 2020, 25 out of 60 reporting hospitals achieved the Leapfrog Standard for Hand Hygiene practices.

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

Notes: In response to the COVID-19 pandemic, Leapfrog adjusted reporting periods for each of the NQF Safe Practices. For Culture: Structural and Nursing Workforce, reporting period updated from last 12 months to last 24 months; for Culture: Measurement, hospitals could report on culture of safety surveys administered in the last 36 months and additional practice elements that were implemented in the last 24 months. The hand hygiene measure does not have a reporting period, as it evaluates monitoring and infrastructure standards on an ongoing basis. For more information about the Leapfrog survey and scoring algorithm, see technical appendix.

1 The Leapfrog Group. Factsheet: NQF Safe Practices (Boston, April 2021), https://ratings.leapfroggroup.org/sites/default/files/inline-files/2021%20 NQF%20Safe%20Practices%20Factsheet_1.pdf.



Total Medical Expenses & Alternative Payment Methods

KEY FINDINGS

Eight of 11 commercial payers reported HSA TME below the benchmark of 3.1%.

Across the top 10 managing physician groups, the majority (80.7%) of managed member months were under an APM arrangement.

APM adoption remained relatively stable among commercial and Medicare Advantage payers, but continued to increase for MassHealth MCO and ACO-As. All MassHealth payers reported an increase in membership in 2020. Overall enrollment in Medicaid MCO/ACO-A plans grew 5.8% in 2020, driven primarily by increases in MassHealth membership.

In addition to measuring the Commonwealth's THCE, CHIA also monitors health care spending by private commercial and privately administered Medicaid and Medicare plans and their members. The Total Medical Expense (TME) data included in this chapter enables a more detailed examination of spending drivers within health plans and among provider organizations that manage patients' care.

TME represents the total amount paid to providers for health care services delivered to a payer's member population, expressed on a per member per month (PMPM) basis. TME includes the amounts paid by the payer as well as member cost-sharing and covers all categories of medical expenses and all non-claims-related payments to providers, including provider performance payments. TME is reported for Massachusetts residents. This chapter focuses on TME data reported by private commercial and privately administered Medicaid and Medicare plans. For private commercial payers specifically, TME is presented for commercial full-claim data only, which represents members for whom the payer has access to and is able to report all claims expenses.

In past reports, TME data has been examined and reported solely on a health status adjusted (HSA) basis for each payer's member population. HSA TME adjusts for differences in member illness burden and expected medical costs associated with members' recorded diagnoses.

However, the tools used for adjusting TME for health status of a payer's covered members vary among payers, which removes the ability to compare HSA TME across payers. This report continues to examine TME on a HSA basis; however, this year CHIA also reported the data on an unadjusted basis by payer and physician group in order to show differences in TME growth.

A preliminary analysis of HSA TME data showed that risk scores may have decreased overall in 2020 when compared to the prior year. Commercial payers explained the reason for this shift was the suppression of services due to COVID-19 in 2020, which resulted in a decrease in HSA scores because of fewer inputs into risk adjustment tools.

Risk scores are not the only metrics found in this analysis of 2020 TME data which were likely affected by the COVID-19 pandemic. The COVID-19 pandemic and subsequent impacts on the Massachusetts health care system, including state and federal policy changes as well as shifts in health care system utilization, are reflected in this chapter's findings, several of which run counter to previous yearly trends. CHIA will continue to monitor TME in the context of the pandemic in the coming years in order to better understand the consequences of the pandemic on medical spending trends.

In addition to spending levels and trends, CHIA collects information about the payment arrangements between payers and providers. Historically, the majority of health care services have been paid using a FFS method. Chapter 224 of the Acts of 2012 set goals to increase the adoption of alternative payment methods (APMs) which are methods of payment in which some of the financial risk associated with the delivery of medical care as well as the management of health conditions is shifted from payers to providers. Generally, APMs are intended to give providers new incentives to control overall costs (e.g., reduce unnecessary services and provide services in the most appropriate setting) while maintaining or improving quality.

This chapter reports on 2020 final TME and APMs using the following metrics:

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

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

Unadjusted TME: TME which has not been adjusted to reflect differences in health status of member populations. Unadjusted TME is equivalent to the definition of TME (i.e., total expenditures for health care services in a given year

divided by the number of member months in the payer's population).

Managing physician group TME: TME for members required by their insurance plan to select a primary care provider (PCP), as well as for members who are attributed to a PCP as part of a contract between the payer and provider.

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

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CHIA examines TME on a HSA basis for each payer's member population, which adjusts for differences in member illness burden and medical costs.

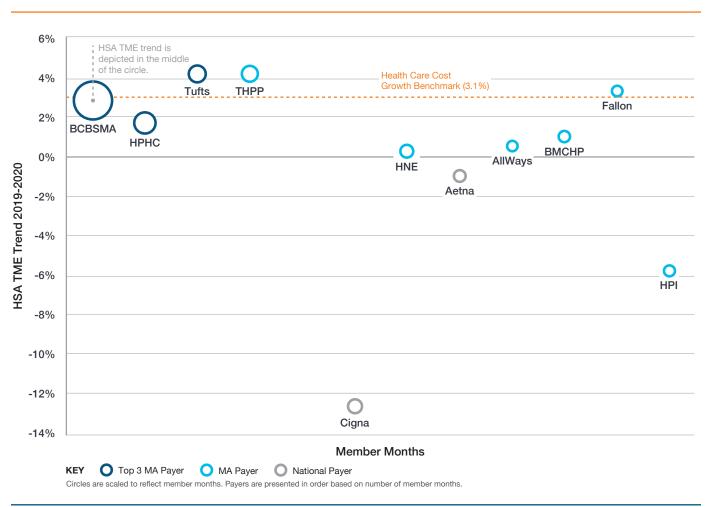
A preliminary analysis of risk scores in 2020 compared to 2019 suggests that aggregate risk scores decreased in 2020. Commercial payers cited the suppression of services due to COVID-19 and the subsequent under-coding of clinical conditions as the reason for this trend.

Eight of the 11 commercial payers, accounting for 74.2% of the commercial full-claim population, reported HSA TME growth below the 3.1% benchmark from 2019 to 2020.

The three largest Massachusetts-based commercial payers, Blue Cross Blue Shield of Massachusetts (BCBSMA), HPHC, and Tufts Health Plan (Tufts) accounted for 64.2% of member months in 2020. Tufts reported a 4.3% increase in HSA TME, surpassing the 3.1% growth benchmark. BCBSMA reported an HSA TME increase slightly below the cost growth benchmark (3.0%), while HPHC reported the smallest increase of these three largest commercial payers at 1.8%.

Tufts, THPP, and Fallon reported HSA TME growth above the 3.1% benchmark from 2019 to 2020. Two national payers, Aetna and Cigna, reported HSA TME growth under the benchmark, with Cigna reporting the largest decrease in HSA TME growth of any commercial payer.

Change in Commercial HSA TME by Payer, 2019-2020



Eight of the 11 commercial payers reported health status adjusted TME trends below the benchmark in 2020.

Source: Payer-reported TME data to CHIA.

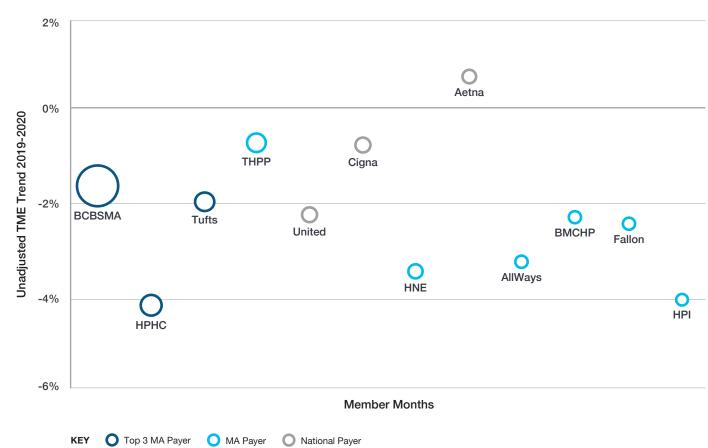
Notes: The tools used for adjusting TME for health status of a payer's covered members vary among payers, and therefore adjustments are not directly comparable across payers. See the databook for a list of health status adjustment tools used for the data presented in this report. These trends are based on expenditures that reflect payments to providers, and are gross of prescription drug rebates received by health plans after the point of sale. Health status adjusted data from United Healthcare was excluded due to data quality concerns. Though HSA scores decreased for many payers from 2019 to 2020, Cigna's HSA scores increased 12%.

In addition to examining TME by payer on a HSA basis, CHIA analyzed the data at the unadjusted level, which reflects actual payments made to providers without adjusting for differences in health status of a payer's population. Significant differences can be seen between HSA and unadjusted TME trends by payer; while HSA trends show that most payers' TME PMPM increased, unadjusted trends show that most payers' TME PMPM decreased from 2019-2020. These differences reflect the declining risk scores seen in 2020.

Overall commercial full-claim expenditures decreased by 5.1% in 2020, while membership decreased 2.9%. In line with these overall trends, commercial TME PMPM declined for all payers except for Aetna, which grew less than 1% in 2020. No commercial payer reported unadjusted TME growth above the 3.1% cost growth benchmark in 2020.

The three largest Massachusetts based payers all reported lower TME in 2020 compared to 2019. HPHC demonstrated the greatest decrease of any payer, with TME falling 4.2% from 2019.

Change in Commercial Unadjusted TME by Payer, 2019-2020



Circles are scaled to reflect member months. Payers are presented in order based on number of member months.

Ten of the 12 commercial payers reported unadjusted TME PMPM trends indicating negative growth from 2019 to 2020.

Notes: These trends are based on expenditures that reflect payments to providers, and are gross of prescription drug rebates received by health plans after the point of sale.

In 2020, BMC HealthNet Plan (BMCHP) and THPP offered ACO-A and MCO plans to their MassHealth members. Fallon, Health New England (HNE), and AllWays offered only ACO-A plans to their MassHealth members.

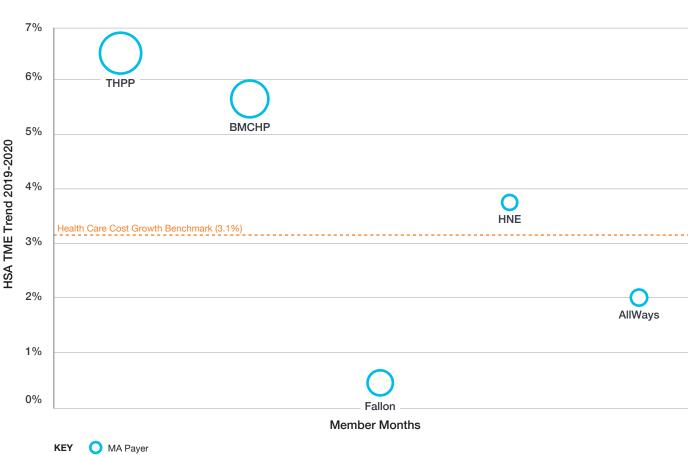
All payers reported an increase in HSA TME in 2020 compared to 2019, with THPP, BMCHP, and HNE reporting HSA TME growth above the 3.1% benchmark (6.5%, 5.7%, and 3.7% growth, respectively).

In contrast to 2019 trends, when nearly all payers reported a decrease in membership, all MassHealth payers reported increases in membership in 2020. Overall enrollment in Medicaid MCO/ACO-A plans grew 5.8% in 2020, driven primarily by increases in MassHealth membership and the suspension of redeterminations. Consistent with previous years, the majority of MassHealth MCO/ACO-A members (89.2%) were enrolled with THPP, BMCHP, and Fallon. Fallon reported the largest growth in member months of all payers at 8.4%. The remaining two payers, AllWays and HNE, accounted for 10.8% of member months in 2020.

Risk scores declined for many payer networks in 2020 due to a decrease in utilization and deferred services due to COVID-19.

CHIA

Change in MassHealth MCO and ACO-A HSA TME by Payer, 2019-2020



Circles are scaled to reflect member months. Payers are presented in order based on number of member months.

HSA TME trends for all payers reported positive growth, a reversal compared to trends seen in previous years.

Source: Payer-reported TME data to CHIA.

Notes: The tools used for adjusting TME for health status of a payer's covered members vary among payers, and therefore adjustments are not uniform or directly comparable across payers. See the databook for a list of health status adjustment tools used for the data presented in this report. These trends are based on expenditures that reflect payments to providers, and are gross of prescription drug rebates received by health plans after the point of sale.

While HSA TME trends for all MassHealth MCO and ACO-A payers increased from 2019 to 2020, with three payers exceeding the 3.1% benchmark, unadjusted trends show that all payers demonstrated decreases in TME spending. Fallon reported the largest decrease in unadjusted TME at 7.3%. TME PMPMs reported by THPP, BMCHP, and AllWays decreased by less than 2%.

These negative unadjusted PMPM TME trends from 2019-2020 are a reversal from 2018-2019 trends, when four out of the five MassHealth MCO and ACO-A payers reported positive unadjusted growth in TME. Delays in medical care due to the COVID-19 pandemic are likely linked to the negative growth in unadjusted TME seen between 2019 and 2020.

The significant differences between HSA and unadjusted TME trends are attributable to the abnormal HSA scores seen in 2020, which were likely artificially low due to interruptions in care caused by the COVID-19 pandemic.

Change in MassHealth MCO and ACO-A Unadjusted TME by Payer, 2019-2020



Circles are scaled to reflect member months. Payers are presented in order based on number of member months.

All five MassHealth MCO/ACO-A payers reported negative unadjusted TME trends in 2020.

Source: Payer-reported TME data to CHIA.

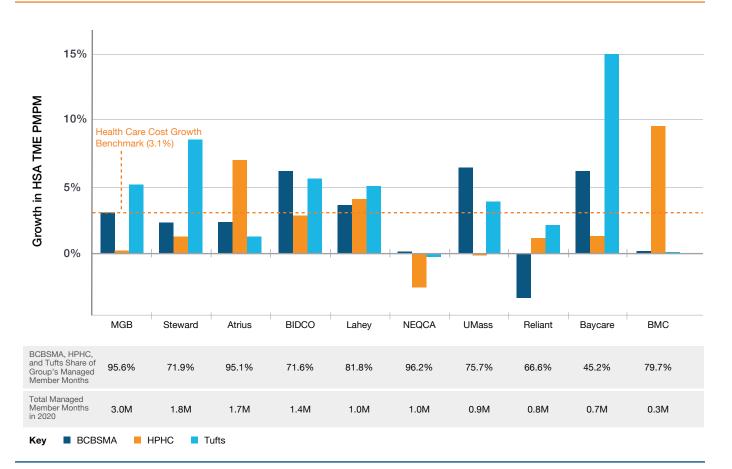
Notes: These trends are based on expenditures that reflect payments to providers, and are gross of prescription drug rebates received by health plans after the point of sale.

Managing physician groups, often multi-specialty practices that include primary care providers (PCPs), are responsible for coordinating the care of their members. Managing physician group HSA TME measures the total medical spending for commercial members attributed to a PCP, adjusted to reflect differences in physician groups' patient populations.

The 10 largest physician groups within the networks of the three largest payers represented 54.2% of managed member months in 2020.¹

Though all of the 10 largest physician groups experienced decreases in attributed member months from 2019 to 2020 and health care utilization decreased statewide due to the COVID-19 pandemic, eight of the 10 physician groups had HSA TME growth above the 3.1% benchmark in at least one of the payer's network.

Change in Managing Physician Group Commercial HSA TME, 2019-2020



Eight of the 10 largest physician groups had HSA TME growth above the 3.1% benchmark in at least one of the payer's network.

Source: Payer-reported TME data to CHIA.

Notes: Data reported here is based on final 2019-2020 commercial full-claim TME data, both for members whose plan requires the selection of a PCP, as well as for members who were attributed to a PCP pursuant to a contract between the payer and the physician group, such as a PPO APM. The tools used for adjusting TME for health status of a payer's covered members vary among payers, and therefore HSA TME is not comparable across payers. See the databook for more information. Health New England represented the largest share of member months for Baycare, and demonstrated 2.22% decrease in commercial HSA TME for Baycare compared to 2019. These trends are based on expenditures that reflect payments to providers, and are gross of prescription drug rebates received by health plans after the point of sale. Beth Israel Deaconess Care Organization (BIDCO) and Lahey merged as a system in 2019, however, they are reported separately here because payers reported contracts with each individual entity.

CHIA also examined the managing physician group data at the unadjusted level. Without adjustment for health status, most provider groups show decreases in TME, with all showing negative growth in at least one payer's network in 2020. This trend contrasts with HSA TME which increased for most groups and payers.

On an unadjusted basis, only two physician groups (UMass and Baycare) exceeded the 3.1% health care cost growth benchmark in one of the three payer networks examined.

The COVID-19 pandemic's impact to the health care system, including reported decreases in risk scores, may be contributing factors in the difference between adjusted and unadjusted trends.

Change in Managing Physician Group Commercial Unadjusted TME, 2019-2020



The 10 largest physician groups all experienced a decrease in TME in at least one payer network in 2020.

Source: Payer-reported TME data to CHIA.

Notes: Data reported here is based on final 2019-2020 commercial full-claim TME data, both for members whose plan requires the selection of a PCP, as well as for members who were attributed to a PCP pursuant to a contract between the payer and the physician group, such as a PPO APM. The tools used for adjusting TME for health status of a payer's covered members vary among payers, and therefore HSA TME is not comparable across payers. See the databook for more information. Health New England represented the largest share of member months for Baycare. These trends are based on expenditures that reflect payments to providers, and are gross of prescription drug rebates received by health plans after the point of sale. BIDCO and Lahey merged as a system in 2019, however, they are reported separately here because payers reported contracts with each individual entity.

Payers and providers have been using APMs to promote coordinated care while also providing incentives to control overall costs and maintain or improve quality.

In the Massachusetts commercial market, overall APM adoption has remained relatively stable since 2018.

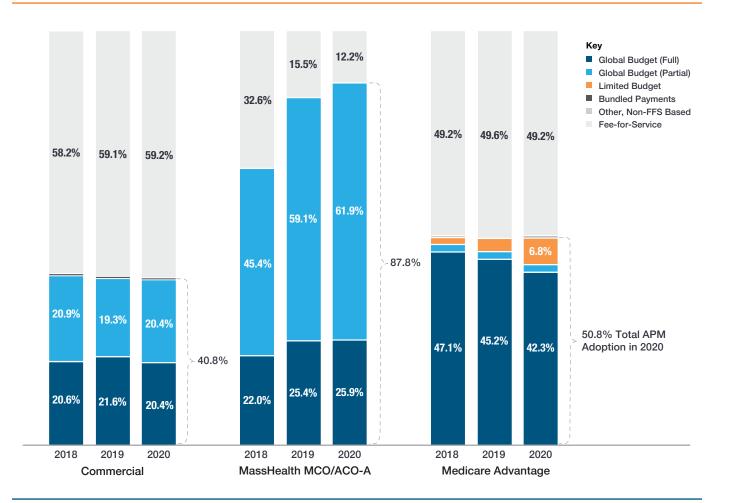
MassHealth MCO and ACO-A APM adoption continued to grow in 2020, with reported APM use for 87.8% of members, an increase of 3.2 percentage points from 2019.

In 2020, 6.8% of Medicare Advantage members had their care paid for under a limited budget arrangement, more than doubling from the 3.3% in 2019. However, overall APM adoption increased only slightly (less than 1%) as use of global (full) payment arrangements continued to decline in this insurance category.

APMs are implemented as a shared initiative between payers and the physician groups that manage patients' care. Global payment arrangements continued to be the dominant APM employed by payers, accounting for 99.9% of commercial APM arrangements, 100% of MassHealth MCO and ACO APM arrangements, and 86.54% of Medicare Advantage APM arrangements in 2020. In 2020, 87.2% of global budget arrangements were categorized as having upside and downside risk and 8.7% were shared savings only.

CHIA

Adoption of Alternative Payment Methods by Insurance Category, 2018-2020



APM adoption remained relatively stable for commercial payers, while adoption for MassHealth continued to increase.

Source: Payer-reported APM data to CHIA.

Notes: Membership under APMs is measured by the share of member months associated with a primary care provider engaged in an alternative payment contract with the reporting payer. Global partial APMs reflect arrangements in which the physician group is not held accountable for certain services, often pharmacy and behavioral health expenses.

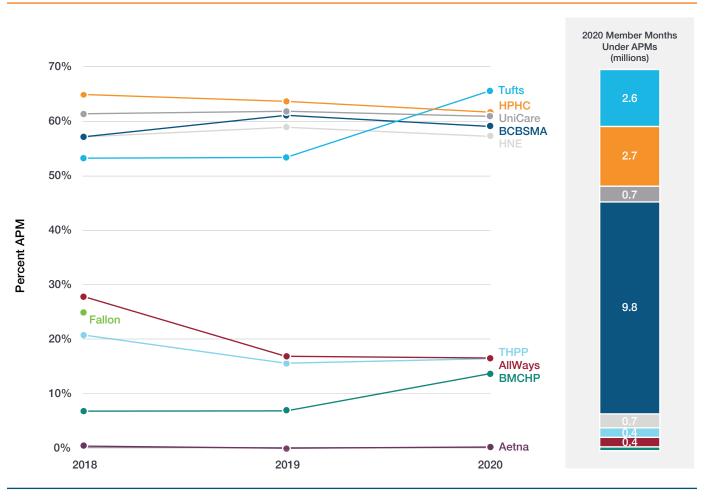
Nine of 13 commercial payers reported utilization of APM arrangements in 2020. Consistent with prior years, HPHC, UniCare, BCBSMA, HNE, and Tufts had the majority of their members' care paid for through an APM arrangement. However, HPHC, UniCare, BCBSMA, and HNE all reported a slight decrease in APM adoption during this period.

Tufts showed a marked increase in adoption in 2020, with 65.8% percent of members covered under an APM, the highest of all commercial payers. BMCHP also demonstrated a large increase in APM adoption, nearly doubling from 7.5% in 2019 to 14.3% in 2020.

AllWays showed a small decrease, and THPP and Aetna showed similar proportions of APM adoption compared to 2019.

Fallon moved all commercial members to FFS contracts as of 2019, reporting no APM utilization for 2019 and 2020. Consistent with prior years, Cigna, United Healthcare, and HPI reported no APM usage for 2020.

APM Adoption Trends by Commercial Payers, 2018-2020



While Tufts and BMCHP showed significant increases in APM adoption in 2020, APM use fell for the state's two largest payers: BCBSMA and HPHC.

Source: Payer-reported APM data to CHIA.

Note: Cigna, Health Plans, Inc. (HPI), and United Healthcare reported no use of APMs in all three years. Membership under APMs is measured by the share of member months associated with a primary care provider engaged in an alternative payment contract with the reporting payer. The data displayed above includes both full-claim and partial-claim members.

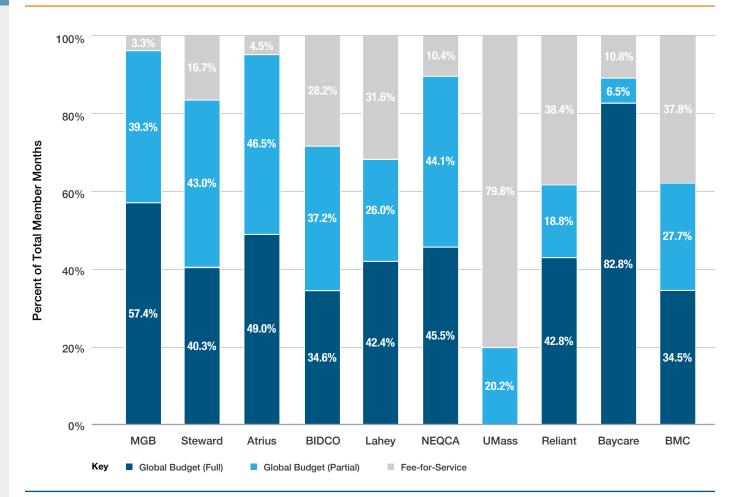
The 10 largest physician groups accounted for 45.8% of adult HMO and PPO members in 2020.

Overall, across the top 10 managing physician groups, 80.7% of managed member months were under an APM arrangement, a decrease from 81.3% in 2019. Nine of these 10 managing physician groups had more than half of their managed member months under an APM. Consistent with 2019, MGB Community Physicians Organization and Atrius Health continued to have the highest share of member months under APMs, at 96.7% and 95.5%, respectively in 2020.²

Steward experienced the largest decrease in proportion of member months under global payment arrangments, dropping 8.3 percentage points between 2019 and 2020.

UMass continued to have the lowest rate of APM adoption of the 10 largest physician groups in 2020.

Commercial Adoption of Alternative Payment Methods by Managing Physician Group, 2020



Five of the 10 largest managing physician groups reported over 80% of their managed member months under a global payment arrangement.

Source: Payer-reported APM data to CHIA.

Notes: Membership under APMs is measured by the share of member months associated with a primary care provider engaged in an alternative payment contract with the reporting payer. The data displayed above includes both full-claim and partial-claim adult HMO and PPO members, and represents 36.3% of total commercial member months in 2020. BIDCO and Lahey merged as a system in 2019, however, they are reported separately here because payers reported contracts with each individual entity.

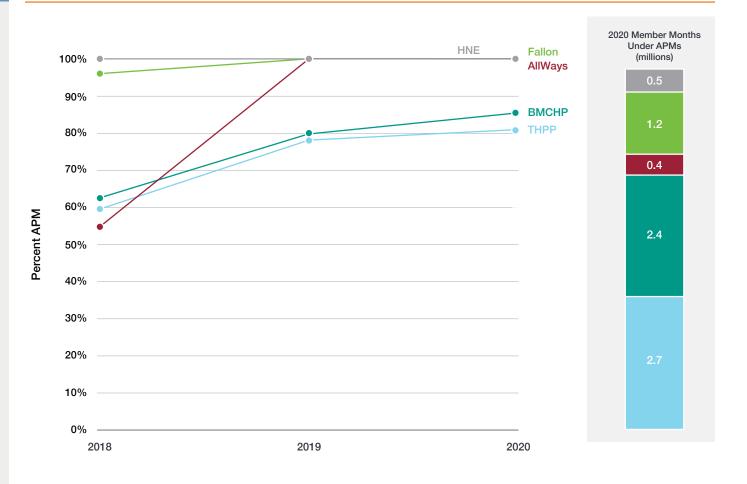
MassHealth MCO and ACO-A payers reported continued increases in APM utilization following the implementation of the MassHealth ACO program in 2018.

In 2020, all five MassHealth MCO and ACO-A payers reported high use of APM contract arrangements, covering 87.8% of total members, an increase from 84.5% in 2019.

Consistent with previous years, HNE continued to report all members under an APM contract in 2020. Beginning in 2019 and continuing in 2020, AllWays and Fallon reported all members under an APM arrangement as well.

The two largest payers with MassHealth MCO and ACO contract arrangements, BMCHP and THPP, also reported increases in APM adoption between 2019 and 2020, with 2020 rates at 86.0% and 81.4%, respectively. For both payers, 100% of ACO-A contracts were under an APM arrangement in 2020.

APM Adoption Trends by MassHealth MCOs and ACO-As, 2018-2020



The three payers that exclusively manage ACO-A plans reported 100% APM adoption for their members.

Source: Payer-reported APM data to CHIA.

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

- 1 BIDCO and Lahey merged as a system in 2019, however, they are reported separately here because payers reported contracts with each individual entity.
- MGB Community Physicians Organization was formerly known as, and has been identified in previous CHIA reports as, Partners Community Physicians.

KEY FINDINGS

Overall commercial enrollment declined in 2020, driven by membership decreases across all market segments of employersponsored insurance. Similar trends were seen nationally due to COVID-19's disruption of the job market.

Individual purchaser enrollment continued to grow in 2020 but at a slower rate than in prior years. Eight of 12 commercial payers reported decreases in membership, including the three largest Massachusetts based payers.

As part of its efforts to monitor the changing health care landscape, CHIA collects and analyzes Massachusetts private commercial health insurance enrollment data. Data reported by payers for 2018 through 2020 reflects approximately 4.5 million contract lives.¹ CHIA analyzed enrollment by market sector, product type (HMO, PPO, POS), funding type, and benefit design type (HDHP, tiered network, limited network). Unless otherwise noted, the remaining chapters of this report highlight membership and cost trends for members covered under private commercial contracts established in Massachusetts (which may include non-Massachusetts residents).²

While the vast majority of private commercial members are covered under employer-sponsored insurance (ESI), some

individuals purchase plans for themselves and their families via the Health Connector, through intermediaries, or directly from insurers. Within the report, these members are referred to as "individual purchasers."

Depending on income and other eligibility factors, qualifying Massachusetts residents may purchase ConnectorCare plans that include state cost-sharing reduction (CSR) subsidies and premium subsidies and federal tax credits. Of the payers included in this report, AllWays, BMCHP, Fallon, HNE, and THPP offered ConnectorCare plans.³

In Massachusetts, the individual and small group markets operate as a "merged market" with different premiumrating requirements and Affordable Care Act (ACA) benefit standards than larger employer group purchasers.

Massachusetts insurance enrollment trends, including Medicare and Medicaid enrollment, see the Private and Public Insurance Enrollment chapter on page 34.
Employer-sponsored insurance plans, see CHIA's 2018 Massachusetts Employer Survey.

For additional insight into:

The impact of COVID-19 on insurance coverage in the Commonwealth, see CHIA's Monthly Enrollment Summaries.

Chapter results do not include data for student health plans offered by colleges and universities. The dataset that accompanies this report contains more information on this population as well as expanded enrollment and financial data for the private commercial market. •

CHIA.

Massachusetts private commercial insurance enrollment decreased by 1.8% from 2019 to 2020. This followed a period of relative stability (-0.1% change) in the previous year. Membership in individual plans grew more slowly than in past years, while employersponsored insurance (ESI) enrollment declined. Similar commercial enrollment trends were seen nationally and stemmed from pandemic-related job losses.⁴

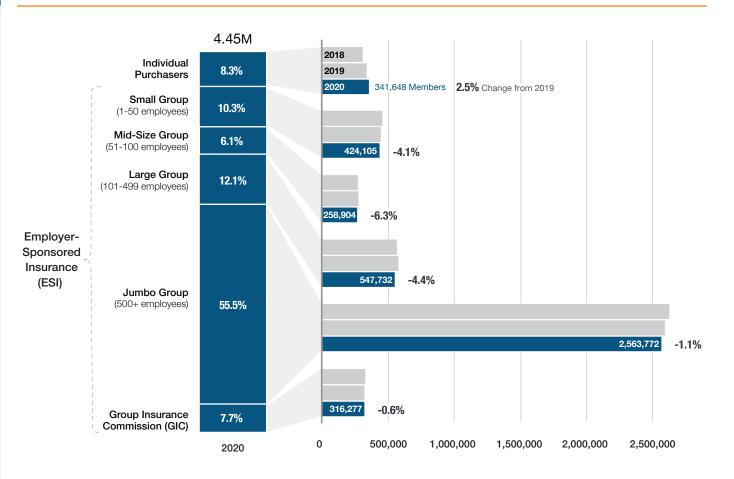
After several years of rapid growth, including an 8.5% increase in 2019, individual purchaser enrollment slowed to 2.5% growth in 2020. Membership in subsidized ConnectorCare plans increased 1.8% to nearly 214,000 members, while unsubsidized individual enrollment grew 3.6% to approximately 128,000 members.

In 2020, 4.11 million members were enrolled in ESI coverage, a 2.2% decrease from 2019. While enrollment declined in all employer group sizes in 2020, the greatest decreases were observed among plans offered by mid-size (-6.3%) and large group (-4.4%) employers.

For more information on health insurance enrollment in Massachusetts, including Medicare and MassHealth coverage, see CHIA's Enrollment Trends reporting.

CHIA

Enrollment by Market Sector, 2018-2020



In 2020, individual purchaser enrollment grew more slowly than in past years, and employer plan enrollment declined across all ESI market sectors.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Annual enrollment is reported as average membership within each year, derived by dividing payer-submitted member months by twelve. See technical appendix.

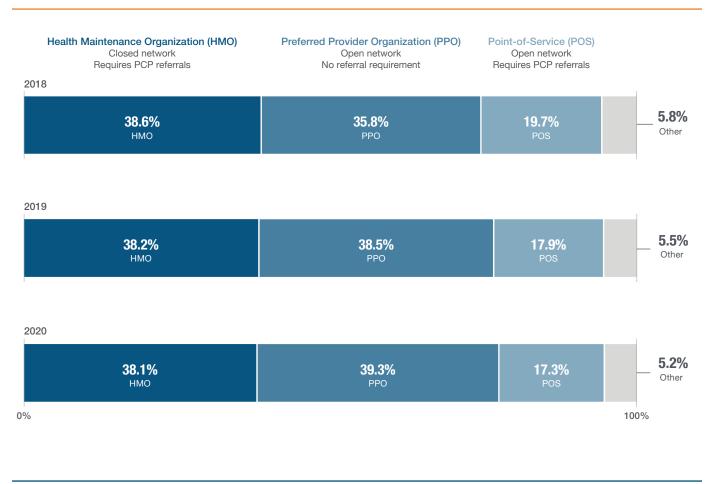
Insurance product types play a role in determining the breadth of provider networks for members as well as PCP referral requirements.

Between 2018 and 2020, there was a small but steady decrease in the proportion of members enrolled in HMO products. During the same period, the proportion of members in PPO products increased, with PPO products becoming the most prevalent product type over HMOs in 2019 and 2020.

The proportion of members in POS plans, which offer members the flexibility to receive out-ofnetwork care with referral from a PCP, decreased slightly from 17.9% in 2019 to 17.3% in 2020.

An additional 5.2% of private commercial contract members were classified in "Other" product types, which include EPO and Indemnity plans.

Enrollment by Product Type, 2018-2020



PPO products surpassed HMOs as the most prevalent product type in 2019 and 2020.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Percentages may not sum to 100% due to rounding. See technical appendix.

Membership by product type varies across market sectors and, for ESI plans, reflects a combination of choices by employers and health plan enrollees. In general, HMO plan prevalence is higher among smaller employers, while larger employers favor PPO and POS plans with looser network requirements.

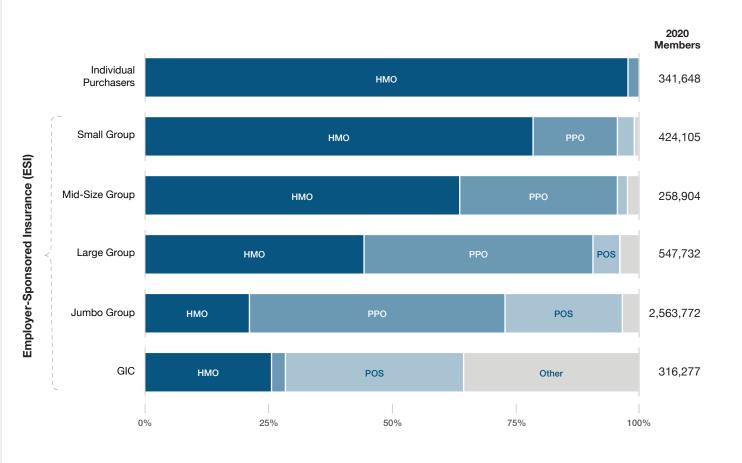
In 2020, nearly all (97.8%) individual purchasers were enrolled in HMO plans, compared to just over one-fifth (21.1%) of jumbo group members.

POS plans were common among jumbo group (23.7%) and the Group Insurance Commission (GIC) (36.3%) members, but not in other market sectors. The GIC had the highest percentage of members enrolled in Other plans (35.5%), which reflects the GIC's Indemnity plan offerings.

Data from CHIA's *Massachusetts Employer*

Survey suggests that larger employers are more likely than smaller ones to offer more than one type of health plan to their employees.⁵ Larger employers with employees in multiple states may also be more likely to offer open network plans like PPOs.

Enrollment by Market Sector and Product Type, 2020



Members of larger employer groups tended to enroll in PPO and POS plans, while smaller employer groups and individual purchasers favored HMO plans.

Source: Payer-reported data to CHIA.

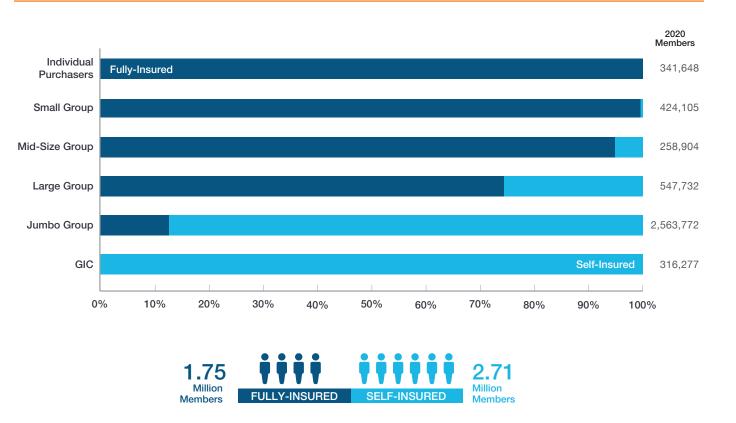
Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. See technical appendix.

Employers may choose to provide health insurance through fully- or self-insured arrangements. Under fully-insured plans, payers assume the financial risk for covering members' medical expenses in exchange for a monthly premium. For self-insured coverage, it is the employers themselves who assume financial risk for eligible medical costs incurred by their employees and employee-dependents.

In 2020, self-insured membership represented 60.8% of the Massachusetts private commercial market (2.71 million members). Across the market, self-insured enrollment decreased by 1.4% (-40,000 members) between 2019 and 2020, while fully-insured enrollment declined by 2.4% (-43,000 members).

Self-insurance was most common among members receiving coverage through jumbo group employers with at least 500 employees (87.2% of members self-insured) and the GIC (100% self-insured).

Enrollment by Funding Type, 2020



In 2020, 60.8% of private commercial members were enrolled in self-insured plans, which were most prevalent among larger employer groups.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. See technical appendix.

In 2020, BCBSMA remained the largest private payer, with 41.8% of the Commonwealth's commercial contract membership. However, payer market share varied across market sectors.

Other than the GIC, BCBSMA maintained the largest market share in every ESI market sector. In 2020, BCBSMA also gained market share among individual purchasers, surpassing AllWays to become the third largest payer in this sector. Meanwhile, AllWays overtook HPHC as the third largest payer in the small group sector, and Cigna overtook HPHC as the third largest payer in the jumbo group sector.

More than one in three GIC members (35.5%) enrolled in plans offered by UniCare, a subsidiary of Anthem.

BMCHP and THPP, which historically served MassHealth members, together enrolled threefourths of individual purchasers in 2020.

HPHC and Tufts (including THPP) merged at the start of 2021 to form Point32Health.⁶ In 2020, these entities combined represented the second largest membership of any payer, with 23.9% of the commercial market.

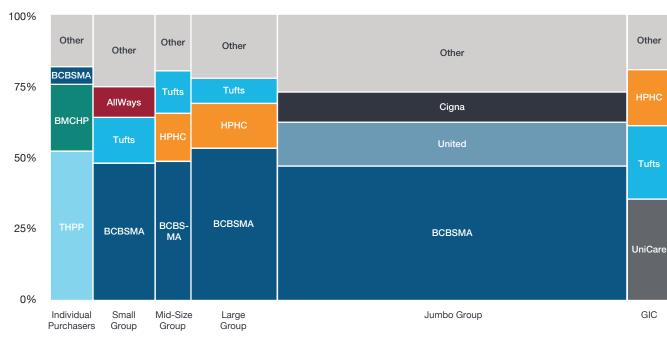
Largest Payers by Market Sector, 2020

258,904

 Members per Market Sector

 547,732
 2,563,772

316,277



Market Sector

BCBSMA was one of the largest three payers in all market sectors except the GIC.

Source: Payer-reported data to CHIA.

341,648

Payer Distribution

424,105

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. THPP is reported separately from its parent company, Tufts. See technical appendix.

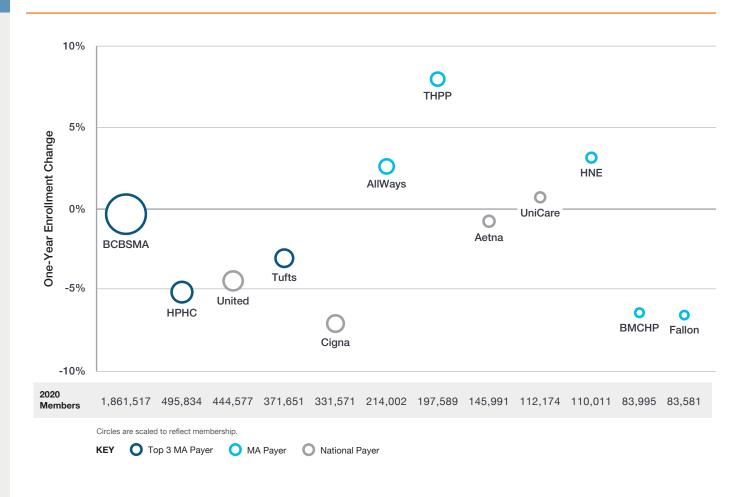
Amid marketwide changes related to the COVID-19 pandemic, eight out of 12 commercial payers reported declining enrollment in 2020.

Among the three largest local payers, HPHC reported the greatest decrease in enrollment for the second year in a row, driven by decreases in jumbo group, small group, and GIC membership. BCBSMA also reported declines in small group membership but increases in jumbo group enrollment. Although Tufts reported enrollment decreases in all ESI sectors, the broader organization experienced a net gain in members due to THPP.

THPP had the fastest total membership growth in 2020 at 8.0%, due to increases in both the individual and small group sectors. THPP has remained one of the fastest growing payers in Massachusetts for the past several years, mainly due to its growth in individual purchasers.

HNE and AllWays also reported increases in overall commercial membership in 2020. HNE reported enrollment increases in all market sectors except small group. AllWays experienced a decrease in individual enrollment which was offset by membership increases in all ESI market sectors. The smallest payer, Fallon, reported a 6.7% decrease in commercial membership in 2020. Fallon announced that it would stop offering most of its commercial plans effective 2022.⁷

Enrollment Changes by Payer, 2019-2020



Eight out of 12 commercial payers reported decreases in enrollment in 2020.

Source: Payer-reported data to CHIA.

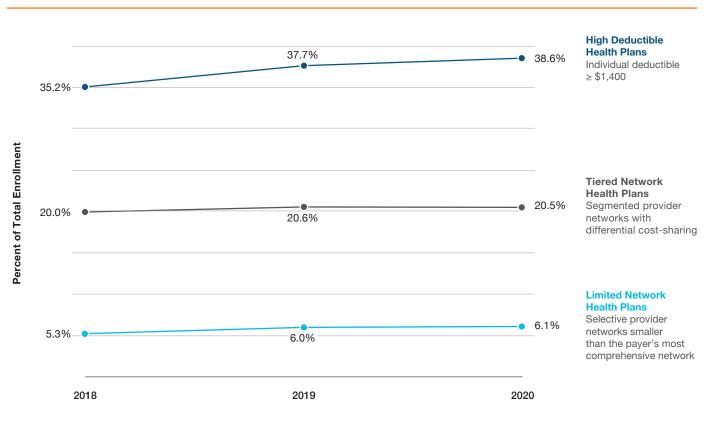
Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. See technical appendix.

One strategy for lowering medical claims and premium costs is to structure benefits so that members have incentives to seek high-value care. Three benefit design types offered in Massachusetts are high deductible health plans (HDHPs), tiered networks, and limited networks.⁸

From 2019 to 2020, HDHP enrollment increased from 37.7% to 38.6% of the private commercial market, continuing a long-term growth trend, although at a slower rate of increase than the year prior. During the same period, enrollment in tiered networks (20.5% of members in 2020) and limited network enrollment (6.1% of members) remained relatively steady.⁹

The GIC has led payer development and adoption of tiered networks in the Commonwealth, with 100% of members enrolled in this benefit design. Apart from the GIC, only 14.7% of members were enrolled in tiered networks.

Enrollment by Benefit Design, 2018-2020



Enrollment in high deductible health plans grew at a slower rate than prior years, while tiered and limited network enrollment remained stable.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. HDHPs defined by IRS individual plan deductible threshold which was \$1,350 in 2018 and 2019 and \$1,400 in 2020. Benefit design types are not mutually exclusive. Fallon HDHP, limited, and tiered network enrollment data was excluded due to quality concerns. See technical appendix.

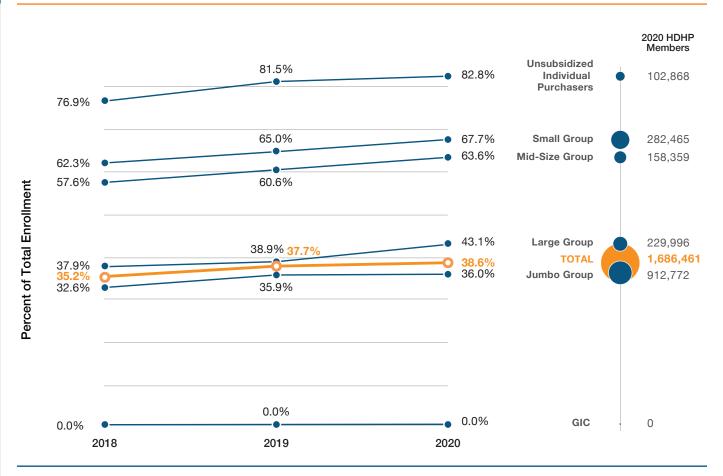
In 2020, nearly 1.7 million Massachusetts contract members (38.6%) were enrolled in HDHPs with individual deductible levels of at least \$1,400. This represented an annual membership increase of 0.6% (+10,800 members), substantially slower than in past years. Despite overall enrollment decreases in most market sectors, HDHP enrollment continued to grow or hold steady, with the fastest growth observed among the large group sector at 4.2 percentage points.

Although the majority of HDHP members in 2020 received coverage through larger employers, the proportion of members enrolled in HDHPs tended to decrease as group size increased, with 82.8% of unsubsidized individual purchasers and over 65% of members covered through small and midsize employers enrolled in an HDHP. HDHPs were not offered to GIC or ConnectorCare members.

While payers did not report how many HDHP members had access to HSA or HRA savings options, CHIA survey data suggests that employees at larger firms are more likely than those at smaller firms to be offered these accounts which may help offset out-ofpocket costs.¹⁰

CHIA

High Deductible Health Plan (HDHP) Enrollment by Market Sector, 2018-2020



HDHP enrollment continued to grow steadily across nearly all market sectors, despite overall enrollment declines, with the fastest growth among large group employers.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Total may not sum due to rounding. HDHPs defined by IRS individual plan deductible threshold which was \$1,350 in 2018 and 2019 and \$1,400 in 2020. Fallon enrollment data was excluded due to data quality concerns. ConnectorCare trend not shown as members are not offered HDHPs. Unsubsidized individual purchasers includes Advance Premium Tax Credit (APTC)-only members. See technical appendix.

- 1 Chapter results based on commercial contract member data provided by Aetna, AllWays Health Partners (AllWays), Blue Cross Blue Shield of Massachusetts (BCBSMA), Boston Medical Center HealthNet Plan (BMCHP), Cigna, Fallon Health, Harvard Pilgrim Health Care (HPHC includes Health Plans, Inc.), Health New England (HNE), Tufts Health Plan (Tufts), Tufts Health Public Plans (THPP), UniCare, and United Healthcare. Payers with fewer than 50,000 Massachusetts primary, medical enrollees were not required to submit data.
- 2 Massachusetts contract members may reside inside or outside Massachusetts; out-of-state contract members are most often covered through a Massachusetts-based employer.
- **3** Full ConnectorCare eligibility criteria are available from the Massachusetts Health Connector at https://www.mahealthconnector.org/.
- 4 "Year-Over-Year Health Insurance Enrollment Trends Amidst a Pandemic-Era." Mark Farrah Associates, April 30, 2021. https://www.markfarrah.com/ mfa-briefs/year-over-year-health-insurance-enrollment-trends-amidst-apandemic-era/.
- 5 Center for Health Information and Analysis, 2018 Massachusetts Employer Survey Summary of Results (Boston, June 2019), http://www.chiamass.gov/ massachusetts-employer-survey/.
- 6 McCluskey, Priyanka Dayal. "The state's second-biggest health insurer has a buzzy new name." Boston Globe, June 16, 2021. https://www.bostonglobe.com/2021/06/16/business/states-secondbiggest-health-insurer-has-new-name/.
- 7 McCluskey, Priyanka Dayal. "Fallon Health to leave commercial insurance market." Boston Globe, March 31, 2021. https://www.bostonglobe. com/2021/03/31/business/fallon-health-leave-commercial-insurancemarket/.

- 8 These categories are not mutually exclusive. For instance, a plan offering access to a tiered provider network could also be considered an HDHP based on its deductible level.
- 9 THPP classified all its members as enrolled in limited network plans, to better reflect the scope of THPP's network in comparison to its parent company, Tufts. This was a change from how THPP's members were classified in CHIA reports published before 2019.
- 10 Center for Health Information and Analysis, Offering and Enrollment in High Deductible Health Plans at Massachusetts Firms: Which Workers Can Offset Cost through a Savings Option? (Boston, November 2020). https://www.chiamass.gov/assets/docs/r/pubs/2020/High-Deductable-HealthPlans-CHIA-Research-Brief.pdf.

KEY FINDINGS

Between 2019 and 2020, fullyinsured premiums increased by 2.6% after growing 2.3% in the prior year. The average fully-insured premium in 2020 was \$529 PMPM. Premium rates were developed without knowledge of the impact that the COVID-19 pandemic would have on health care utilization and spending.

All market sectors experienced average annual premium increases between one and four percent in 2020.

CHIA collects and analyzes data on the cost of coverage for Massachusetts private commercial health insurance. Payers submit financial data by market sector, product type (HMO, PPO, POS), funding type, and benefit design type (HDHP, tiered network, limited network). This chapter covers the period from 2018 to 2020.¹

Private commercial insurance is administered on a fullyor self-insured contract-basis, with employers facing different sets of costs for each funding method. The cost for providing fully-insured coverage is measured by the monthly premium, in exchange for which the payer will assume all financial risk associated with members' eligible medical expenses during the contract period. For selfinsured coverage, the employer retains the financial risk for medical claims costs while contracting with a payer or third party administrator to design and administer health plans for its employees and their dependents. For fully-insured coverage, CHIA reports the full premium amount collected by health plans, inclusive of member contributions, employer contributions (for employer plans), and federal and state premium credits and subsidies (for plans sold to individual purchasers). In 2018, the most recent year for which survey data was available, Massachusetts employees directly paid 26% to 30%, on average, of their total premium costs.² Reported premiums reflect a range of enrollment decisions by members and employers, including changing plans during open enrollment to mitigate anticipated premium increases.

Chapter results do not include data for self-insured coverage or for student health plans offered by colleges and universities. The dataset contains more information on these populations as well as expanded enrollment and financial data for the private commercial market.•

Private Commercial Premiums and COVID-19

Health insurance premiums are set prospectively based on historical data and projected growth in claims and administrative costs. This means that premium rates for plans issued in 2020 were developed without knowledge of the impact that the COVID-19 pandemic would have on health care utilization and spending. As the year progressed and it became evident that health care utilization would be much lower than expected, some payers issued premium refunds or credits to employers and/or individual purchasers.³ For the data used in this chapter, CHIA instructed payers to adjust reported premium dollars to account for any refunds or credits that they issued in 2020.

Between 2019 and 2020, fully-insured premiums increased by 2.6% overall to \$529 PMPM, after growing 2.3% in the prior year. This followed higher premium increases of 4.8% in 2017 and 5.7% in 2018.

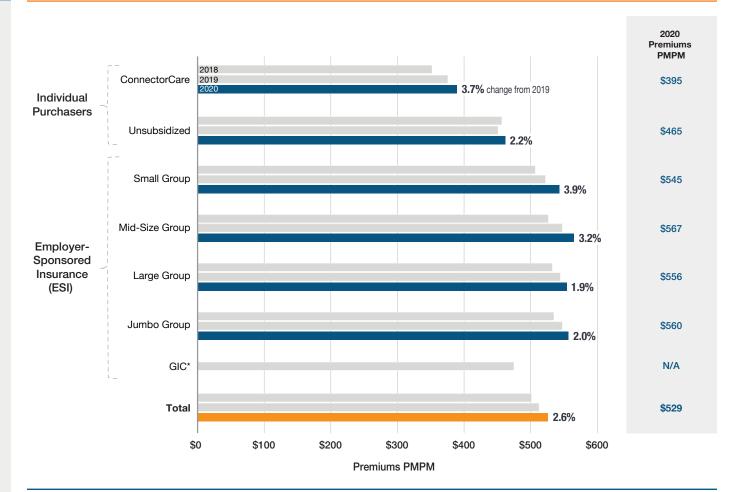
For ESI market sectors, the average 2019 to 2020 premium increase was generally within one percentage point of the previous year's trend. Among these, the small group sector had the lowest average premium at \$545 PMPM in 2020. These lower premiums align with the higher deductibles that members covered by small employers generally have. Furthermore, employees of smaller firms are responsible for paying a larger proportion of their total monthly premiums, on average, than employees of larger firms.⁴

There was more variation in premium trends for individual purchasers. The underlying base premiums for the subsidized ConnectorCare program grew 3.7% in 2020 (down from 6.5% growth in 2019), and unsubsidized individual plan premiums grew 2.2% in 2020 after decreasing in 2019.

Compared to small group members, unsubsidized individual purchasers selected plans with lower average benefit levels and were more likely to enroll in limited network products offered by THPP. These choices are reflected in the differing premium levels observed across the merged market.

CHIA

Fully-Insured Premiums by Market Sector, 2018-2020



Fully-insured premiums increased by 2.6% from 2019 to 2020, after growing 2.3% in the prior year.

*All GIC plans were converted to self-insured at contract renewal in mid-2018.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Reported premiums are net of MLR rebates. Premiums have not been scaled to account for benefit carve-outs, which may vary by plan. Unsubsidized individual purchasers include some members receiving APTCs (which would reduce members' contributions below these reported premium amounts). See technical appendix.

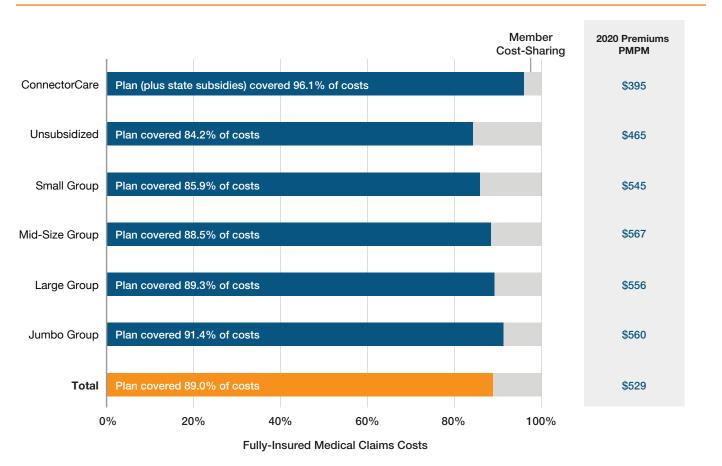
Insurance purchasers (members and/or employers) compare and balance health plan premiums with potential out-of-pocket costs.

In 2020, Massachusetts fully-insured contract members enrolled in plans covering 89.0% of medical costs on average. Benefit levels (measured as the percentage of medical costs covered by the health plan) varied across market sectors. In general, members enrolled through larger employer groups had more of their medical costs covered by their health plans, but this came at the cost of higher premiums.

Reported benefit levels do not reflect other factors that may also influence premiums, such as provider network size, experience rating, and efficiencies of scale.

For every market sector, fully-insured benefit levels increased between 2019 and 2020. Since CHIA's benefit level measure reflects actual claims spending, these results were likely influenced by altered service mix and utilization patterns during the pandemic.

Fully-Insured Benefit Levels by Market Sector, 2020



Members covered through larger employer groups had more generous health insurance coverage, along with higher premiums.

Source: Payer-reported data to CHIA.

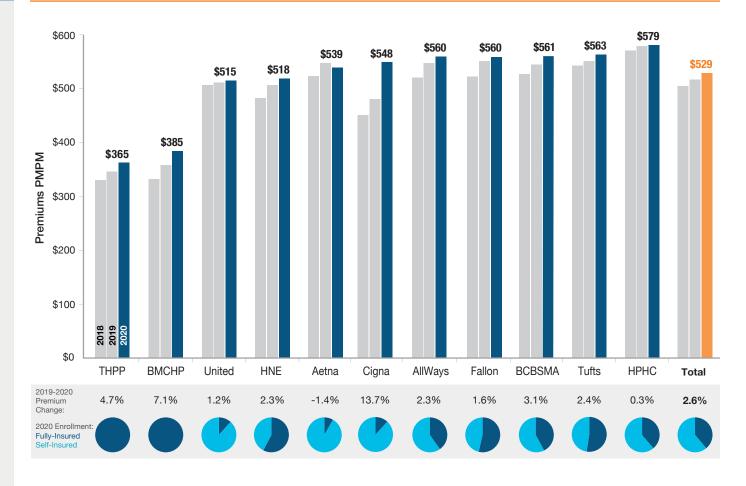
Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Reported premiums are net of MLR rebates. Premiums have not been scaled to account for benefit carve-outs, which may vary by plan. Benefit level data for Cigna and Fallon was excluded due to data quality concerns. Unsubsidized individual purchasers include some members receiving APTCs. There were no fully-insured GIC plans in 2020. See technical appendix.

Average premiums varied greatly across payers, reflecting underlying differences in market sector participation, provider contracting, benefits chosen, and other factors.

Compared to the prior year, premium growth decelerated for most payers in 2020. Cigna reported the highest annual premium growth at 13.7%, although its 37,000 fully-insured members comprise a relatively small portion of Cigna's Massachusetts business.

Consistent with prior years, THPP and BMCHP—both of which specialize in low cost plans with smaller networks—had the lowest average premiums in 2020 (\$365 PMPM and \$385 PMPM, respectively), although their annual premium increases were higher than average. These payers consistently reported the lowest premiums in all segments of the merged market (ConnectorCare, unsubsidized individual purchasers, and small group).

Fully-Insured Premiums by Payer, 2018-2020



Most payers reported slower premium growth from 2019 to 2020.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Reported premiums are net of MLR rebates. Premiums have not been scaled to account for benefit carve-outs, which may vary by plan. UniCare is not included in graph due to low fully-insured membership but is included in total. See technical appendix.

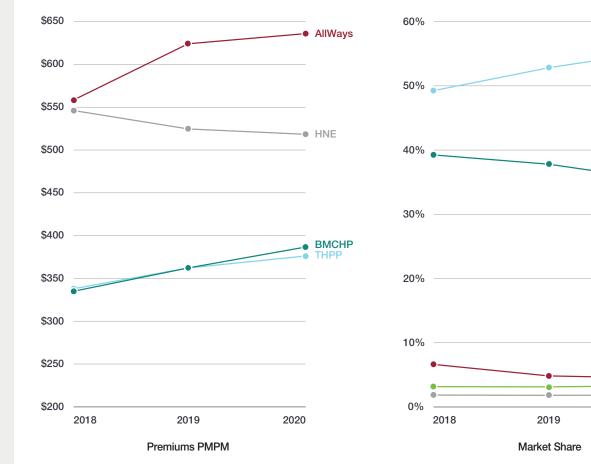
While ConnectorCare plans share a consistent benefit structure, members consider monthly premiums, geographic availability, and provider networks when selecting a plan.

The growth in base premiums underlying ConnectorCare plans decelerated from a 6.5% increase in 2019 to a 3.7% increase in 2020. The gap in premiums offered by the two lowest cost payers—THPP (\$377 PMPM) and BMCHP (\$388 PMPM)—increased slightly in 2020, and THPP's market share increased. Together these two payers enrolled 90.6% of ConnectorCare members.

AllWays continued to lose market share in 2020, as its average ConnectorCare premium rose 1.8% to \$637 PMPM.

ConnectorCare members' contributions were substantially lower than the full premium amounts reported here after accounting for state and federal premium subsidies.

ConnectorCare Premiums and Market Share, 2018-2020



More than 90% of ConnectorCare members were covered by THPP or BMCHP which also offered the lowest average premiums in 2020.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Reported premiums are net of MLR rebates. Premiums have not been scaled to account for benefit carve-outs, which may vary by plan. Premium data for Fallon was excluded from graph due to data inconsistencies. See technical appendix.

CHIA

THPP

BMCHP

AllWays

Fallon
 HNE

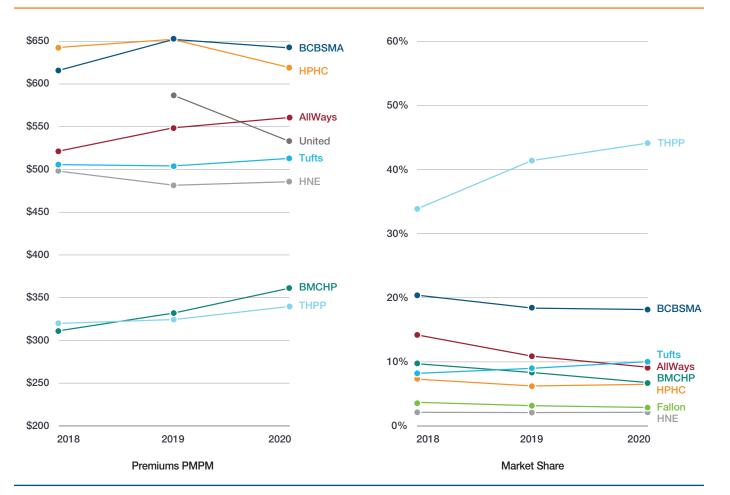
2020

Compared to ConnectorCare members, unsubsidized individual purchasers navigated a broader range of coverage options. In 2020, the average BCBSMA member paid almost twice as much in premiums (\$644 PMPM) as the average THPP member (\$340 PMPM).

After a slight decrease in the year prior, average unsubsidized individual premiums increased 2.2% from 2019 to 2020. All but three payers reported increases in unsubsidized individual premiums during this period.

Lower-cost THPP expanded its market share from 34.1% in 2018 to 44.0% in 2020. However, BCBSMA, which reported the highest average premiums, maintained the second greatest market share at 18.2% of unsubsidized individual purchasers.

Unsubsidized Individual Premiums and Market Share, 2018-2020



By 2020, 44.0% of unsubsidized individual purchasers were enrolled through THPP, which offered the lowest average premiums.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Reported premiums are net of MLR rebates. Premiums have not been scaled to account for benefit carve-outs, which may vary by plan. THPP is reported separately from its parent company, Tufts. United reported low unsubsidized individual purchaser enrollment corresponding to less than 0.5% market share (not shown). Premium data for Fallon was excluded from graph due to data inconsistencies. Unsubsidized individual purchasers include some members receiving APTCs (which would reduce members' contributions below these reported premium amounts). See technical appendix.

Private Commercial Premiums Notes

- 1 Chapter results based on commercial contract member data provided by Aetna, AllWays Health Partners (AllWays), Blue Cross Blue Shield of Massachusetts (BCBSMA), Boston Medical Center HealthNet Plan (BMCHP), Cigna, Fallon Health, Harvard Pilgrim Health Care (HPHC includes Health Plans, Inc.), Health New England (HNE), Tufts Health Plan (Tufts), Tufts Health Public Plans (THPP), UniCare, and United Healthcare. Payers with fewer than 50,000 Massachusetts primary, medical enrollees were not required to submit data.
- 2 Center for Health Information and Analysis, 2018 Massachusetts Employer Survey Summary of Results (Boston, June 2019), http://www.chiamass.gov/ massachusetts-employer-survey/.
- 3 Although CHIA did not ask payers to report whether they provided premium refunds or credits in 2020, it was publicly reported that BCBSMA, HPHC, and United all took these actions. Haefner, Morgan, "15 health insurers sending premium credits to members," Becker's Payer Issues, October 15, 2020. https://www.beckershospitalreview.com/payer-issues/14-healthinsurers-sending-premium-credits-to-members.html.
- 4 Center for Health Information and Analysis, 2018 Massachusetts Employer Survey Summary of Results (Boston, June 2019), http://www.chiamass.gov/ massachusetts-employer-survey/.

Private Commercial Member Cost-Sharing

KEY FINDINGS

Between 2019 and 2020, private commercial member cost-sharing experienced an unprecedented 17.2% decline as health care utilization decreased due to the COVID-19 pandemic. Member cost-sharing decreased faster than payer-paid claims did, likely due to utilization changes and policies eliminating costsharing for claims related to COVID-19.

Members of both HDHPs and lower deductible plans experienced decreased costsharing in 2020, relative to previous years.

CHIA collects and analyzes data on Massachusetts member cost-sharing. Payers submit financial data by market sector, product type (HMO, PPO, POS), funding type, and benefit design type (HDHP, tiered network, limited network). This chapter covers the period from 2018 to 2020.¹

Member cost-sharing includes all medical expenses allowed under a member's plan but not paid for by the payer, employer, or state Cost-Sharing Reduction (CSR) subsidies (e.g., deductibles, copays, and coinsurance). Cost-sharing is based on service utilization, while deductible and out-of-pocket maximums are set at enrollment before actual claims experience. Figures in this chapter are inclusive of members who incurred little to no medical costs as well as those who may have experienced substantial medical costs. It does not include out-of-pocket payments for goods and services not covered by the members' health insurance policies (e.g., over-the-counter medicines, vision, and dental care). Member cost-sharing also does not account for employer offsets, such as health reimbursement arrangements or health savings accounts.

While federal CSR subsidies were discontinued in late 2017, the Commonwealth was able to preserve cost-sharing relief for low-income residents enrolled in ConnectorCare plans. This topic was covered in more detail in CHIA's 2019 *Annual Report on the Performance of the Massachusetts Health Care System*.

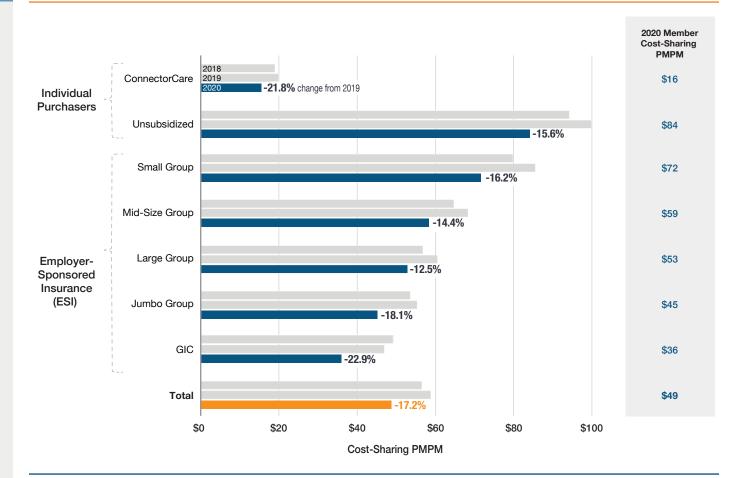
Chapter results do not include average cost-sharing amounts for student health plans offered by colleges and universities. The dataset contains more information on this population as well as expanded enrollment and financial data for the full private commercial market.•

For the first time since CHIA began publishing its Annual Report, Massachusetts commercial member cost-sharing decreased in 2020, falling 17.2% to \$49 PMPM.

Between 2019 and 2020, member cost-sharing declined in every market sector, with most declines above 15%. The largest percentage decreases were reported for ConnectorCare (-21.8%) and GIC (-22.9%) members, which were also the market sectors with the lowest baseline cost-sharing in 2019.

These trends occurred as health care utilization declined due to the COVID-19 pandemic.² Additionally, the Division of Insurance mandated that payers cover medically indicated testing and treatment for coronavirus without out-of-pocket costs for members enrolled in fully-insured plans.³ Some payers voluntarily waived copayments for other services as well.⁴

Cost-Sharing by Market Sector, 2018-2020



In 2020, every market sector experienced an unprecedented decline in member cost-sharing.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Cost-sharing amounts have not been scaled to account for benefit carveouts, which may vary by plan. Financial data for Fallon and Cigna was excluded due to data quality concerns. Unsubsidized individual purchasers include some members receiving APTCs. See technical appendix.

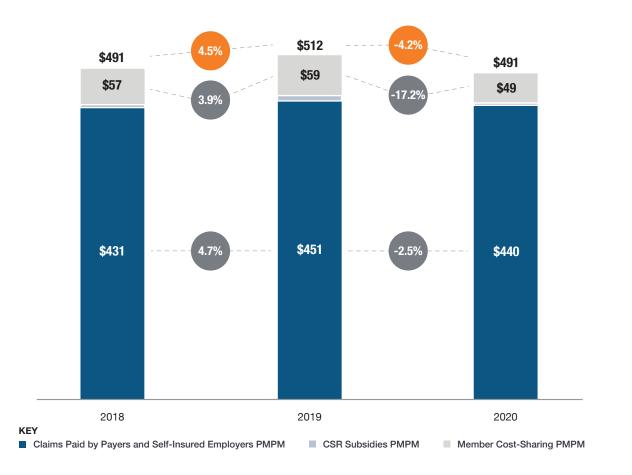
Between 2019 and 2020, member costsharing declined alongside other health care spending metrics.

Payers reported a 4.2% decline in overall spending (allowed claims) for private commercial contract members, a reversal from the previous year's 4.5% spending increase, as health care utilization dropped in the initial months of the COVID-19 pandemic. According to CHIA's THCE analysis, this included substantial declines in spending on services provided by physicians and hospital outpatient services; see page 27 for more detail.

The portion of claims paid by payers and self-insured employers decreased by 2.5% to \$440 PMPM in 2020, while member costsharing decreased by 17.2% to \$49 PMPM. Cost-Sharing Reduction (CSR) subsidies for ConnectorCare plans, which are influenced by overall claims costs, also declined slightly. Together these components totaled \$491 PMPM in 2020.

Member cost-sharing decreased relatively faster than payer-paid claims did; this was likely influenced by policies that eliminated costsharing for COVID-19 testing and treatment as well as changes in utilization by service category.⁵ The percentage of costs covered by member cost-sharing decreased from 11.5-11.6% of overall claims costs in 2018 and 2019 to 9.9% of overall claims costs in 2020.

Cost-Sharing in Context, 2018-2020



Member cost-sharing decreased by 17.2% in 2020, faster than the decrease in claims paid by payers and self-insured employers (-2.5%).

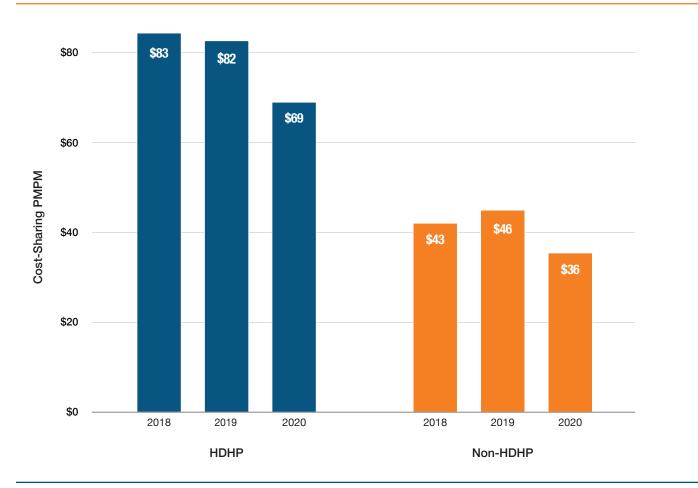
Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Claims amounts were adjusted for pharmacy rebates reported by payers. When averaged across the entire private commercial market, CSR subsidy amounts (which apply only to ConnectorCare plans) totaled \$2-3 PMPM. Financial data for Cigna and Fallon was excluded due to data quality concerns. See technical appendix.

In recent years, member cost-sharing trends have been shaped by increasing HDHP adoption. Among members enrolled in HDHPs, member cost-sharing remained relatively constant, dropping by only 1.8% in 2019. In contrast, cost-sharing in lower deductible plans grew year over year, increasing by 6.0% in 2019.

In 2020, however, cost-sharing declined at significantly higher rates for both members in HDHPs (-15.1%) and non-HDHPs (-21.1%). This finding most likely reflects the decrease in utilization of health care services as a result of COVID-19. In line with trends in previous years, however, HDHP members paid \$69 PMPM in cost-sharing, almost twice what members enrolled in lower deductible plans paid (\$36).

Cost-Sharing by Deductible Level, 2018-2020



In 2020, HDHP members paid \$69 PMPM, almost twice what members enrolled in lower deductible plans paid.

Source: Payer-reported data to CHIA.

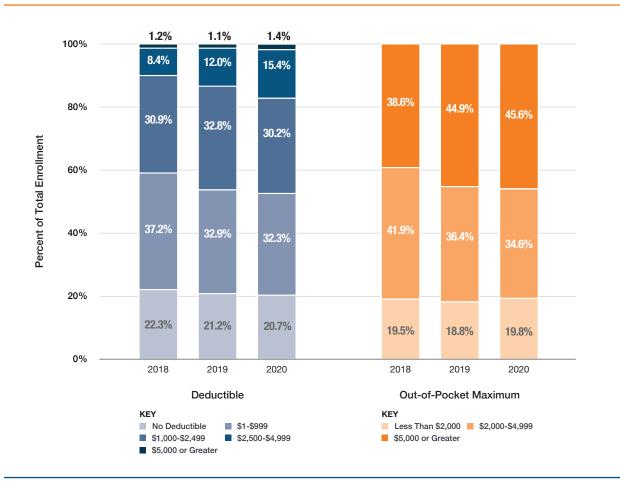
Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. HDHPs are defined by the IRS single (individual) policy deductible threshold, which was \$1,350 in 2018 and 2019, and \$1,400 in 2020. Cost-sharing amounts have not been scaled to account for benefit carve-outs, which may vary by plan. Financial data for Cigna and Fallon were excluded due to data quality concerns. See technical appendix.

Since 2016, the earliest year of data CHIA has available for plan deductible and out-of-pocket maximum levels, approximately four out of five Massachusetts commercial members were enrolled in plans with deductibles.* The percentage of members with deductibles over \$1,000 increased every year at a rate of 4.1 percentage points on average, growing to 47.0% in 2020. The fastest growth was reported in the \$2,500 to \$4,999 deductible category.

Under the ACA, members are shielded from additional cost-sharing on covered medical services once they have met their out-of-pocket maximum for the plan year. The percentage of members with an out-of-pocket maximum greater than \$5,000 has generally grown in every year reported, although the rate of increase decelerated in 2020 (+0.7 percentage points). Unlike trends in prior years, a higher percentage of members (19.8%) had an out-of-pocket maximum of less than \$2,000 in 2020.

*Payers classified membership based on cost-sharing levels for single (individual) policies.

Enrollment by Deductible and Maximum Out-of-Pocket Level, 2018-2020



In 2020, nearly half (47.0%) of private commercial members had an annual deductible of at least \$1,000.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Data from Cigna was excluded due to data quality concerns. See technical appendix.

- 1 Chapter results based on commercial contract member data provided by Aetna, AllWays Health Partners (AllWays), Blue Cross Blue Shield of Massachusetts (BCBSMA), Boston Medical Center HealthNet Plan (BMCHP), Fallon Health, Harvard Pilgrim Health Care (HPHC—includes Health Plans, Inc.), Health New England (HNE), Tufts Health Plan (Tufts), Tufts Health Public Plans (THPP), UniCare, and United Healthcare. Payers with fewer than 50,000 Massachusetts primary, medical enrollees were not required to submit data. Data for Cigna was excluded due to quality concerns.
- 2 Massachusetts Health Policy Commission, Impact of COVID-19 on the Massachusetts Health Care System: Interim Report (Boston, April 2021), https://www.mass.gov/doc/impact-of-covid-19-on-the-massachusettshealth-care-system-interim-report/download.
- **3** Division of Insurance, "Bulletin 2020-31," (Boston, December 2020), https://www.mass.gov/news/bulletin-2020-31-continued-efforts-to-restrictthe-spread-of-covid-19-issued-12292020.
- 4 America's Health Insurance Plans, "Health Insurance Providers Respond to Coronavirus (COVID-19)" accessed February 11, 2022, https://www.ahip.org/news/articles/health-insurance-providers-respond-tocoronavirus-covid-19.
- 5 Division of Insurance, "Bulletin 2020-31," (Boston, December 2020), https:// www.mass.gov/news/bulletin-2020-31-continued-efforts-to-restrict-thespread-of-covid-19-issued-12292020.

Private Commercial Payer Use of Funds

KEY FINDINGS

The portion of premium revenue used for non-medical expenses and payer surplus grew from 12.0% of premium revenue in 2019 to 15.9% in 2020, amid unexpectedly low utilization of health care services due to the COVID-19 pandemic.

After covering members' medical claims, \$85 PMPM remained from fully-insured premiums in 2020, a 35.4% increase from 2019. In 2020, health plans spent \$40 PMPM on general administrative expenses including costs for plan design, claims administration, and customer service.

Private Commercial Payer Use of Funds

CHIA analyzes federally reported data on Massachusetts payers' administrative costs in the private commercial health insurance market as part of its efforts to monitor and profile overall health plan spending. This chapter covers the period from 2018 to 2020.¹

For fully-insured lines of business, which make up 39.2% of private commercial enrollment, CHIA reports data on the proportion of premium dollars not spent on member medical claims, by market segment (employer size). Payers use these funds to cover administrative expenses, broker commissions, taxes, and fees. Premiums in this chapter are reported net of any required Medical Loss Ratio (MLR) rebates.

Plans sold to individual purchasers and small groups in the Massachusetts "merged market" are subject to the ACA's risk adjustment program which was designed to stabilize premiums and protect against adverse selection. In 2018, CMS added a national high-cost risk pool to its risk adjustment methodology to subsidize a portion of the expenses for members with claims cost in excess of \$1 million using fees collected from payers offering risk adjustment-covered plans.² Within this chapter, reported claims amounts in the merged market reflect the impact of the risk adjustment program.

The Payer Use of Funds chapter uses federal MLR data which payers report to CMS. Although data is sourced from federal MLR filings, the purpose and calculation of reported non-medical expense components and surplus differ significantly from those of the federal MLR metric. The federal MLR reports an insurer's rebate position using a three-year average of financial data and making allowable adjustments, without consideration of rebates paid in prior years. CHIA calculates an annual financial loss ratio, which was developed using actuarial methods and principles. Data reported within this chapter is not sufficient to determine whether payers met federal MLR thresholds. See page 118 for more details.

While premiums do not apply to self-insured coverage, the administrative component of self-insured employer plans is included in CHIA's net cost of private health insurance (NCPHI) measure. See page 22.•

CHIA.

Private Commercial Payer Use of Funds and COVID-19

Health insurance premiums are set prospectively based on historical data and projected growth in claims and administrative costs. In mid-2019, when health plan actuaries were developing 2020 premium rates using claims incurred in 2018 and prior, they could not have anticipated the extent to which a global pandemic would disrupt the health care system in the year ahead. The COVID-19 pandemic's impacts on utilization included cancellations of elective procedures and declines in services provided in physicians' offices and outpatient care centers.³

As 2020 progressed and it became evident that health care utilization would be much lower than expected, some payers issued premium refunds or credits to employers and/ or individual purchasers.⁴ Payers also reduced or eliminated member cost-sharing for many COVID-19-related services.⁵ For the data used in this chapter, payers were instructed to adjust reported premium funds to account for any refunds or credits that they issued.⁶ In Massachusetts, payers are required to meet minimum MLR thresholds of at least 88% in the merged market and 85% for larger employer plans. These requirements serve as guardrails to keep health plan administrative costs in check, especially in years when claims costs come in below actuarial projections. In 2021, payers issued \$58.0 million (\$117 per qualifying member on average) in MLR rebates to Massachusetts employers and individual purchasers based on their 2018-2020 experience, up from \$51.6 million (\$109 per qualifying member) in the prior year.⁷ See page 118 for more details.

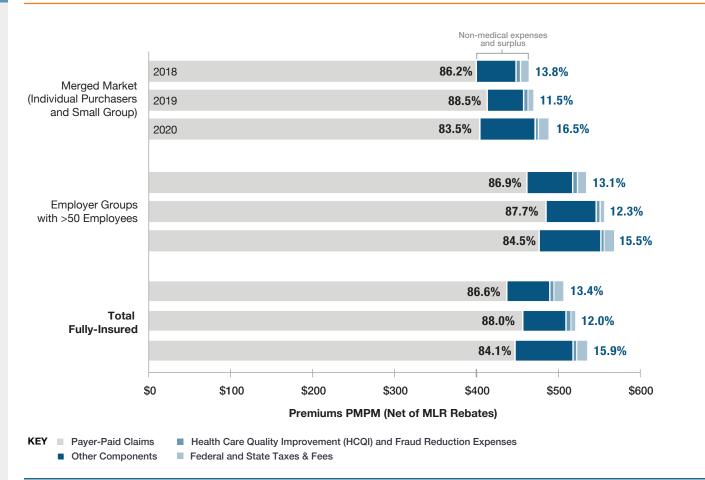
Private Commercial Payer Use of Funds

In 2020, 84.1% of premiums were used to pay for fully-insured members' medical care.* The remaining 15.9% was retained to pay for plan administration and other expenses, with residual funds representing surplus. The proportion of premium revenue represented by non-medical expenses and surplus was nearly four percentage points higher in 2020 than in 2019 (12.0%). This was driven by unexpectedly low health care claims spending due to the COVID-19 pandemic. CHIA's THCE analysis found that impacted service categories included physician and hospital outpatient services; see page 27.

The percentage of premium funds that remained after medical claims were paid in 2020 was 16.5% in the Massachusetts merged market and 15.5% for plans sold to larger employers—both substantially higher than in 2019. However, even in ordinary circumstances, premium and medical spending trends are expected to diverge over time, which is why federal MLR requirements consider three years of financial data when determining MLR rebate amounts.

*Note: The payer-paid claims percentages reported on this page are distinct from federal MLR. The federal MLR formula treats Health Care Quality Improvement (HCQI) and fraud reduction expenses, as well as taxes and fees, differently than CHIA's annual financial loss ratio does. See page 118.

Fully-Insured Payer Use of Premiums by Market Segment, 2018-2020



Non-medical expenses and payer surplus grew from 12.0% of premium revenue in 2019 to 15.9% in 2020, amid unexpectedly low utilization of health care services due to the COVID-19 pandemic.

Source: Payer-reported MLR data submitted to CMS.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Reported premiums are net of MLR rebates, and payer-paid claims have been reduced to account for Cost-Sharing Reduction (CSR) subsidies. Data has not been scaled to account for benefit carve-outs, which may vary by plan. Results are not directly comparable to prior Private Commercial chapters due to differences in data sources. Data from ConnectiCare and Reliance Standard Life Insurance Company are included. See technical appendix.

Understanding the Differences: Federal Medical Loss Ratio and CHIA's Annual Financial Loss Ratio

What is the federal Medical Loss Ratio (MLR)?

The purpose of the federal MLR is to measure an insurer's rebate position. Health insurance consumers with fullyinsured coverage are protected by federal and state laws that require insurers to spend a minimum percent of collected premiums on medical care. The percent of premiums spent on medical care, or federal MLR, is calculated within a licensed payer and market segment over a three-year average. In Massachusetts, if a payer's federal MLR falls below 88% in the merged market or below 85% in the fully-insured large group market over a three-year period, that payer is required to issue rebates to consumers for the unused premium dollars. For the purposes of determining federal MLR rebate amounts, spending on Health Care Quality Improvement (HCQI) and fraud reduction count towards medical care, and taxes and fees are subtracted from premiums. In addition, the federal MLR formula does not consider any rebates paid in prior years, and further adjustments are allowed to reflect the size of the population and whether premium rates are pooled across licenses.

How do claims percentages reported in this chapter differ from federal MLR?

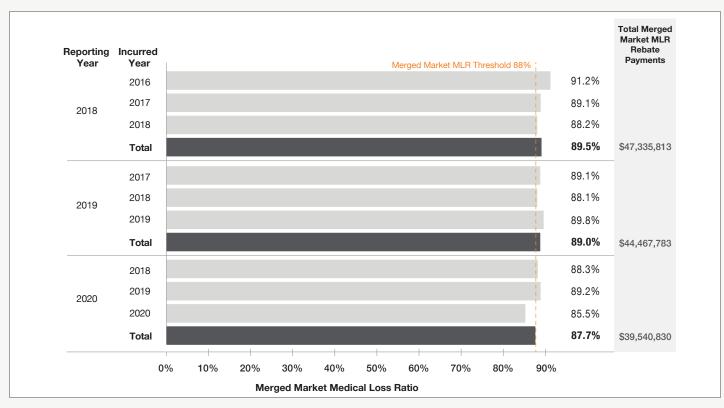
Payer-paid claims percentages in this chapter are based on CHIA's annual financial loss ratio formula, which was developed in accordance with actuarial methods and principles. While the federal MLR and CHIA's annual financial loss ratio use the same source data, the calculation and intended purpose of the two ratios are distinct. CHIA's annual financial loss ratio was designed to measure how much of an insurer's premium revenue goes toward nonmedical expenses and surplus in a given year. Unlike federal MLR, the annual financial loss ratio does not count HCQI and fraud reduction as claims expenses; taxes and fees are not subtracted from premiums; and premiums are reduced by the total amount of MLR rebates paid in that reporting year. The annual financial loss ratio is calculated within the merged market, within fully-insured large group, and in total across all payers, within a given year. For all of these reasons, payer-paid claims percentages reported in this chapter cannot be used to determine whether MLR thresholds were met.

Understanding the Differences: Federal Medical Loss Ratio and CHIA's Annual Financial Loss Ratio

	Federal Medical Loss Ratio	CHIA's Annual Financial Loss Ratio
Purpose	Determine compliance with MLR thresholds and calculate MLR rebate amounts, if applicable	Measure percent of premiums spent on members' medical costs and percent retained for other expenses
Population	By licensed payer By fully-insured market segment	Across payers By and across fully-insured market segments
Time Period	Average over three calendar years	One calendar year
HCQI and Fraud Reduction Expenses	Added to incurred claims*	Not considered
MLR Rebates	Not considered	Subtracted from earned premiums
Taxes & Fees	Subtracted from earned premiums	Not considered
Simplified Formula	$\frac{1}{3} \sum_{i=2018}^{2020} \left(\frac{\text{Incurred Claims}^* + \text{HCQI} + \text{Fraud Reduction Expenses}}{\text{Earned Premiums} - \text{Taxes & Fees}} \right)_{i}$ Note: the federal MLR formula considers other financial amounts and adjustment factors not shown here.	Incurred Claims* Earned Premiums – MLR Rebates

*Incurred claims minus pharmacy rebates, minus CSR subsidy payments, and net of risk adjustment and high cost risk pool payments.

CHIA.



Understanding the Differences: Federal Medical Loss Ratio and CHIA's Annual Financial Loss Ratio

Due to normal fluctuations in underwriting cycles, the federal MLR calculation is based on data from a rolling three-year period. On average across the merged market, MLR thresholds were met and exceeded in the 2018 and 2019 reporting years. For the 2020 reporting year, the average merged market MLR of 87.7% fell just below the 88% threshold, driven largely by the 2020 incurred year claims experience.

While the percentages above represent the entire merged market, federal MLR is calculated and regulated at the licensed insurer level. Any licensed insurer that did not meet the MLR threshold for a given reporting year paid rebates to consumers. The annual totals of the MLR rebates paid by all insurers in the merged market are shown to the right. While most licensed insurers issuing MLR rebates in 2020 paid out more in rebates compared to the prior year, THPP owed a lower rebate amount in 2020 which drove down the total merged market payment amount.

Private Commercial Payer Use of Funds

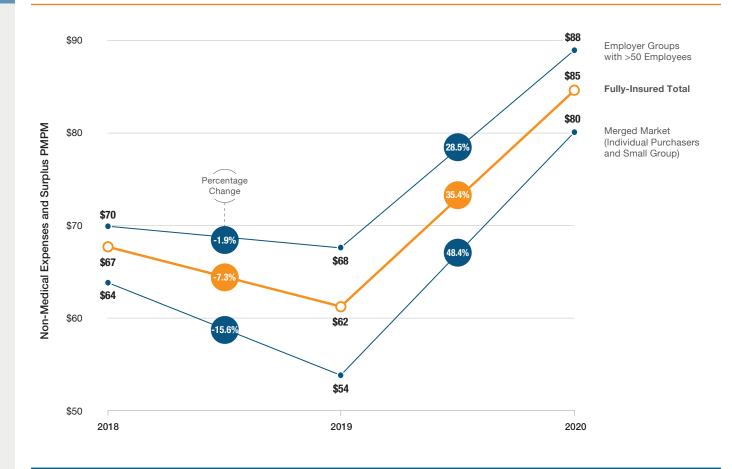
Non-medical expenses and surplus fluctuate from year to year, as actual market conditions test assumptions made by health plan actuaries. However, extraordinary circumstances within the health care system in 2020 contributed to unusually low health care spending.

In 2020, \$85 PMPM remained from fully-insured premiums after paying for members' medical claims. This represented a 35.4% increase from the prior year, and it followed a 7.3% decrease in non-medical expenses and surplus from 2018 to 2019. These funds covered costs related to plan administration, taxes and fees, broker commissions, and other expenses.

In the merged market, non-medical expenses and surplus grew by 48.4% to \$80 PMPM in 2020. Growth was slower for larger group plans (+28.5%), but the average amount was higher at \$88 PMPM.

These results apply to members with insurance policies contracted in Massachusetts; the same data was used to calculate NCPHI for Massachusetts residents enrolled in commercial fully-insured plans. (For more information, see NCPHI results on page 22.)

Fully-Insured Non-Medical Expenses and Surplus by Market Segment, 2018-2020



After covering members' medical claims, \$85 PMPM remained from fully-insured premiums in 2020, a 35.4% increase from 2019.

Source: Payer-reported MLR data submitted to CMS.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Reported premiums are net of MLR rebates. Data has not been scaled to account for benefit carve-outs, which may vary by plan. Results are not directly comparable to prior Private Commercial chapters due to differences in data sources. Data from ConnectiCare and Reliance Standard Life Insurance Company are included. See technical appendix.

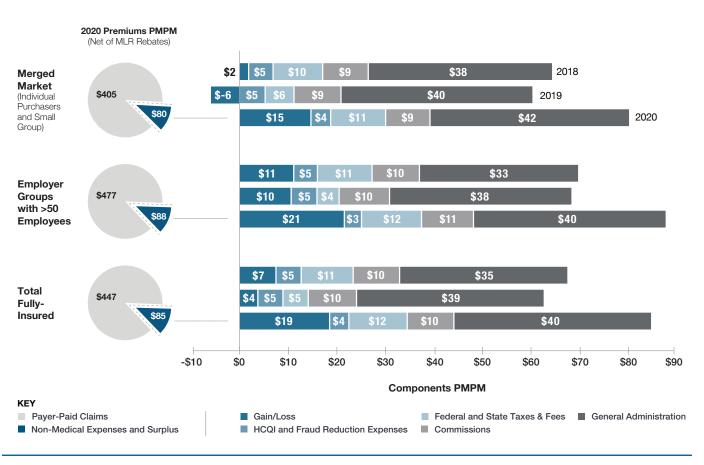
Private Commercial Payer Use of Funds

In 2020, the largest component of nonmedical expenses and surplus was general administration (\$40 PMPM), which included costs for plan design, claims administration, and customer service. Administrative costs were slightly higher in the merged market (\$42 PMPM) compared to larger employer plans (\$40 PMPM). These differences may reflect efficiencies gained from administering larger accounts.

After covering other expenses, payers reported average gains of \$19 PMPM across the fullyinsured market. In the merged market, these gains totaled \$15 PMPM (3.0% of premiums), following losses of \$6 PMPM in 2019. For plans sold to employers with more than 50 employees, payers reported gains of \$21 PMPM (3.8% of premiums) in 2020, up from \$10 PMPM gains in the prior year.

These figures are market-wide averages, but gains and losses varied by payer and market segment. Payers may use gains from surplus premium revenue to bolster their capital reserves which preserve health plan solvency in years with higher than expected costs, though MLR requirements play a role in limiting profitability levels.

Fully-Insured Non-Medical Expense Components and Surplus by Market Segment, 2018-2020



Amid unexpectedly low utilization of health care services, payers reported gains of \$15 PMPM in the merged market and \$21 PMPM for larger employer plans in 2020, substantially higher than in 2019.

Source: Payer-reported MLR data submitted to CMS.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Reported premiums are net of MLR rebates, and payer-paid claims have been reduced to account for Cost-Sharing Reduction (CSR) subsidies. Data has not been scaled to account for benefit carve-outs, which may vary by plan. Results are not directly comparable to prior Private Commercial chapters due to differences in data sources. Enrollment figures in this chapter are based on payer-reported MLR data and may differ from prior chapters. Data from ConnectiCare and Reliance Standard Life Insurance Company are included. See technical appendix.

Private Commercial Payer Use of Funds Notes

- 1 Chapter results based on publicly available medical loss ratio (MLR) reports submitted to CMS for the 2018, 2019, and 2020 reporting years. The following payers were included in analysis: Aetna, AllWays Health Partners (AllWays), Blue Cross Blue Shield of Massachusetts (BCBSMA), Boston Medical Center HealthNet Plan (BMCHP), Cigna, ConnectiCare, Fallon Health, Harvard Pilgrim Health Care (HPHC), Health New England (HNE), Reliance Standard Life Insurance Company, Tufts Health Plan (Tufts), Tufts Health Public Plans (THPP), UniCare, and United Healthcare. Data source differs from the other Private Commercial chapters within this report.
- 2 Centers for Medicare & Medicaid Services (CMS), HHS, Final Rule, "Patient Protection and Affordable Care Act; HHS Notice of Benefit and Payment Parameters for 2018; Amendments to Special Enrollment Periods and the Consumer Operated and Oriented Plan Program," Federal Register 81, No. 246 (December 22, 2016): 94080, https://www.federalregister.gov/ documents/2016/12/22/2016-30433/patient-protection-and-affordablecare-act-hhs-notice-of-benefit-and-payment-parameters-for-2018.
- 3 Peterson-KFF Health System Tracker, "How have health spending and utilization changed during the coronavirus pandemic?" accessed December 16, 2021, https://www.healthsystemtracker.org/chart-collection/howhave-healthcare-utilization-and-spending-changed-so-far-during-thecoronavirus-pandemic/.
- 4 Although CHIA did not ask payers to report whether they provided premium refunds or credits in 2020, it was publicly reported that BCBSMA, HPHC, and United all took these actions. Haefner, Morgan, "15 health insurers sending premium credits to members," Becker's Payer Issues, October 15, 2020. https://www.beckershospitalreview.com/payer-issues/14-healthinsurers-sending-premium-credits-to-members.html.

- 5 Massachusetts Association of Health Plans, "MAHP member health plans respond to COVID-19 emergency," accessed December 17, 2021, https:// www.mahp.com/mahp-member-health-plans-respond-to-covid-19emergency/.
- 6 Keith, Katie, "Temporary premium credits: new rule clarifies risk adjustment and medical loss ratio standards," Health Affairs blog, August 26, 2020, https://www.healthaffairs.org/do/10.1377/hblog20200826.627928/full/.
- 7 Centers for Medicare & Medicaid Services (CMS), "MLR Refunds by State and Market for 2020 (PDF)" and "MLR Refunds by State and Market for 2019 (as of October 16, 2020) (PDF)," accessed December 22, 2021, https://www.cms.gov/CCIIO/Resources/Data-Resources/mlr.

Glossary of Terms

Accountable Care Organizations (ACOs): Group of health care providers that contracts with a payer to assume responsibility for the delivery of care to its attributed patients and for those patients' health outcomes.

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

Advance Premium Tax Credit (APTC): Federal tax credits available to those with incomes below 400% of the Federal Poverty Level (FPL) who enrolled in plans sold on the Health Connector. Credits may either be applied directly to premiums to lower the member's monthly payments or may be paid in a lump sum as a part of the member's tax return. APTC amounts are calculated by comparing the individual's income to the cost of the second cheapest silver tier plan available to them. If the cost of that plan exceeds a specified percent of the member's income, the federal government pays the difference in APTCs.

Alternative Payment Methods (APMs): Payment methods used by a payer to reimburse heath care providers that are not solely based on the fee-for-service basis. As part of the design of these payment methods, some of the financial risk associated with the delivery of medical care as well as the management of health conditions is shifted from payers to providers. Generally, APMs are intended to give providers new incentives to control overall costs (e.g., reduce unnecessary services and provide services in the most appropriate setting) while maintaining or improving quality.

Benefit Level: A measure of the proportion of covered medical expenses paid by insurance. Actuarial values may be estimated by several different methods; for the method used in this report, see technical appendix.

ConnectorCare: A type of qualified health plan (QHP) offered through the Health Connector, the Commonwealth's marketplace for health and dental insurance, with lower monthly premiums and cost-sharing for those with household incomes at or below 300% of the Federal Poverty Level (FPL).

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

Cost-Sharing Reduction (CSR) Subsidies: Payments made by the federal government and/or the Commonwealth of Massachusetts directly to ConnectorCare payers to lower copayments and eliminate deductibles and coinsurance in ConnectorCare plans.

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

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

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

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

Health Care Cost Growth Benchmark (Benchmark):

The projected annual percentage change in Total Health Care Expenditure (THCE) measure in the Commonwealth, as established by the Health Policy Commission (HPC). The benchmark is tied to growth in the state's economy, the potential gross state product (PGSP). The benchmark for 2020 is equal to the PGSP minus 0.5%, or 3.1%.

Health Connector: The Commonwealth's statebased health insurance marketplace where individuals, families, and small businesses can purchase health plans from insurers. **High Deductible Health Plan (HDHP):** As defined by the IRS, a health plan with an individual plan deductible exceeding \$1,350 for 2018 and 2019 and \$1,400 for 2020.

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

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

Managing Physician Group Total Medical Expenses:

Measure of the total health care spending of members whose plans require the selection of a primary care provider associated with a physician group, or who are attributed to a primary care provider pursuant to a contract between a payer and provider.

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

Medical Loss Ratio (MLR): As established by the Division of Insurance: the sum of a payer's incurred medical expenses, their expenses for improving health care quality, and their expenses for deductible fraud, abuse detection, and recovery services, all divided by the difference of premiums minus taxes and assessments. This ratio is calculated within a licensed payer and market segment over a three-year average.

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

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

Percent of Benefits Not Carved Out: The estimated percentage of a comprehensive package of benefits (e.g.,

pharmacy, behavioral health) that are accounted for within a payer's reported claims.

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

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

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

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

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

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

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

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

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

Standard Quality Measure Set (SQMS): The

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

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

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

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

Index of Acronyms

ACA	Affordable Care Act	HDHP
ACO	Accountable Care Organization	HEDIS
AMC	Academic Medical Center	
APM	Alternative Payment Method	HFY
APTC	Advance Premium Tax Credit	HIDD
ASO	Administrative Services Only	НМО
BCBSMA	Blue Cross Blue Shield of Massachusetts	HNE
BIDCO	Beth Israel Deaconess Care Organization	HPHC
BMCHP	Boston Medical Center HealthNet Plan	HPI
CARES Act	Coronavirus Aid, Relief, and Economic	HPP
	Security Act	HSA
CHIA	Center for Health Information and Analysis	HSN
CMS	Centers for Medicare & Medicaid Services	IET
CSR	Cost-Sharing Reduction	IRS
DTA	Department of Transitional Assistance	MA
EDD	Emergency Department Databases	МСО
EPO	Exclusive Provider Organization	MGB
ESI	Employer-Sponsored Insurance	
FFCRA	Families First Coronavirus Response Act	MGL
FFS	Fee-for-Service	MHQP
FPL	Federal Poverty Level	MLR
GIC	Group Insurance Commission	NCPHI
HCAHPS	Hospital Consumer Assessment of	NCQA
	Healthcare Providers and Systems	NEQCA
HCQI	Health Care Quality Improvement	NQF

High Deductible Health Plan
Healthcare Effectiveness Data and
Information Set
Hospital Fiscal Year
Hospital Inpatient Discharge Databases
Health Maintenance Organization
Health New England
Harvard Pilgrim Health Care
Health Plans, Inc.
High Public Payer
Health Status Adjusted
Health Safety Net
Initiation and Engagement of Treatment
Internal Revenue Service
Massachusetts
Managed Care Organization
Mass General Brigham Community
Physicians Organization
Massachusetts General Law
Massachusetts Health Quality Partners
Medical Loss Ratio
Net Cost of Private Health Insurance
National Committee for Quality Assurance
New England Quality Care Alliance
National Quality Forum

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Index of Acronyms (continued)

PACE	Programs of All-Inclusive Care for the Elderly
PBM	Pharmacy Benefit Managers
PCC	Primary Care Clinician
PCP	Primary Care Provider
PES	Patient Experience Survey
РМРМ	Per Member Per Month
POS	Point-of-Service
PPO	Preferred Provider Organization
SCO	Senior Care Options
SFY	State Fiscal Year
SHCE	Supplemental Health Care Exhibit
SHCE SHIP PA	Supplemental Health Care Exhibit Student Health Insurance Plan
	Student Health Insurance Plan
SHIP PA	Student Health Insurance Plan Premium Assistance
SHIP PA	Student Health Insurance Plan Premium Assistance Self-Insured
SHIP PA SI SNF	Student Health Insurance Plan Premium Assistance Self-Insured Skilled Nursing Facility
SHIP PA SI SNF SQMS	Student Health Insurance Plan Premium Assistance Self-Insured Skilled Nursing Facility Standard Quality Measure Set
SHIP PA SI SNF SQMS THCE	Student Health Insurance Plan Premium Assistance Self-Insured Skilled Nursing Facility Standard Quality Measure Set Total Health Care Expenditures
SHIP PA SI SNF SQMS THCE THP	Student Health Insurance Plan Premium Assistance Self-Insured Skilled Nursing Facility Standard Quality Measure Set Total Health Care Expenditures Tufts Health Plan

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Publication Number 22-073-CHIA-01 Rev.02