Performance of the Massachusetts Health Care System

MARCH 24

Annual Report

CENTER FOR HEALTH INFORMATION AND ANALYSIS

CHIA.

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Total Health Care Expenditures (THCE) in Massachusetts totaled $71.7 billion in 2022. From 2021 to 2022, THCE per capita increased 5.8% to $10,264 per resident.

Pharmacy and non-claims payments were the largest contributors to the THCE increase in 2022. The non-claims growth was primarily driven by $621.5 million in new COVID-related supplemental payments that MassHealth made to support the financial stability of eligible providers pursuant to state and federal legislation.

Between 2020 and 2022, member cost-sharing, premiums, and claims covered by payers and employers increased faster than regional inflation and wages and salaries.

Commercial enrollment in high deductible health plans (HDHPs) grew to 42.4% of members in 2022, continuing a growth trend that has more than doubled over the last 10 years (in 2014, 19.0% of members were enrolled in HDHPs).

KEY FINDINGS

Annual Report 2024

In 2021, over four in 10 Massachusetts residents reported experiencing health care affordability issues in the past 12 months (41.0%), including more than half of Hispanic residents (54.9%) and Black residents (50.8%).

The statewide acute hospital median total margin decreased by 9.2 percentage points, from 5.0% in HFY 2021 to -4.2% in HFY 2022; this was followed by an increase to a statewide median total margin of 1.6% in HFY 2023, as of data reported through June 30, 2023.

Acute hospital average length of stay has steadily increased year-over-year, while inpatient, emergency department, and outpatient observation visits have declined and remain lower than pre-pandemic volumes.

In 2022, behavioral health spending represented 7.4% of private commercial health expenditures, 16.2% for MassHealth, and 3.1% for Medicare Advantage, with a majority of behavioral health spending for mental health services.

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 costs, coverage, and quality indicators to inform policymaking. This report focuses on data through 2022, a period following two years of volatile health care utilization and spending due to the COVID-19 pandemic.

In calendar year 2022, the COVID-19 pandemic began to wane following record-high case counts in the first quarter; however, while case counts and the severity of illness declined throughout the year, the residual effects of the pandemic continued to challenge the Massachusetts health care system. Health care providers faced negative margins and system-wide capacity strains. At the same time, Massachusetts residents and employers faced growing health care affordability concerns due to rising premiums and cost-sharing. Adding to financial pressures, inflation peaked in 2022, rising to the highest rate in decades.

This report presents results on total health care expenditures, hospital utilization, insurance enrollment and cost trends, payer and provider financial and quality performance, and behavioral health spending and utilization. The report also includes a new chapter on affordability that combines metrics across multiple CHIA datasets to present a more complete, consumer-centric picture of rising health care costs and its downstream implications.

Total Health Care Expenditures

Total Health Care Expenditures (THCE) in Massachusetts totaled $71.7 billion in 2022, or $10,264 per resident. THCE per capita increased 5.8% from 2021 to 2022, above the 3.1% health care cost growth benchmark, following an average compounded increase of 3.2% from 2019 to 2021. Apart from 2021, the 5.8% growth represented the highest one-year growth trend since measurement began in 2012.[1]

On a service category level, most claims-based service categories experienced moderated trends in 2022 compared to 2021. Hospital services comprised the greatest share of THCE; between 2021 to 2022, hospital outpatient spending increased 5.0%, while hospital inpatient spending declined 1.4%. Spending for physician services remained relatively stable from 2021 to 2022, declining 0.1%. Spending for other medical services, such as skilled nursing and home and community-based services, increased 4.4%, while spending for other professional services, including care provided by a licensed practitioner other than a physician (such as a nurse practitioner or psychologist), grew 6.9%. Pharmacy spending has continued to increase consistently, and on both a gross (+8.8%) and net-of-rebates (+8.3%) basis, was the largest contributor to the overall THCE increase in 2022, with the fastest growth rate of all claims-based service categories. Non-claims payments were the second largest contributor to the THCE increase in 2022, growing 23.3%, driven by $621.5 million in one-time COVID-19 supplemental payments made by MassHealth to support the financial stability of hospitals pursuant to federal (American Rescue Plan Act, "ARPA") and state legislation.

Spending on COVID-19-related services, including vaccine administration, testing and labs, and treatment declined in 2022, comprising 2.3% of total health care spending compared to 3.3% in 2021. Telehealth spending continued to decline in 2022 but remained significantly higher than pre-pandemic levels. In 2022, telehealth spending decreased 18.8%, after declining 2.3% the prior year. More than half of total telehealth spending was for services provided by non-physician professionals (referred to throughout as "other professionals"), which includes occupational and physical therapists, nurse practitioners, physician assistants, and certain behavioral health providers. The top telehealth providers included supportive therapists, psychologists and psychiatrists, and primary care providers, with nine of the top 10 diagnosis categories treated via telehealth being behavioral health conditions.

Private Commercial Insurance

Total expenditures for private commercial health plans, which include self- and fully-insured coverage offered by employers as well as plans purchased individually, including those purchased on the Health Connector, increased 0.7% from 2021 to 2022. During the same period, commercial enrollment declined 3.2%, equating to a 4.1% increase in PMPM spending.

Hospital outpatient and pharmacy spending were the largest private commercial service categories, with pharmacy gross of rebates surpassing physician spending to become the second-largest category. From 2021 to 2022, commercial hospital outpatient spending increased 2.0%, resulting in a 5.4% increase PMPM. Pharmacy

spending both gross (+7.7%; 11.3% PMPM) and net (+6.9%; 10.5% PMPM) of rebates increased the fastest among commercial service categories. Other professional spending also increased from 2021 to 2022, growing 2.8% (6.2% PMPM). Spending for physician, hospital inpatient, other medical, and non-claims service categories declined.

Health insurance premiums are set prospectively based on historical data and projected growth in claims and administrative costs. Premium revenues are used to cover member health care expenses (i.e., claims costs), as well as general administrative costs (e.g., taxes, fees, and broker commissions; hereafter referred to as "non-medical expenses"), and contributions to surplus. The 2022 premiums were calculated in early 2021 using health care spending data from a combination of 2019 and 2020 to account for the uncertainty in trends caused by the pandemic. In 2022, after paying for members' health care expenses, the funds available to health plans to cover non-medical expenses and contributions to surplus increased 42.9% to $77 PMPM, following a 36.0% decrease between 2020 and 2021.

Public Insurance Programs

Total MassHealth expenditures, representing 27.0% of total THCE, increased 11.1% from 2021 to 2022. This increase was largely driven by a 9.2% increase in MassHealth enrollment during this time period due to federally mandated continuous coverage requirements. The enrollment increases in 2022 resulted in an overall MassHealth PMPM spending increase of 1.7%.

MassHealth spending growth was also driven by increases in non-claims spending, which grew by 28.8% to $3.1 billion in 2022. Most of this non-claims increase was attributable to $621.5 million in one-time COVID-19-related supplemental payments made by MassHealth. Other medical services, which includes long term care and home and community based services, represented the largest MassHealth service category and increased 10.1% (0.8% PMPM increase). Hospital inpatient spending increased 0.6% from 2021 to 2022, equating to a 7.9% decline on a PMPM basis. MassHealth pharmacy spending gross of rebates increased 11.9% (2.5% PMPM) and 12.4% (2.9% PMPM) net of rebates. In addition to minimum rebates required under federal law, MassHealth maximizes rebates to reduce net prescription drug costs by negotiating directly with drug manufacturers for supplemental rebates and through its Unified Pharmacy Product List (UPPL).

Total Medicare spending increased 4.1% from 2021 to 2022, accompanied by a 0.8% increase in overall enrollment, resulting in a 3.3% PMPM growth rate. Medicare Advantage spending (13.3%) increased at a faster rate than original Medicare (1.9%), as the share and

number of members enrolling in Medicare Advantage plans continued to grow. From 2021 to 2022, total spending increased across all Medicare service categories. Hospital inpatient spending was the largest Medicare service category, increasing 0.5% (-0.3% PMPM). Pharmacy spending gross and net of rebates experienced the fastest growth across service categories, increasing 8.1% (7.3% PMPM) gross and 8.6% (7.8% PMPM) net of rebates.

Affordability

Despite near universal health insurance coverage in Massachusetts, residents report challenges affording necessary health care services. In 2021, over four in 10 Massachusetts residents reported experiencing health care affordability issues in the past 12 months (41.0%),[2] including more than half of Hispanic residents (54.9%) and non-Hispanic Black residents (50.8%).

From 2021 to 2022, fully-insured health insurance premiums increased 5.8% to a market average of $595 per member per month (PMPM), after increasing 6.4% the previous year.[3] At the same time, member cost-sharing for members of plans issued in Massachusetts (contract members) increased 6.0% to $61 PMPM, surpassing pre-pandemic levels for the first time after fluctuating in 2020 and 2021.[4] Notably, both member cost-sharing and fully-insured health insurance premiums grew faster than wages and salaries and regional inflation from 2020 to 2022.

Despite members enrolled in smaller employer plans paying, on average, similar or higher monthly premiums than members in larger employer plans, members enrolled through larger employer groups had more of their medical costs covered by their health plans. Additionally, from 2021 to 2022, member cost-sharing increased the fastest for members enrolled in small (1-50 employees) and mid-size (51-100 employees) group plans, increasing 7.8% and 8.0%, respectively, representing the greatest increase above 2019 pre-pandemic levels.

In 2022, over 1.7 million Massachusetts contract members, representing 42.4% of the commercial market, were enrolled in a high deductible health plan (HDHP). Per federal IRS rules, a HDHP is defined as a plan with a deductible greater than or equal to $1,400. The enrollment increase in 2022 continued long-term growth trends in HDHPs, which have experienced enrollment more than double since 2014 when only 19.0% of members were enrolled in HDHPs. Unsubsidized individual purchasers and members enrolled in smaller group plans had a greater prevalence of HDHP enrollment, with 90% of unsubsidized individual purchasers and more than two-thirds of small and mid-size group members enrolled in HDHPs.

The growing popularity of HDHPs has raised concerns about the affordability of these plans and their impact on members' access to care. In 2021, members enrolled in

private commercial HDHPs reported higher rates of health care affordability issues in their families compared to those in non-HDHP private commercial plans (41.9% vs. 33.6%), particularly unmet need for health care in the family due to cost (31.7% vs. 23.8%).

These trends in premiums, member cost-sharing, and HDHP enrollment impact the ability of Massachusetts families to pay for needed health care. Roughly one in 12 Massachusetts residents (8.2%) reported spending a high share of family income on out-of-pocket expenses, defined as spending 5% or more of income for families below 200% of the Federal Poverty Level (FPL) or 10% or more for families at or above 200% of the FPL. Nearly one-third of Massachusetts residents (31.2%) reported having to forgo health care for themselves or a family member that they felt was necessary due to cost in 2021, with the highest rate reported among Hispanic residents (46.3%).

Provider Utilization and Financial Performance

Acute hospital inpatient, emergency department (ED), and outpatient observation utilization declined between early 2020 and mid 2023, with the steepest declines coinciding with peak periods of COVID-19 cases in the Commonwealth. Outside of these periods, acute hospital utilization has partially rebounded to near pre-pandemic levels. At the same time, the average length of stay for acute inpatient hospitalizations has steadily risen since the pandemic and can be attributed to throughput challenges and shifts in the type and severity of conditions, among other factors. The total volume of inpatient hospitalizations for behavioral health related conditions declined during the pandemic and has not rebounded as of federal fiscal year (FFY) 2023.

The statewide acute hospital median total margin decreased by 9.2 percentage points, from 5.0% in hospital fiscal year (HFY) 2021 to -4.2% in HFY 2022. The statewide median operating margin was -1.3%, a decrease of 2.1 percentage points, while the median non-operating margin was -0.4%, a decrease of 3.4 percentage points.

Acute hospital aggregate total operating revenue increased by 5.5%, while aggregate expenses increased 8.9% from HFY 2021 to HFY 2022. Aggregate expenses exceeded total operating revenues by $460 million. In HFY 2022, temporary labor costs represented 3.9% of acute hospitals' total expenses as compared to 2.1% in HFY 2021.

In the HFY 2023 data available through June 30, 2023, acute hospitals reported a statewide median total margin of 1.6%. The median operating and non-operating margins were both positive as well during this time period. This period reflects nine months of fiscal year data for most hospitals.

In 2022, total utilization in nursing facilities was 11.4 million resident days, the majority of which (67.4%) were Medicaid

resident days. Overall resident days declined by 16.2% between 2019 and 2022. The overall occupancy rate, which is a measure of utilization based on licensed bed capacity, declined from 86.9% to 80.4% between 2019 and 2022.

Total reported revenue by nursing facilities in 2022 was $4.42 billion, which includes COVID-19-related funding received by facilities. In 2022, the total reported expenses exceeded total reported revenue, which was $4.64 billion.

Behavioral Health

Behavioral health care includes services and treatment for mental health and substance use disorders (SUD). Behavioral health diagnosis prevalence varied across commercial, MassHealth, and Medicare Advantage insurance categories. MassHealth had the highest percentage of members with a behavioral health diagnosis in 2022 at 26.6%, followed by commercial at 22.7%, and Medicare Advantage at 14.1%. In 2022, spending on behavioral health services represented 16.2% of total MassHealth spending, compared to 7.4% for commercial, and 3.1% for Medicare Advantage. Consistent across insurance categories, mental health represented a majority of behavioral health diagnoses and spending as compared to SUD. Behavioral health spending was higher for commercially-insured pediatric members compared to adults, while the converse was true for Medicaid MCO/ACO-A members. Additionally, members enrolled in private commercial health plans and Medicare Advantage paid a higher proportion out of pocket for mental health care services as compared to other service types.

Like overall inpatient trends at acute care hospitals, behavioral health inpatient discharge volume has remained lower than pre-pandemic levels through FFY 2023. Approximately 5% of total inpatient discharges were associated with a mental health primary diagnosis and approximately 4% were associated with a substance use disorder.

Alternative Payment Methods 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. Between 2021 to 2022, APM adoption remained relatively stable for commercial payers and MassHealth, while APM adoption for Medicare Advantage decreased by 3.3 percentage points. Notably, the proportion of private commercial health plan members covered by APMs has remained at around 40% since 2016.

In addition to spending targets, quality metrics also support value-based care and highlight opportunities to improve

patient experiences and outcomes. Quality metrics are often incorporated into global budget contracts between payers and providers where payment incentives are linked to performance on certain measures.

This report presents payer adherence to the Commonwealth's recommended Aligned Measure Set in their APM contracts with providers. The goal of the Aligned Measure Set is to prioritize the use of meaningful quality measures and promote aligned accountability across payers and providers. Statewide scores on a subset of Aligned Measure Set measures are reported, including comparison of 2022 results with 2020 results on 14 clinical quality measures. For 10 of these measures, 2022 scores improved compared to 2020 scores.

This report also includes results from the 2022 MassHealth Member Experience Survey, which was issued to samples of Accountable Care Organization (ACO) members in early 2022 with a recent primary care visit. Findings from a similar survey of members enrolled in private commercial health plans are also presented in this report, as well as data on hospital performance metrics including readmissions rates, patient experience ratings following hospital visits, maternity care, nursing workforce, and hospital adherence to hand hygiene safe practices. ■

Executive Summary Notes

1. THCE per capita grew 9.0% from 2020 to 2021 because of pandemic-related disruptions to health care utilization and spending. This anomalous trend was driven by depressed utilization of health care services in 2020, which rebounded in 2021.
2. Health care affordability issues include problems paying family medical bills, family medical debt, paying a high share of family income on out-of-pocket health care expenses, and unmet needs in the family for health care due to cost.
3. Premium levels presented throughout this report reflect the total premium before employer or state subsidy contributions.
4. Massachusetts contract members are covered under private commercial contracts established in Massachusetts which may include non-Massachusetts residents.

Total Health Care Expenditures

THCE PER CAPITA

5.8%

THCE totaled $71.7 billion in 2022, increasing $3.9 billion from 2021. THCE per capita increased 5.8% from 2021 to 2022, above the 3.1% health care cost growth benchmark. 14.8% of THCE growth was attributable to COVID-19-related supplemental payments made by MassHealth to providers in 2022.

Commercial, Medicare, and MassHealth spending experienced growth from 2021 to 2022 at 0.7% (4.1% PMPM), 4.1% (3.3% PMPM), and 11.1% (1.7% PMPM), respectively, as commercial membership continued to decline while enrollment continued to increase in Medicare and MassHealth.

Pharmacy spending net of rebates was the largest driver of the increase in THCE from 2021 to 2022, increasing by $775.0 million, with the fastest growth of any claims-based service category at 8.3%. Without adjusting for rebates, pharmacy spending increased 8.8%.

Medicare Advantage spending increased 13.3% from 2021 to 2022, accompanied by a 7.8% increase in enrollment, resulting in a 5.1% increase in PMPM spending. Enrollment increases were primarily driven by increased membership in Aetna (+25.4%) and United (+15.9%) plans.

Total Health Care Expenditures

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 (per resident) 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 2022 performance periods, the benchmark was set at 3.1%. The benchmark for the 2023 and 2024 performance periods was set to 3.6%. This chapter presents data on the 2022 performance period, for which 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 non-claims-related payments to providers; all patient cost-sharing amounts, such as deductibles and copayments; and the cost of administering private health insurance (called the net cost of private health insurance or NCPHI).[2] It does not include out-of-pocket payments for goods and services not covered by health insurance, such as over-the-counter medicines, and it also excludes claims paid by standalone vision and dental plans (i.e., vision and dental insurance plans that solely cover vision and dental services).[3]

Throughout this chapter, THCE is broken down into five major spending categories: commercial, Medicare, MassHealth, the net cost of private health insurance (NCPHI), and other public program spending. ■

Notes:
Detailed methodology and data sources for THCE are available in the **technical appendix**.

Total Health Care Expenditures

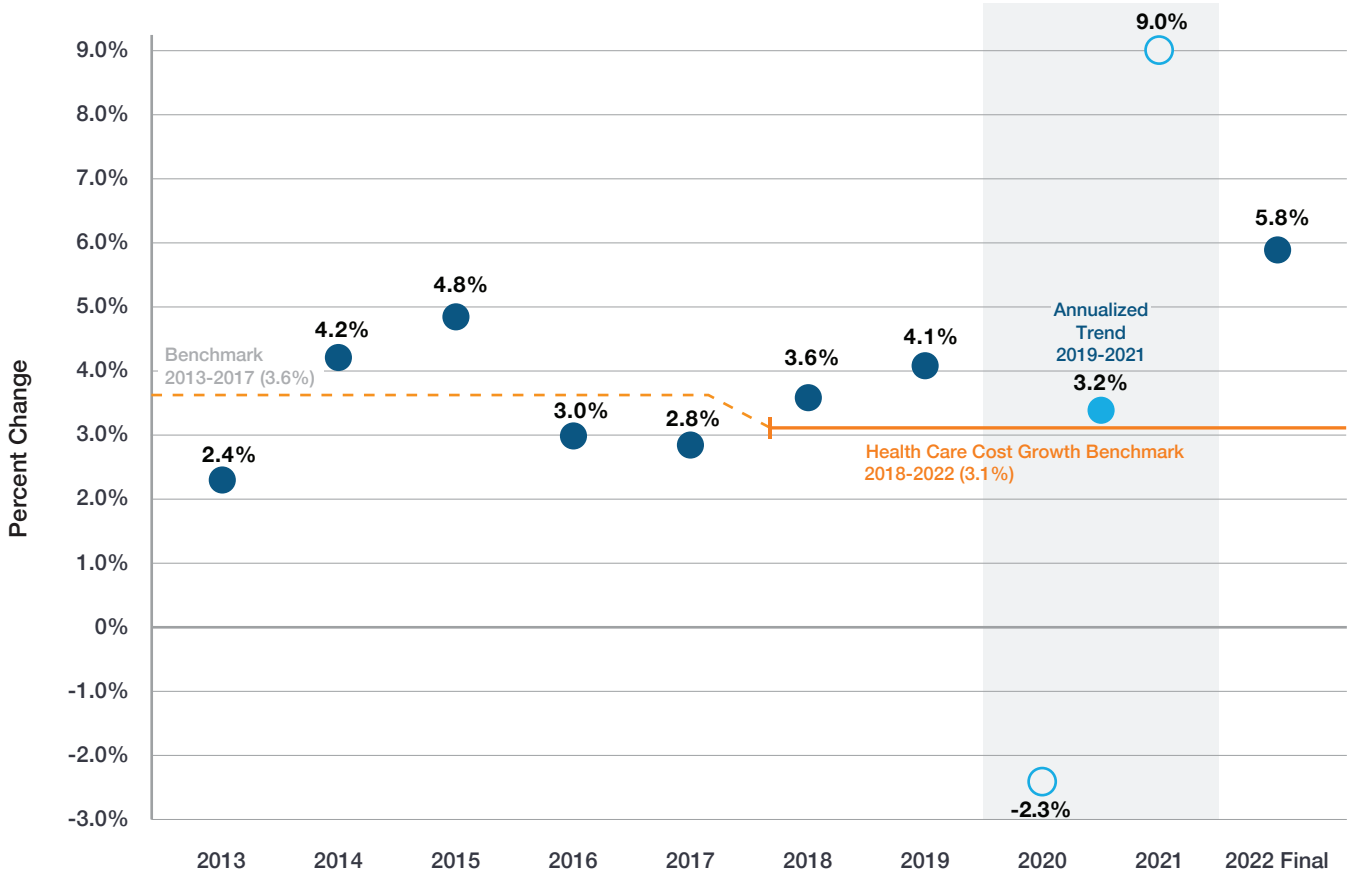
From 2021 to 2022, THCE per capita increased 5.8%, above the 3.1% health care cost growth benchmark.[4] This increase follows unprecedented declines and rebounds in health care spending in 2020 (-2.3%) and 2021 (+9.0%) due to the impacts of the COVID-19 pandemic, which resulted in a 3.2% annualized growth rate from 2019 to 2021. Apart from 2021, the 5.8% growth in THCE per capita seen in 2022 represents the highest one-year growth trend since measurement began in 2012.

Notably, 14.8% of THCE growth was directly attributable to COVID-19 pandemic-related supplemental payments made by MassHealth to providers in 2022, $600 million of which was authorized under the federal American Rescue Plan Act (ARPA). Excluding these COVID-19 pandemic-related supplemental payments, THCE increased 5.0% per capita from 2021 to 2022.

The 5.8% per capita THCE increase was lower than growth in the Massachusetts economy (7.2%) and regional inflation (7.1%), but faster than national wages and salaries (5.1%).[5]

National health care spending, as measured by the Centers for Medicare & Medicaid Services' (CMS) National Health Care Expenditure Accounts, increased 4.1% from 2021 to 2022. This growth in national health care spending resembled trends seen in pre-pandemic years following fluctuations in spending in 2020 (10.6%) and 2021 (3.2%) which had largely been attributable to changes in federal funding related to the COVID-19 public health emergency and federal financial assistance for health care providers.[6]

Per Capita Total Health Care Expenditure Trends, 2013-2022



Total Health Care Expenditures per capita increased 5.8% from 2021 to 2022, above the health care cost growth benchmark.

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

Notes: Annualized trend for 2019 to 2021 was calculated as (2021 Value/2019 Value)^(1/2)-1 and reflects compound annual growth. THCE per capita was calculated using the Massachusetts state population sourced from the U.S. Census Bureau. THCE does not include federal funding for public health activities, nor any COVID-19 relief funds distributed from the federal government directly to hospitals and health systems. THCE does include COVID-19 supplemental payments distributed by MassHealth.

Total Health Care Expenditures

Massachusetts THCE totaled $71.7 billion in 2022. This represented an increase of $3.9 billion from 2021, during which the state's population remained relatively unchanged. For the first time, THCE spending per resident surpassed $10,000, increasing to $10,264 per capita in 2022, a 5.8% increase from 2021.

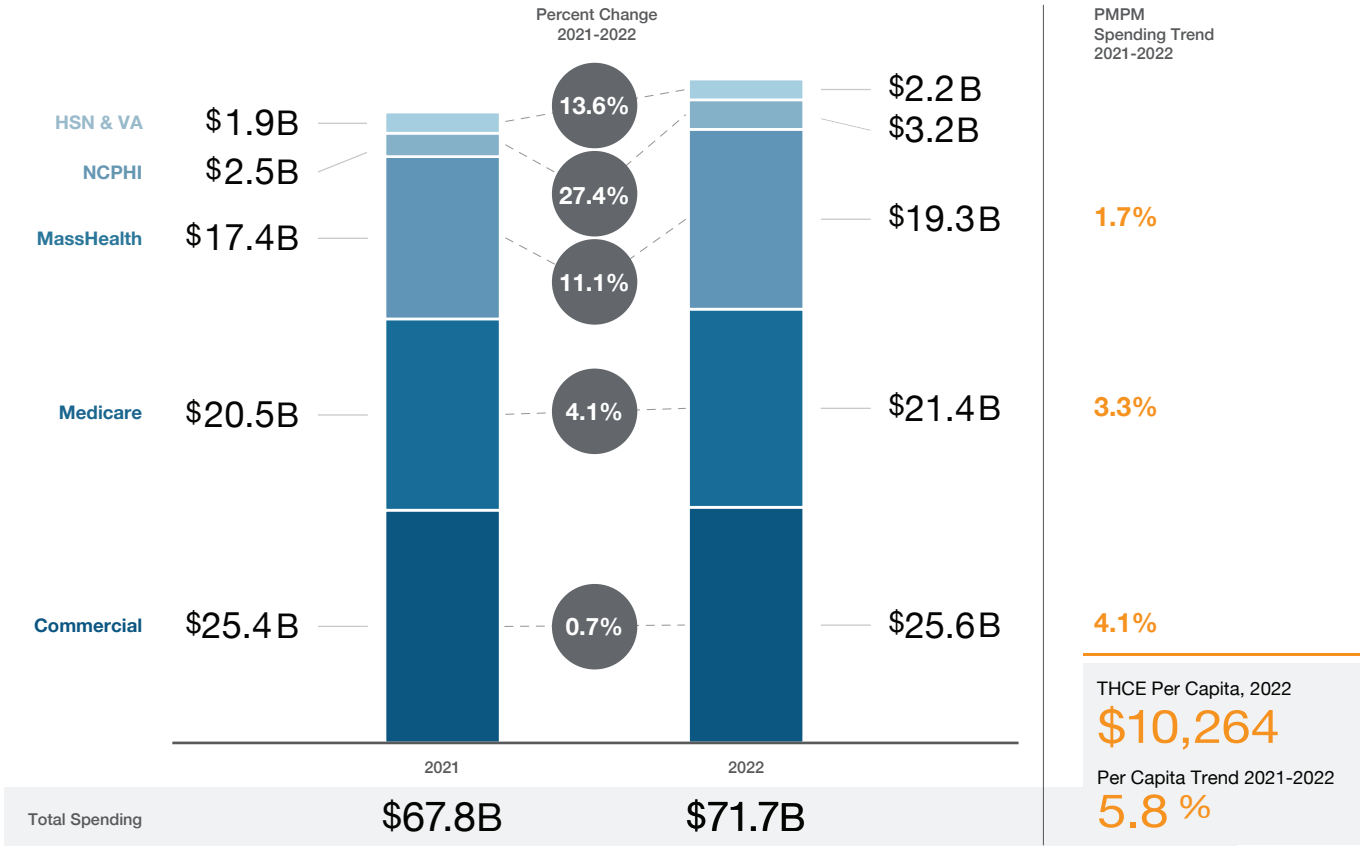
Total commercial spending increased 0.7% to $25.6 billion in 2022; this was accompanied by a 3.2% enrollment decrease, resulting in a 4.1% increase in spending on a per member per month (PMPM) basis.

Medicare spending increased 4.1% to $21.4 billion in 2022; this was accompanied by a 0.8% increase in membership, resulting in 3.3% spending growth PMPM.

MassHealth spending increased 11.1% to $19.3 billion in 2022; this was accompanied by a 9.2% increase in MassHealth membership, as federal requirements directed Medicaid programs to provide continuous coverage to members. These trends resulted in a 1.7% increase in spending on a PMPM basis.

The net cost of private health insurance (NCPHI) experienced the fastest growth of all THCE components, increasing 27.4% to $3.2 billion, following a 24.0% decrease the previous year. The NCPHI trends reflect volatile impacts of the COVID-19 pandemic, as 2022 health insurance rates were set prospectively based on historical information from periods of unprecedented volatility.

Components of Total Health Care Expenditures by Insurance Category



THCE increased $3.9 billion from 2021, totaling $71.7 billion in 2022, or $10,264 per resident.

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

Notes: Percent changes are calculated based on non-rounded expenditure amounts. THCE per capita was calculated using the Massachusetts state population sourced from the U.S. Census Bureau. THCE does not include federal funding for public health activities, nor any COVID-19 relief funds distributed from the federal government directly to hospitals and health systems. THCE does include COVID-19 supplemental payments distributed by MassHealth. Please see databook for detailed information.

Total Health Care Expenditures

Within the commercial insurance market, private payers offer a variety of insurance product types which vary by the provider networks, referral requirements, and cost-sharing levels, among other factors.

Commercial spending increased 0.7% overall from 2021 to 2022 accompanied by a 3.2% decline in membership, equating to a 4.1% increase in PMPM spending. Overall, members were responsible for approximately 11% of commercial THCE expenditures through cost-sharing payments (copays, deductibles and coinsurance). The most common commercial insurance products among Massachusetts residents are Health Maintenance Organization (HMO) plans, which require that a member select a primary care provider to manage the member's care. From 2021 to 2022, overall HMO spending decreased 3.3% while membership decreased 7.4%, leading to a 4.4% increase in PMPM spending.

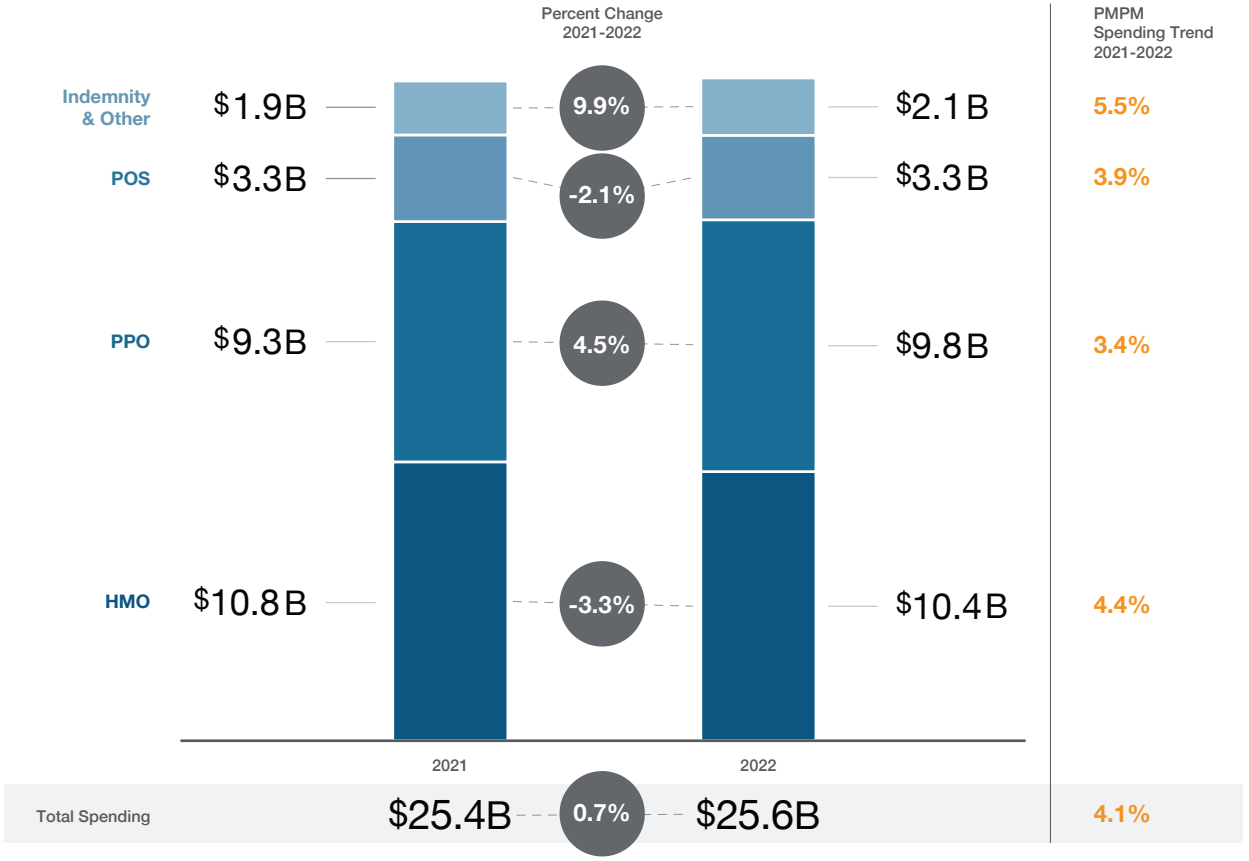
Preferred Provider Organization (PPO) plans, which allow members to schedule visits without a referral, experienced a 4.5% increase in spending while membership also increased 1.1%, resulting in a 3.4% increase in spending PMPM.

Point-of-Service (POS) plans, which offer both in-network and out-of-network coverage options, experienced a 2.1% decline in spending. Spending for the Indemnity & Other product type category increased 9.9%, accompanied by a 4.2% increase in membership in 2022, continuing increases in membership and spending over the previous two years. This increase was driven by a 6.9% increase in Other product type enrollment, which includes Exclusive Provider Organization (EPO) plans.

For additional insight on commercial enrollment trends, see CHIA's Enrollment Trends resources and publications.[7]

Components of Total Health Care Expenditures:
Private Commercial Insurance by Product Type, 2021-2022

THCE COMPONENTS Detailed View



From 2021 to 2022, commercial spending increased 0.7% accompanied by a 3.2% decline in membership, resulting in a 4.1% increase in PMPM spending.

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

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

Total Health Care Expenditures

In 2022, approximately 1.3 million Massachusetts 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.

From 2021 to 2022, total Medicare expenditures increased 4.1% to $21.4 billion, accompanied by a 0.8% increase in overall enrollment, resulting in a 3.3% PMPM growth rate.

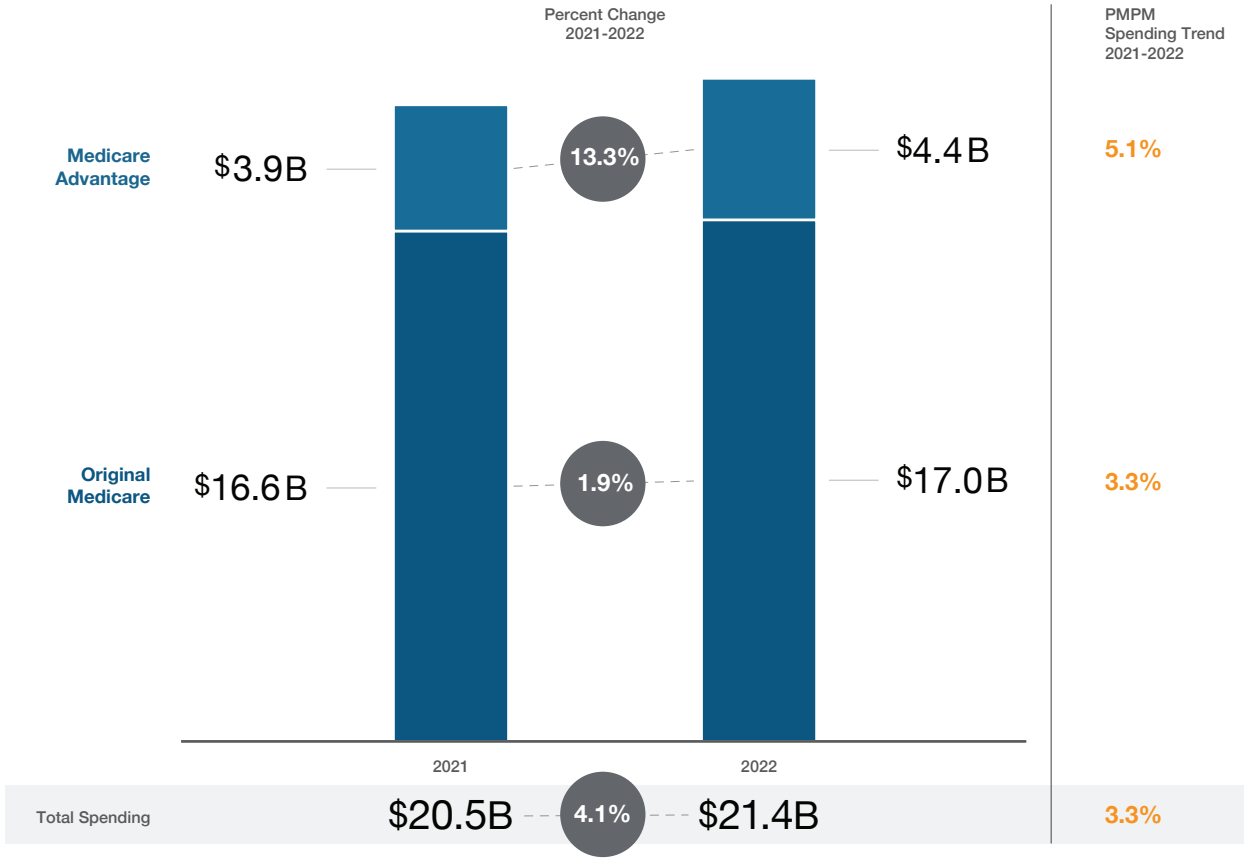
Within the Medicare program, eligible individuals choose between traditional Medicare coverage administered by the federal government ("Original Medicare"), and Medicare Advantage products which are managed by private insurers. In the Commonwealth, most beneficiaries receive coverage through Original Medicare (75.0% in 2022). However, the share of members enrolling in Medicare Advantage plans continued to grow from 23.3% in 2021 to 25.0% in 2022, continuing increases in previous years.

Medicare Advantage spending increased 13.3% from 2021 to 2022, accompanied by a 7.8% increase in enrollment, resulting in a 5.1% increase in PMPM spending. Enrollment increases were primarily driven by increased membership in Aetna (+25.4%) and United (+15.9%) plans.

From 2021 to 2022, Original Medicare spending for Massachusetts residents increased 1.9%, faster than the national trend (-0.1%).[8] The increase in Massachusetts Original Medicare spending in 2022 was accompanied by a 1.3% decrease in enrollment, leading to a 3.3% increase in spending on a PMPM basis.

Components of Total Health Care Expenditures:
Medicare Programs, 2021-2022

THCE COMPONENTS
Detailed View



From 2021 to 2022, Medicare spending increased 4.1% overall and 3.3% on a PMPM basis.

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.[9] Original 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.

Total Health Care Expenditures

During 2022, approximately 2.3 million Massachusetts residents relied on MassHealth for either primary or partial/secondary medical coverage. From 2021 to 2022, overall MassHealth spending increased by 11.1%, while membership increased by 9.2%, resulting in a 1.7% increase in PMPM spending. Under the federal public health emergency beginning in 2020, MassHealth was required to provide continuous coverage to members enrolled as of March 18, 2020, regardless of changes in beneficiary circumstances or scheduled redetermination assessments. This requirement remained in effect until April 2023.[10] For more information on MassHealth enrollment, see page 24.

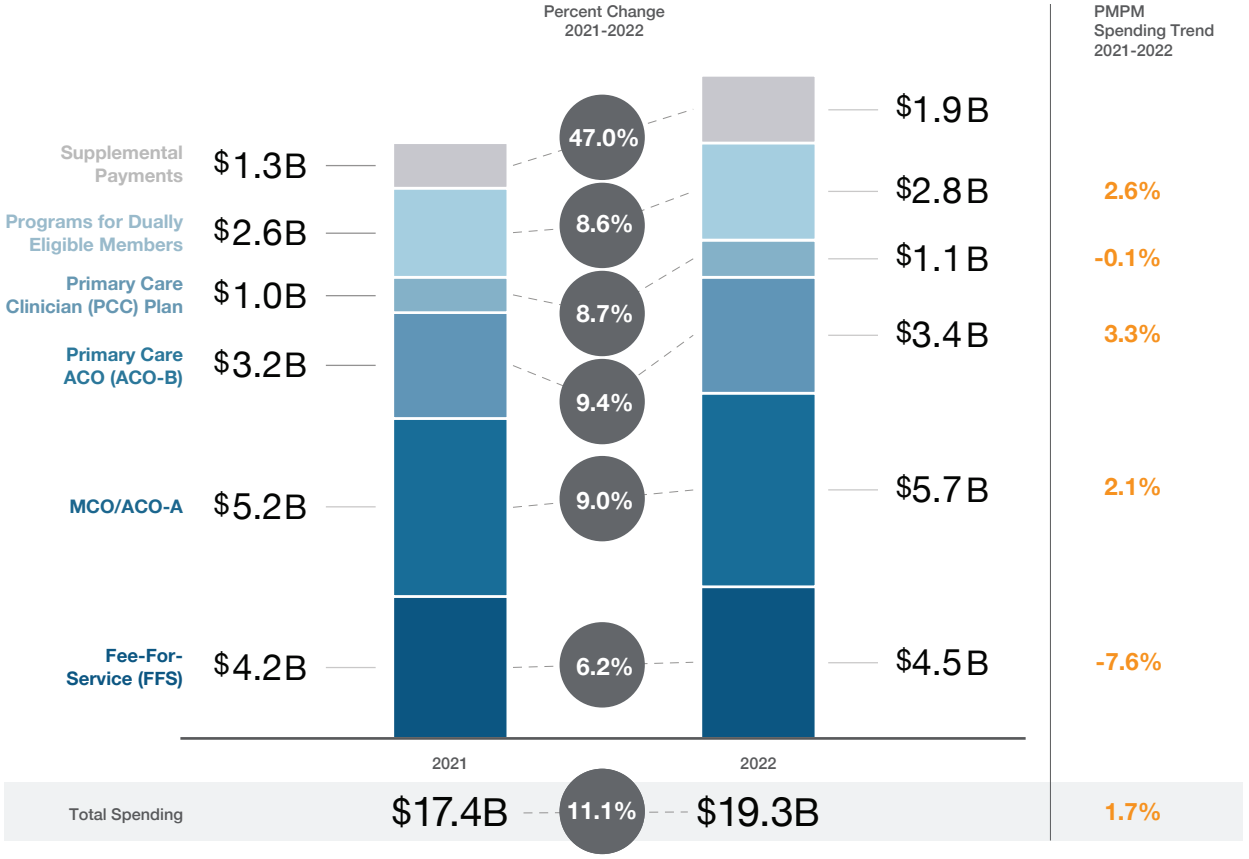
From 2021 to 2022, all MassHealth program types experienced increased spending accompanied by increases in enrollment.

MassHealth programs administered by health plans for members under age 65 (MCO/ACO-A) represented the largest share of spending in 2022, a 9.0% increase from 2021, accompanied by a 6.8% increase in membership, resulting in a 2.1% increase on a PMPM basis.

MassHealth supplemental payments increased 47.0% from 2021 to 2022, with COVID-19 supplemental payments accounting for most of this increase. In 2022, MassHealth reported $621.5 million in supplemental payments related to the COVID-19 pandemic, compared to just $43 million the previous year. These COVID-19 related supplemental payments were made in 2022 by MassHealth to support the financial stability of eligible providers pursuant to state and federal legislation. These COVID-19-related supplemental payments accounted for 32.3% of the overall increase in MassHealth spending in 2022.

Components of Total Health Care Expenditures:
MassHealth by Program Type, 2021-2022

THCE COMPONENTS Detailed View



From 2021 to 2022, all MassHealth program types experienced increased enrollment and corresponding increases in spending.

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.[11] 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 dually-eligible members are captured in the PACE/SCO/One Care programs, with the remaining receiving MassHealth coverage through FFS programs. Percent changes are calculated based on non-rounded expenditure amounts. From 2020 through 2022, MassHealth provided COVID-19 relief funding to providers. Enhanced payment rates were distributed to hospitals, certain health care facilities (e.g., skilled nursing facilities), physicians, and other professionals through claims payments, and are reflected in the relevant spending categories reported here. Supplemental payments are reflected in the non-claims service category. Please see databook for detailed information.

Total Health Care Expenditures

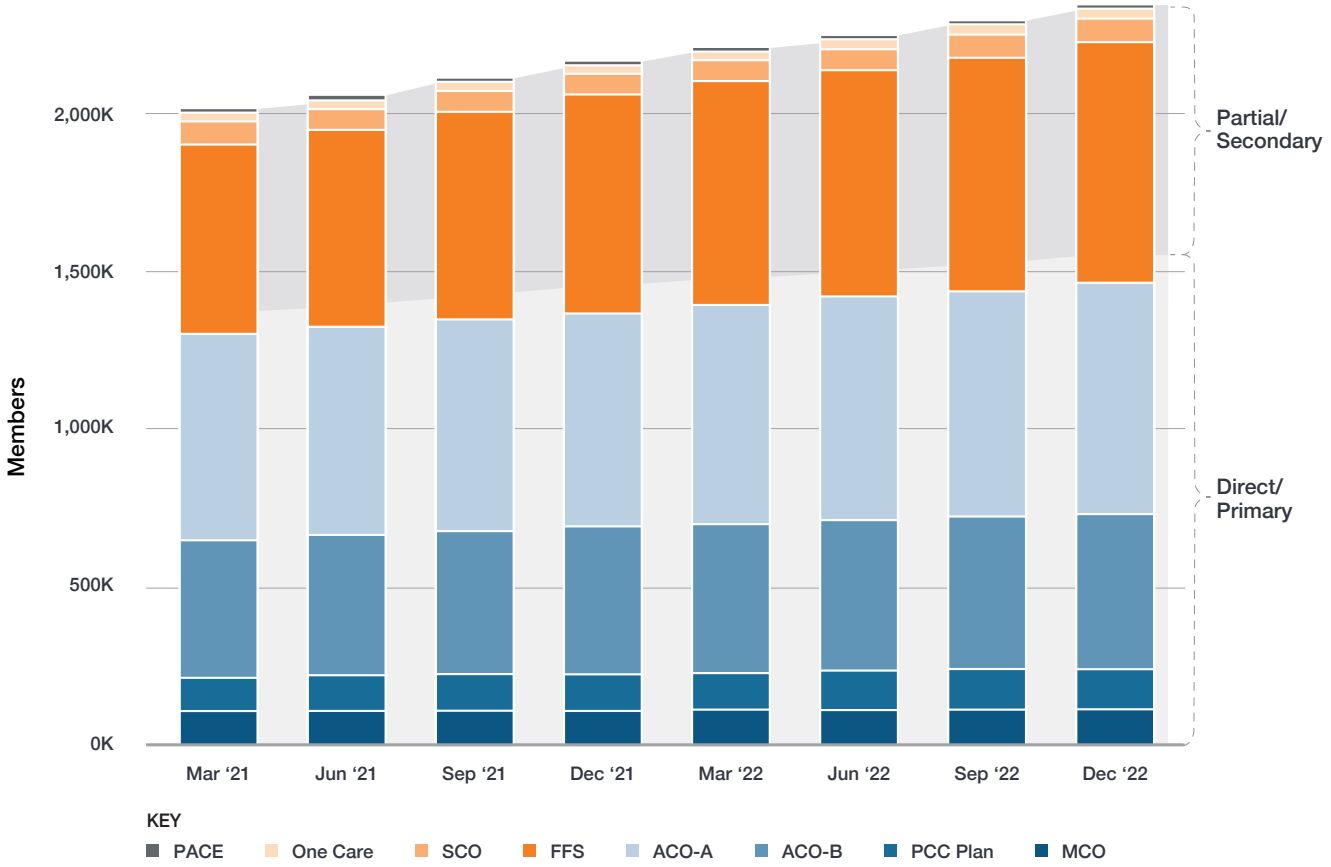
As of December 2022, approximately 2.3 million Massachusetts residents were enrolled in MassHealth for medical coverage. Among these members, 1.6 million residents were enrolled in MassHealth for primary medical coverage, an increase of 13.4% compared to March 2021.

An additional 788,000 residents received partial or secondary coverage from MassHealth, an increase of 23.2% since March 2021.

MassHealth primary coverage enrollment has increased since the onset of the COVID-19 pandemic, due to the Families First Coronavirus Response Act (FFCRA), requiring Medicaid programs to maintain coverage for enrolled individuals on or after March 18, 2020, regardless of any changes in beneficiary circumstances or scheduled redetermination assessments. This requirement ended on March 31, 2023, in accordance with the federal Consolidated Appropriations Act of 2023.[12]

Enrollment Trends:

MassHealth Enrollment by Delivery System, 2021-2022



Enrollment in MassHealth continued to grow in 2022, as the federal requirement that Medicaid programs maintain member coverage remained in effect.

Source: Massachusetts All-Payer Claims Database (MA APCD)

Notes: There were some exceptions to the continuous coverage requirements, such as if a beneficiary voluntarily withdrew, moved out of state, or was deceased.

Total Health Care Expenditures

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. NCPHI balances are used to pay general administrative expenses and broker commissions, as well as taxes and fees. For more information on how payers use premium funds, see page 93.

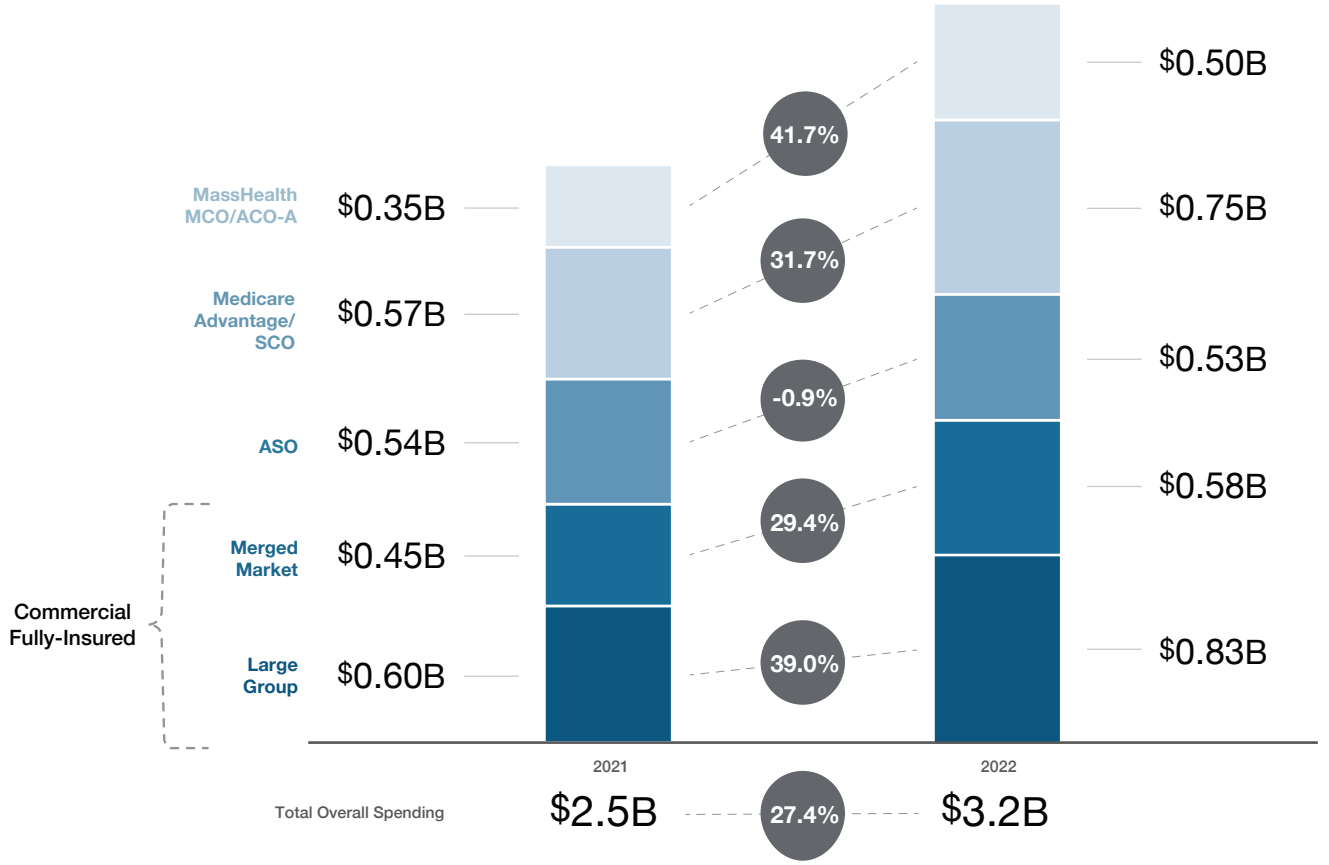
Premiums are set prospectively based on historical data and actuarial assumptions, so NCPHI fluctuates from year to year depending on how closely actuarial projections match actual spending on health care services. Projections used to calculate premiums for 2022 relied on data from 2020 and prior, in addition to actuarial methodologies to adjust for pandemic-related anomalies. As a result, premiums, and in turn NCPHI, continued to be impacted by the effects of the COVID-19 pandemic through 2022.

From 2021 to 2022, NCPHI grew 27.4%, following a 24.0% decrease in the previous year.

In the fully-insured commercial market, the large group and merged market segments each experienced significant NCPHI increases in 2022 (+39.0% and +29.4%, respectively) following substantial decreases in 2021 (-40.1% and -36.9%, respectively). NCPHI for commercially managed Medicare plans, such as Medicare Advantage, followed similar trends, increasing sharply in 2022 (31.7%) following a 29.8% decline in 2021. NCPHI for commercially managed Medicaid plans (MCO and ACO-As) had the fastest growth rate in 2022 at 41.7%, following 35.4% growth the previous year.

Components of Total Health Care Expenditures:
Net Cost of Private Health Insurance by Market Sector, 2021-2022

THCE COMPONENTS
Detailed View



From 2021 to 2022, NCPHI grew 27.4%, following a 24.0% decrease the previous year, as spending fluctuations from the COVID-19 pandemic continued to affect health insurance premium calculations.

Source: Massachusetts Medical Loss Ratio Reports from Massachusetts Division of Insurance. Federal Medical Loss Ratio Reports which are provided to the Center for Consumer Information and Insurance Oversight and received via the Massachusetts insurers.

Notes: NCPHI large group combines the fully-insured mid-size, large, and jumbo groups. The self-insured category (ASO) reflects fees collected by payers for administrative services only. Medical loss ratio rebates and premium credits paid to members were subtracted from premiums in the calculation of NCPHI. Please see databook for detailed information.

Total Health Care Expenditures

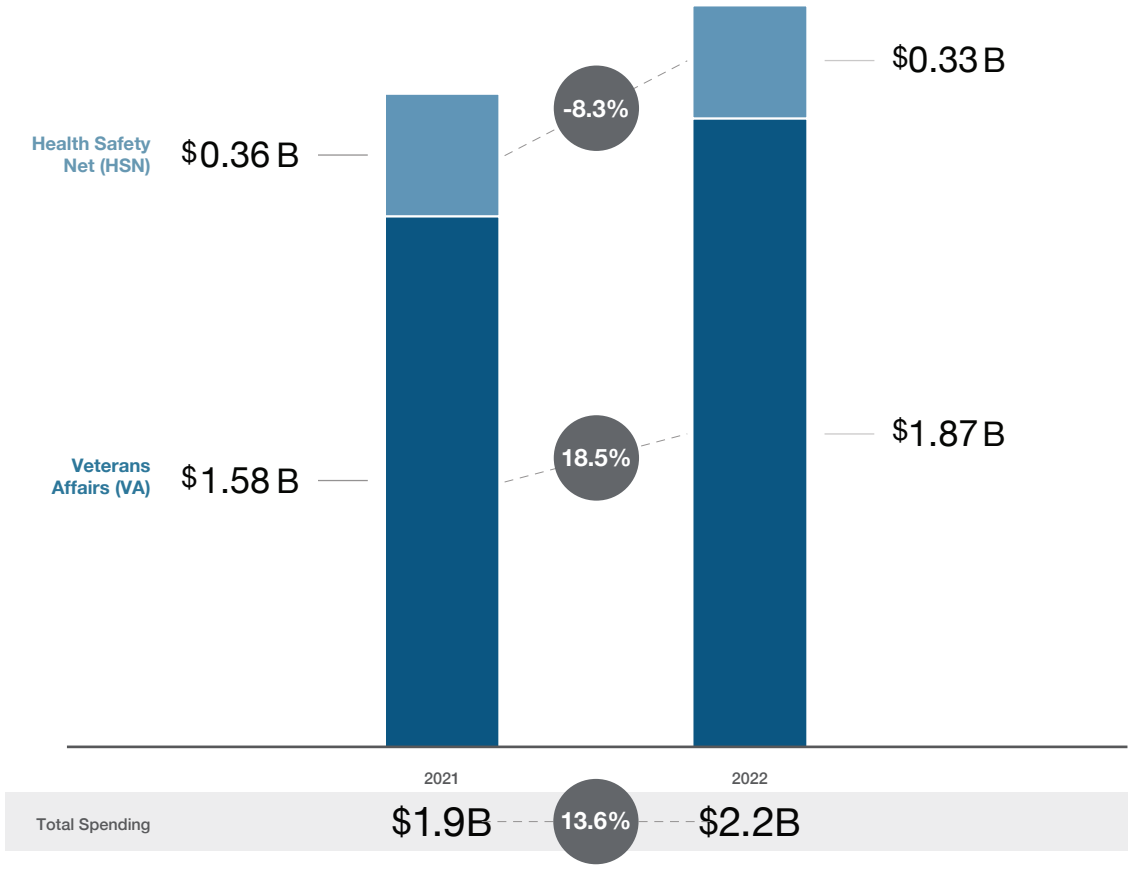
The U.S. Department of Veterans Affairs (VA), through its Veterans Health Administration division, provides health care for certain eligible U.S. military veterans.

Medical spending for Massachusetts veterans increased 18.5% from 2021 to 2022, in line with national trends. Total VA medical spending nationally increased 17.6% from 2021 to 2022, amid expanded outreach and care coordination efforts such as the Outreach, Transition and Economic Development program launched in 2022.[13,14]

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 8.3% from 2021 to 2022, following an 8.6% increase in 2021, with much of the fluctuation driven by a one-time $30 million payment disbursed to community health centers and hospitals in 2021.[15]

Components of Total Health Care Expenditures:
Other Public Programs, 2021-2022

THCE COMPONENTS Detailed View



Health care spending for the Veterans Health Administration grew by 18.5% in 2022; Health Safety Net expenditures decreased by 8.3%.

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

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

Total Health Care Expenditures

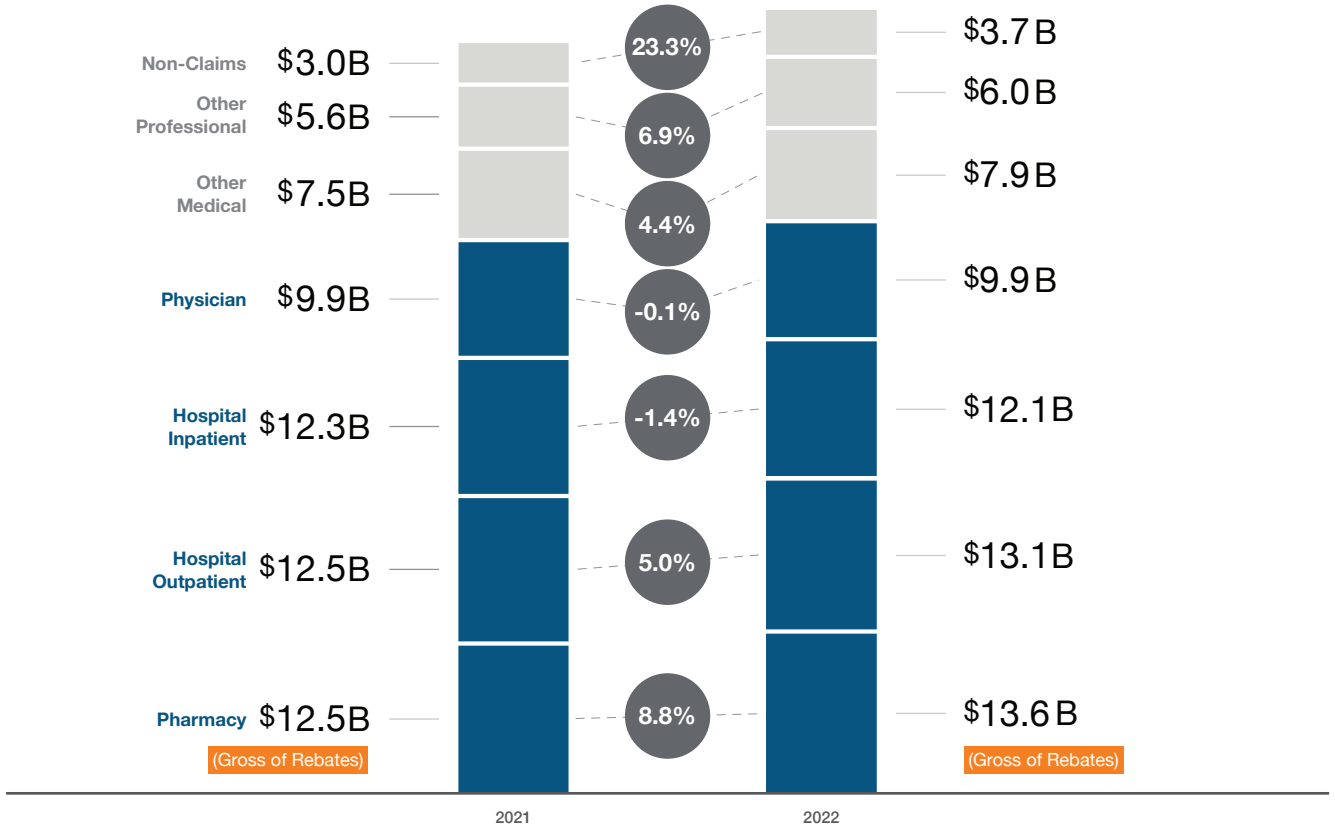
As in prior years, hospital services accounted for the largest share of overall THCE spending in 2022, with inpatient and outpatient expenses together totaling $25.3 billion, increasing 1.8% combined. Between 2021 and 2022, hospital outpatient spending increased by 5.0% to $13.1 billion, while hospital inpatient decreased by 1.4% to $12.1 billion. For more information on hospital inpatient discharges, see page 104. For further information on hospital financial performance in 2022, see page 107.

Non-claims spending experienced the highest growth overall at 23.3% between 2021 and 2022, driven by $621.5 million in new supplemental payments made through the MassHealth program related to the COVID-19 pandemic.

Prescription drug spending, before accounting for rebates received retrospectively by health plans ("gross of rebates"), experienced the fastest growth of all claims-based service categories at 8.8% from 2021 to 2022, following an 11.1% increase the previous year. In 2022, gross pharmacy spending surpassed hospital outpatient spending to become the largest individual service category. Net of rebates, pharmacy spending increased 8.3% to $10.1 billion in 2022. For more information on prescription drug rebates and their impact on spending, see page 33.

Spending for physician services was flat, decreasing 0.1% to $9.9 billion in 2022. Spending for other professional services, which includes care provided by a licensed practitioner other than a physician (such as a nurse practitioner or psychologist), increased 6.9% to $6.0 billion in 2022. Other medical spending, which includes skilled nursing facilities and home health services, increased by 4.4%.

Total Health Care Expenditures by Service Category, 2021-2022:
Gross of Prescription Drug Rebates



In 2022, gross pharmacy spending surpassed hospital outpatient spending to become the largest individual service category.

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

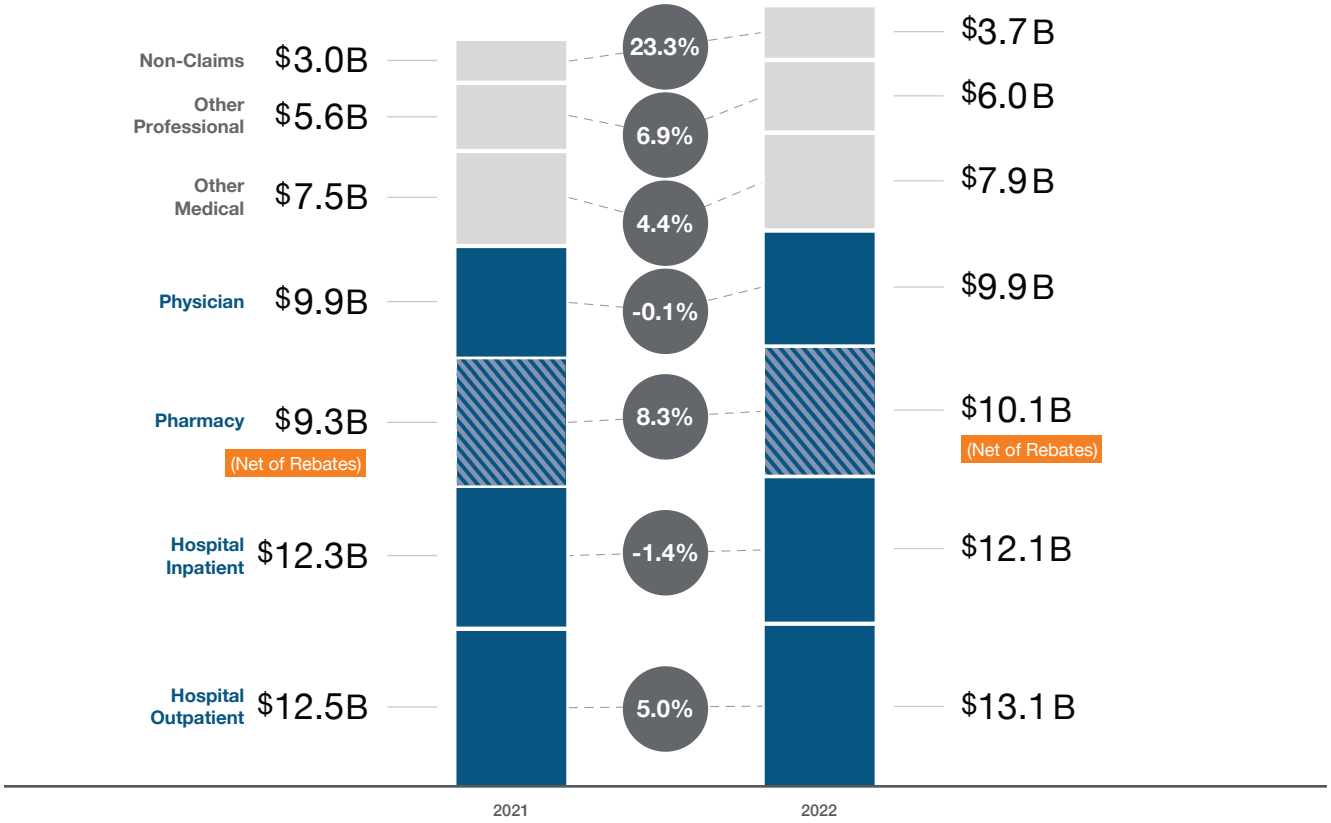
Notes: Excludes net cost of private health insurance, VA, and HSN. Percent changes are calculated based on non-rounded expenditure amounts. Categories are ordered according to 2022 total dollar amounts. Please see databook for detailed information.

Total Health Care Expenditures

Pharmacy expenditures represent spending covered by a member's prescription drug benefit, which includes retail and mail order pharmacy. 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. Vaccinations, including those provided in a pharmacy setting, may be included in the pharmacy expenditure category if they are covered by a member's prescription drug benefit.

Both public and private payers negotiate with drug manufacturers to receive rebates on their members' prescription drug utilization. Between 2021 and 2022, prescription drug rebates grew 10.2% to $3.5 billion, following 24.2% growth the previous year. After netting out prescription rebates from total (gross) pharmacy expenditures pharmacy spending net of rebates increased 8.3% to $10.1 billion in 2022, following a 7.4% increase in the prior year. Commercial payers cited increases in specialty drug expenditures, such as anti-inflammatory and dermatological specialty drugs, as a driver of pharmacy spending increases in 2022. See page 33 for further details on pharmacy rebates.

Total Health Care Expenditures by Service Category, 2021-2022:
Net of Prescription Drug Rebates



Net of prescription drug rebates, pharmacy spending increased 8.3% from 2021 to 2022.

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

Notes: Excludes net cost of private health insurance, VA, and HSN. Percent changes are calculated based on non-rounded expenditure amounts. Please see databook for detailed information.

Total Health Care Expenditures

From 2021 to 2022, THCE in Massachusetts increased by $3.9 billion gross of pharmacy rebates and $3.6 billion net of pharmacy rebates.

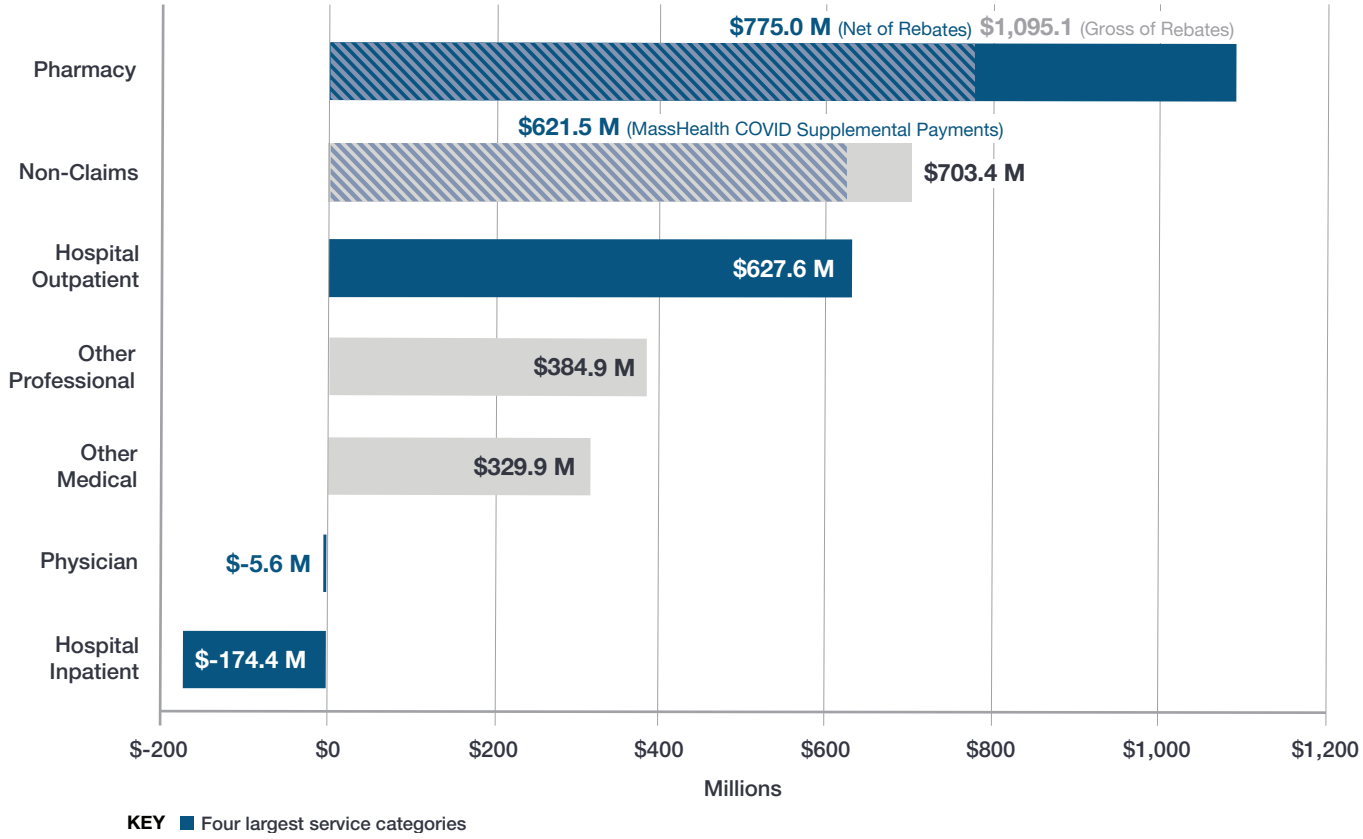
From 2021 to 2022, pharmacy spending was the largest component of medical expenditure increases, both gross and net of rebates. Gross of rebates, pharmacy spending grew $1.1 billion. Pharmacy spending grew $775.0 million net of rebates, representing 21.6% of overall THCE growth.

Non-claims payments were the second largest contributor to THCE increases in 2022. New COVID-19-related supplemental payments made through the MassHealth program accounted for $621.5 million of the $703.4 million increase in non-claims spending and accounted for 14.8% of THCE growth overall in 2022.

Hospital outpatient expenditures increased $627.6 million while hospital inpatient expenditures decreased $174.4 million. For more information on hospital inpatient discharges, see page 104.

In 2022, other professional spending and other medical spending increased by $384.9 million and $329.9 million, respectively. Physician spending declined by $5.6 million.

Change in Total Health Care Expenditures by Service Category, 2021-2022



Pharmacy spending net of rebates was the largest contributor to the THCE increase from 2021 to 2022.

Source: Payer-reported 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.

Total Health Care Expenditures

Commercial spending totaled $25.6 billion in 2022, representing 35.7% of overall THCE. Total commercial spending increased 0.7%, accompanied by a 3.2% enrollment decrease, resulting in a 4.1% increase in spending on a PMPM basis.

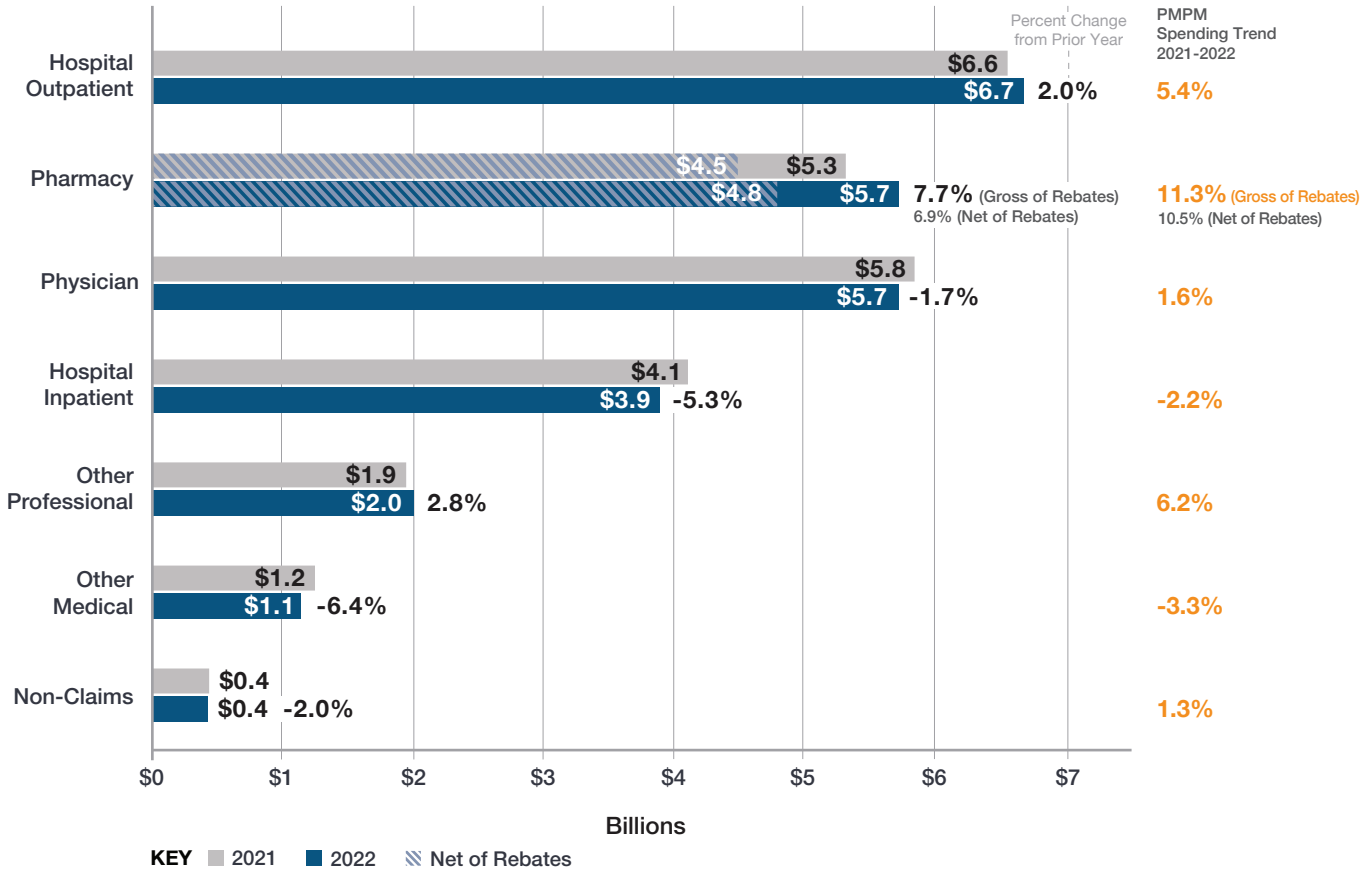
Consistent with prior years, hospital outpatient spending was the largest service category in the commercial market at $6.7 billion in 2022. Hospital outpatient spending grew 2.0% overall, and 5.4% PMPM. Hospital inpatient spending decreased 5.3% overall and 2.2% on a PMPM basis.

Pharmacy spending increased 7.7% gross of rebates and 6.9% net of rebates. On both a gross and net basis, pharmacy spending demonstrated the fastest increase of any service category. On a PMPM basis, pharmacy spending increased 11.3% gross of rebates and 10.5% net of rebates. In 2022, pharmacy spending gross of rebates surpassed physician spending to become the second-largest service category in the commercial market.

Physician spending decreased 1.7% overall, but increased 1.6% from 2021 to 2022 on a PMPM basis. Other (non-MD) professional spending increased 2.8% overall and 6.2% on a PMPM basis.

Other medical spending decreased 6.4% in aggregate and declined 3.3% PMPM. Non-claims spending decreased 2.0% overall, but increased slightly (1.3%) on a PMPM basis.

Components of Total Health Care Expenditures:
Commercial Spending by Service Category, 2021-2022



Pharmacy spending increased 6.9% net of rebates (a 10.5% increase PMPM), the fastest increase of any commercial service category.

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

Notes: For commercial partial-claim data, CHIA estimates spending by product type by multiplying the share of member months reported in TME data by the estimated total commercial partial-claim expenditures. Excludes net cost of private health insurance. Percent changes are calculated based on non-rounded expenditure amounts. Please see databook for detailed information.

Total Health Care Expenditures

Medicare spending totaled $21.4 billion in 2022, representing 29.9% of overall THCE. Medicare spending increased 4.1% in 2022, accompanied by a 0.8% increase in membership, resulting in 3.3% spending growth PMPM.

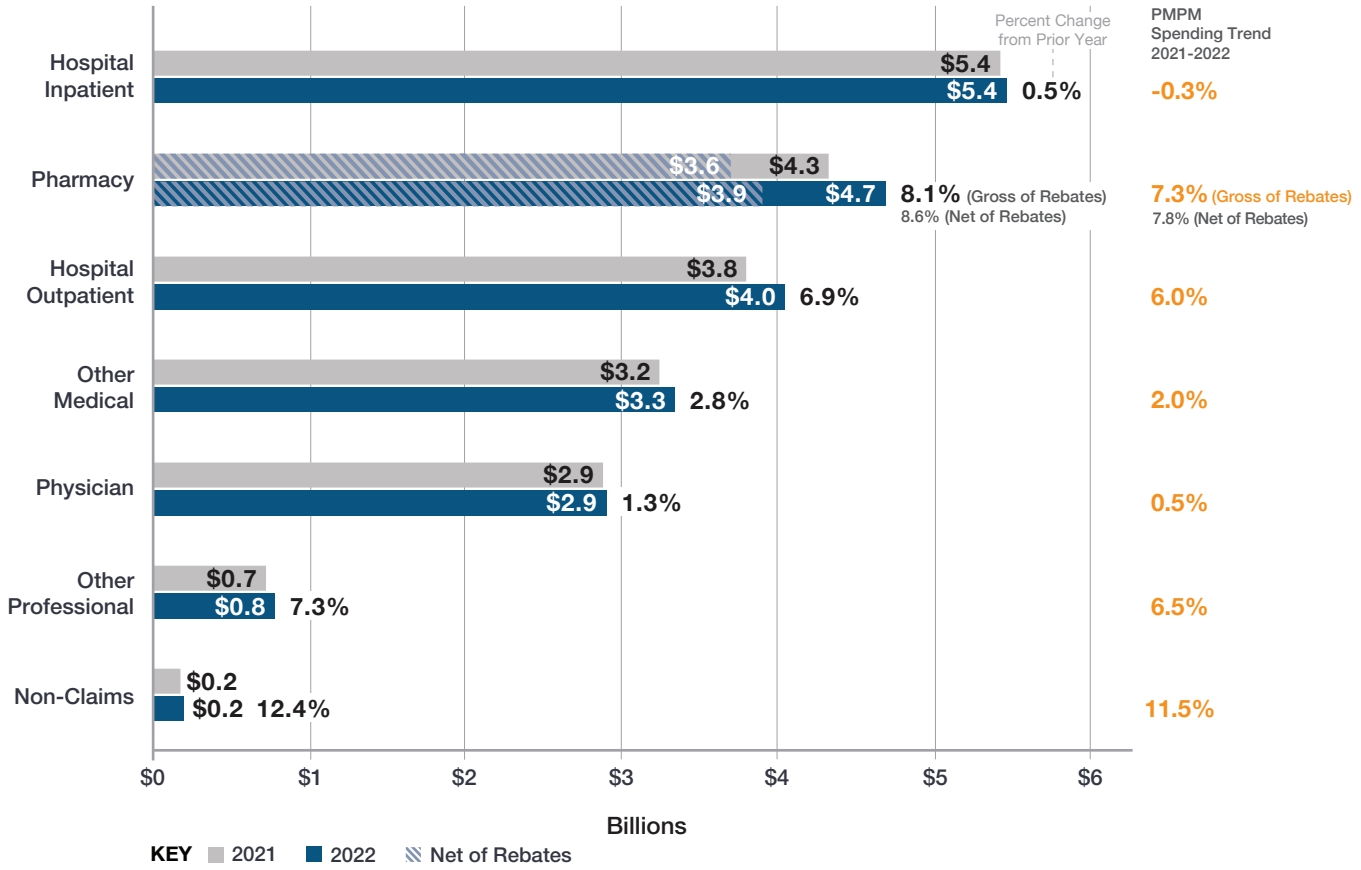
Consistent with prior years, hospital inpatient was the largest service category and accounted for over one-fourth (25.5%) of Medicare spending in 2022, totaling $5.4 billion. This reflects a 0.5% spending growth rate from 2021 to 2022, and a slight decline (-0.3%) on a PMPM basis.

Pharmacy spending gross of rebates was the second largest component of Medicare spending at $4.7 billion in 2022. Pharmacy spending increased 8.1% gross of rebates and 8.6% net of rebates, the fastest growth of any claims-based service category. On a PMPM basis, pharmacy spending increased 7.3% gross of rebates and 7.8% net of rebates.

Hospital outpatient expenditures increased 6.9% overall, and 6.0% on a PMPM basis. Other medical, physician, and other professional spending grew 2.8%, 1.3%, and 7.3%, respectively.

Non-claims payments experienced a 12.4% increase from 2021 to 2022 but remained the smallest component of Medicare spending.

Components of Total Health Care Expenditures:
Medicare Spending by Service Category, 2021-2022



Consistent with prior years, hospital inpatient remained the largest Medicare service category, totaling $5.4 billion, but grew by only 0.5% in 2022.

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

Notes: Percent changes are calculated based on non-rounded expenditure amounts. Net pharmacy spending growth can outpace gross pharmacy spending growth if increases in rebates do not keep pace with increases in gross pharmacy spending. Please see databook for detailed information.

Total Health Care Expenditures

MassHealth spending totaled $19.3 billion in 2022, representing 27.0% of overall THCE. Overall spending for MassHealth increased 11.1%, as membership increased by 9.2%, resulting in a 1.7% increase in spending on a PMPM basis. For more information on MassHealth enrollment, see page 24.

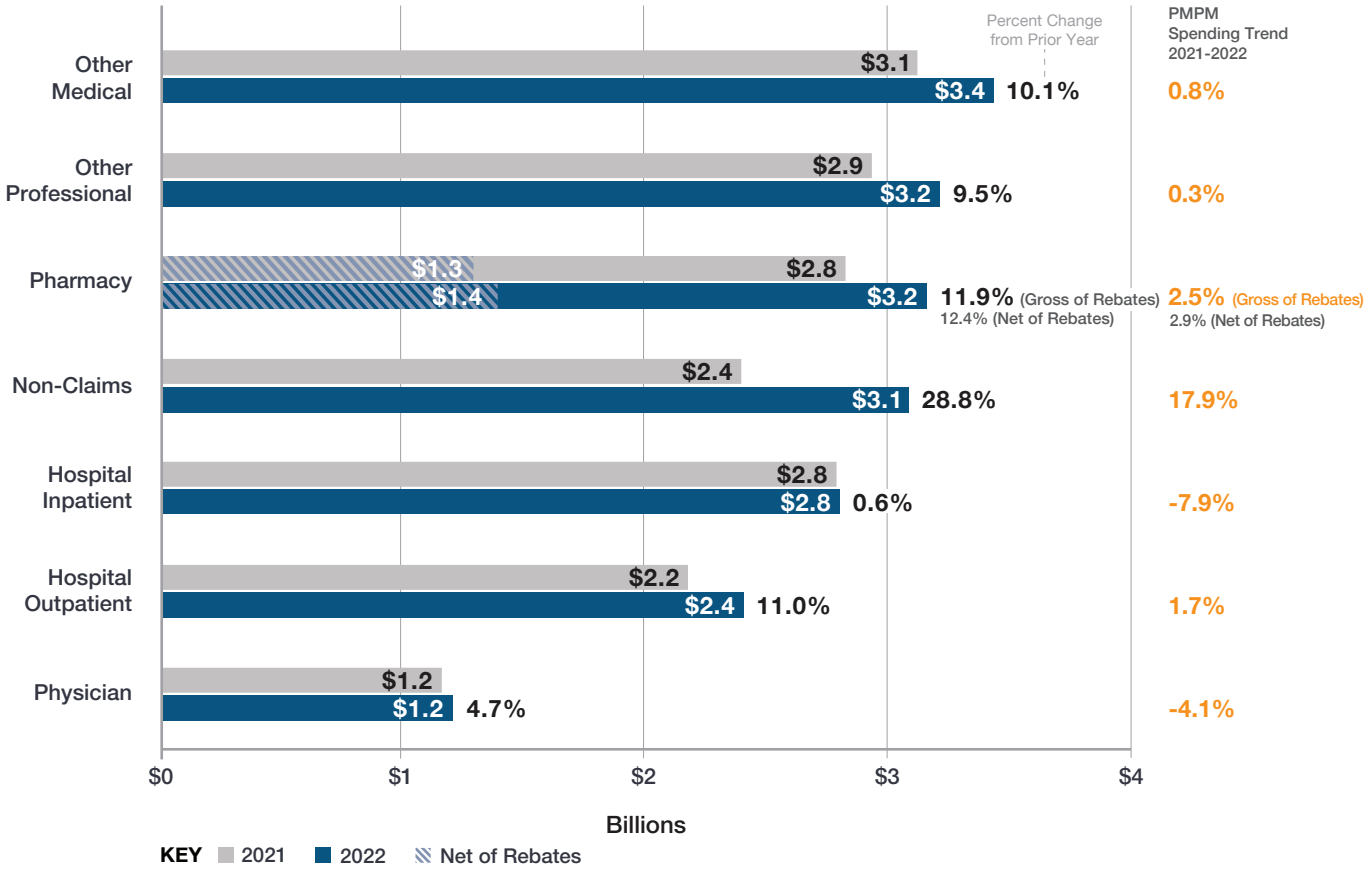
Other medical services, which includes long term care and home health services, was the largest component of MassHealth spending, totaling $3.4 billion in 2022. Other medical service spending increased 10.1% overall, but only 0.8% on a PMPM basis.

In 2022, pharmacy spending gross of rebates totaled $3.2 billion, while pharmacy spending net of rebates totaled $1.4 billion. MassHealth maximizes rebates to reduce net prescription drug costs by negotiating directly with drug manufacturers for supplemental rebates and through its Unified Pharmacy Product List (UPPL), established in 2021, which designates preferred products with the lowest net costs.[16] Net of rebates, pharmacy spending increased 12.4% overall and 2.9% on a PMPM basis.

Non-claims spending increased 28.8% to $3.1 billion in 2022, with the majority of this sharp increase attributable to the increase in COVID-related supplemental payments to providers ($621.5 in 2022 compared to $43.0 million the previous year).

Other professional services, the second-largest component of MassHealth spending, increased 9.5% overall but only 0.3% on a PMPM basis. Similarly, hospital outpatient increased 11.0% overall but only 1.7% PMPM. Hospital inpatient and physician spending experienced increases of 0.6% and 4.7%, respectively, with declines on a PMPM basis.

Components of Total Health Care Expenditures:
MassHealth Spending by Service Category, 2021-2022



Other Medical services, which includes long term care facility and home health services, continued to be the largest MassHealth service category, increasing 10.1% overall but only 0.8% PMPM.

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

Notes: Percent changes are calculated based on non-rounded expenditure amounts. From 2020 through 2022, MassHealth provided COVID-19 relief funding to providers. Enhanced payment rates were distributed to hospitals, certain health care facilities (e.g., skilled nursing facilities), physicians, and other professionals through claims payments, and are reflected in the relevant spending categories reported here. Supplemental payments are reflected in the non-claims service category. Please see databook for detailed information.

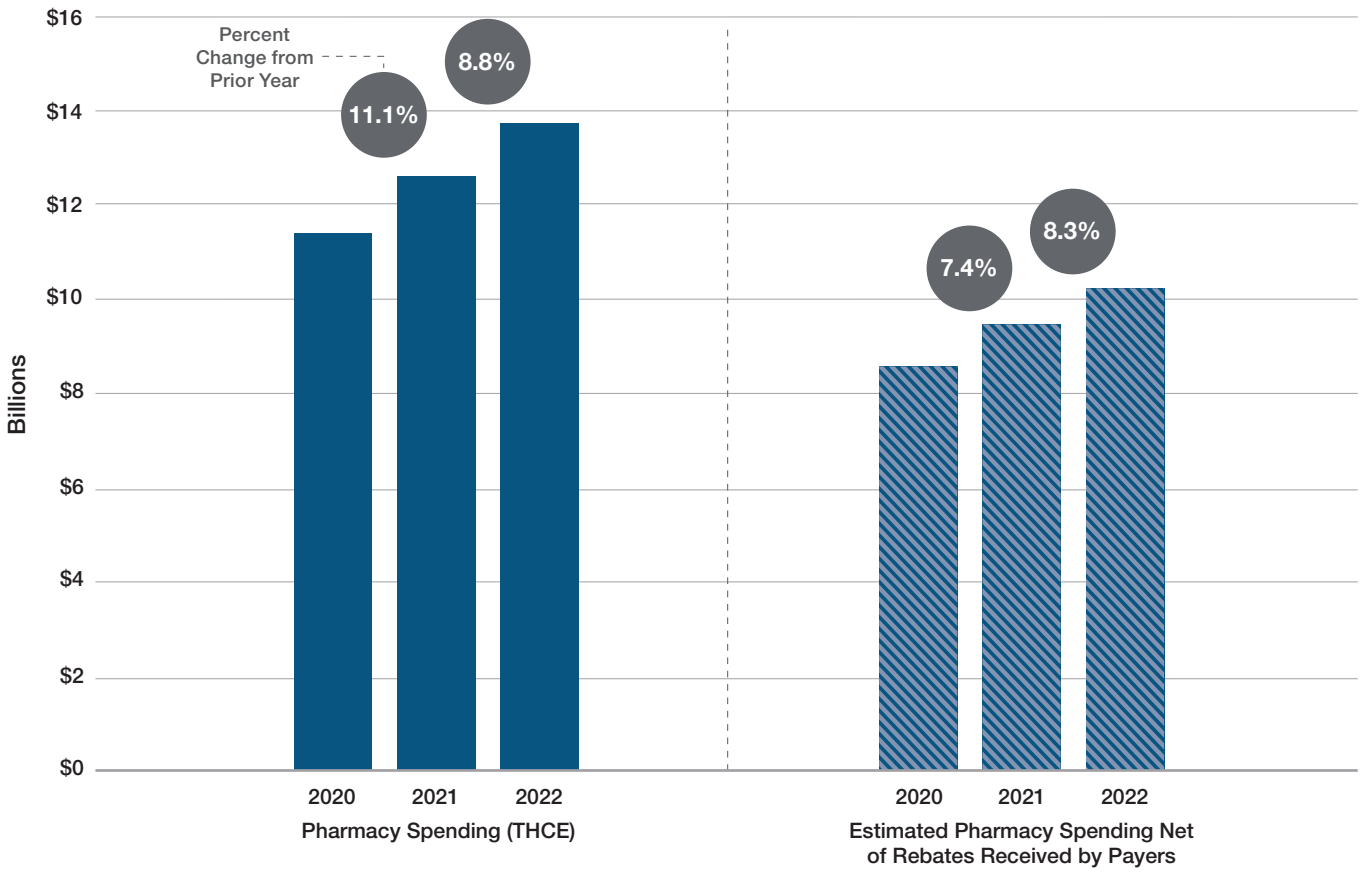
Total Health Care Expenditures

THCE reflects gross prescription drug expenditures, which are comprised of payer payments to pharmacies, along with member cost-sharing. Payers, commonly through pharmacy benefit managers (PBMs), negotiate with drug manufacturers to receive rebates based in part on their members' prescription drug utilization.

In 2022, gross prescription drug expenditures totaled $13.6 billion, a growth of 8.8%, which was slower than the prior year's growth of 11.1%. Prescription drug rebates have grown over the last three years, from $2.5 billion in 2020 to $3.5 billion in 2022. From 2021 to 2022, prescription drug rebates grew 10.2%. Net of rebates, expenditures for prescription drugs grew to $10.1 million in 2022, up 8.3% from $9.3 million in 2021.

MassHealth plans reported the highest rebate percentage of all examined insurance categories (61.3%). Federal law dictates minimum requirements for rebates to state Medicaid programs and allows private payers that offer Medicaid plans to negotiate supplemental rebates as well. These rebates reduce payers' total expenses for prescription drugs. Overall, the Medicare Advantage rebate percentage was 26.0% in 2022. Commercial plans received, on average, 25.9% of pharmacy spending back from manufacturers through pharmacy rebates in 2022, an increase of 1.7 percentage points from 2021.

Estimated Impact of Rebates on Pharmacy Spending and Growth, 2020-2022



Total prescription drug rebate amounts increased 10.2% from $3.1 billion in 2021 to $3.5 billion in 2022.

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 calculated based on non-rounded expenditure amounts.

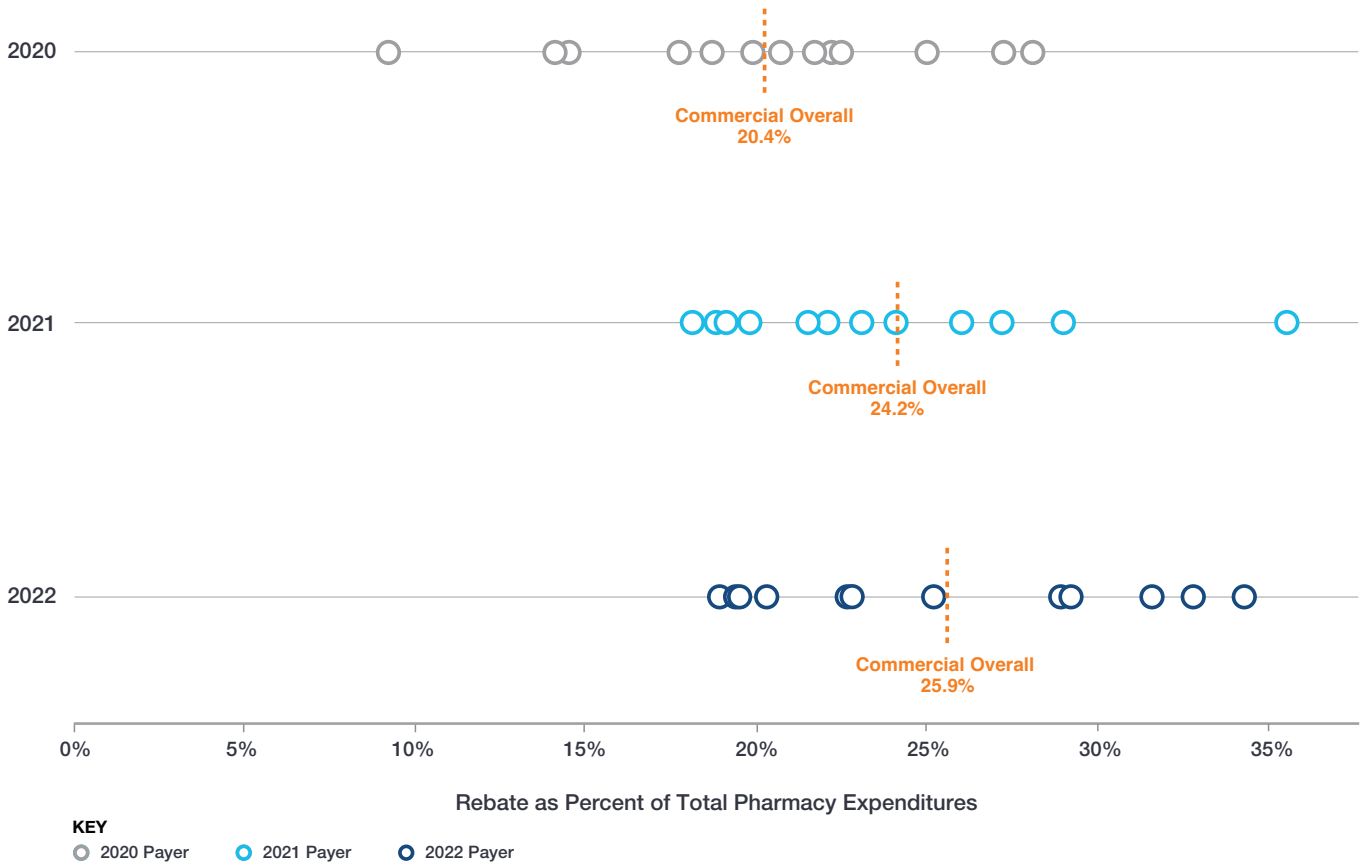
Total Health Care Expenditures

On average in 2022, commercial payers received 25.9% of pharmacy spending back from manufacturers, often via PBMs, a 1.7 percentage point increase from 2021. Rebates received by health plans are factored into premium calculations in order to offset expected prescription drug costs.

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. For some individual payers, increases in their rebate proportion was due to changing PBMs.

In 2022, only one payer reported rebate proportions within two percentage points of the average commercial rebate proportion, as compared to four payers in 2021. This reflects a widening range of rebate percentages among private commercial health plans.

Range of Payer-Reported Commercial Rebates as a Percentage of Gross Pharmacy Expenditures, 2020-2022



Across the commercial market in 2022, 25.9% 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 technical appendix for more information.

Total Health Care Expenditures Notes

1. Pursuant to M.G.L. c.6D §9, the benchmark for 2022 is equal to the PGSP minus 0.5% (or 3.1%). Detailed information available at 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.
3. Claims for vision and dental services paid by medical insurance payers, including MassHealth, Medicare, and private medical insurance companies, are included in THCE.
4. Massachusetts 2021 state population was sourced from the U. S. Census Bureau's yearly population estimates.
5. Public data sourced from the U.S. Bureau of Economic Analysis and the U.S. Bureau of Labor Statistics.
6. "National Health Care Spending In 2022: Growth Similar To Prepandemic Rates." Micah Hartman, Anne B. Martin, Lekha Whittle, Aaron Catlin, and The National Health Expenditure Accounts Team. Health Affairs 2024 43:1, 6-17. https://www.healthaffairs.org/doi/epdf/10.1377/hlthaff.2023.01360
7. Center for Health Information and Analysis. "Enrollment in Health Insurance." 2022. chiamass.gov/enrollment-in-health-insurance/
8. National trends in Medicare spending are estimated based on data reported to CHIA by CMS.
9. Center for Health Information and Analysis. "Enrollment in Health Insurance." 2022. chiamass.gov/enrollment-in-health-insurance/
10. For more information about MassHealth eligibility redeterminations, please visit the MassHealth Redetermination Dashboard.
11. Center for Health Information and Analysis. "Enrollment in Health Insurance." 2022. chiamass.gov/enrollment-in-health-insurance/
12. For more information about MassHealth eligibility redeterminations, please visit the MassHealth Redetermination Dashboard.
13. U.S. Department of Veterans Affairs. 2023. "National Center for Veterans Analysis and Statistics: Fiscal Year 2022." https://www.va.gov/vetdata/expenditures.asp.
14. US Department of Veterans Affairs. 2022. "Outreach, Transition and Economic Development." Outreach, Transition and Economic Development (va.gov)
15. Chapter 124 of the Acts of 2020: An Act Making Appropriations for The Fiscal Year 2020 to Authorize Certain Covid-19 Spending in Anticipation of Federal Reimbursement. Session Law - Acts of 2020 Chapter 124 (malegislature.gov)
16. MassHealth Pharmacy Program. January 2021. "The Prescriber e-Letter: Unified Pharmacy Product List Overview." https://www.mass.gov/doc/issue-1-january-2021-0/download.

COVID-19 Spending

In the first half of 2022, the Omicron variant drove a surge in COVID-19-related cases in Massachusetts. As part of examining total health expenditures, CHIA captured data from health plans to explore trends in spending on COVID-19-related vaccine administration, testing and labs, and treatment. New in 2022, health plans were required to cover rapid antigen or "at-home" COVID-19 tests for their members.[1]

For more information and data on the Commonwealth's COVID-19 cases, testing, and hospitalizations, please see the Department of Public Health's COVID-19 **Response Reporting interactive dashboard**.

Data Sources and Methodology

As part of CHIA's data collection, commercial payers reported aggregate expenditures for services related to COVID-19. CHIA provided data submitters with a list of common billing codes for COVID-19-related services. Because this list was intended as a guide and not exhaustive, payers were encouraged to also use their organization's internal methodology for identifying expenditures related to COVID-19. Data submitters reported aggregate COVID-19 spending data by COVID-19 expense type, insurance category, and TME service category for 2021 and 2022. CHIA asked payers to submit data for three mutually-exclusive COVID-19 expense categories: COVID-19 Treatment, Testing and Labs, and Vaccine Administration. See the **TME-APM Data Specifications** for more information.

Data displayed in the following chart includes data submitted by 14 commercial health plans with commercial, Medicaid MCO/ACO-A, and Medicare Advantage lines of business. Three payers were excluded from 2021 and 2022. Payer exclusions were due to lack of data or data quality concerns. No data was included for programs solely administered by public payers, such

as MassHealth Fee-For-Service or Original Medicare. Spending data presented represents approximately 60% of total THCE membership in 2021 and 2022.

Reported data only includes spending that was captured by insurance carriers. It does not include spending from free state or municipally operated clinics that did not collect or require insurance status for COVID-19 services, such as free testing or vaccination. Additionally, as the federal government purchased the COVID-19 vaccines in 2021 and 2022, those costs are not included in this analysis; only the administration costs of COVID-19 vaccines are included. Any other federal, state, or city financial assistance for vaccinations or testing was not included. To identify COVID-19-related treatment spending, payers used their own internal methodologies based on claims diagnoses; often the primary diagnoses but varied at times to be inclusive of primary, secondary, or tertiary diagnoses. ■

COVID-19 Spending

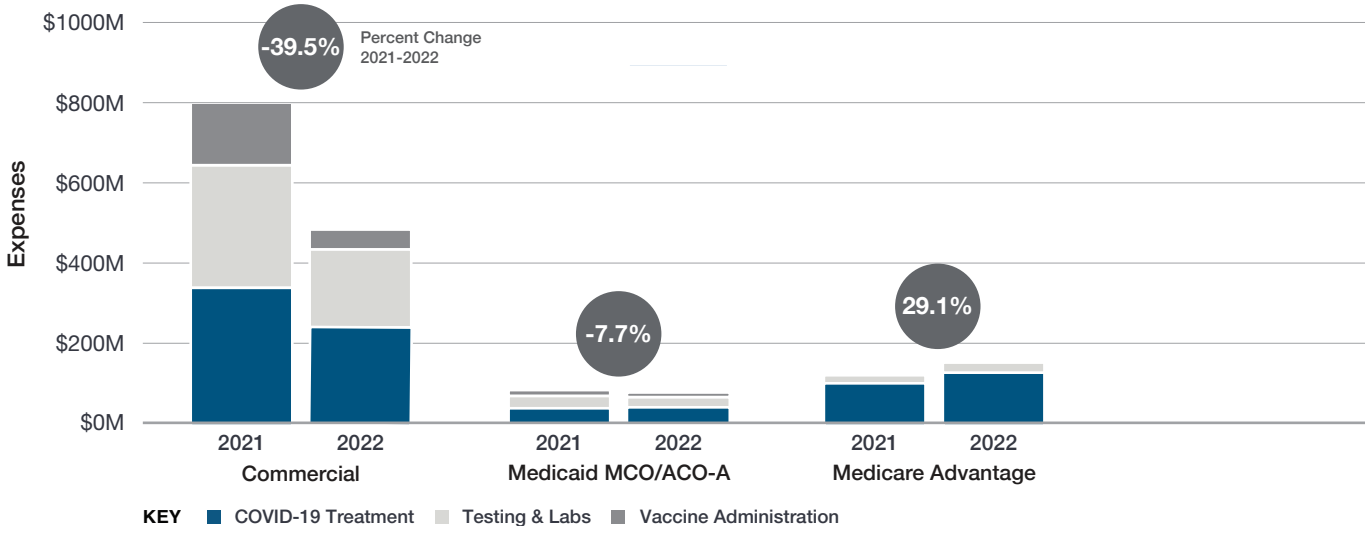
In 2022, total COVID-19-related spending by private commercial, Medicaid MCO/ACO-A, and Medicare Advantage health plans totaled $702.9M, a 28.9% decline from 2021.

Private commercial spending on COVID-19-related expenses in 2022 was $479.6M, 39.5% lower than the $793.2M spent in 2021. This drop in commercial spending was primarily driven by a 36.9% ($112.8M) decline in testing and labs spending and a 68.2% ($101.9M) decline in vaccine administration spending. Commercially managed Medicaid COVID-19-related spending declined 7.7% from 2021 to 2022. Medicare Advantage spending on COVID-19-related expenses rose 29.1%, from $115.5M in 2021 to $149.1M in 2022, driven by a 32.9% increase in COVID-19 treatment. Across all three insurance categories, COVID-19-related spending made up an estimated 2.3% of total spending in 2022, a 1.0 percentage point decrease from 2021.

Costs for COVID-19 testing and lab services were primarily reported under the hospital outpatient and physician service categories which together represented 75.7% of testing and lab costs in 2021 and 73.9% in 2022. Approximately 55.8% of COVID-19 Treatment spending was reported as hospital inpatient spending in 2021, a slight decline from 63.2% of COVID-19 Treatment spending in 2021. Following the initial implementation of COVID-19 vaccine initiatives in 2021, total spending on vaccine administration declined in 2022 and shifted from delivery in physicians' offices or hospitals to the pharmacy setting. In 2022, 60.5% of vaccine administration expenditures were reported as pharmacy spending compared to 41.7% in 2021.[2]

Spending on COVID-19-Related Services by Insurance Category, 2021-2022

Data Source: Payer-reported Total Medical Expenditures (TME) data.
Populations included: Commercial, Medicaid MCO-ACO-A, Medicare Advantage



COVID-19-Related Spending as a Percent of Total Insurance Category Spending

	Commercial	Medicaid MCO/ACO-A	Medicare Advantage	Total
2021	3.3%	3.9%	3.1%	3.3%
2022	2.0%	3.3%	3.5%	2.3%

COVID-19 treatment, such as hospitalization, continued to make up a significant portion of spending on COVID-19-related services as confirmed cases increased from 2021 to 2022.

Source: Payer-reported data to CHIA.

Notes: Data for WellSense, Fallon, and HPI were not included in this analysis due to data quality concerns. Data represents spending for approximately 60% of total THCE membership, reflecting private commercial, MassHealth MCO/ACO-A, and Medicare Advantage members. Percent changes are calculated based on non-rounded expenditure amounts. Medicare Advantage expense category "vaccine administration" percent change represented 0.2% of total Medicare Advantage spending in 2022 and is not displayed on the graph due to scale.

COVID-19 Spending Notes

1. U.S. Department of Health and Human Services. Biden-Harris Administration Requires Insurance Companies and Group Health Plans to Cover the Cost of At-Home COVID-19 Tests, Increasing Access to Free Tests. Revised January 12, 2022. Accessed January 19, 2024. https://www.hhs.gov/about/news/2022/01/10/biden-harris-administration-requires-insurance-companies-group-health-plans-to-cover-cost-at-home-covid-19-tests-increasing-access-free-tests.html.
2. This analysis was limited to vaccine administration costs when insurance status was collected and does not include the direct cost of COVID-19 vaccines as vaccines were purchased by the federal government.

A Closer Look: Telehealth

At the beginning of the COVID-19 pandemic, regulatory bodies and payers changed policies to support improved telehealth access while in-person health care was limited. In March 2020, the Massachusetts Division of Insurance (DOI) required commercial insurers to cover medically necessary services delivered via telehealth that would have otherwise been covered if delivered in-person. Additionally, an executive order required telehealth services to be reimbursed at the same rate as in-person services until 90 days after the Commonwealth's state of emergency, which was declared by Governor Baker on March 10, 2020 and ended June 15, 2021.[1,2,3] At the same time, MassHealth enacted policies which allowed for medically necessary services to be delivered via telehealth and reimbursed at the same rate as covered in-person services.[4] Similarly, CMS enabled care delivery flexibility through public health emergency waivers, expanding the list of services that could be delivered temporarily via telehealth, as well as allowing telehealth to be received in the home and via audio-only technology.[5] While the federal public health emergency ended on May 11, 2023, the Consolidated Appropriations Act of 2023, as well as the CMS physician fee schedule for 2024, extended many of the flexibilities around telehealth reimbursement through December 31, 2024.[6,7]

In Massachusetts, effective January 1, 2021, Chapter 260 of the Acts of 2020 mandated telehealth payment parity, requiring telehealth services to be reimbursed at the same rate as in-person services. Specifically, it required payment parity for behavioral health services in perpetuity; for certain primary care and chronic disease management services through January 1, 2023; and for all other services through 90 days after the end of the state of emergency.[8]

CHIA's 2022 Annual Report documented a dramatic increase in telehealth spending between 2019 and 2020

as the Massachusetts health care system swiftly adapted to changing needs amidst the COVID-19 pandemic. The Health Policy Commission's *Telehealth Use in the Commonwealth and Policy Recommendations* showed telehealth utilization peaked in April of 2020, representing nearly 70% of primary care, specialist, and behavioral health visits. Throughout the remainder of 2020, the proportion of primary care and specialist-provided care delivered via telehealth declined, while the proportion of behavioral health visits provided via telehealth remained high.[9] Subsequent national analyses suggest that telehealth utilization declined in 2021 and 2022 but remained elevated above pre-pandemic levels.[10,11] This year's Annual Report includes an updated overview of Massachusetts telehealth spending through 2022 as well as additional insights into the types of care provided via telehealth.

Data Sources and Methodology

Total Health Care Expenditures Telehealth Spending Data

CHIA collected telehealth spending from commercial health plans as part of its 2022 total medical expenses data collection requirements.[12] In collecting this data, CHIA provided guidance to data submitters on a select set of telehealth codes; data submitters were encouraged to use their internal methodologies to capture telehealth spending. Reported telehealth spending from this data source does not include spending for Original Medicare members. Nationally, CMS reported that telehealth spending among Original Medicare members decreased in 2022, with 29% of all Medicare Part B fee-for-service beneficiaries using telehealth services compared to 34% in 2021.[13]

MA APCD Telehealth Claims Data

To enrich the aggregate data analysis described above, CHIA also reviewed medical claims for telehealth services provided to Massachusetts residents with commercial insurance coverage. Analysis was restricted to professional (non-facility) claims, which comprise the majority of telehealth services. Data was sourced from the Massachusetts All-Payer Claims Database (MA APCD) which primarily includes members with fully-insured or Group Insurance Commission (GIC) coverage. Details on data specifications may be found in the technical appendix. ■

A Closer Look: Telehealth

In 2022, telehealth spending reported by commercial, Medicare Advantage, and MassHealth totaled $1.6 billion (2.4% of total health care spending). Total telehealth spending fell 18.8% in 2022, following a 2.3% decline from 2020 to 2021. However, telehealth spending in 2022 remained significantly higher than the $3.0 million reported in the pre-pandemic year 2019.

Commercial telehealth spending decreased 13.9% from 2021 to 2022 ($1.4B to $1.2B), while MassHealth telehealth spending decreased 32.8% ($0.5B to $0.3B). Medicare Advantage total telehealth spending decreased 19.2% from 2021 to 2022 ($0.05Bto $0.04B).

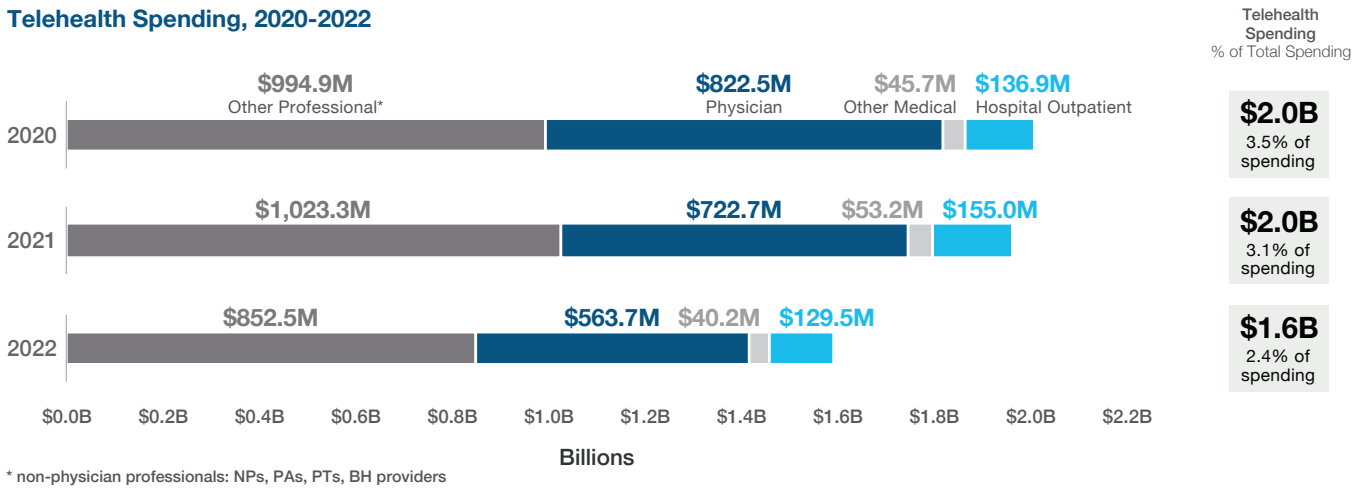
Telehealth spending decreased in 2022 for each service category. Spending for telehealth services delivered by "other professionals" (non-physician providers), which includes occupational and physical therapists, nurse practitioners, physician assistants, and certain behavioral health providers, represented about half (53.8%) of all telehealth spending in 2022, consistent with prior years.

Telehealth spending represented 16.0% of total payments to other professionals for all combined insurance categories in 2022. Across insurance categories, this proportion was highest for commercial at 32.2% of other professional spending, compared to 6.6% for Medicare Advantage and 6.4% for MassHealth. For all other service categories, the proportion of total spending that telehealth comprised was relatively consistent across insurance categories.

Components of Total Health Care Expenditures:
Telehealth Spending

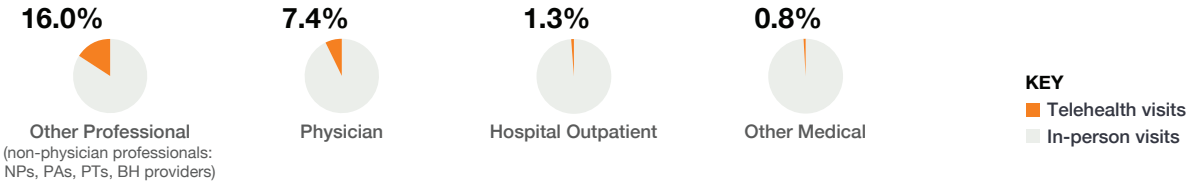
Data Source: Payer-reported aggregate Total Health Care Expenditures (THCE) data
Populations included: Commercial; MassHealth FFS, PCC, ACO-B, MCO/ACO-A, SCO, PACE, OneCare; Medicare Advantage

Telehealth Spending, 2020-2022



* non-physician professionals: NPs, PAs, PTs, BH providers

Telehealth Spending as a Percentage of Total Service Category Spending, 2022



Total telehealth spending fell 18.8% in 2022, following a 2.3% decline in 2021. However, total telehealth spending in 2022 ($1.6 billion) continued to remain substantially higher than the $3.0 million reported pre-pandemic in 2019.

Source: Payer-reported data to CHIA.

Notes: The included populations represent 86.1% of overall THCE membership. Percent changes are calculated based on non-rounded expenditure amounts. Please see databook for detailed information.

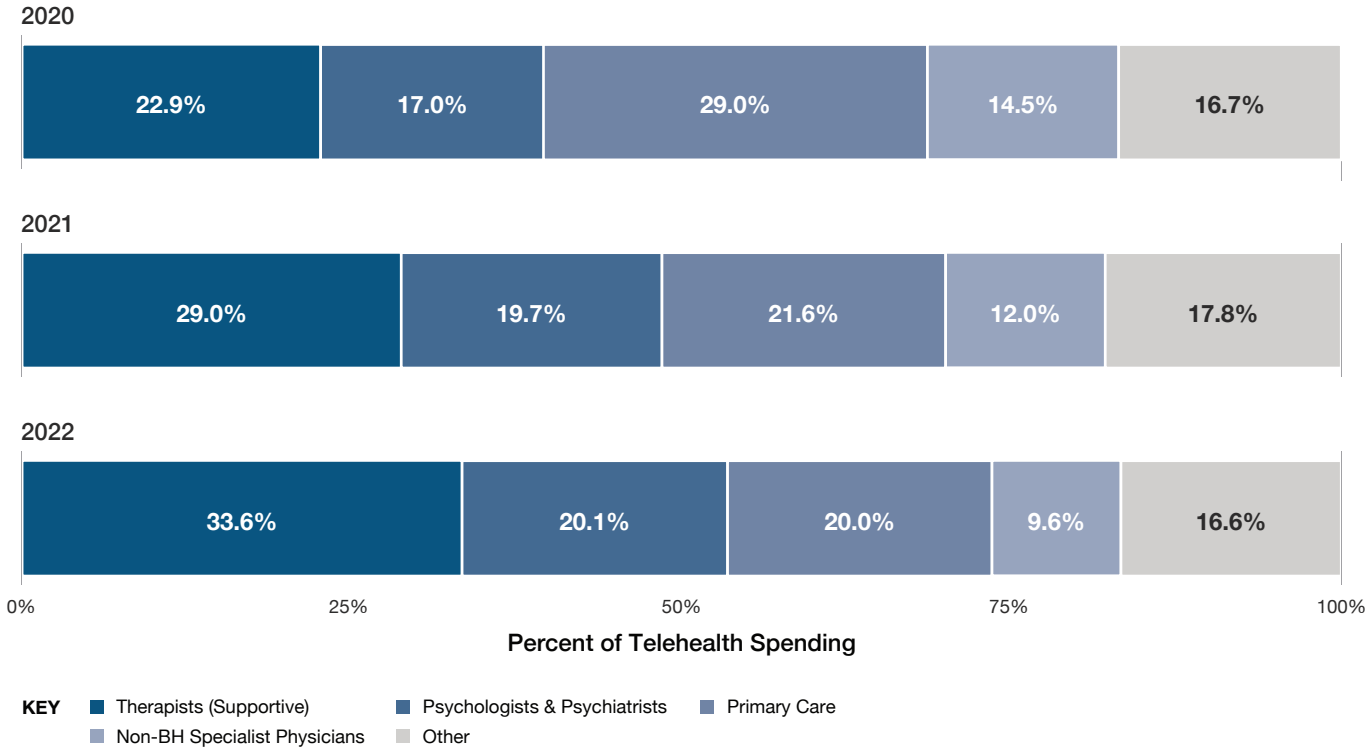
A Closer Look: Telehealth

CHIA reviewed commercial insurance claims billed by physicians and other health care professionals for telehealth services provided to Massachusetts residents. Provider types were ranked based on total spending, including copayments and other member cost-sharing. In 2022, approximately one-third (33.6%) of telehealth spending went toward services provided by supportive therapists such as social workers and mental health counselors. The next largest spending categories were services provided by psychologists and psychiatrists (20.1% of telehealth spending) and primary care providers (20.0%).

Between 2020 and 2022, the proportion of telehealth spending paid to primary care providers fell nine percentage points from a high of 29.0% in 2020. Services provided by non-behavioral health specialist physicians also declined from 14.5% of telehealth spending in 2020 to 9.6% in 2022. These trends align with other state and national reporting showing that utilization of telehealth for non-behavioral health conditions peaked in early-to-mid 2020 and then declined as patients returned to in-person care settings in greater numbers.[14,15]

Providers Delivering Telehealth Services, 2020-2022

Data Source: Massachusetts All-Payer Claims Database (MA APCD)
Population included: Commercial



In 2022, one-third (33.6%) of telehealth services were provided by supportive therapists such as social workers and mental health counselors.

Source: MA APCD

Notes: Based on analysis of professional claims which comprise the majority of telehealth services. Provider type groupings were based on taxonomy codes reported to the CMS National Plan and Provider Enumeration System (NPPES). Analysis was restricted to Massachusetts residents with private commercial coverage. Most private commercial members included in the MA APCD have fully-insured or Group Insurance Commission (GIC) coverage. See technical appendix for details.

A Closer Look: Telehealth

In 2022, 10 diagnosis categories accounted for more than two-thirds (68.1%) of telehealth spending for commercially insured Massachusetts residents. The top category, "other anxiety disorders," represented 23.0% of telehealth spending in 2022 and was also the diagnosis category with the highest total spending in 2020 and 2021.

Nine of the top 10 diagnosis categories in 2022 were behavioral health conditions, consistent with trends in the types of providers providing services via telehealth. The remaining category was COVID-19, which represented 2.0% of commercial telehealth spending in 2022 and ranked eighth among conditions for which services were delivered via telehealth.

Top 10 Conditions Treated via Telehealth, 2022

Data Source: Massachusetts All-Payer Claims Database (MA APCD)
Population included: Commercial

Diagnosis Category	Percent of Telehealth Spending
Other anxiety disorders (F41)	23.0%
Reaction to severe stress, and adjustment disorders (F43)	15.6%
Major depressive disorder, recurrent (F33)	10.3%
Attention-deficit hyperactivity disorders (F90)	4.8%
Depressive episode (F32)	3.8%
Persistent mood (affective) disorders (F34)	2.9%
Bipolar disorder (F31)	2.6%
COVID-19 (U07)	2.0%
Obsessive-compulsive disorder (F42)	1.5%
Pervasive developmental disorders (F84)	1.5%
Other	31.9%

In 2022, nine of the top 10 diagnosis categories treated via telehealth were behavioral health conditions.

Source: MA APCD

Notes: Based on analysis of professional claims which comprise the majority of telehealth services. Diagnosis categories were defined by the first three characters of the principal diagnosis code. Analysis was restricted to Massachusetts residents with private commercial coverage. Most private commercial members included in the MA APCD have fully-insured or Group Insurance Commission (GIC) coverage. See technical appendix for details.

A Closer Look: Telehealth Notes

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KEY FINDINGS

Affordability

Within the commercial market, fully-insured premiums increased by 5.8%, with the mid-size employer group sector (51-100 employees) reporting the fastest growth rate and highest premiums among employer-sponsored plans.

Between 2021 and 2022, member cost-sharing increased 6.0% to $61 PMPM for Massachusetts commercial contract members, after cost-sharing rates fluctuated during the pandemic due to volatile utilization.

Commercial enrollment in high deductible health plans (HDHPs) grew to 42.4% of members in 2022 (a 0.6 percentage point increase from 2021), continuing a trend that has more than doubled over the last 10 years (in 2014, 19.0% of members were enrolled in HDHPs).

In 2021, over four in 10 Massachusetts residents reported experiencing health care affordability issues in the past 12 months, and more than half of Black and Hispanic residents reported affordability issues (e.g., problems paying medical bills or forgoing needed health care due to cost).

Affordability

Despite near universal health insurance coverage in Massachusetts, residents report challenges affording necessary health care services. To present a more complete picture of health care costs and corresponding challenges from the consumer perspective, this new chapter combines affordability metrics across multiple CHIA data streams. Massachusetts residents face growing health care affordability concerns due to rising health care costs, increased demand for health care services, and growing enrollment in high deductible health plans (HDHPs). Metrics presented in this chapter represent some, but not all, of the financial impact of health care costs on Massachusetts residents and employers. As policymakers and other stakeholders chart the path forward amid a changed health care landscape, health care affordability remains a critical consideration in examining the performance of the Massachusetts health care system.

Data Sources and Methodology

A. Private Commercial Health Insurance Data

CHIA collects and analyzes data on enrollment, member cost-sharing, and the cost of coverage for Massachusetts private commercial health insurance.[1] Payers submit data by market sector, product type (HMO, PPO, POS), funding type (self- or fully-insured), and benefit design type (HDHP, tiered network, limited network). Unless otherwise noted, data citing "Payer-reported data to CHIA" in this chapter highlights membership and cost trends for members covered under private commercial contracts established in Massachusetts (which may include non-Massachusetts residents) and includes both fully- and self-insured members.[2]

A.1 Member Cost-Sharing

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 co-insurance). Cost-sharing is based on service utilization, while deductible and out-of-pocket maximums are set at enrollment before actual claims experiences. Figures in this chapter include members who incurred little to no medical costs as well as those who may have experienced substantial medical costs. They do not include out-of-pocket payments for goods and services not covered by the members' health insurance policies (e.g., over-the-counter medicines, standalone vision and dental care). Member cost-sharing also does not account for employer offsets, such as health reimbursement arrangements or health savings accounts.

A.2 Premiums

Private commercial insurance is administered on either a fully-insured or self-insured contract-basis, with employers facing different sets of costs for each funding method. The cost for providing fully-insured coverage is measured by the monthly premium, in exchange for which the payer assumes all financial risk associated with members' eligible medical expenses during the contract period. For self-insured 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). Fully-insured premiums are reported net of Medical Loss Ratio (MLR) rebates. In 2021, the most recent year for which survey data was available, Massachusetts employees contributed 25-29%, on average, to their premium coverage costs.[3] Reported premiums reflect a range of enrollment and plan design decisions by members and employers, including changing plans during open enrollment to mitigate anticipated premium increases.

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. In this report, these members are referred to as "individual purchasers." APTC-only members were grouped under unsubsidized individual purchasers throughout this report, unless otherwise noted.

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 these populations as well as expanded enrollment and financial data for the private commercial market.

B. Massachusetts Health Insurance Survey Data

The Massachusetts Health Insurance Survey (MHIS) is a statewide, population-based survey of noninstitutionalized Massachusetts residents used to track and monitor health insurance coverage, health care access and use, and health care affordability for Massachusetts residents and their families.

The MHIS examines health care affordability by asking residents about any difficulties paying family medical bills in the past 12 months, any medical debt held by themselves or family members in the household, the amount and share of family income spent on out-of-pocket health care costs in the past 12 months, and whether the resident or their family chose to forgo health care that the resident felt was needed in the past 12 months due to the cost of that care. In the MHIS, out-of-pocket health care costs include direct spending by residents and their families on deductibles, copays, and coinsurance for benefits covered by their health insurance, and their spending on medical, dental, and vision services not covered by insurance. Residents were also asked to include out-of-pocket costs owed for care received over the past 12 months but that had not yet been paid. The MHIS does not include premiums for health insurance in the out-of-pocket calculation. In addition, the survey asks private commercially insured residents whether their insurance plan is a HDHP, which is defined by the Internal Revenue Service as having an annual deductible over $1,400 for single coverage or $2,800 for family coverage in 2021.

Estimates reported from this chapter are from the 2021 MHIS, which was fielded in English and Spanish between July and December 2021 and collected data on 5,000 residents and their families. All estimates provided in this chapter are weighted to provide population-based estimates for the non-institutionalized resident population of the Commonwealth. Additional information about the design of the MHIS is available in the MHIS methodology report. ■

Affordability

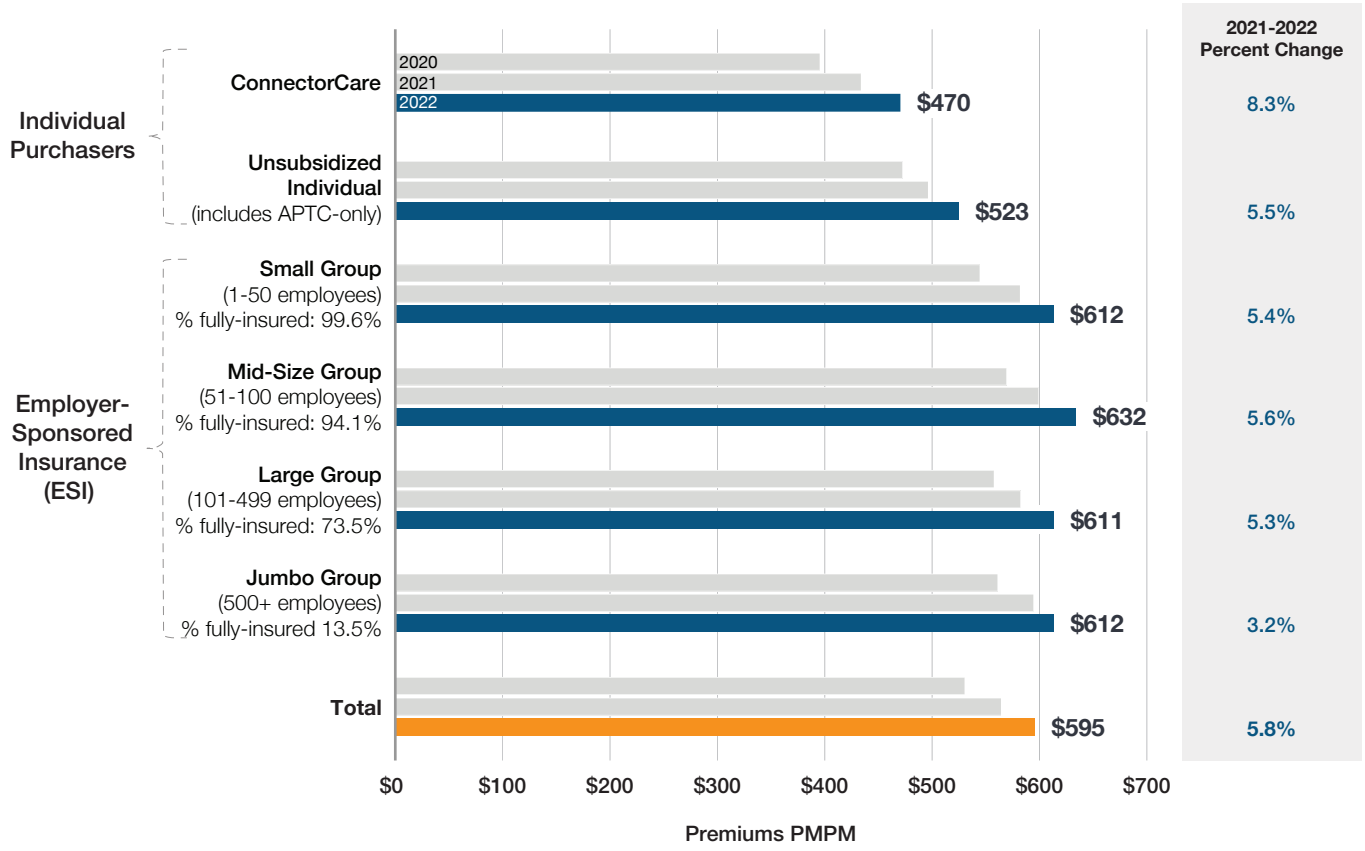
Health insurance premiums are a key health care expense shouldered by members and employers (in the case of employer-sponsored insurance or ESI).[4] Between 2021 and 2022, fully-insured premiums increased 5.8% to $595 PMPM, following a 6.4% increase the previous year. Since 2014, fully-insured premiums have increased 33.7% from $445 PMPM.[5]

Premiums increased between five and six percent in most market sectors from 2021 to 2022. Among ESI sectors, the mid-size employer group reported the greatest premium growth rate at 5.6% as well as the highest average premium at $632 PMPM. The jumbo group sector reported the lowest premium growth rate at 3.2%.

While average ESI premium levels were similar across most employer size categories in 2022, survey data suggests that employees of smaller firms are responsible for paying a larger proportion of their total monthly premiums, on average, than employees of larger firms.[6]

On average, individual purchasers enrolled in plans with lower premiums compared to members with employer-sponsored coverage. Unsubsidized individual-purchaser premiums increased 5.5% between 2021 and 2022 to $523 PMPM. ConnectorCare base premiums (before subsidies) were the lowest of any market sector in 2022 ($470 PMPM) but also increased the fastest at 8.3%. With the application of state and federal subsidies, ConnectorCare members' premium contributions remained stable and were substantially lower during this period.[7]

Fully-Insured Premiums by Market Sector, 2020-2022



Fully-insured premiums increased by 5.8% from 2021 to 2022, with the mid-size group sector reporting the fastest growth rate and highest premium among ESI plans.

Source: Payer-reported data to CHIA.

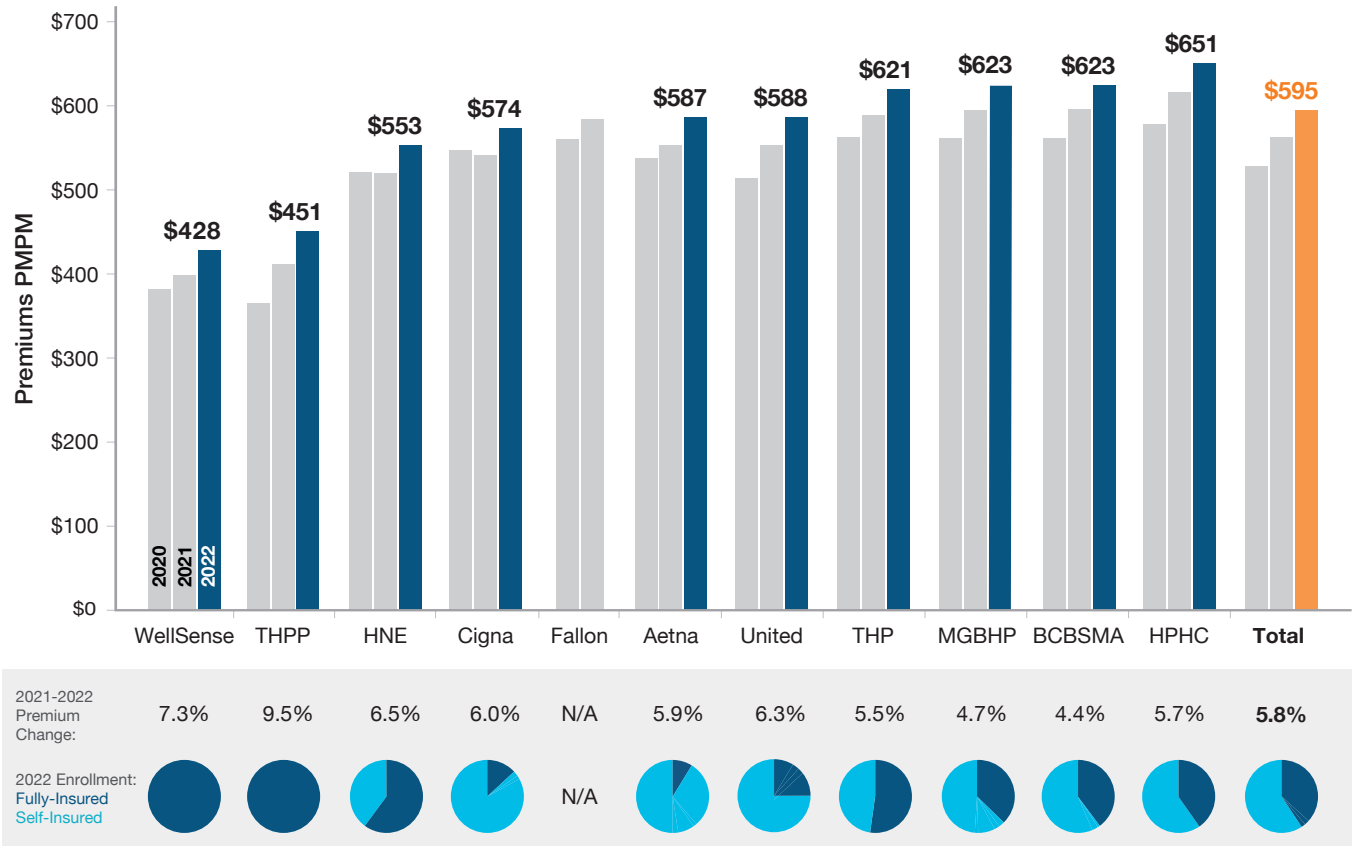
Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Reported premiums are net of MLR rebates and reflect fully-insured premiums only. Premiums have not been scaled to account for benefit carve-outs, which may vary by plan. For the data used in this chapter, CHIA instructed payers to adjust reported premium dollars to account for any refunds or credits that they issued in 2020. Unsubsidized individual purchasers include some members receiving APTCs (which would reduce members' contributions below these reported premium amounts). The GIC did not offer fully-insured coverage. In 2022, Fallon stopped offering most of its commercial plans, except for its Community Care small group product and individual products; as a result, Fallon fell below the membership threshold for reporting and did not submit data for CY2022. Data for Fallon is included in CY2020 and CY2021. See technical appendix.

Affordability

Average premiums vary across payers, reflecting underlying differences in payer market sector participation, provider contracting, benefit design, negotiated prices, and other factors.

As seen in prior years, WellSense (formerly BMCHP) and THPP—which specialize in low-cost plans with smaller networks—had the lowest average premiums in 2022 ($428 PMPM and $451 PMPM, respectively). Both payers operated primarily in the merged market and enrolled large ConnectorCare populations in 2022 (ConnectorCare represented 78.7% of WellSense's membership and 47.2% of THPP's membership). HNE, which offered both merged market and larger employer plans, had the next lowest average premium at $553 PMPM.

Fully-Insured Premiums by Payer, 2020-2022



WellSense and THPP, which focus on the merged market and enroll high numbers of ConnectorCare members, had the lowest average premiums in 2022.

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 and reflect fully-insured premiums only. 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. Premiums have not been scaled to account for benefit carve-outs, which may vary by plan. In 2022, Fallon stopped offering most of its commercial plans, except for its Community Care small group product and individual products; as a result, Fallon fell below the membership threshold for reporting and did not submit data for CY2022. Data for Fallon is included in CY2020 and CY2021. See technical appendix.

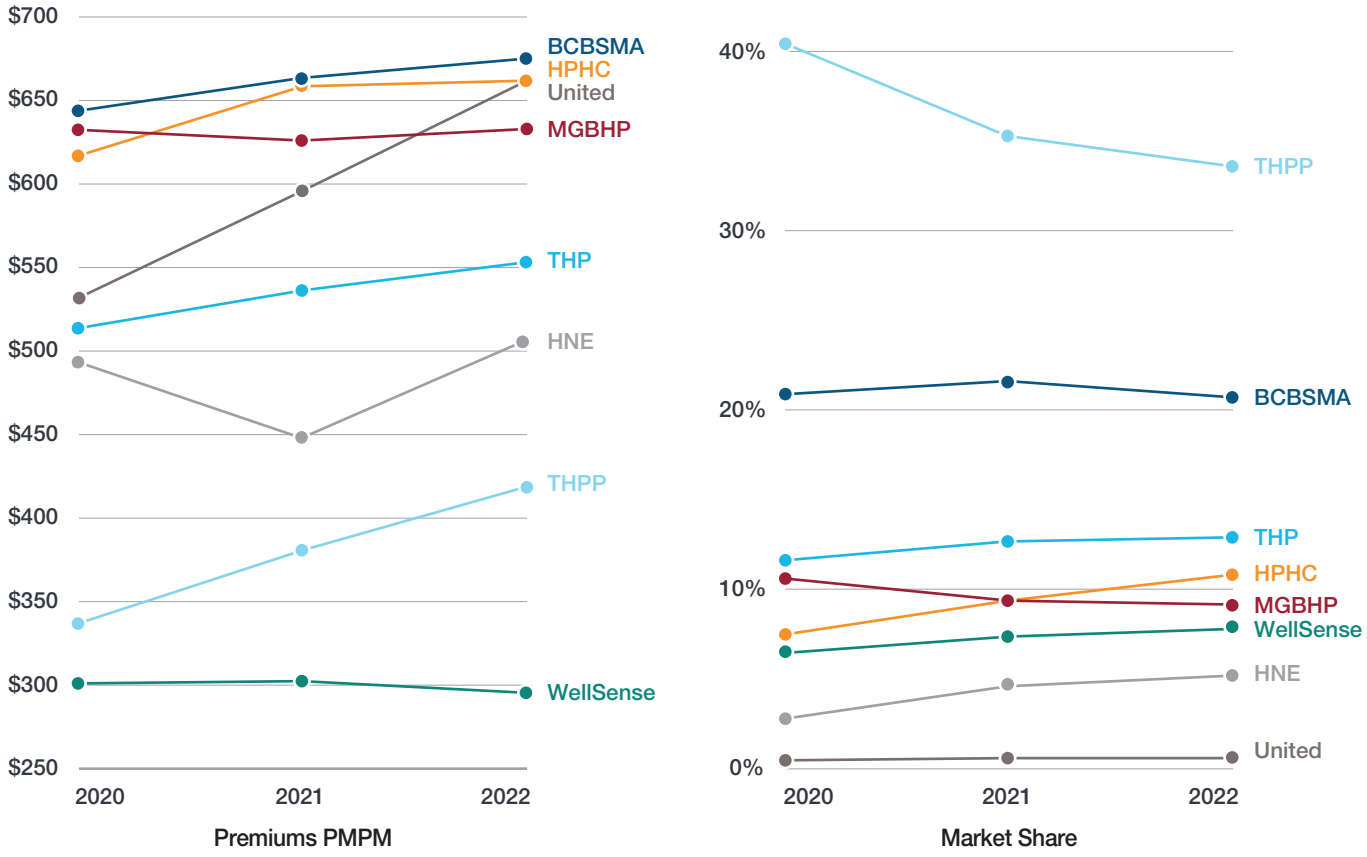
Affordability

Unsubsidized individual purchasers navigate a range of coverage options that vary by premium, benefit level (metallic tier), provider network, and other factors. Average premium trends reflect both changes in the premium rates offered by payers and movement of members across payers and plan types. From 2021 to 2022, the outcome of these individual decisions across the market was that average unsubsidized individual premiums increased 5.5%.

Average premiums by payer varied from a high of $675 PMPM (BCBSMA) to a low of $296 PMPM (WellSense) in 2022. Apart from WellSense, all payers reported increases in unsubsidized individual premiums, ranging from 0.3% to 12.6%, during this period.

In 2022, HNE reported the largest unsubsidized individual premium increase at 12.6% after declining in 2021. THPP reported a 9.8% increase in average unsubsidized individual premiums and retained the highest market share among unsubsidized individual purchasers (33.6%) despite market share losses in 2021 and 2022.

Unsubsidized Individual Premiums and Market Share, 2020-2022



In 2022, 33.6% of unsubsidized individual purchasers were enrolled through THPP, which had the second-lowest average premiums PMPM.

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 and reflect fully-insured premiums only. 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. Premium data for Fallon was excluded from the graph. Data presented does not include APTC-only.

Affordability

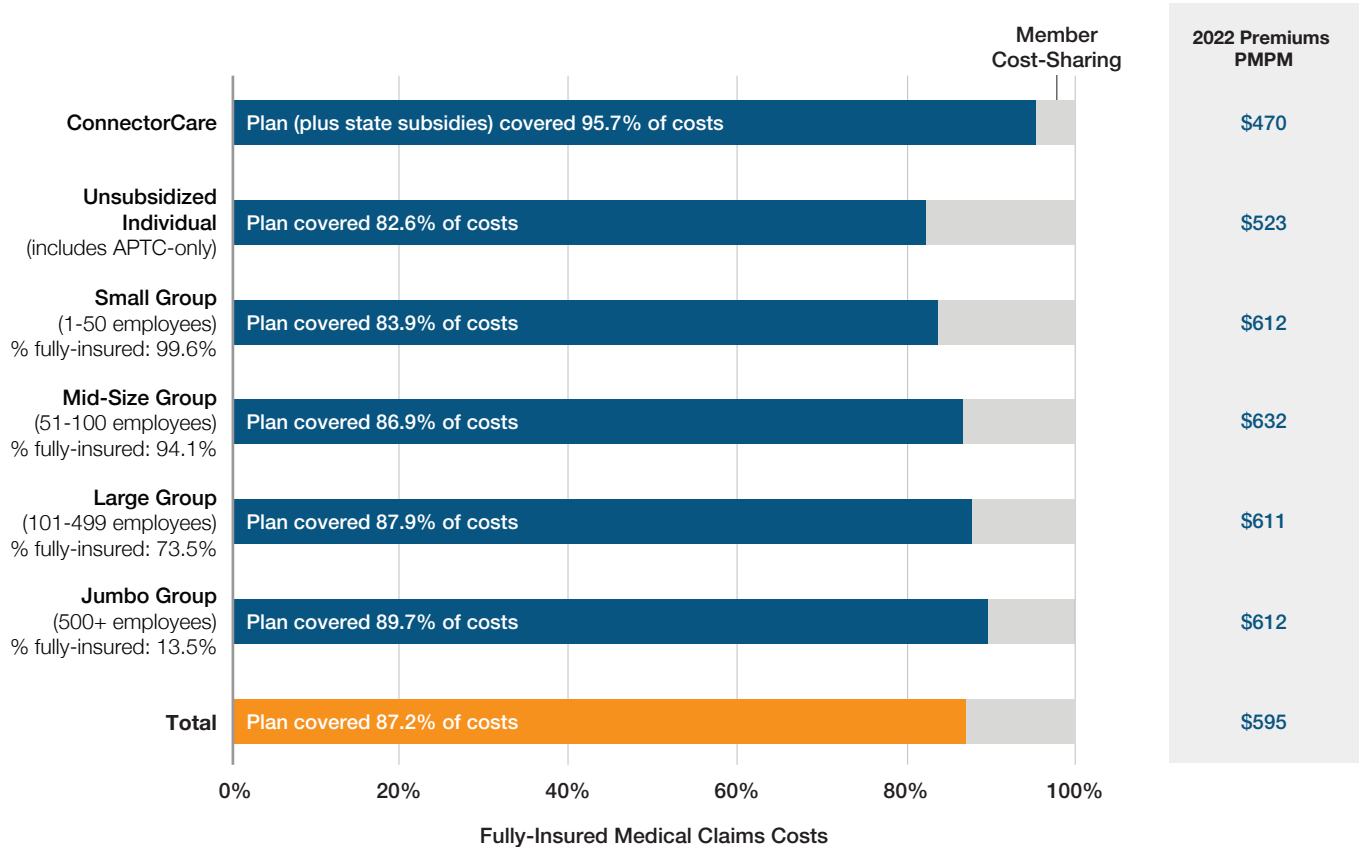
Insurance purchasers (members and/or employers) compare and balance health plan premiums with potential out-of-pocket costs ("member cost-sharing"). Some may choose plans with lower premiums and higher deductibles, lowering upfront costs but leaving members at risk of high medical bills in the future. Others may prefer higher monthly premiums in exchange for plans that cover a greater percentage of costs when medical services are used. CHIA's "benefit level" metric quantifies the percentage of medical costs covered by fully-insured commercial health plans.

In 2022, Massachusetts fully-insured contract members enrolled in plans where, on average, the insurer paid 87.2% of medical costs for benefits included in the member's medical insurance. The average fully-insured benefit level decreased from 2020 to 2022, with the total benefit level at 89.0% in 2020, 88.0% in 2021, and 87.2% in 2022, a trend consistent across all market sectors.

Benefit levels varied across private commercial market sectors. Despite members enrolled in smaller employer plans paying, on average, similar or higher monthly premiums than members in larger employer plans, members enrolled through larger employer groups had more of their medical costs covered by their health plans. ConnectorCare members had 95.7% of their medical costs covered by their health plans, including state subsidies.

Benefit levels are one of many factors that influence premiums, including provider network size, experience rating, and efficiencies of scale.

Fully-Insured Benefit Levels by Market Sector, 2022



Members enrolled in health insurance plans offered by larger employer groups benefited from plans that covered a higher percentage of health care costs.

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 and reflect fully-insured premiums only. Premiums have not been scaled to account for benefit carve-outs, which may vary by plan. Claims amounts were adjusted for pharmacy rebates reported by payers. Unsubsidized individual purchasers include some members receiving APTCs. Fallon fell below the membership threshold for reporting and did not submit data for CY2022. Data for Fallon is included in CY2020 and CY2021. See technical appendix.

Affordability

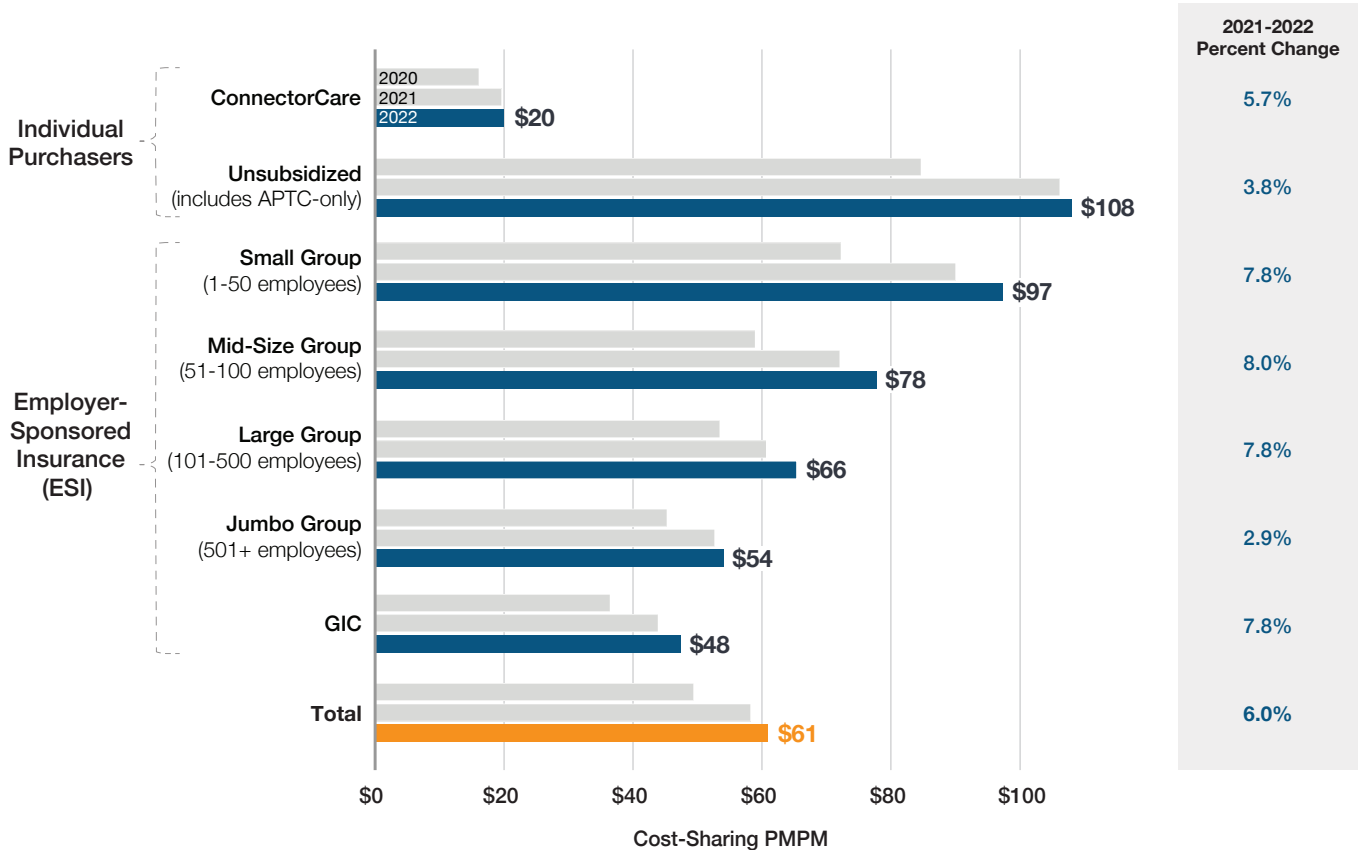
From 2021 to 2022, cost-sharing for Massachusetts commercial contract members increased 6.0% to $61 PMPM. Cost-sharing rates fluctuated during the pandemic due to volatile utilization; however, the 2022 cost-sharing average surpassed pre-pandemic levels ($58 in 2019) for the first time.[8] For comparison, in 2014, average member cost-sharing was $45 PMPM.[9]

Unsubsidized individual purchasers refer to individuals who purchase non-ConnectorCare plans from the Massachusetts Health Connector or directly from payers and often have income levels surpassing eligibility thresholds for state subsidies. These purchasers have consistently had the highest member cost-sharing of any market sector since CHIA started measuring this population. Unsubsidized member cost-sharing amounts rose to $108 PMPM in 2022, a 3.8% increase from 2021.

Across the entire private commercial market, including employer-sponsored insurance sectors, cost-sharing increased the fastest for members in the mid-size group (+8.0%), small group (+7.8%), and large group (+7.8%) market sectors. Small, mid-size, and large group market sectors experienced increases in cost-sharing that surpassed pre-pandemic levels ($86, $70, and $61 PMPM in 2019, respectively), while ConnectorCare and jumbo group members' cost-sharing PMPM in 2022 returned to pre-pandemic levels ($20 and $55 PMPM, respectively, in 2019).

Small and mid-size group market sectors continued to have the highest cost-sharing amounts among all employer group sizes in 2022 at $97 PMPM and $78 PMPM, respectively. The GIC continued to have the lowest member cost-sharing of any employer-sponsored insurance (ESI) group at $48 PMPM in 2022.

Private Commercial Member Cost-Sharing by Market Sector, 2020-2022



From 2021 to 2022, total member cost-sharing increased 6.0%, with small and mid-size group sectors experiencing the greatest increase above 2019 pre-pandemic levels.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents, and includes fully- and self-insured data. Cost-sharing amounts have not been scaled to account for benefit carve-outs, which may vary by plan. Claims amounts were adjusted for pharmacy rebates reported by payers. Unsubsidized individual purchasers include some members receiving APTCs. In 2022, Fallon stopped offering most of its commercial plans, except for its Community Care small group product and individual products; as a result, Fallon fell below the membership threshold for reporting and did not submit data for CY2022. Data for Fallon is included in CY2020 and CY2021. See technical appendix.

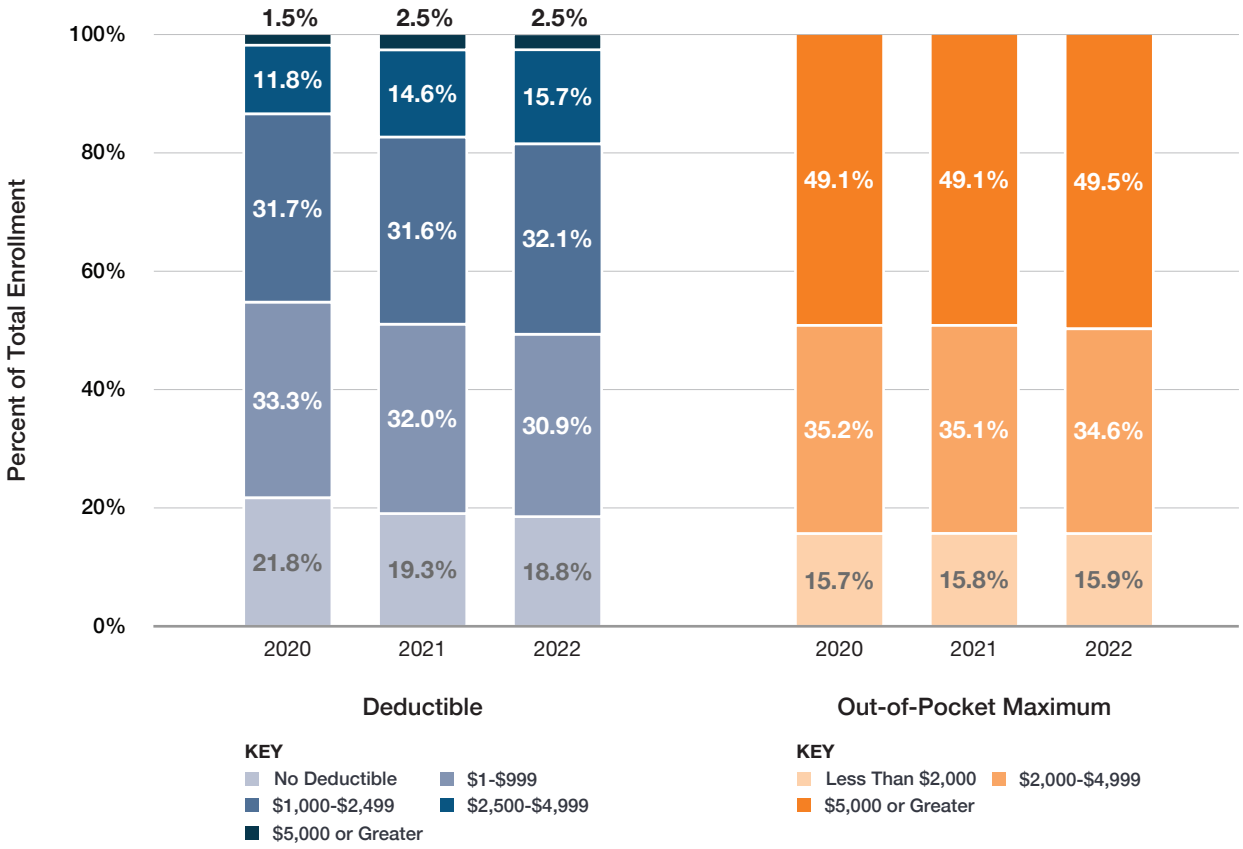
Affordability

One driver of growing member cost-sharing and affordability issues is increasing deductible levels and enrollment in high deductible health plans (HDHPs). Approximately four out of five Massachusetts private commercial members have been enrolled in plans with deductibles since CHIA began collecting plan deductible and out-of-pocket maximum data in 2016.

The percentage of members with no deductible continued to decline, decreasing 0.5 percentage points from 2021 to 2022, a slower rate than the 2.5 percentage point decline the prior year. The percentage of members with single (individual) policy deductibles over $2,500 continued to increase in 2022, now representing 18.2% of members, having grown 1.1 percentage points since 2021 and 4.9 percentage points since 2020.

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 out-of-pocket maximums at $5,000 or greater increased 0.4 percentage points in 2022, faster than the previous year. The percentage of members with out-of-pocket maximums between $2,000-$4,999 decreased slightly from 2021, and the percentage of members with out-of-pocket maximums below $2,000 remained relatively steady.

Private Commercial Enrollment by Deductible and Maximum Out-of-Pocket Level, 2020-2022



In 2022, 50.3% of private commercial members had an annual deductible of at least $1,000, with a growing share having annual deductibles greater than $2,500.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents, and includes fully- and self-insured data. Data based on individual deductibles and out-of-pocket maximums. Fallon fell below the membership threshold for reporting and did not submit data for CY2022. Data for Fallon is included in CY2020 and CY2021. See technical appendix.

Affordability

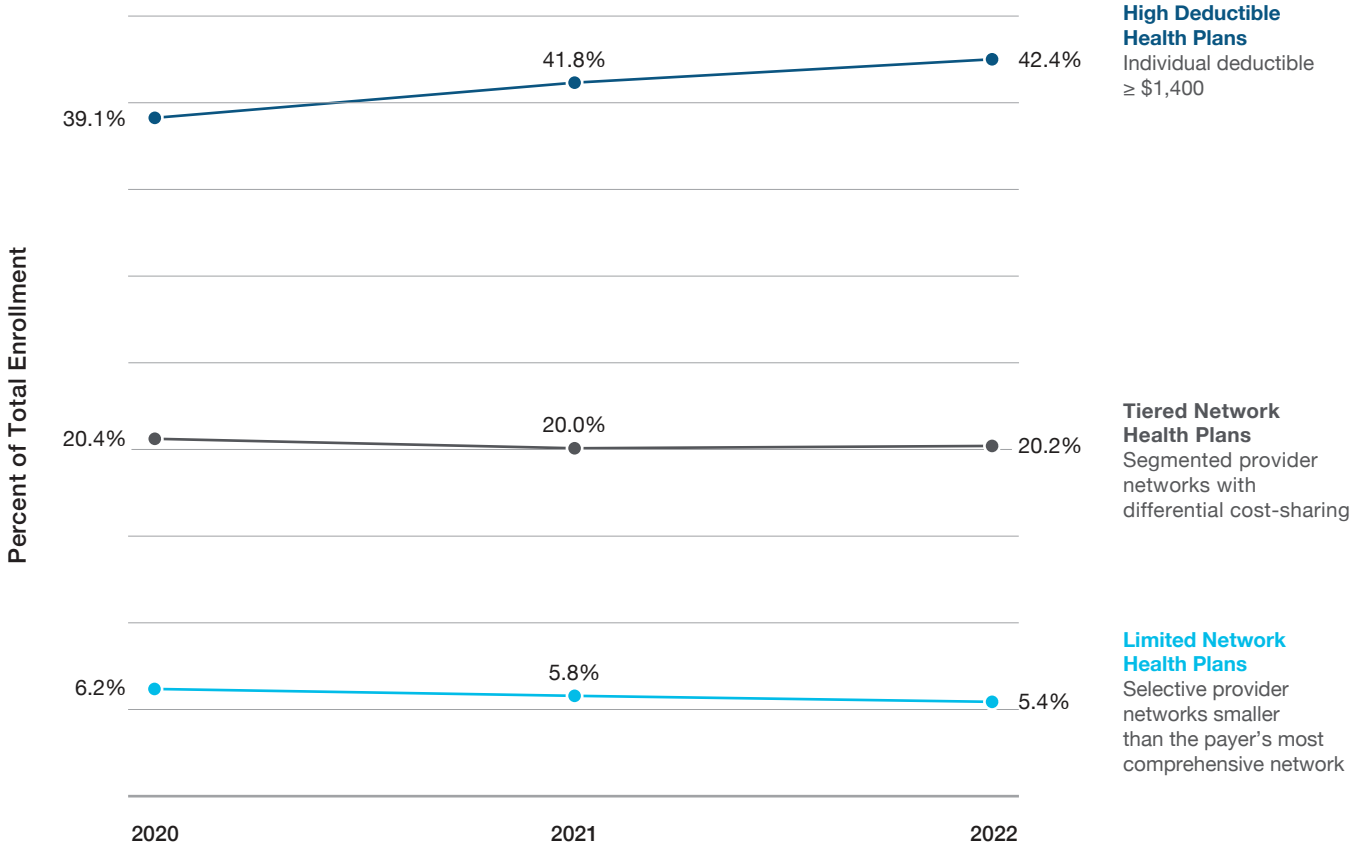
One strategy utilized by health plans and employers for lowering medical claims and premium costs is to structure benefits so that members have incentives to seek high-value care. Three benefit design types offered in Massachusetts are HDHPs, tiered networks, and limited networks.[10] These approaches may not always lower out-of-pocket costs for members.

HDHPs typically have lower premiums but greater member cost-sharing than traditional health plans. From 2021 to 2022, HDHP enrollment among Massachusetts members increased from 41.8% to 42.4% of the private commercial market, a slower increase than the previous year but continuing a long-term growth trend over the last decade. For comparison, in 2014, only 19.0% of the Massachusetts commercial market was enrolled in HDHPs.[11]

From 2020 to 2022, enrollment in tiered networks (20.2% of members in 2022) remained relatively steady and limited network enrollment (5.4% of members) slowly declined.[12]

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 14.2% of private commercial members were enrolled in tiered networks.

Enrollment by Benefit Design, 2020-2022



High deductible health plans continue to be the largest and fastest growing among benefit design types monitored by CHIA.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents, and includes fully- and self-insured data. HDHPs were defined by IRS individual plan deductible threshold which was $1,400 in 2020, 2021, and 2022. Benefit design types are not mutually exclusive. See technical appendix. Enrollment data for Fallon was excluded.

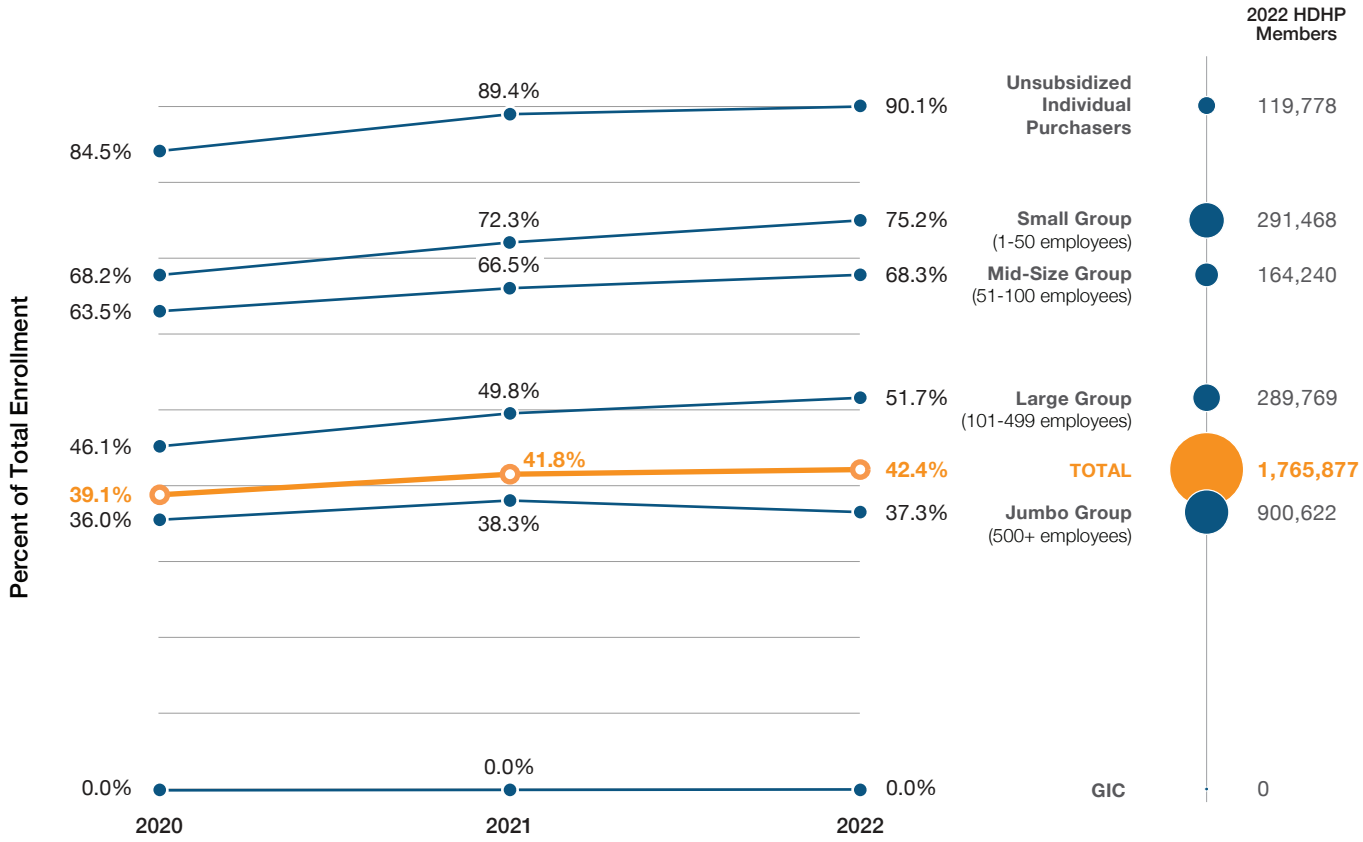
Affordability

In 2022, over 1.7 million Massachusetts members (42.4%) were enrolled in HDHPs with individual deductible levels of at least $1,400. This continued a long-term growth trend in HDHPs, which have increased in prevalence every year since 2014 when 19.0% of Massachusetts members were enrolled in HDHPs.[13] HDHPs increased in almost every market sector where they were offered, except for jumbo group (-1.0 percentage points), and grew fastest in the small group sector (+2.9 percentage points).

Although the majority of HDHP members in 2022 received coverage through larger employers, the proportion of members enrolled in HDHPs tended to decrease as group size increased, with 90.1% of unsubsidized individual purchasers and over two-thirds of members covered through small and mid-size employers enrolled in a HDHP. HDHPs were not offered to GIC or ConnectorCare members.

While payers did not report how many HDHP members had access to Health Saving Account (HSA) or Health Reimbursement Arrangement (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 aim to help offset out-of-pocket costs.[14]

HDHP Enrollment by Market Sector, 2020-2022



HDHP enrollment continued to grow steadily across nearly all market sectors, with the fastest growth among small group purchasers.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents, and includes fully and self-insured data. Total may not sum due to rounding. HDHPs were defined by IRS individual plan deductible threshold which was $1,400 in 2020, 2021 and 2022. ConnectorCare trend not shown as members are not offered HDHPs. Unsubsidized individual purchasers include federal APTC-only members who do not qualify for ConnectorCare plans and state subsidies. Enrollment data for Fallon was excluded.

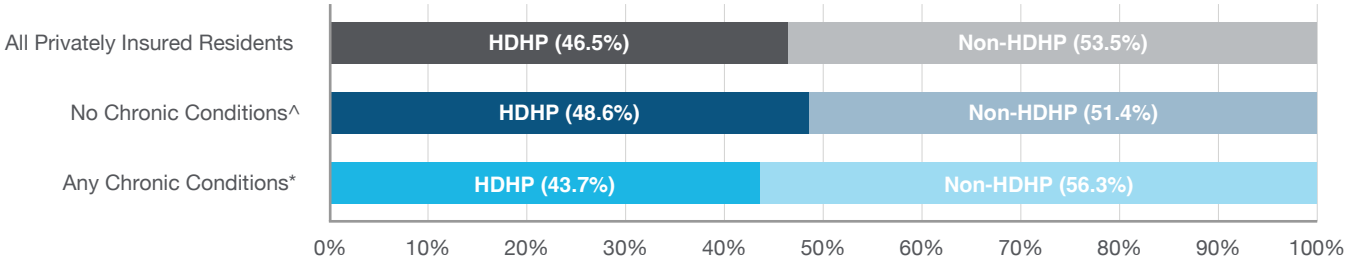
Affordability

Individuals and employers may find the lower premiums of HDHPs increasingly attractive as health care costs continue to rise; however, the recent growth in popularity of HDHPs has raised concerns about the affordability of these plans, particularly for those with high or ongoing health care needs who may utilize more health care services and incur higher copayments or coinsurance.

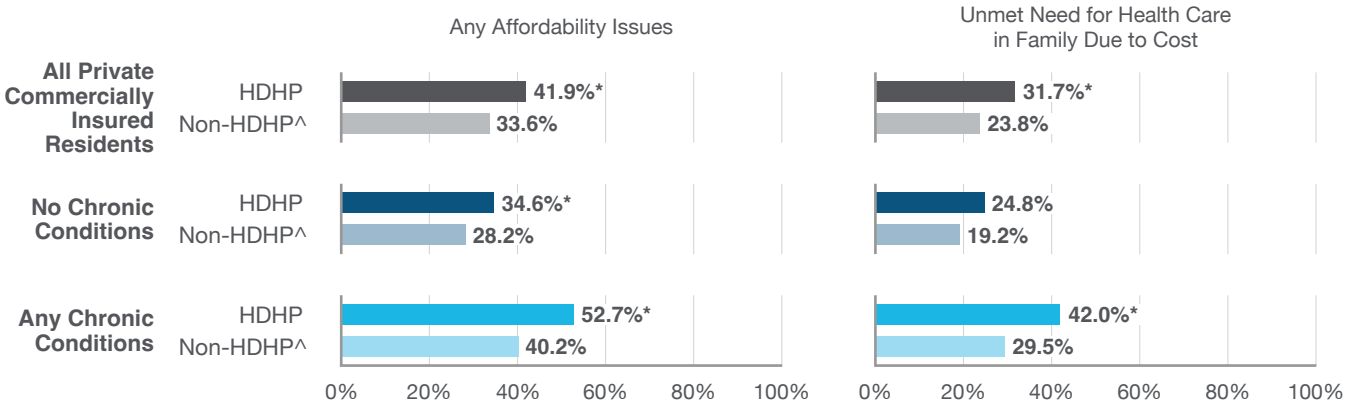
In 2021, private commercial residents covered by HDHPs were more likely than those in non-HDHP plans to report having affordability issues (41.9% vs. 33.6%), including forgoing health care for themselves or a family member due to cost (31.7% vs. 23.8%).[15] These differences were especially pronounced among residents with chronic conditions, where over half of residents with HDHPs reported affordability issues, and over two in five forgo care because of costs. This suggests that meeting the deductible is indeed a challenge for many HDHP enrollees, especially those with higher health care needs, and may negatively impact the care they and their families are able to receive.

HDHP Enrollment and Affordability Issues by Chronic Condition Status Among Private Commercially Insured Residents, 2021

HDHP Enrollment Among Private Commercially Insured Residents



Among Private Commercially Insured Residents, Any Affordability Issues and Unmet Need for Health Care in Family Due to Cost: HDHP vs. Non-HDHP Enrollees



Nearly half of private commercially insured residents were enrolled in HDHPs. These residents reported higher rates of health care affordability issues than those in non-HDHP plans.

Source: 2021 Massachusetts Health Insurance Survey

Notes: For 2021, an HDHP was defined by the IRS a health insurance plan with an annual deductible of $1,400 or more for individual coverage or $2,800 or more for family coverage. Any Affordability Issue is defined as reporting any of the following issues: problems paying family medical bills in past 12 months; family medical debt at the time of survey; spending a high share of family income in past 12 months on out-of-pocket health care expenses; and unmet family health care needs for care perceived as necessary by the resident due to the cost of care in past 12 months.
^Reference group
*Difference from estimate for reference group is statistically significant at the 5% level.

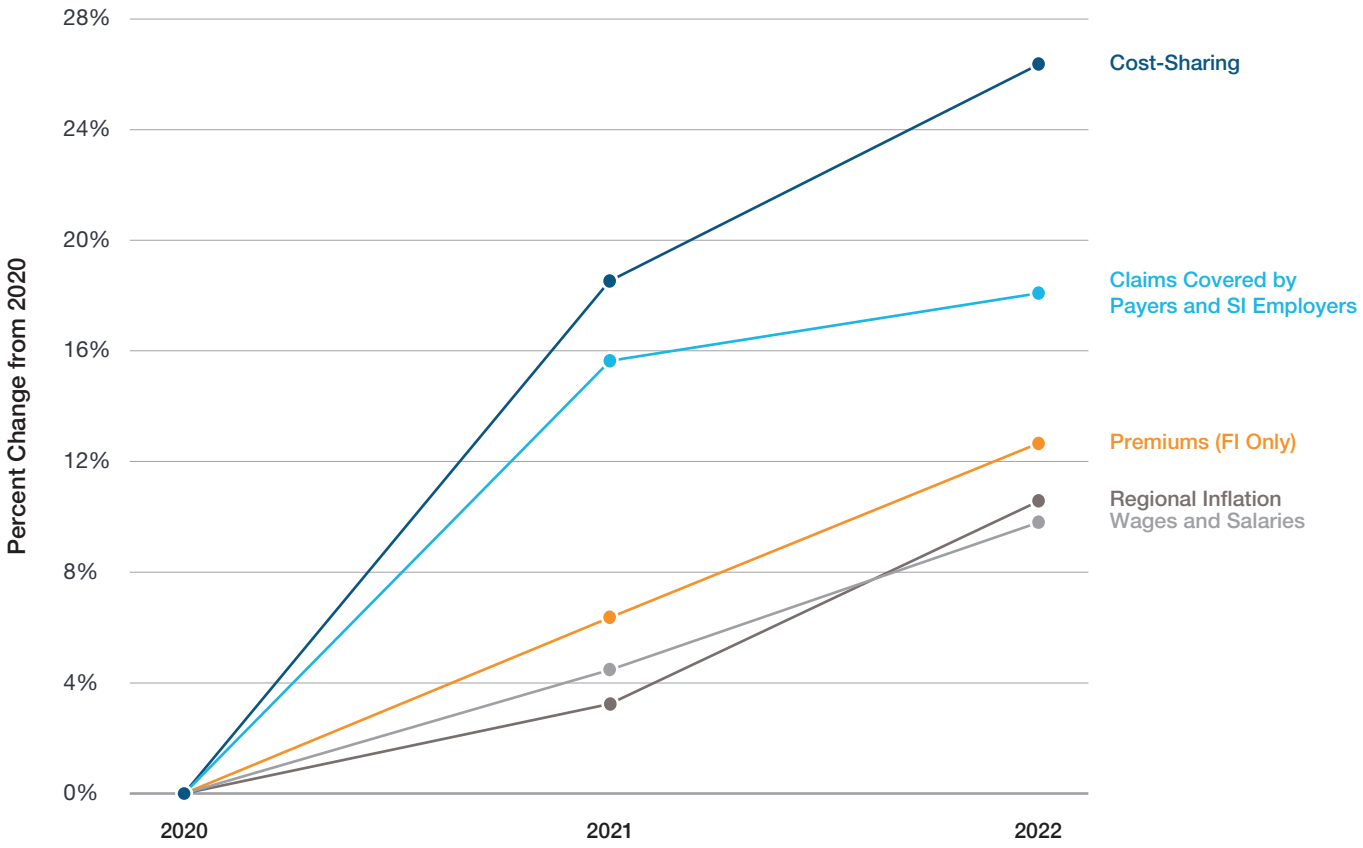
Affordability

The health care costs borne by individuals and families, providers, health plans, employers, and the government are experienced in the context of other economic pressures, including price inflation and trends in wages and salaries.

Between 2020 and 2022, member cost-sharing increased 26.3%, faster than claims covered by payers and self-insured (SI) employers which grew 18.1%. Rapid increases in member cost-sharing and claims spending during this period were driven by historically low health care utilization in the 2020 base year, which rebounded in 2021 and began to normalize in 2022. Premiums, which are set in advance based on historical data and actuarial assumptions, were less impacted by the rapid onset of the COVID-19 pandemic and increased steadily (12.7% from 2020 to 2022). Increases in claims covered by payers and SI employers outpaced premium growth over the three-year period, driven by the steep 2020 to 2021 trend, before leveling off in 2022.

Member cost-sharing, claims costs, and premiums all increased faster than wages and salaries, and regional inflation which grew 9.8% and 10.6% respectively, from 2020 to 2022. The growth rates across these health care cost metrics that continue to outpace broader economic indicators, reflect the pronounced financial pressures and affordability challenges faced by Massachusetts residents and employers, further exacerbated by the COVID-19 pandemic.

Private Commercial Insurance Affordability in Context, 2020-2022



Member cost-sharing and premiums increased at a faster rate than regional inflation and wages and salaries from 2020 to 2022, driven in part by fluctuations in utilization during this time period.

Source: Payer-reported data to CHIA, Bureau of Labor Statistics data.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Claims amounts were adjusted for pharmacy rebates reported by payers. Reported cost-sharing, premiums, and claims amounts have not been scaled to account for benefit carve-outs, which may vary by plan. Graph represents cumulative trends from 2020 to 2022, with 2022 values calculated as (2022 Value-2020 Value)/2020 Value). Fallon fell below the membership threshold for reporting and did not submit data for CY2022. Data for Fallon is included in CY2020 and CY2021. See technical appendix.

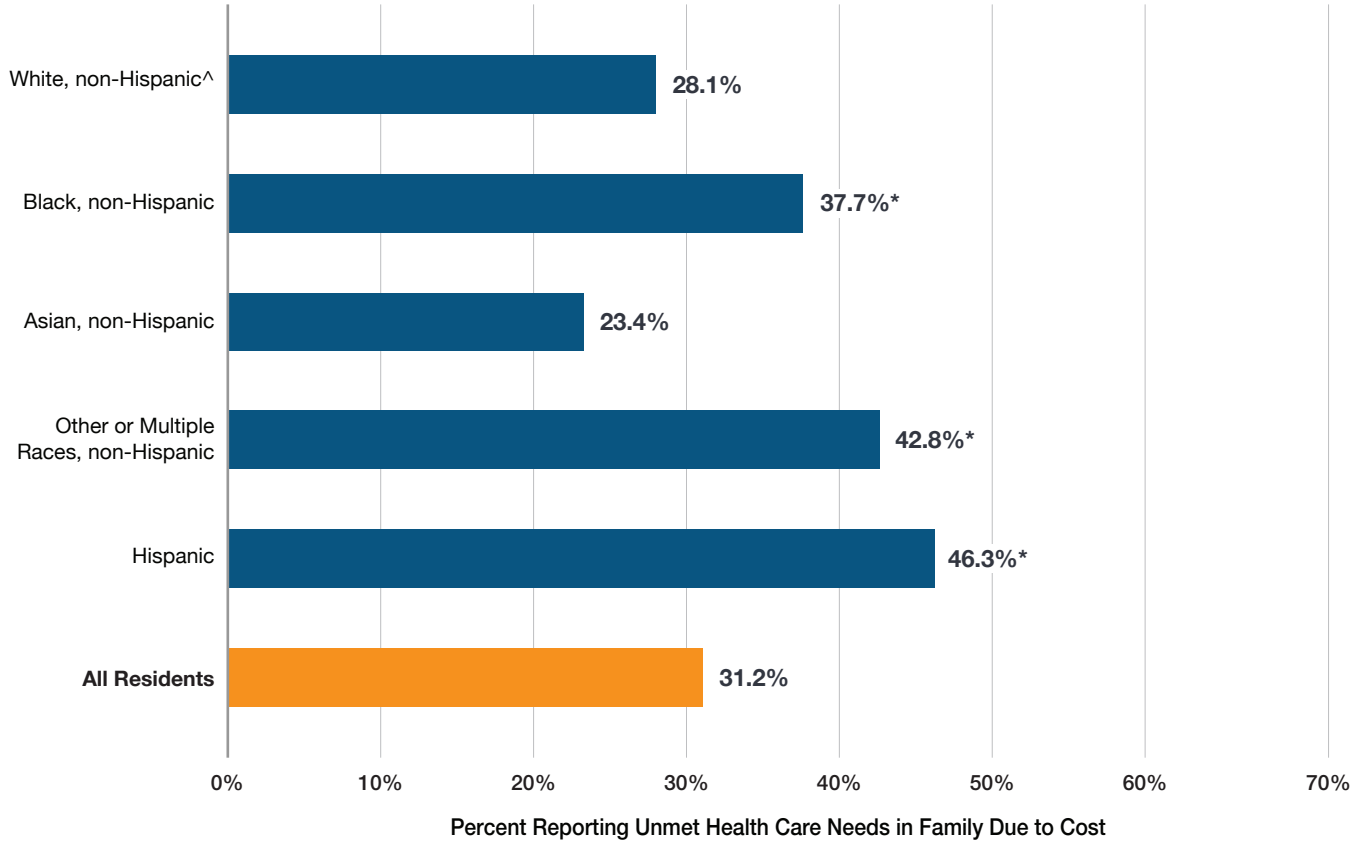
Affordability

As Massachusetts residents experience rising premiums and cost-sharing responsibilities, especially as these costs outpace trends in wages and salaries, a downstream impact may be delaying or forgoing necessary health care.

In a survey of Massachusetts residents and their families, CHIA asked if they had any unmet health care needs due to cost, which included forgoing care by a doctor, nurse practitioner, physician assistant, midwife, or specialist; mental health care or counseling; substance use care or treatment; prescription drugs; dental care; vision care; and/or medical equipment due to cost.

Close to one-third of Massachusetts residents (31.2%) reported having unmet health care needs in their families due to cost in 2021. These unmet needs were most common among Hispanic, residents of other or multiple races, and Black residents.

Unmet Health Care Needs in Family Due to Cost, Overall and by Race/Ethnicity, 2021



Nearly one-third of residents reported they or a family member went without health care they felt was needed due to cost in the past 12 months, with the highest rate reported among Hispanic residents.

Source: 2021 Massachusetts Health Insurance Survey

Notes: "Any unmet need for health care in family due to cost" includes the following family unmet needs due to cost: doctor care; nurse practitioner, physician assistant, or midwife care; specialist care; mental health care or counseling; substance use care or treatment; prescription drugs; dental care; vision care; and medical equipment.

^Reference group

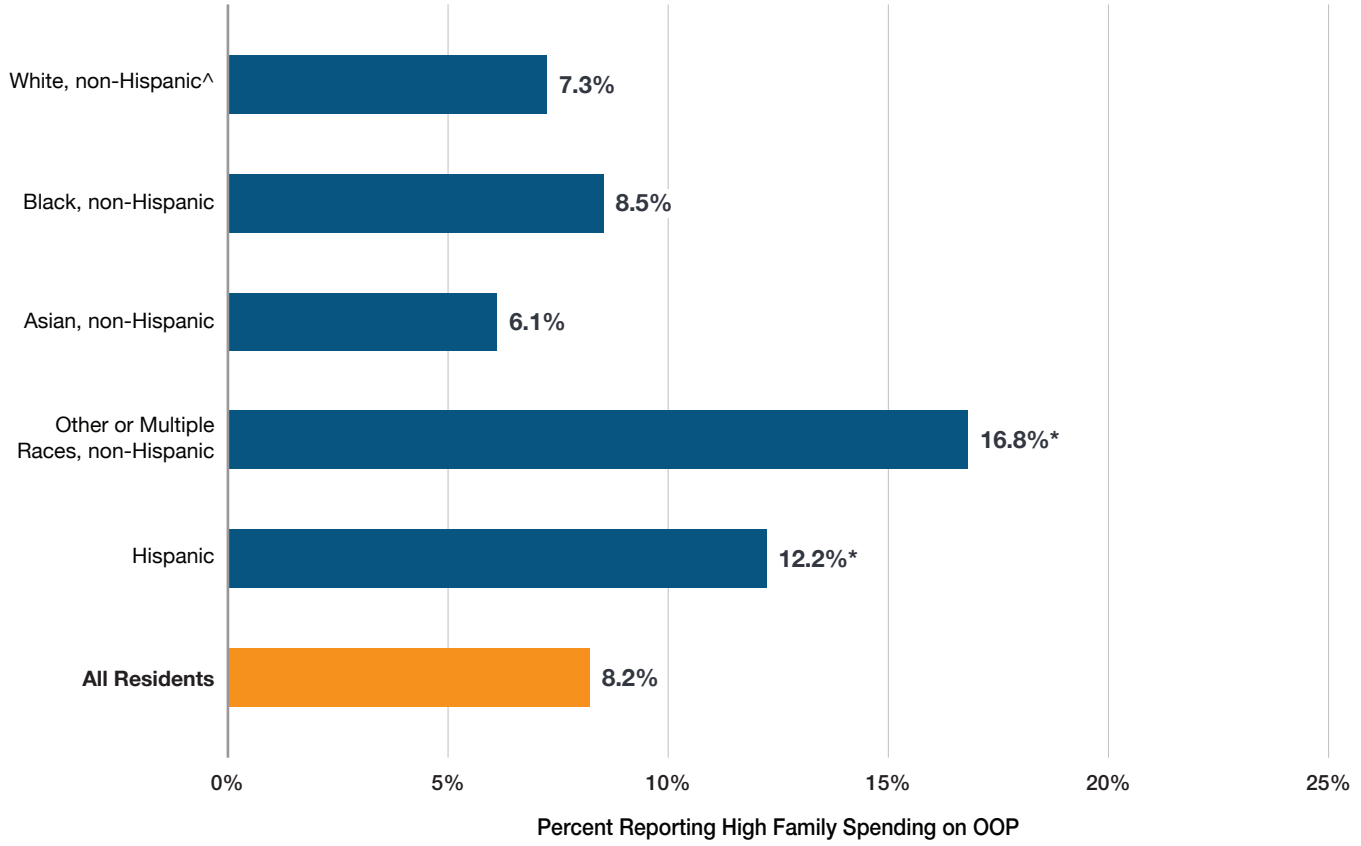
*Difference from estimate for reference group is statistically significant at the 5% level.

Affordability

In 2021, roughly one in 12 Massachusetts residents (8.2%) reported spending a high share of family income on out-of-pocket expenses, defined as spending 5% or more of income for families below 200% of the Federal Poverty Level (FPL) or 10% or more for families at or above 200% of the FPL.

Hispanic residents and residents of other or multiple races reported higher rates of spending a high share of family income on out-of-pocket expenses. This likely reflects a wide range of factors, such as type and generosity of health care coverage, uninsurance, family income, and differences in health care needs.

High Family Spending on Out-of-Pocket Health Care Costs, Overall and by Race/Ethnicity, 2021



One in every 12 residents reported spending a high share of family income on out-of-pocket expenses.

Source: 2021 Massachusetts Health Insurance Survey

Notes: Out-of-pocket expenses include spending on deductibles, copays, and coinsurance for benefits covered by insurance, and all spending on non-covered medical, dental, and vision services that the resident pays for directly. Out-of-pocket spending does not include premiums for health insurance. A high share of family income spent on out-of-pocket costs is defined as 5% or more of income for families below 200% of the Federal Poverty Level (FPL), or 10% or more for families at or above 200% of the FPL.

^Reference group

*Difference from estimate for reference group is statistically significant at the 5% level.

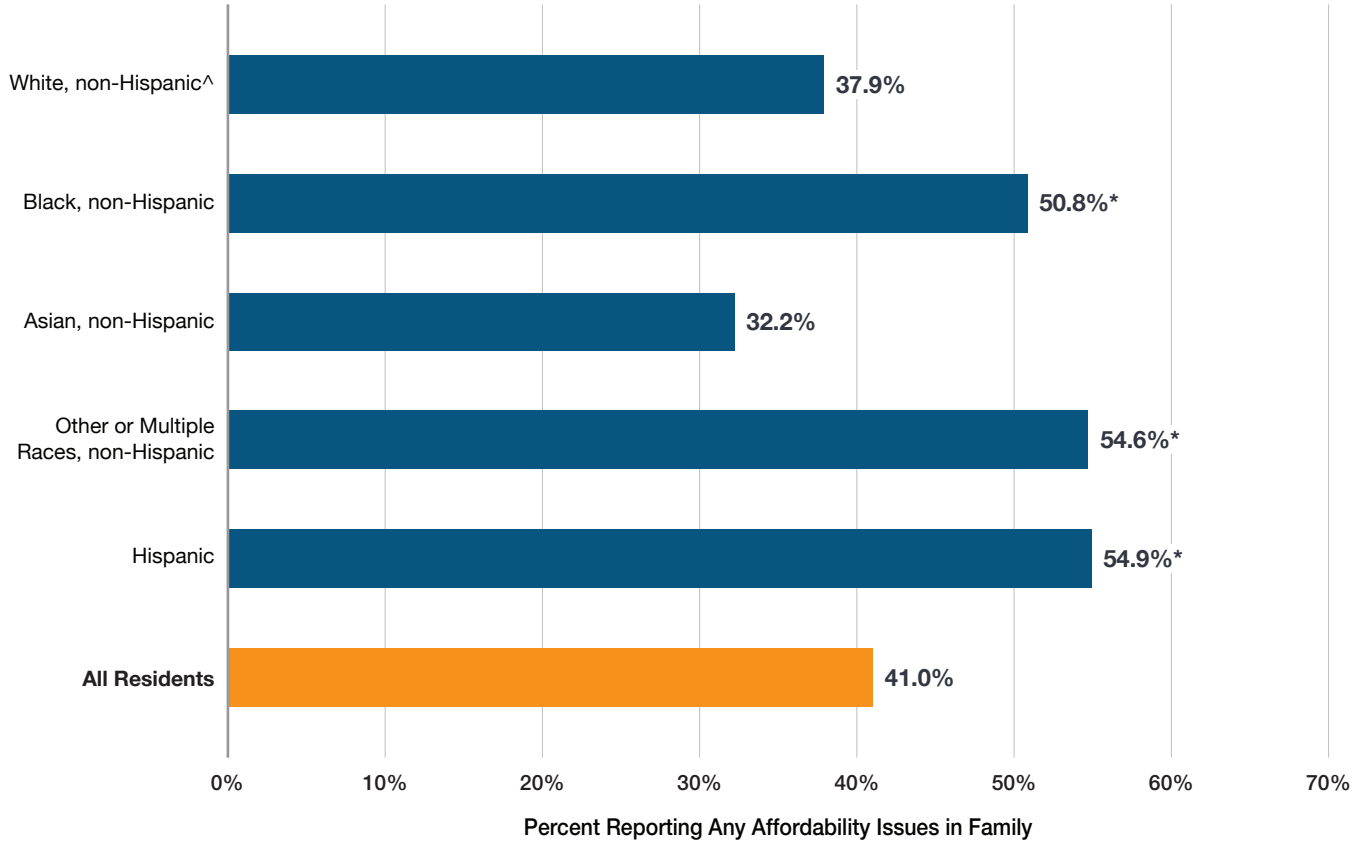
Affordability

The experience of affordability issues among Massachusetts residents varies among different populations.

In 2021, residents were surveyed about their experiences with health care affordability. Over two in five Massachusetts residents (41.0%) reported that their families faced affordability issues within the past 12 months. “Any affordability issues” is defined as having unmet family health care needs due to cost, spending a high share of family income on out-of-pocket health care expenses, having difficulties paying family medical bills or their associated medical debt.

The burden of affordability was greater for Black residents, residents of other or multiple races, and Hispanic residents relative to White residents.

Any Affordability Issues Among Residents and their Families, Overall and by Race/Ethnicity, 2021



Over half of Black and Hispanic residents reported experiencing health care affordability issues in the past 12 months.

Source: 2021 Massachusetts Health Insurance Survey

Notes: “Any Affordability Issues” is defined as reporting any of the following issues: problems paying family medical bills in past 12 months; family medical debt at the time of survey; spending a high share of family income in past 12 months on out-of-pocket health care expenses; and unmet family health care needs due to the cost of care in past 12 months.

^ Reference group

* Difference from estimate for reference group is statistically significant at the 5% level.

Affordability Notes

1. Results based on commercial contract member data provided by Aetna, Blue Cross Blue Shield of Massachusetts (BCBSMA), Fallon Health (CY2020 and CY2021), Harvard Pilgrim Health Care (HPHC), Health New England (HNE), Mass General Brigham Health Plan (MGBHP, formerly AllWays), Tufts Health Plan (Tufts), Tufts Health Public Plans (THPP), UniCare, United Healthcare, and WellSense (formerly BMCHP). 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. Center for Health Information and Analysis, 2021 Massachusetts Employer Survey Summary of Results (Boston, June 2022), http://www.chiamass.gov/massachusetts-employer-survey/
4. Note that all premiums presented in this chart reflect the total set premium, including member contributions, employer contributions (for ESI), and federal and state premium credits and subsidies (for plans sold to individual purchasers).
5. Reported 2014 premiums were scaled by the Percent of Benefits Not Carved Out which is not CHIA's current methodology. For more information, see the 2017 Annual Report and corresponding technical appendix: https://www.chiamass.gov/annual-report/
6. Center for Health Information and Analysis, 2021 Massachusetts Employer Survey Summary of Results (Boston, June 2022), http://www.chiamass.gov/massachusetts-employer-survey/
7. Massachusetts Health Connector, Massachusetts Cost Sharing Subsidies in ConnectorCare: Design, Administration, and Impact (Boston, August 2021), https://www.mahealthconnector.org/wp-content/uploads/MA-Cost-Sharing-Subsidies-in-ConnectorCare-Brief-083021.pdf
8. Center for Health Information and Analysis, 2023 Annual Report. (March 2023). https://www.chiamass.gov/annual-report/
9. Reported 2014 cost-sharing was scaled by the Percent of Benefits Not Carved Out which is not CHIA's current methodology. For more information, see the 2017 Annual Report and corresponding technical appendix: https://www.chiamass.gov/annual-report/
10. 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.
11. Center for Health Information and Analysis, 2017 Annual Report. (September 2017). https://www.chiamass.gov/annual-report/
12. 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.
13. Center for Health Information and Analysis, 2017 Annual Report. (September 2017). https://www.chiamass.gov/annual-report/
14. 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-Health-Plans-CHIA-Research-Brief.pdf
15. Estimates are limited to residents with private health insurance coverage, which includes employer-sponsored insurance, Health Connector Plans, and non-group health insurance plans bought directly from an insurance company. Residents were assigned a single health insurance coverage type based on the following hierarchy: employer-sponsored insurance; Medicare; MassHealth or ConnectorCare; Health Connector Plans; a qualifying student health insurance plan; other private non-group coverage; and other coverage. Employer-sponsored insurance includes all those with coverage from a workplace or union, regardless of enrollment in other coverage types. Estimates should be interpreted with caution because previous research has indicated that types of health insurance coverage other than employer-sponsored coverage are often reported with some error.

KEY FINDINGS

Total Medical Expenses and Alternative Payment Methods

In 2022, all commercial payers reported increases in unadjusted TME PMPM, ranging from 0.9% to 7.4%.

Overall APM adoption remained generally consistent across all insurance categories in 2022. Payer adherence to the Aligned Measure Set for quality measures in global budget APM contracts improved steadily from 2019 to 2022, but some payers continued to report below 60% adherence in 2022.

Following the rebound from the pandemic in 2021, HSA TME PMPM spending continued to increase in 2022 for most commercial payers, with six of 11 payers reporting trends above the benchmark.

Six of the 10 largest physician groups had HSA TME PMPM trends above the 3.1% growth benchmark in at least two payer networks in 2022.

Total Medical Expenses and Alternative Payment Methods

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 PMPM basis for Massachusetts residents. TME includes the amounts paid by the payer as well as member cost-sharing and all categories of covered medical expenses and all non-claims-related payments to providers, including provider performance payments. 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 members for whom the payer had access to and is able to report all claims and non-claims expenses (referred to as "commercial full-claim" in this report). In this chapter, payers are referred to by their names as of 2023.

TME data is examined and reported on a Health Status Adjusted (HSA) basis for each payer's member population in addition to reporting unadjusted aggregate trends. HSA TME adjusts for differences in member illness burden and expected medical costs associated with members' recorded diagnoses. The tools used for adjusting TME for health status of a payer's covered members vary among payers, which prevents comparison of HSA TME levels across payers; unadjusted TME can be used, however, to show payer differences in TME levels and growth. HSA and unadjusted TME trends are reported by payer and managing physician group for the 10 largest managing physician groups within the networks of the

three largest payers. Additionally, CHIA continues to report on aggregate HSA scores by payer in order to better understand trends in reported health status scores and medical spending in the years following the COVID-19 pandemic.

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 fee-for-service (FFS) model. Chapter 224 of the Acts of 2012 set goals to increase the adoption of alternative payment methods (APMs) which are payment arrangements 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. The EOHHS Quality Measure Alignment Taskforce recommends use of the quality measures in the **Massachusetts Aligned Measure Set** in global budget-based risk contract APMs to minimize administrative burden and focus quality improvement efforts on high-value measures and health care priorities.

This chapter reports on 2022 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.

Managing physician group TME: TME for members required by their insurance plan to select a primary care provider (PCP), and for members 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 whose case is paid for under an alternative payment contract with the reporting payer.

Aligned Measure Set Payer Adherence Rate: The proportion of all quality measures in a given payer's global budget-based risk contracts that are endorsed in the Aligned Measure Set. ■

Total Medical Expenses and Alternative Payment Methods

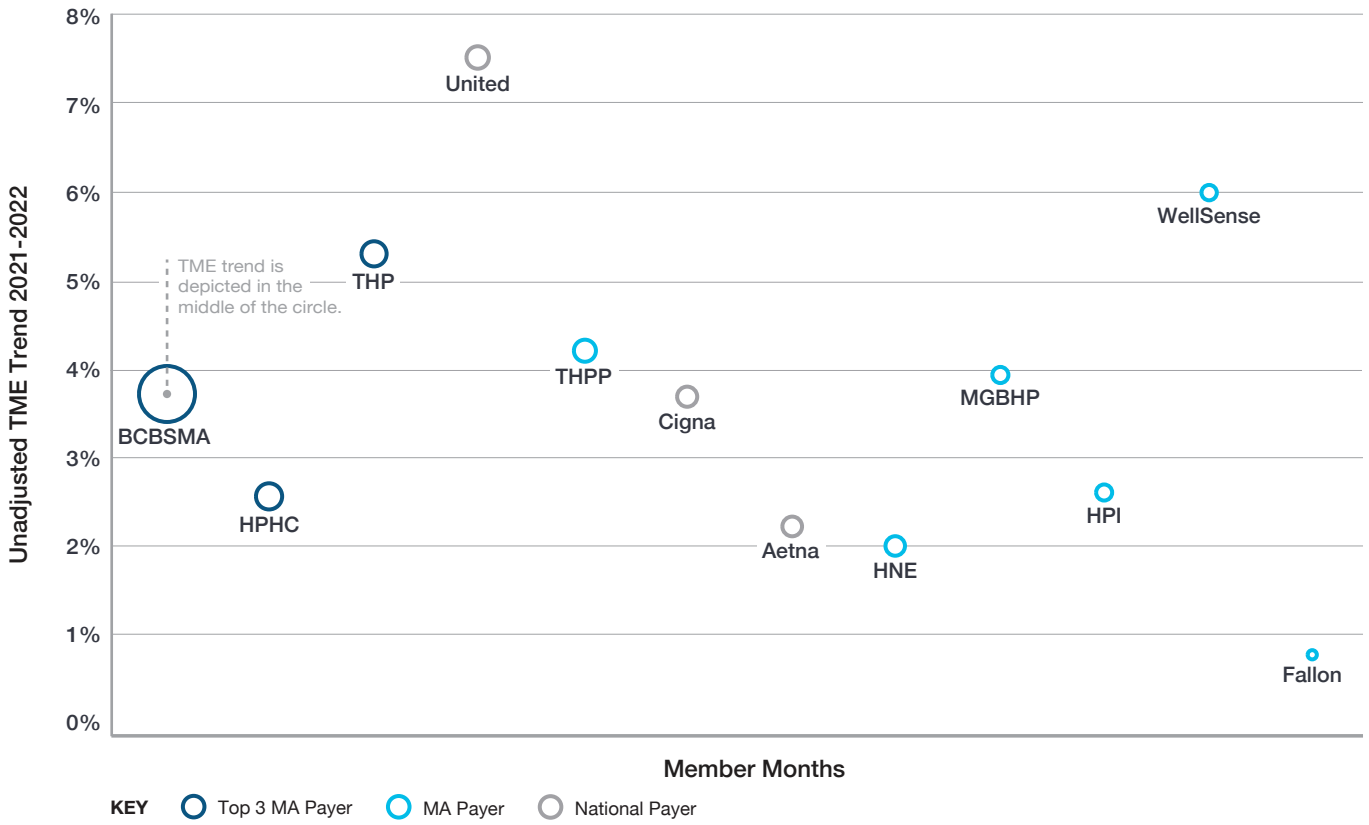
To examine health care spending differences among private commercial health plans, CHIA calculates total medical expenses (TME) per member per month (PMPM). The results on this page are calculated without health status adjustment, reflecting actual payments made to providers without adjusting for differences in the health status of a payer's member population.

From 2021 to 2022, overall commercial health care spending increased by 4.1% PMPM. For additional information on total health care expenditures, see page 17.

All 12 commercial payers reported increases in unadjusted TME PMPM; however, the increases were attenuated compared to the growth reported in 2021. The three largest Massachusetts-based commercial payers, Blue Cross Blue Shield of Massachusetts (BCBSMA), Harvard Pilgrim Health Care (HPHC), and Tufts Health Plan (THP) accounted for 58.7% of commercial full-claim members in 2022. BCBSMA, HPHC, and THP reported unadjusted TME PMPM trends of 3.7%, 2.6%, and 5.2%, respectively, after reported increases of 16.6%, 15.1%, and 16.9% the previous year. United, a national payer, reported the largest increase in unadjusted TME PMPM in 2022, at 7.4%.

Overall commercial full-claim membership decreased by 2.8% from 2021 to 2022, while expenditures remained relatively stable. The decline in membership was driven by Massachusetts-based payers, with six of the nine (Fallon, HPHC, MGBHP, THPP, THP, and WellSense) reporting declines in commercial full-claim member months in 2022. The three national payers (Aetna, Cigna, and United) all reported increases in commercial full-claim member months.

Trends in Commercial Unadjusted TME by Payer, 2021-2022



Circles are scaled to reflect member months. Payers are presented in order based on number of member months from left to right (largest to smallest).

Following increases the previous year, all 12 commercial payers reported moderated increases in unadjusted TME PMPM in 2022.

Source: Payer-reported TME data to CHIA.

Notes: This analysis includes commercial full-claim data only, reflecting members for whom the payer has access to and is able to report all claims expenses, which accounted for 63.8% of total commercial member months in 2022.TME 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. HPHC, THP, THPP, and Health Plans, Inc. (HPI) merged in 2021 but continued to report data as separate entities. As of June 2022, Boston Medical Center HealthNet Plan (BMCHP) does business as WellSense for all products. As of January 2023, AllWays rebranded to Mass General Brigham Health Plan (MGBHP).

Total Medical Expenses and Alternative Payment Methods

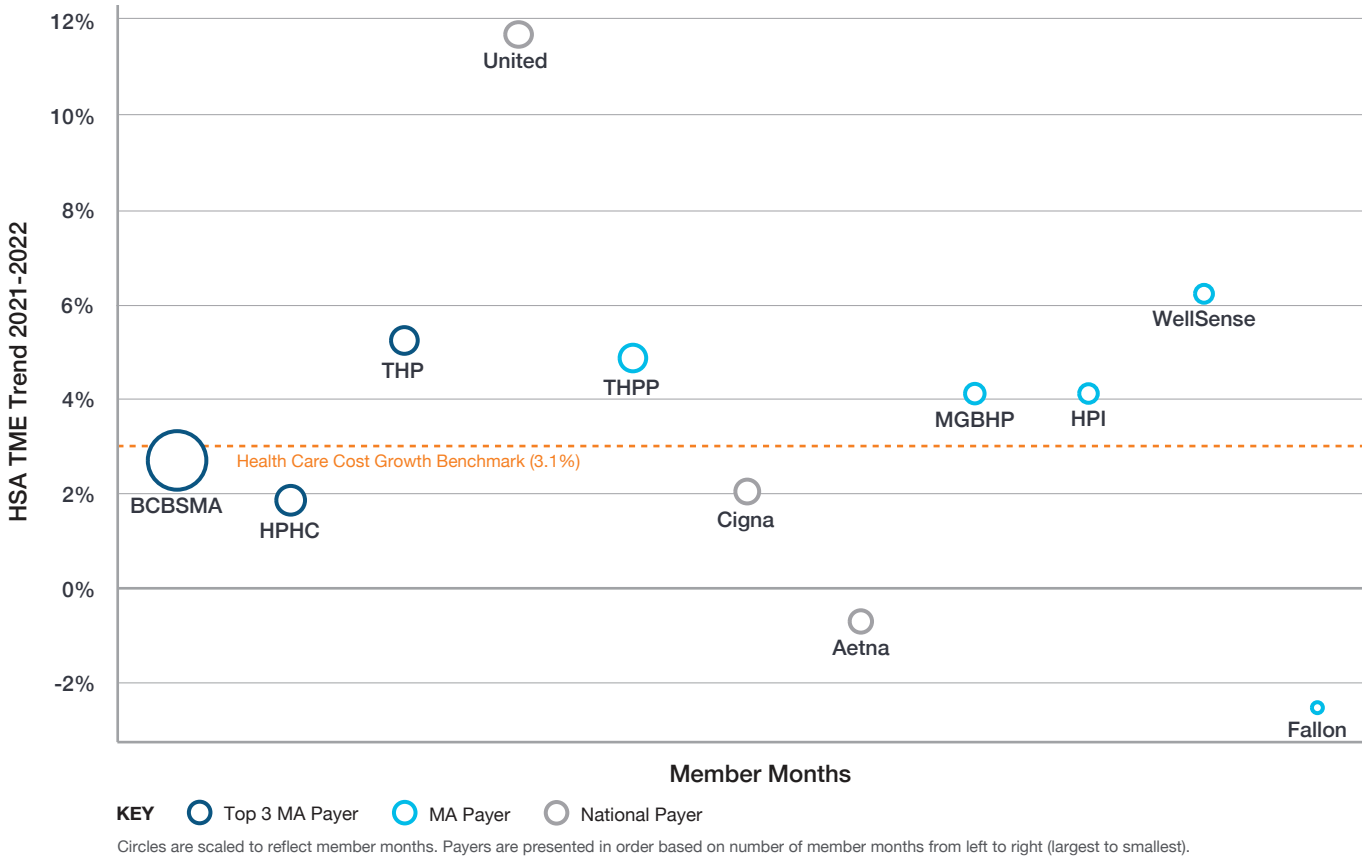
CHIA also examines TME on a health status adjusted (HSA) basis for each payer's member population, which adjusts for differences in member illness burden and medical costs. A payer's HSA TME is reported on a PMPM basis and is used to measure performance against the cost growth benchmark. In 2022, the cost growth benchmark was set at 3.1%.

Six commercial payers reported HSA TME PMPM growth above the 3.1% benchmark from 2021 to 2022, accounting for 33.3% of the commercial full-claim population. United reported the largest growth in HSA TME at 11.7%.

Of the three largest Massachusetts-based payers, THP was the only one with HSA TME to exceed the cost growth benchmark in 2022 at 5.2%. BCBSMA and HPHC reported HSA TME growth at 2.7% and 1.8%, respectively.

Fallon was the only Massachusetts-based payer to report a decline in HSA TME (-2.4%); however, Fallon largely left the commercial market in 2022, reporting a 63.2% decline in commercial full-claim member months. Health Plans Inc. (HPI), Mass General Brigham Health Plan (MGBHP), Tufts Health Public Plan (THPP), and WellSense all reported HSA TME growth above the benchmark at 4.1%, 4.1%, 4.9%, and 6.2%, respectively.

Trends in Commercial HSA TME by Payer, 2021-2022



Circles are scaled to reflect member months. Payers are presented in order based on number of member months from left to right (largest to smallest).

Six commercial payers reported health status adjusted TME trends above the 3.1% health care cost growth benchmark in 2022.

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. This analysis includes commercial full-claim data only, reflecting members for whom the payer has access to and is able to report all claims expenses, which accounted for 63.8% of total commercial member months in 2022. HPHC, THP, THPP, and Health Plans, Inc. (HPI) merged in 2021 but continued to report data as separate entities. As of June 2022, BMCHP does business as WellSense for all products. As of January 2023, AllWays rebranded to Mass General Brigham Health Plan (MGBHP). Health status adjusted data from HNE was excluded due to data quality concerns.

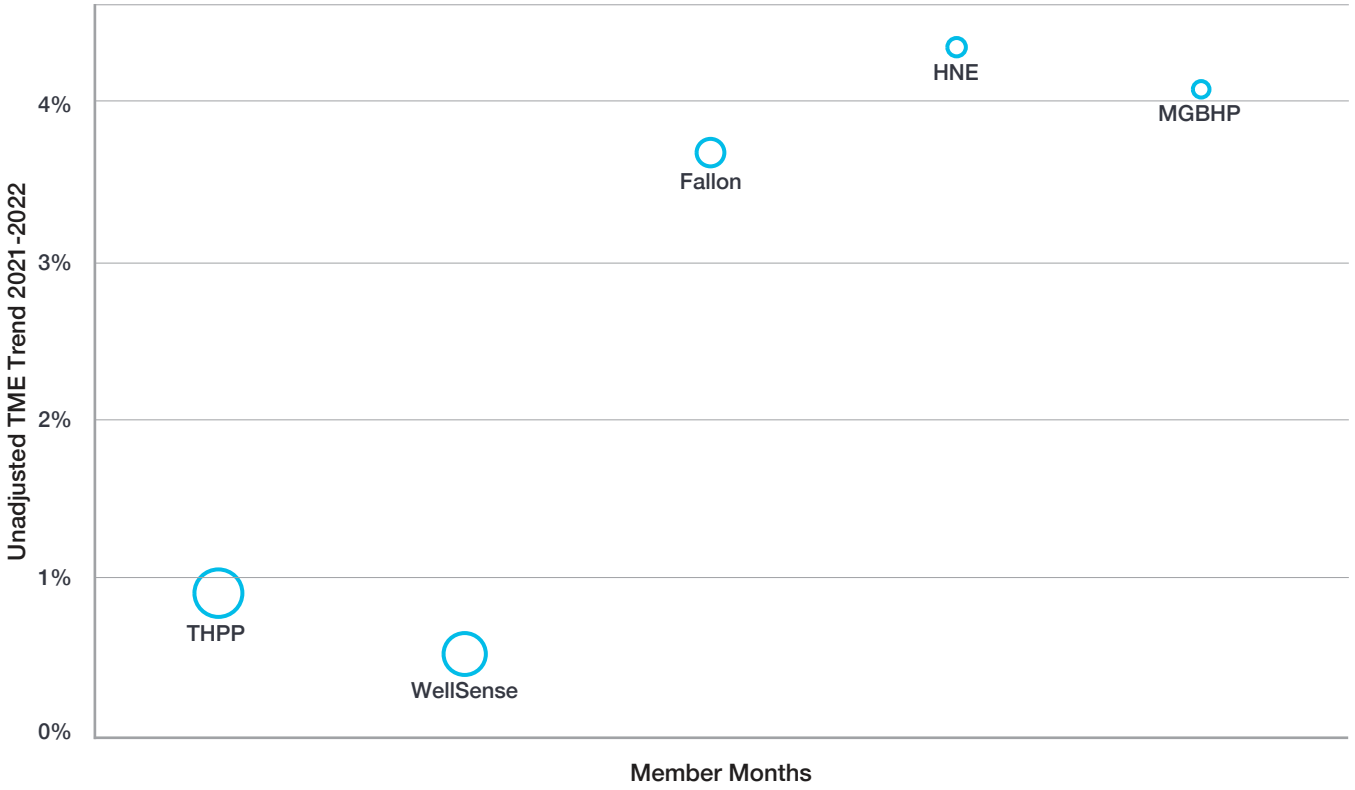
Total Medical Expenses and Alternative Payment Methods

Several commercial payers contract with MassHealth to offer health plans to MassHealth members. In 2021 and 2022, Fallon, Health New England (HNE), and MGBHP enrolled members in MassHealth Accountable Care Partnership Plans (ACO-A), while WellSense and THPP additionally offered Managed Care Organization (MCO) plans to MassHealth members. Consistent with previous years, the majority of MassHealth MCO/ACO-A members were enrolled with THPP, WellSense, and Fallon (89.0% of MCO/ACO-A members).

From 2021 to 2022, all five MassHealth MCO and ACO-A payers reported increased unadjusted TME PMPM spending, ranging from 0.5% to 4.3%. HNE reported the largest growth in TME PMPM spending of the MCO/ACO-A payers, at 4.3%, followed by MGBHP at 4.0% and Fallon at 3.7%. THPP, which represented the largest portion of MCO/ACO-A member months in 2022 (40.2%) reported an increase of 0.9%.

For more information on MassHealth enrollment trends, see page 24.

Trends in MassHealth MCO and ACO-A Unadjusted TME by Payer, 2021-2022



Circles are scaled to reflect member months. Payers are presented in order based on number of member months from left to right (largest to smallest).

All five MassHealth MCO and ACO-A payers reported increases in unadjusted TME PMPM spending in 2022.

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. HPHC, THP, THPP, and Health Plans, Inc. (HPI) merged in 2021 but continued to report data as separate entities. As of June 2022, BMCHP does business as WellSense for all products. As of January 2023, AllWays rebranded to Mass General Brigham Health Plan (MGBHP).

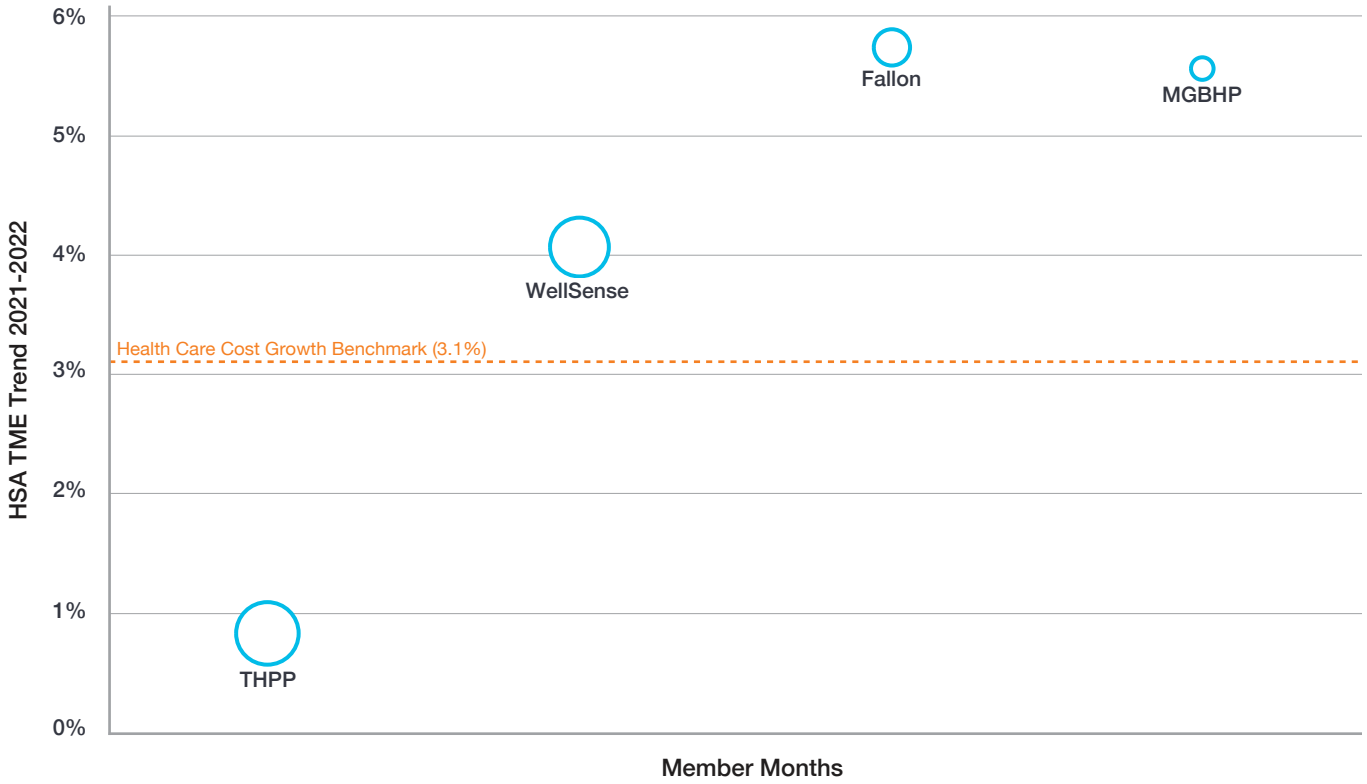
Total Medical Expenses and Alternative Payment Methods

From 2021 to 2022, MCO/ACO-A payers reported increases in HSA TME PMPM, with three of four payers shown reporting trends above the 3.1% cost growth benchmark. MCO/ACO-A spending increases were in part due to payment increases for behavioral health and home and community based services, increased child expenditures due to sick care, and a bounce back in utilization for children.

Fallon reported the largest increase in HSA TME trend at 5.8%, followed by MGBHP at 5.6%, and WellSense at 4.1%, all above the cost growth benchmark. THPP, the largest MCO/ACO-A payer, reported HSA TME trends below the benchmark at 0.8%.

MassHealth MCO/ACO-A membership continued to grow across payers, following increases in enrollment over the previous two years. In 2022, MGBHP reported the largest growth in membership, increasing by 9.4%.

Trends in MassHealth MCO and ACO-A HSA TME by Payer, 2021-2022



Circles are scaled to reflect member months. Payers are presented in order based on number of member months from left to right (largest to smallest).

In 2022, MassHealth MCO and ACO-A payers reported increases in HSA TME PMPM, with three payers reporting trends above the benchmark.

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. HPHC, THP, THPP, and Health Plans, Inc. (HPI) merged in 2021 but continued to report data as separate entities. As of June 2022, BMCHP does business as WellSense for all products. As of January 2023, AllWays rebranded to Mass General Brigham Health Plan (MGBHP). Health status adjusted data from HNE was excluded due to data quality concerns.

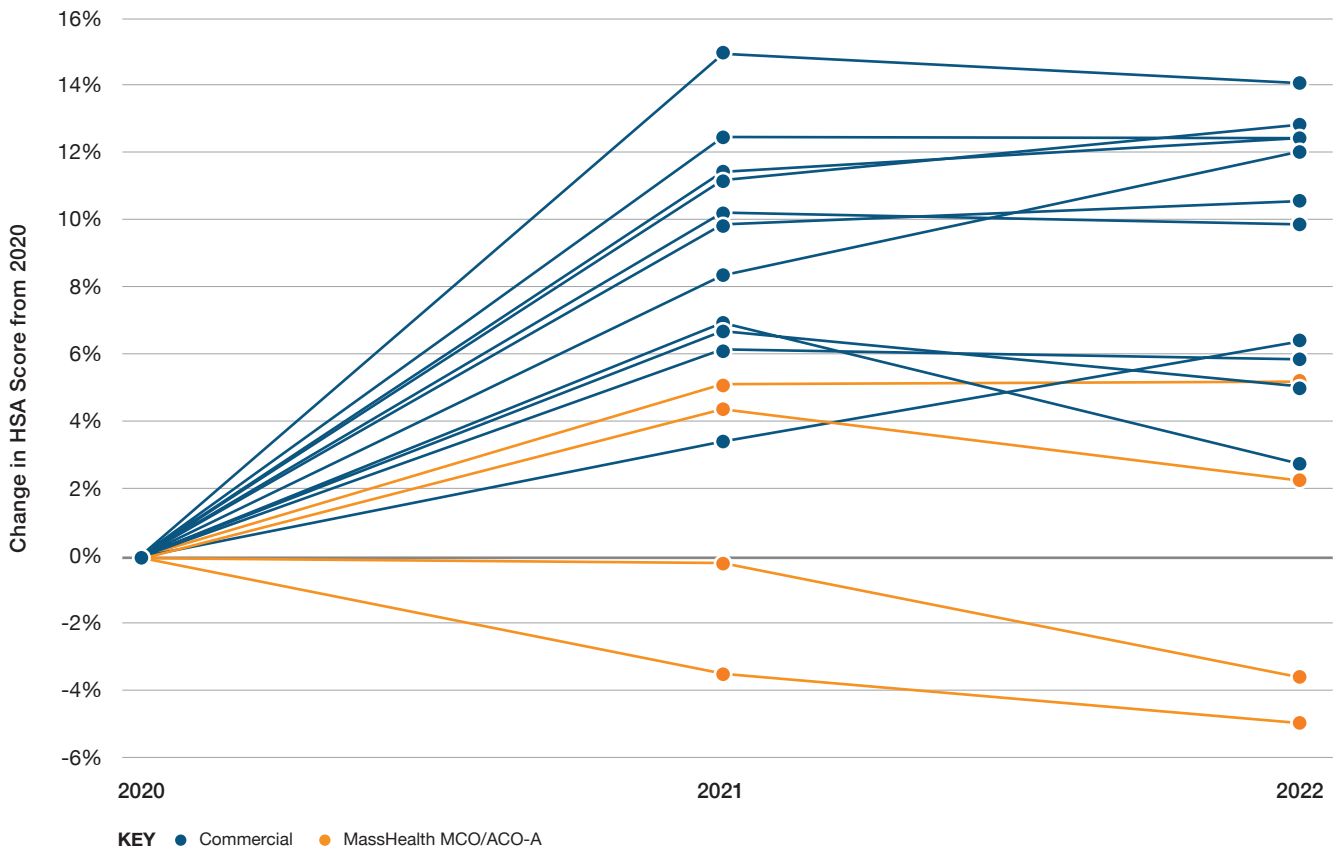
Total Medical Expenses and Alternative Payment Methods

Payers use HSA scores to contextualize spending to account for differences in the health and expected medical spending of a population. CHIA aggregates payer-reported HSA scores to calculate HSA TME spending growth, the metric used to determine payer and provider growth in relation to the cost growth benchmark. Payers use a variety of tools to assign HSA scores to patient populations, and therefore scores cannot be compared across payers. Software used to assign HSA scores usually references claims data to pull diagnosis information for a population. Broadly, higher HSA scores are intended to indicate higher illness burdens and anticipated medical costs. However, scores can be affected by variation in coding, as well as socioeconomic factors and barriers to care which decrease health care utilization and captured diagnosis codes.[1,2]

From 2020 to 2021, HSA scores increased for all commercial payers after declining in 2020, due to a rise in utilization and captured diagnosis codes. Two of four MassHealth MCO/ACO-A payers reported higher risk scores in 2021; however, in all cases for 2021, risk scores remained below pre-pandemic levels.

In contrast, from 2021 to 2022, HSA scores remained relatively stable for most payers. Five commercial payers reported decreases in aggregate HSA scores in 2022, ranging from -0.2% to -3.8%. Similarly, three of four MassHealth MCO/ACO-A payers reported decreases in aggregate HSA scores as membership continued to increase.

Change in Aggregate Commercial and MassHealth MCO/ACO-A HSA Scores by Payer, 2020-2022



In 2022, HSA scores remained relatively stable for most payers, after pandemic-driven changes the previous year.

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. This analysis includes commercial full-claim data only, reflecting members for whom the payer has access to and is able to report all claims expenses, which accounted for 63.8% of total commercial member months in 2022. Some, but not all of the payers' HSA tools accounted for COVID-19 diagnosis codes in the calculation of risk. Health status adjusted data from one payer was excluded due to data quality concerns.

Total Medical Expenses and Alternative Payment Methods

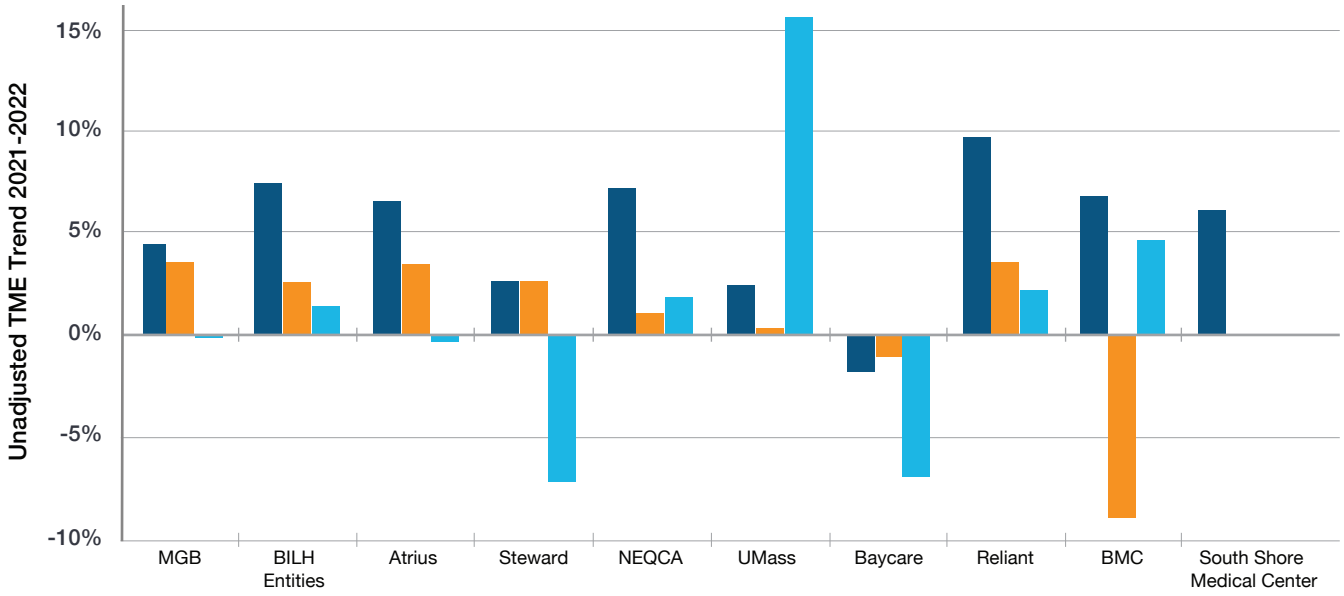
Managing physician groups, often multi-specialty practices that include primary care providers (PCPs), are responsible for coordinating the care of their members. Managing physician group TME measures the total medical spending for commercial members attributed to a PCP.

Overall membership in the 10 largest physician groups declined in 2022 across all Massachusetts-based payers. Membership within HPHC declined for seven of nine physician groups and declined for four of 10 within BCBSMA; membership within THP declined for all physician groups. Cigna, the only national payer to report attributed members to any of these physician groups, reported an overall increase of 26.3%.

The data shown represents 56.7% of the total commercial full-claim managed member months in 2022, accounting for members attributed to the 10 largest physician groups within the networks of the three largest payers (BCBSMA, HPHC, and THP). In 2022, unadjusted TME trends for physician groups ranged from increases of 15.5% to decreases of 9.0%, by payer network. Unadjusted TME levels for physician groups ranged from $504 to $890.

Baycare and South Shore Medical Group were the only physician groups to experience increases in member months in 2022. However, HPHC and THP did not report any attributed members to South Shore Medical Group and over one-third of Baycare is represented by HNE (35.9%). In 2022, HNE reported a 1.0% increase in unadjusted TME PMPM for Baycare.

Trends in Managing Physician Group Commercial Unadjusted TME, 2021-2022



	MGB	BILH Entities	Atrius	Steward	NEQCA	UMass	Baycare	Reliant	BMC	South Shore Medical Center
BCBSMA, HPHC, and THP Share of Group's Managed Member Months	95.5%	75.9%	89.9%	77.1%	85.2%	82.4%	53.7%	85.1%	71.3%	100.0%
Total Managed Member Months in 2022	2.7M	2.1M	1.5M	1.4M	1.0M	0.7M	0.5M	0.5M	0.3M	0.3M

KEY BCBSMA HPHC THP

Five of the 10 largest physician groups had declines in unadjusted TME PMPM spending in at least one payer network, with many physician groups experiencing declines in attributed membership from these Massachusetts-based payers in 2022.

Source: Payer-reported TME data to CHIA.

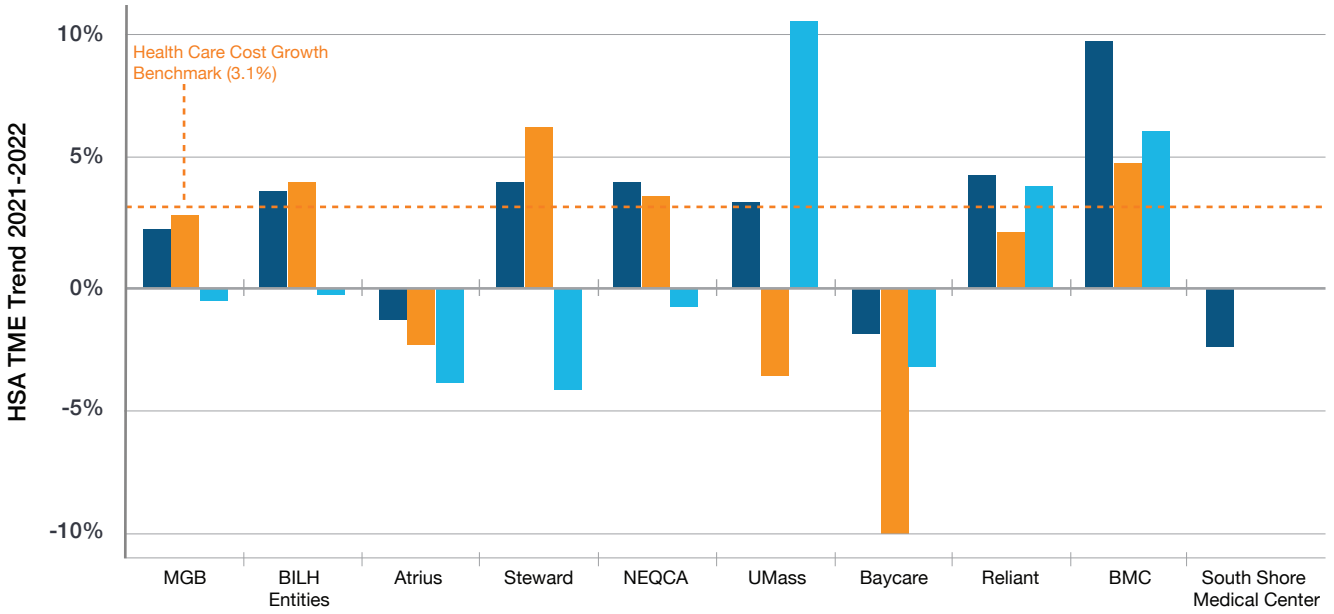
Notes: Data reported here is based on final 2021-2022 commercial full-claim TME data, both for members whose plan requires the selection of a PCP, as well as for members who were attributed to a PCP pursuant to a contract between the payer and the physician group, such as a PPO APM. These trends are based on expenditures that reflect payments to providers and are gross of prescription drug rebates received by health plans after the point of sale. HPHC, THP, THPP, and Health Plans, Inc. (HPI) merged in 2021 but continued to report data as separate entities. HPHC and THP did not report any attributed members for South Shore Medical Group. BILH entities represents Beth Israel Lahey Health (BILH), Beth Israel Deaconess Care Organization (BIDCO), Beth Israel Deaconess Physician Organization – Boston, Lahey Clinic, and Lahey Clinical Performance Network combined. See technical appendix.

Total Medical Expenses and Alternative Payment Methods

CHIA also examines HSA TME PMPM spending trends for the 10 largest physician groups within the BCBSMA, HPHC, and THP networks. Of the 10 largest physician groups, six had increases in HSA TME PMPM that exceeded the cost growth benchmark in at least two of the three payer networks. In 2022, Boston Medical Center (BMC) had above benchmark increases in HSA TME PMPM in all three payer networks, while Atrius and Baycare saw decreases in HSA TME PMPM across all three payer networks.

In 2019, Beth Israel Deaconess Care Organization (BIDCO) and Lahey merged to form Beth Israel Lahey Health (BILH). Beginning in 2021, BCBSMA and HPHC reported commercial full-claim member months under this organization, shifting membership away from BIDCO and Lahey. In this analysis, BILH, BIDCO, and Lahey are represented collectively as BILH Entities. In 2022, THP continued to report member months under BIDCO and Lahey, while BCBSMA and HPHC reported membership solely under BILH.

Trends in Managing Physician Group Commercial HSA TME, 2021-2022



	MGB	BILH Entities	Atrius	Steward	NEQCA	UMass	Baycare	Reliant	BMC	South Shore Medical Center
BCBSMA, HPHC, and THP Share of Group's Managed Member Months	95.5%	75.9%	89.9%	77.1%	85.2%	82.4%	53.7%	85.1%	71.3%	100.0%
Total Managed Member Months in 2022	2.7M	2.1M	1.5M	1.4M	1.0M	0.7M	0.5M	0.5M	0.3M	0.3M

KEY BCBSMA HPHC THP

Six of the 10 largest physician groups had HSA TME PMPM trends above the 3.1% growth benchmark in at least two payer networks in 2022.

Source: Payer-reported TME data to CHIA.

Notes: Data reported here is based on final 2021-2022 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. 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. HPHC, THP, THPP, and Health Plans, Inc. (HPI) merged in 2021 but continued to report data as separate entities. HPHC and THP did not report any attributed members for South Shore Medical Group in 2022. BILH entities represents Beth Israel Lahey Health (BILH), Beth Israel Deaconess Care Organization (BIDCO), Beth Israel Deaconess Physician Organization – Boston, Lahey Clinic, and Lahey Clinical Performance Network combined. See technical appendix.

Total Medical Expenses and Alternative Payment Methods

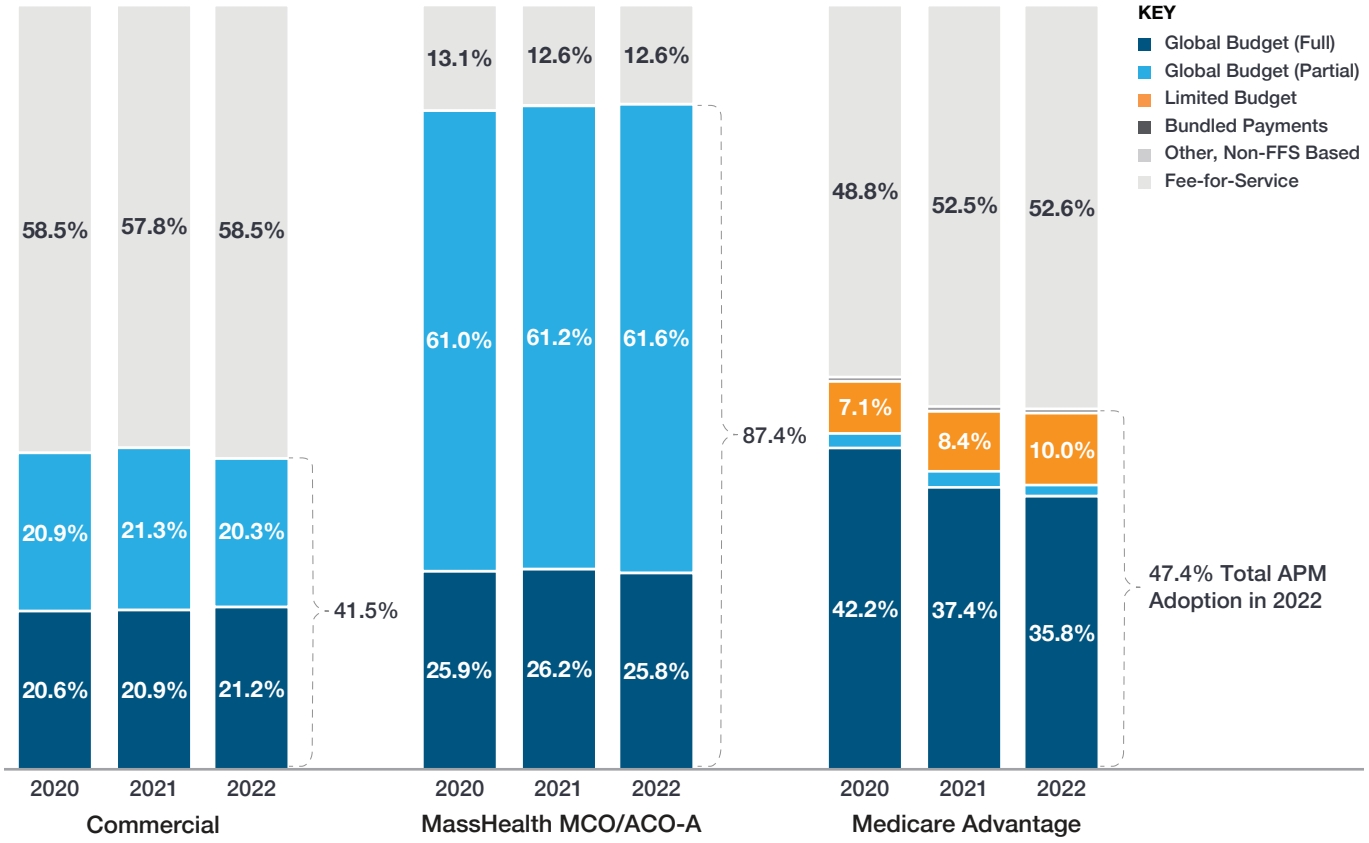
Payers and providers use alternative payment methods (APMs) to promote coordinated care and create incentives to control costs while maintaining or improving quality.

In the private commercial market, the majority of members continued to have care paid for under fee-for service (FFS) arrangements, as overall APM adoption has remained consistent since 2016 at approximately 40%.

From 2020 to 2022, MassHealth MCO and ACO-A APM adoption remained high, with 87% of members covered under APM arrangements in 2022. MGBHP and HNE, which solely manage ACO-A plans, reported 100% of members under an APM arrangement in 2022. While overall APM adoption by Medicare Advantage payers remained stable at 47%, the proportion of the market using limited budget payment contracts increased 1.6 percentage points in 2022.

Global budget payment arrangements accounted for nearly all commercial and MassHealth MCO and ACO-A APM arrangements and 78.9% of Medicare Advantage APM arrangements in 2022. In 2022, 79.2% of global payment arrangements had both upside and downside risk while 7.3% were shared savings only.

Adoption of Alternative Payment Methods by Insurance Category, 2020-2022



APM adoption remained consistent across all insurance categories in 2022.

Source: Payer-reported TME 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. Global full APMs hold providers accountable for a comprehensive set of services.

Total Medical Expenses and Alternative Payment Methods

Global budgets are the most common form of APM in the Commonwealth and typically include incentives based on provider organizations' performance on a set of health care quality measures. While accountability to quality metrics is valuable, a lack of alignment on the specific measures used in risk contracts is a major source of administrative burden in the health care system, contributing to clinician burnout and dilution of quality improvement efforts.[3] In response to these concerns, the EOHHS Quality Measure Alignment Taskforce annually recommends an Aligned Measure Set ("Measure Set") for use in global budget contracts.

The table *Member Months by Payer and % of Member Months in Global Budget Payment Methods* provides 2022 member months for payers that indicated use of global budgets across their private commercial and Medicaid ACO-A/MCO contracts and the percentage of their membership attributed to these types of arrangements, as an approximation of payer contracts affected by the Measure Set.[4]

The *Fidelity to the Aligned Measure Set* table includes overall and payer-specific adherence rates since data collection began in 2019. The Overall rate includes all payers who submitted a catalog, while the Commercial Only rate excludes MassHealth.[5] See CHIA's Quality Measure Catalog publication (November 2023) for details about the makeup of the Measure Set, measure use in contracts for 2021-2023, and information about measure stratification by race, ethnicity, and/or language.

Adherence to the Aligned Measure Set in Global Budget-Based Risk Contract APMs, 2022

Member Months by Payer and % of Member Months in Global Budget Payment Methods, 2022

Payer	Commercial Total Member Months (MMs)	Medicaid (MCO/ACO-A) Total Member Months (MMs)	Commercial % of MMs in Global Budget APMs	Medicaid (MCO/ACO-A) % of MMs in Global Budget APMs
BCBSMA	15.9M		62.0%	
HPHC	3.9M		61.7%	
THP	3.5M		63.8%	
United	3.2M		0.0%	
MGBHP	2.4M	0.5M	18.1%	100%
HNE	1.3M	0.6M	49.4%	100%
WellSense	0.8M	3.3M	7.5%	83.7%

Fidelity to the Aligned Measure Set

Year	Overall	Commercial Only	MassHealth	BCBSMA	HPHC	MGBHP	HNE	THP	WellSense	UHC
2019	65%	54%	100%	47%	45%	N/A	35%	61%	59%	N/A
2020	72%	56%	100%	62%	53%	N/A	42%	56%	57%	N/A
2021	83%	71%	100%	81%	85%	N/A	38%	60%	67%	N/A
2022	85%	80%	100%	84%	81%	78%	70%	75%	57%	39%

Payer adherence to the Aligned Measure Set increased steadily from 2019 to 2022, but some payers reported below 60% adherence in 2022.

Source: Payer-reported Quality Measure Catalog data to CHIA and payer-reported TME data to CHIA.

Notes: Please refer to the 2023 Quality Measure Catalog executive summary for methodology behind the Fidelity to the Aligned Measure Sets calculation and for information about participating payers, and visit the EOHHS Quality Measure Alignment Taskforce website for more information about that public/private collaborative initiative. Member Months (MMs) represent the number of members participating in a plan over a specified period of time expressed in months of membership. Commercial totals include both commercial full-claims and commercial partial-claims. MMs are reported for the commercial payers who have submitted a Quality Measure Catalog for their commercial lines of business–Tufts's commercial business (THP) is presented, but not its public plans (THPP).

Total Medical Expenses and Alternative Payment Methods Notes

1. Additional information on the impact of the variations in coding methodologies on HSA scores provided by the Massachusetts Health Policy Commission, see https://www.mass.gov/news/hpc-issues-new-research-on-trends-in-the-pediatric-provider-market-and-use-of-risk-adjustment-methods
2. "2022 Health Care Cost Trends Report: Health Scores and Access Barriers." The Office of the Attorney General, 2022. https://www.mass.gov/info-details/2022-health-care-cost-trends-report
3. Health Policy Commission. Pre-filed Testimony Pursuant to the 2016 Annual Cost Trends Hearing. October 2016. Available at: https://www.mass.gov/info-details/testimony-2016-cost-trends-hearing
4. The data source for membership in global budget contracts is separate from the data source for quality measures used in global budget-based risk contracts. As a result, there may be slight differences in the populations (e.g., member month data includes only Massachusetts residents). While this MM data may not capture all contracts that should incorporate the Set, it is included as a contextual estimation of the proportion of payer contracts affected by adherence to the Set.
5. Certain measures are endorsed for MassHealth contracts only because the Taskforce determined they are appropriate for the population. Since the MassHealth Set is slightly different than the commercial Set, we also include a cross-payer rate for commercial-only.

A Closer Look: TME Trends Across Massachusetts Communities

In the previous chapter, CHIA examined total medical expenses for insurance categories, payers, and provider organizations, to identify and understand cost drivers, spending trends, and how these patterns may vary across entities. New in this report, CHIA considered how medical spending varied across Massachusetts communities, and whether there was a relationship between certain spending categories and community characteristics.

Health care spending trends are driven by the volume and types of services utilized as well as the prices for those services. Variation in community medical spending trends may be influenced by multiple interrelated factors, including individual health status, adequacy and proximity of provider networks, provider price differences, and differences in insurance coverage and affordability. Geographic variation in community medical claims spending patterns may also be attributed to social and economic risk factors which can impact access to care.[1]

Methodology

Total medical expense (TME) data for Massachusetts residents with private commercial or commercially managed MassHealth coverage was linked with American Community Survey (ACS) data for calendar year (CY) 2021. Medical spending data reported to CHIA at the member ZIP Code level was linked with ACS population demographic data at the ZIP Code tabulation area (ZCTA) level. This analysis allowed CHIA to assess correlations between population characteristics (including median family income, race, ethnicity, citizenship, and nativity) and average per member per month (PMPM) medical claims spending overall and by TME service category.

In this section, correlations refer to the relationship between two variables; when both variables increase or decrease in the same direction, this is considered a "positive correlation." Conversely, "negative correlation" refers to the relationship between two variables wherein

one variable increases as another decreases. Correlation results reflect statistically significant findings (P<0.05) but may not necessarily reflect strong correlation (R) values.[2] Correlations with R values of 0.2 or greater are referred to as "positively correlated," while correlations with R values of -0.2 or less are referred to as "negatively correlated," and correlations with R values between 0.2 and -0.2 are considered to have no correlation. R values for results displayed in this section and marked as correlations range from absolute values of 0.20 to 0.67. Please see the **databook** for more detailed correlation statistics.

The following chapter provides a few key findings from the community TME analysis. For a more comprehensive view of the data and related analyses, CHIA has published an **interactive dashboard** which presents data on demographics by community (city/town and ZIP Code Tabulation Area [ZCTA]) and the relationships between these community characteristics and total medical expenses by insurance type and across all TME service categories.

Terms

American Community Survey (ACS): An annual survey conducted by the United States Census Bureau. Data on community demographics is gathered and made publicly available at **https://data.census.gov/table**.

ZIP Code Tabulation Area (ZCTA): ZIP Code Tabulation Areas or ZCTAs (pronounced zik-tahs) are a geographic product of the U.S. Census Bureau created to allow mapping, display, and analyses of the United States Postal Service (USPS) Zone Improvement Plan (ZIP) Codes dataset.[3]

Physician: A service category gathered as part of TME data collection. This service category captures all payments for services provided by a doctor of medicine or osteopathy. Physician spending includes both primary care and specialty care doctors.

Other Professional: A service category gathered as part of TME data collection. This service category captures all payments for services provided by licensed practitioners other than physicians, including occupational and physical therapists, nurse practitioners, physician assistants, and certain behavioral health providers.

Hospital Inpatient: A service category gathered as part of TME data collection. This service category captures all payments made to hospitals for inpatient care.

Telehealth: Telehealth spending includes all payments made to providers for services delivered remotely (i.e., over the phone or via video chat). Telehealth spending

in this section refers to the aggregate of all telehealth spending across the physician, other professional, hospital outpatient, and other medical TME service categories. For more information on telehealth spending by service category, please see page 42. ■

A Closer Look: TME Trends Across MA Communities

Despite near-universal health care coverage in Massachusetts, affordability issues persist, which have been shown to affect middle- and low-income families more than higher-income families.[4]

One of the demographic descriptors available from the ACS was an estimate of each ZCTA's median family income. In 2021, the median family income of all Massachusetts communities was just above $114,000. Within individual communities (ZCTAs), the median family income ranged from $27,000 to $250,000.

The impact of median family income on community spending trends differed by service category. Communities with a higher median family income tended to have higher levels of physician and telehealth PMPM spending. However, the median family income did not significantly impact hospital inpatient, other professional, or overall medical spending PMPM.

Correlation of Medical Spending with Community Demographics: Median Family Income, 2021

Service Category	Median Family Income of ZCTA
Telehealth	▲
Physician	▲
Other Professional	—
Hospital Inpatient	—
Total Medical Expenses	—

KEY ▲ Positive correlation ▼ Negative correlation — No correlation (r<0.20)

Higher median income in a community was associated with greater PMPM spending on telehealth and physician services.

Sources: 2021 American Community Survey 5-year estimates of median family income at the ZCTA level, and medical expenses reported to CHIA by payers at the ZIP Code level. ZCTAs were cross-walked to ZIP Codes to be able to compare data across both data sets. See technical appendix for details.

Notes: This analysis includes commercial full-claims data and data from MassHealth MCOs and ACO-As. Commercial full-claims data represents members for whom the payer has access to and is able to report all claims expenses and represented 63.5% of total commercial member months in 2021. MassHealth MCOs and ACO-As are commercially managed MassHealth plans, and account for 36.6% of MassHealth membership. Telehealth spending presented here is the sum of telehealth spending across the hospital outpatient, physician, other professional, and other medical service categories. Spending for all service categories was calculated on a per member per month (PMPM) basis. Results shown here reflect statistically significant findings (P<0.05) but may not necessarily reflect strong correlation (r) values. R values for correlated results displayed on this page range from 0.49 to 0.67 (in absolute terms). Please see the interactive report and databook for more detailed correlation statistics.

A Closer Look: TME Trends Across MA Communities

Total medical spending PMPM also showed associations with community race and ethnicity demographics. Communities with higher proportions of individuals identifying as White, Non-Hispanic tended to have higher total medical spending PMPM in 2021, while the opposite was seen in communities with higher proportions of individuals identifying as Asian, Non-Hispanic, or Hispanic or Latino which had lower total medical spending PMPM during the same time period.

Among TME service categories, spending on health care services delivered by physicians varied across communities with differences in racial and ethnic compositions. Communities with higher proportions of individuals identifying as White, Non-Hispanic tended to have higher PMPM spending on physician services, while the opposite trend was seen in communities with higher proportions of individuals identifying as Black or African American, Non-Hispanic, or Hispanic or Latino.

Communities with higher proportions of individuals identifying as Asian, Non-Hispanic correlated with increased telehealth spending PMPM.

Hospital inpatient and other professional spending PMPM had weak to no correlation with community race and ethnicity demographics.

Correlation of Medical Spending with Community Demographics: Race and Ethnicity, 2021

Service Category	Percentage of the Population Identifying as: Asian, Non-Hispanic	Black or African American, Non-Hispanic	White, Non-Hispanic	All Other Races, Non-Hispanic	Hispanic or Latino
Telehealth	▲	—	—	—	—
Physician	—	▼	▲	—	▼
Other Professional	—	—	—	—	—
Hospital Inpatient	—	—	—	—	—
Total Medical Expenses	▼	—	▲	—	▼

KEY ▲ Positive correlation ▼ Negative correlation — No correlation (r<0.20)

> Communities with higher proportions of individuals identifying as non-Hispanic Black or African American, as well as communities with higher proportions of individuals identifying as Hispanic or Latino, correlated with lower PMPM spending on physician services.

Data Source: 2021 American Community Survey, 5-year estimates of population proportions at the ZCTA level, and medical expenses reported to CHIA by payers at the ZIP Code level. ZCTAs were cross-walked to ZIP Codes to compare data across both data sets. See technical appendix for details.

Notes: This analysis includes commercial full-claims data and data from MassHealth MCOs and ACO-As. Commercial full-claims data represents members for whom the payer has access to and is able to report all claims expenses and represented 63.5% of total commercial member months in 2021. MassHealth MCOs and ACO-As are commercially managed MassHealth plans, and account for 36.6% of MassHealth membership. Telehealth spending presented here is the sum of telehealth spending across the hospital outpatient, physician, other professional, and other medical service categories. Spending for all service categories was calculated on a per member per month (PMPM) basis. Results shown here reflect statistically significant findings (P<0.05) but may not necessarily reflect strong correlation (r) values. R values for correlated results displayed on this page range from 0.22 to 0.39 (in absolute terms). Please see the interactive report and databook for more detailed correlation statistics.

A Closer Look: TME Trends Across MA Communities

Total medical spending tended to be lower in communities with higher proportions of individuals who are not US citizens and communities with higher proportions of individuals who are foreign-born. Physician spending also tended to be lower in communities with higher proportions of non-US citizens, while no relationship was observed between physician spending and communities with higher foreign-born populations.

Telehealth spending, however, tended to be higher in communities with higher proportions of individuals who are not US citizens, as well as communities with higher proportions of individuals born outside the US. Telehealth spending for these communities was higher specifically for hospital outpatient and other medical services.[5] Please see page 40 for more information about telehealth spending in Massachusetts.

As seen with other community demographics (e.g., median income, race, and ethnicity), community-level citizenship and nativity demographics did not have significant relationship with hospital inpatient spending or other professional PMPM spending, suggesting that these community demographics have little impact on spending for these services.

Correlation of Medical Spending with Community Demographics: Citizenship and Nativity, 2021

Service Category	Percentage of the Population: Who Are Not U.S. Citizens	Who Are Foreign Born
Telehealth	▲	▲
Physician	▼	—
Other Professional	—	—
Hospital Inpatient	—	—
Total Medical Expenses	▼	▼

KEY ▲ Positive correlation ▼ Negative correlation — No correlation (r<0.20)

> Per member per month spending on telehealth services tended to be higher in communities with higher proportions of individuals who are not US citizens and communities with higher proportions of individuals born outside the US, while total medical spending PMPM tended to be lower in those communities.

Data Source: 2021 American Community Survey 5-year estimates of population proportions at the ZCTA level, and medical expenses reported to CHIA by payers at the ZIP Code level. ZCTAs were cross-walked to ZIP Codes to be able to compare data across both data sets. See technical appendix for details.

Notes: This analysis includes commercial full-claims data and data from MassHealth MCOs and ACO-As. Commercial full-claims data represents members for whom the payer has access to and is able to report all claims expenses and represented 63.5% of total commercial member months in 2021. MassHealth MCOs and ACO-As are commercially managed MassHealth plans, and account for about 36.6% of all MassHealth membership. Telehealth spending presented here is the sum of telehealth spending across the hospital outpatient, physician, other professional, and other medical service categories. Spending for all service categories was calculated on a per member per month (PMPM) basis. Results shown here reflect statistically significant findings (P<0.05) but may not necessarily reflect strong correlation (r) values. R values for correlated results displayed on this page range from 0.20 to 0.27 (in absolute terms). Please see the interactive report and databook for more detailed correlation statistics.

A Closer Look: TME Trends Across MA Communities

1. Examination of Health Care Cost Trends and Cost Drivers. Office of Attorney General Maura Healey. 2022. https://www.mass.gov/info-details/2022-health-care-cost-trends-report
2. Mukaka MM. Statistics corner: A guide to appropriate use of correlation coefficient in medical research. Malawi Med J. 2012 Sep;24(3):69-71. PMID: 23638278; PMCID: PMC3576830. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3576830/
3. ZIP Code Tabulation Areas (ZCTAs). United States Census Bureau. 2024. https://www.census.gov/programs-surveys/geography/guidance/geo-areas/zctas.html
4. Massachusetts Health Insurance Survey. Chiamass.gov. 2023. https://www.chiamass.gov/massachusetts-health-insurance-survey/
5. CHIA's TME specifications describe the Other service category as "all payments generated from claims to health care providers for medical services not otherwise included in other categories. Includes, but is not limited to, skilled nursing facility services, home health services, durable medical equipment, freestanding diagnostic facility services, hearing aid services and optical services."

KEY FINDINGS

Private Commercial Contract Enrollment

In 2022, employer-sponsored insurance enrollment decreased across all market sectors except for large employer groups. Small group enrollment continued to decline, continuing a ten-year trend.

Individual purchaser enrollment has declined each year since 2020 due to decreases in ConnectorCare membership, driven in part by Medicaid continuous coverage requirements.

HPHC and Tufts (including Tufts Health Public Plan) merged in 2021 to form Point32Health. These entities, combined with BCBSMA, the largest commercial payer, represented 67% of the commercial market in 2022, a two-percentage point increase from 2021.

In 2022, a higher proportion of Massachusetts contract members enrolled in PPO products (43.2%) than HMO products (34.9%).

Private Commercial Contract Enrollment

As part of its efforts to monitor the changing health care landscape, CHIA collects and analyzes Massachusetts private commercial health insurance enrollment data. Data reported by payers for 2020 through 2022 reflects approximately 4.2 million contract lives.[1] This is the same population included in CHIA's reporting on premiums, member cost-sharing, and payer use of funds. CHIA analyzes enrollment by market sector, product type (HMO, PPO, POS), funding type (self- or fully-insured), and benefit design type (HDHP, tiered network, limited network). This chapter highlights membership 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. In this 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, as well as federal Advance Premium Tax Credits (APTCs). Other members who earn too much to qualify for ConnectorCare plans may still receive APTCs based on federal affordability standards; they are identified as APTC-only throughout this chapter.

For additional insight into:

- MassHealth enrollment, see "MassHealth Enrollment" on page 24.
- Employer-sponsored insurance plans, see CHIA's *2022 Massachusetts Employer Survey*.
- To see the impact of COVID-19 on insurance coverage in the Commonwealth, see CHIA's **Enrollment Trends** (through March 2023) publication.
- For a complete accounting of APTC-only membership, see the CHIA's **Enrollment Trends** (through March 2023) publication.

The American Rescue Plan Act of 2021 (ARPA) expanded eligibility for premium subsidies to those up to 400% of FPL and increased the financial assistance to those who already qualified for subsidies; these provisions of ARPA were extended through 2025. Of the payers included in this report, MGBHP, WellSense, HNE, and THPP offered ConnectorCare plans; MGBHP, BCBSMA, WellSense, HPHC, HNE, THPP, and United enrolled APTC-only members.[4]

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

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. ■

Private Commercial Contract Enrollment

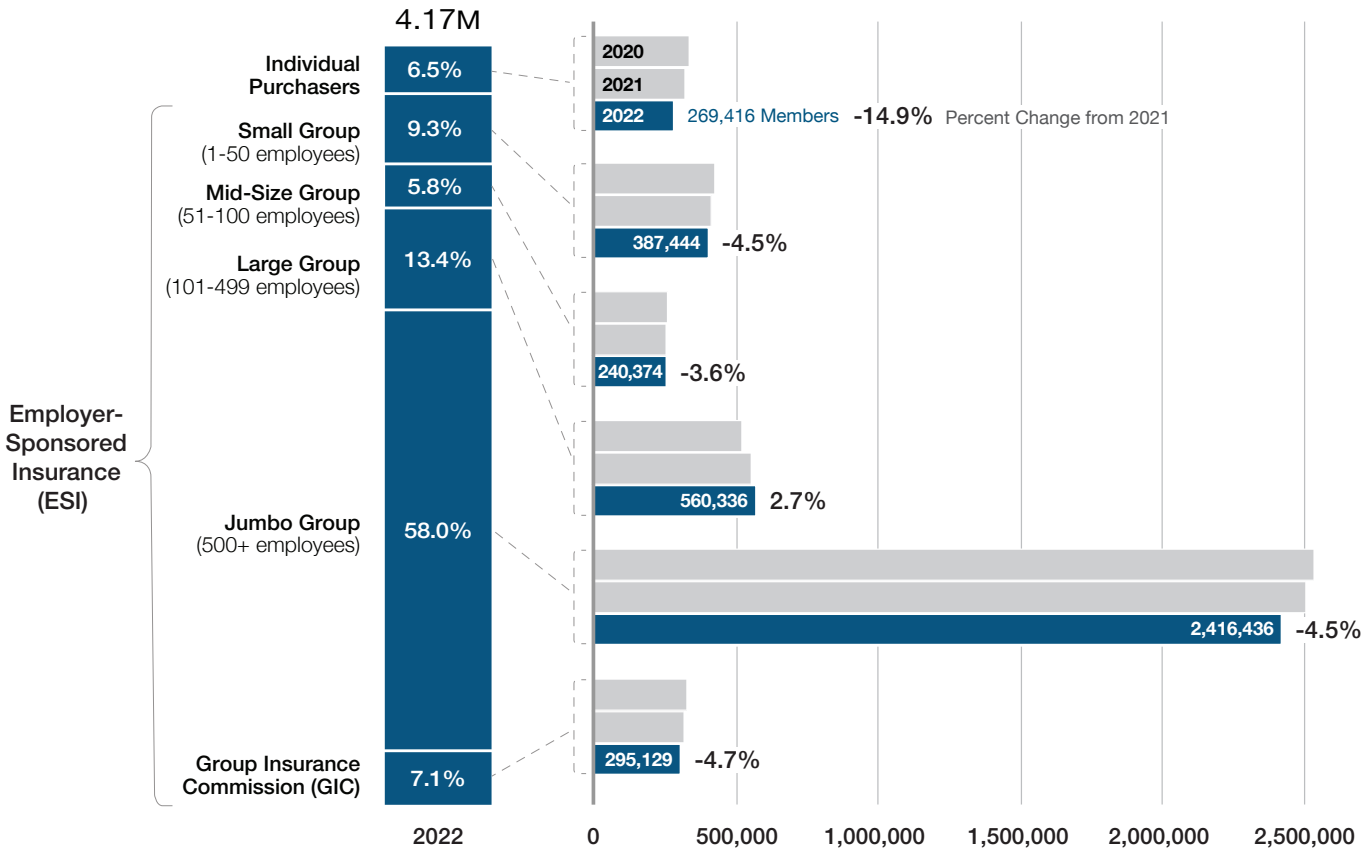
Enrollment in commercial insurance continued to decline in 2022, decreasing 2.8% after declining 1.2% the previous year. The individual purchaser sector experienced the largest decrease in membership at 14.9% in 2022, after declining 7.3% in 2021. Prior to 2021, individual plan enrollment had increased every year since 2014.

Among individual purchasers, membership in subsidized ConnectorCare plans decreased nearly 22.6% to approximately 161,000 members, faster than the 8.5% decline the prior year. Unsubsidized individual enrollment stayed consistent at approximately 108,000 members, while APTC-only membership increased 15.0% to 25,000 members in 2022.[3] The implementation of the American Rescue Plan (ARPA) in March 2021 and subsequent federal legislation expanded eligibility for purchasers to receive APTCs and increased the amounts of credits through 2025.

In 2022, 3.9 million members were enrolled in ESI coverage, a 3.5% decrease from 2021. Plans offered by jumbo group employers, which represented 58.0% of the market, declined by 4.5%. During the same period, enrollment in small group health plans decreased by 4.5%, continuing a 10-year decline. Large group was the only ESI market sector that experienced growth from 2021 to 2022, at a rate of 2.7%.

Overall enrollment trends, particularly ConnectorCare, were impacted by the requirement that MassHealth maintain continuous coverage through 2023. For more information on health insurance enrollment in Massachusetts, including Medicare and MassHealth coverage, see CHIA's Enrollment Trends reporting.[5]

Enrollment by Market Sector, 2020-2022



Individual purchaser enrollment has continued to decline each year since 2020; enrollment in employer-sponsored plans also declined across most 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. In 2022, Fallon stopped offering most of its commercial plans, except for its Community Care small group product and individual products; as a result, Fallon fell below the membership threshold for reporting and did not submit data for CY2022. Data for Fallon is included in CY2020 and CY2021.

Private Commercial Contract Enrollment

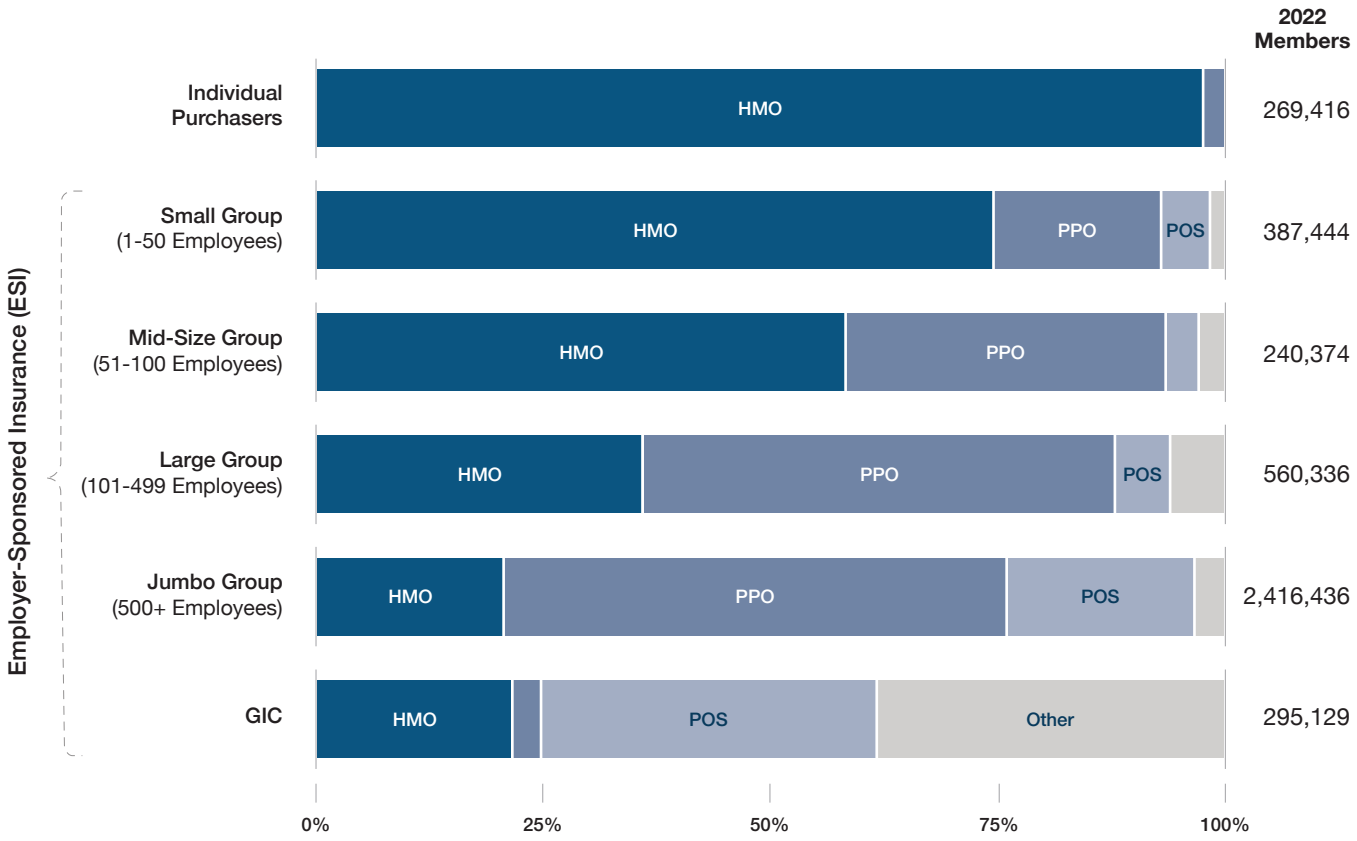
Membership by product type varies across market sectors and, for ESI plans, reflects a combination of choices by employers and health plan enrollees. The most common commercial insurance products among Massachusetts situs-based membership were Preferred Provider Organization (PPO) plans, which allow members to schedule visits without a referral. PPO plans made up 43.2% of the market in 2022. Health Maintenance Organization (HMO) plans require that a member select a primary care provider to manage the member's care. HMO plans made up 34.9% of the market in 2022. Point-of-Service (POS) plans offer both in-network and out-of-network coverage options. In general, HMO plan prevalence is higher among smaller employers, while larger employers favor PPO and POS plans with looser network requirements.

In 2022, nearly all (97.4%) individual purchasers were enrolled in HMO plans, compared to just over one-fifth (20.6%) of jumbo group members. This trend has stayed consistent since 2017.

POS plans were common among jumbo group (20.5%) and GIC (36.9%) members, with an increasing prevalence in the small, mid-size, and large group market sectors. The GIC had the highest percentage of members enrolled in Other plans (38.4%), which reflects the GIC's Indemnity plan offerings.

Data from CHIA's Massachusetts Employer Survey indicates that larger employers are more likely than smaller ones to offer more than one type of health plan to their employees.[6] 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, 2022



Members of larger employer groups tended to be enrolled 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. In 2022, Fallon stopped offering most of its commercial plans, except for its Community Care small group product and individual products; as a result, Fallon fell below the membership threshold for reporting and did not submit data for CY2022.

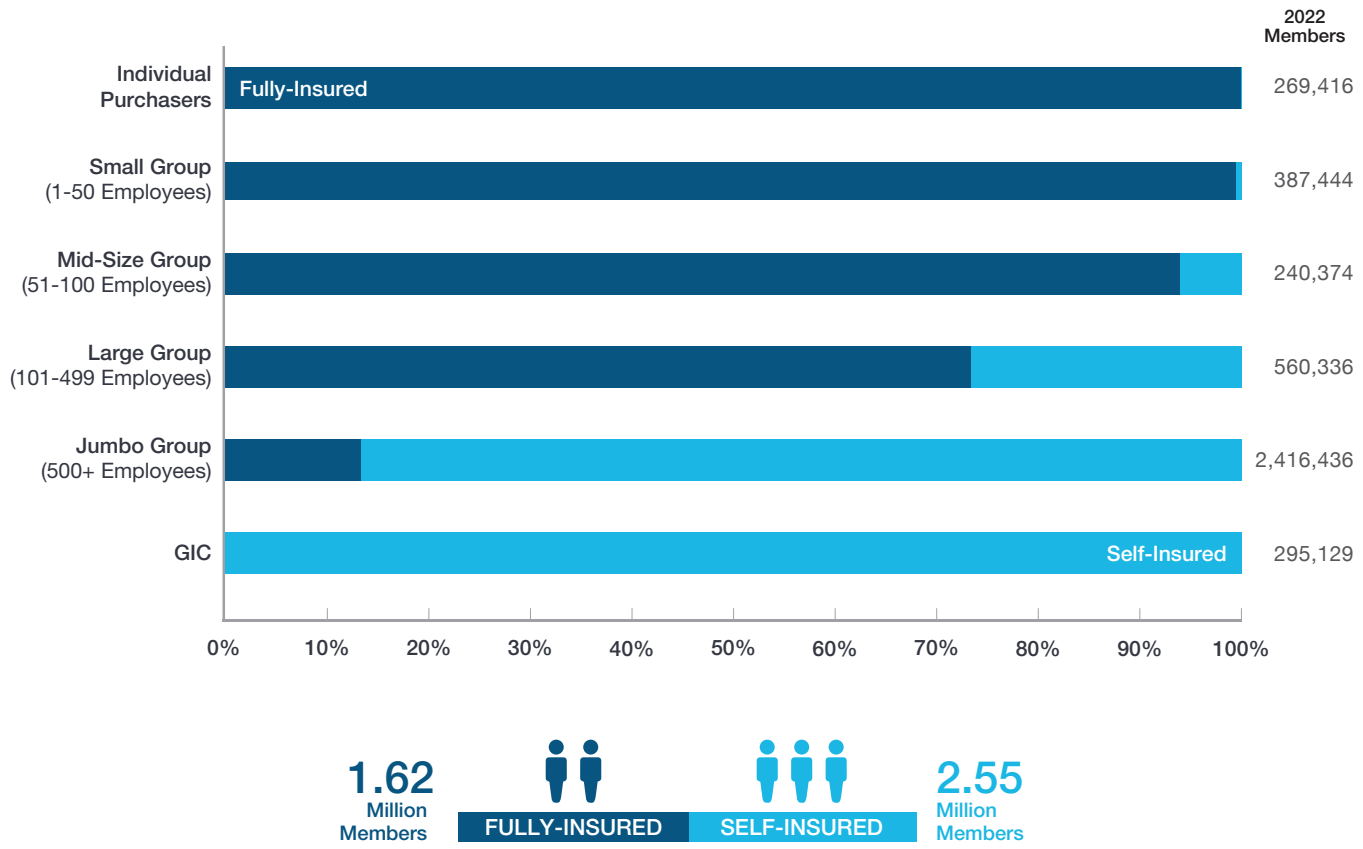
Private Commercial Contract Enrollment

Employers may choose to provide health insurance through fully- or self-insured arrangements. Under fully-insured plans, payers assume the financial 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 2022, self-insured membership represented 61.2% of the Massachusetts private commercial market (2.55 million members), a consistent proportion compared to 2020 and 2021. However, across the market, self-insured enrollment decreased by 2.9% (-75,000 members) between 2021 and 2022, while fully-insured enrollment declined by 2.6% (-43,400 members), both steeper declines than prior years.

Self-insured plans were most common for members receiving coverage through jumbo group employers with at least 500 employees (86.5% self-insured) and the GIC (100% self-insured).

Enrollment by Funding Type, 2022



In 2022, 61.2% 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 2022, Fallon stopped offering most of its commercial plans, except for its Community Care small group product and individual products; as a result, Fallon fell below the membership threshold for reporting and did not submit data for CY2022.

Private Commercial Contract Enrollment

In 2022, BCBSMA remained the largest commercial payer with 42.9% of the Commonwealth's commercial contract membership. However, payer market share varied across market sectors.

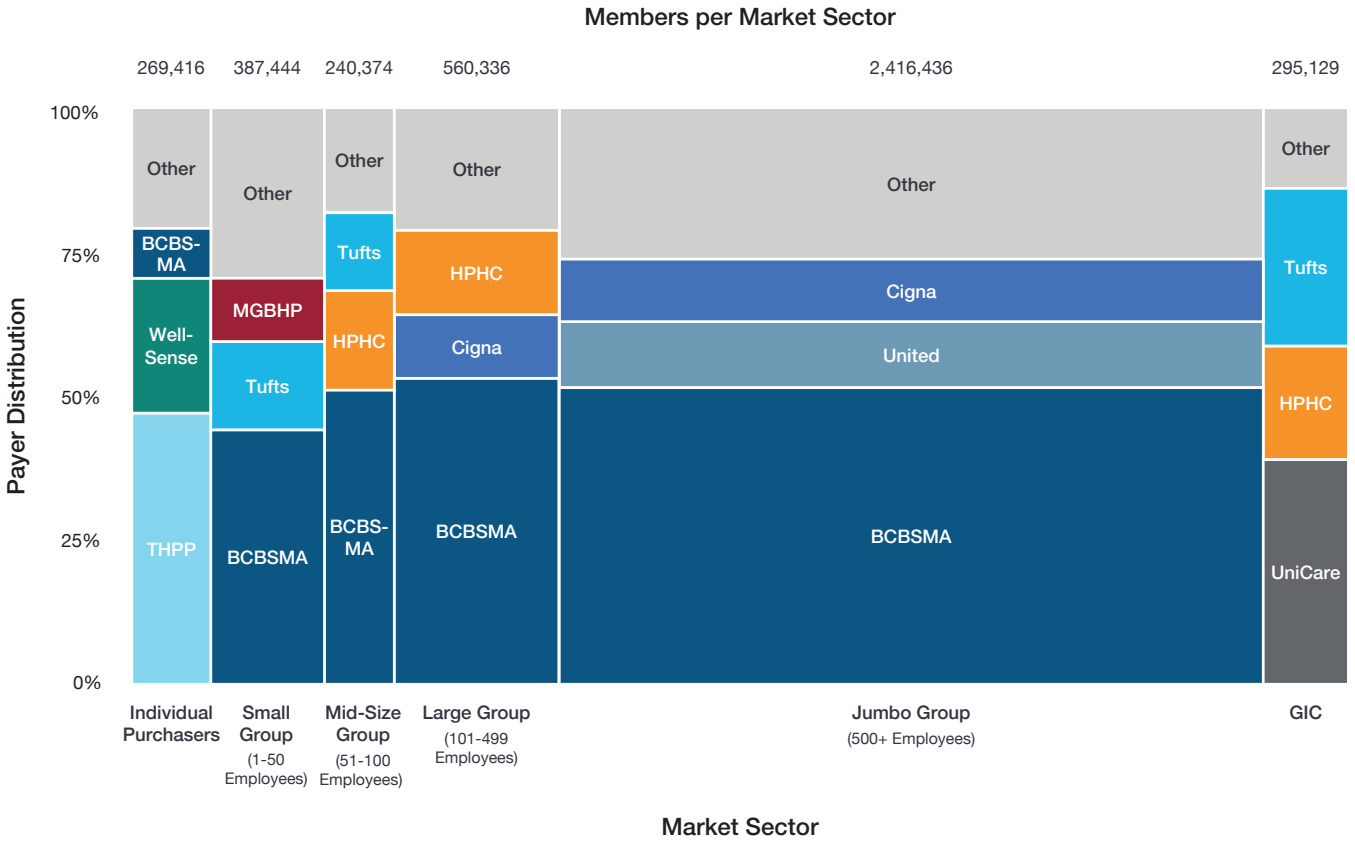
Other than the GIC, BCBSMA maintained the largest market share in every ESI market sector. HPHC, Tufts, and Cigna also held significant portions of the ESI market. Cigna replaced Tufts as the third largest large group payer.

More than one in three GIC members (36.5%) enrolled in plans offered by UniCare, a subsidiary of Anthem.

WellSense and THPP, which historically have served MassHealth members, together enrolled nearly three-fourths of individual purchasers in 2022, which include ConnectorCare members.

HPHC and Tufts (including THPP) merged at the start of 2021 to form Point32Health.[7] In 2022, these entities combined represented the second largest membership of any payer, with 23.3% of the commercial market. In the mid-size group market, 31.4% of members were enrolled in plans offered by Point32Health.

Largest Payers by Market Sector, 2022



BCBSMA maintained nearly half of the market share in all ESI market sectors except GIC.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. THPP is reported separately from its parent company, Tufts. In 2022, Fallon stopped offering most of its commercial plans, except for its Community Care small group product and individual products; as a result, Fallon fell below the membership threshold for reporting and did not submit data for CY2022. See technical appendix.

Private Commercial Contract Enrollment Notes

1. Chapter results based on commercial contract member data provided by Aetna, Mass General Brigham Health Plan (MGBHP), Blue Cross Blue Shield of Massachusetts (BCBSMA), Boston Medical Center HealthNet Plan (BMCHP), 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. Fallon fell below the membership threshold for reporting and did not submit data for CY2022 but is included in 2020 and 2021 data where applicable.
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. Unsubsidized and APTC-only individuals are combined for reporting within the Affordability chapter.
4. Full ConnectorCare eligibility criteria are available from the Massachusetts Health Connector at https://www.mahealthconnector.org/.
5. Center for Health Information and Analysis, Enrollment in Health Insurance at https://www.chiamass.gov/enrollment-in-health-insurance/.
6. Center for Health Information and Analysis, 2021 Massachusetts Employer Survey Summary of Results (Boston, June 2022), http://www.chiamass.gov/massachusetts-employer-survey/.
7. https://www.point32health.org/about-us/ourstory/

KEY FINDINGS

Private Commercial Payer Use of Funds

In 2022, 87.1% of premiums were used to pay for members' medical care, a proportion that is in line with pre-pandemic levels.

After paying fully-insured members' medical claims, an average of $77 PMPM remained from premiums in 2022 to cover non-medical expenses and surplus, a 42.9% increase from 2021 following a 36.0% decline the prior year.

In 2022, payers reported an aggregate gain of $8 PMPM, in contrast to the losses reported (-$12 PMPM) in 2021.

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 2020 to 2022.[1]

For fully-insured lines of business, which made up 38.8% of private commercial enrollment in 2022, 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 96 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 25. ■

Private Commercial Payer Use of Funds

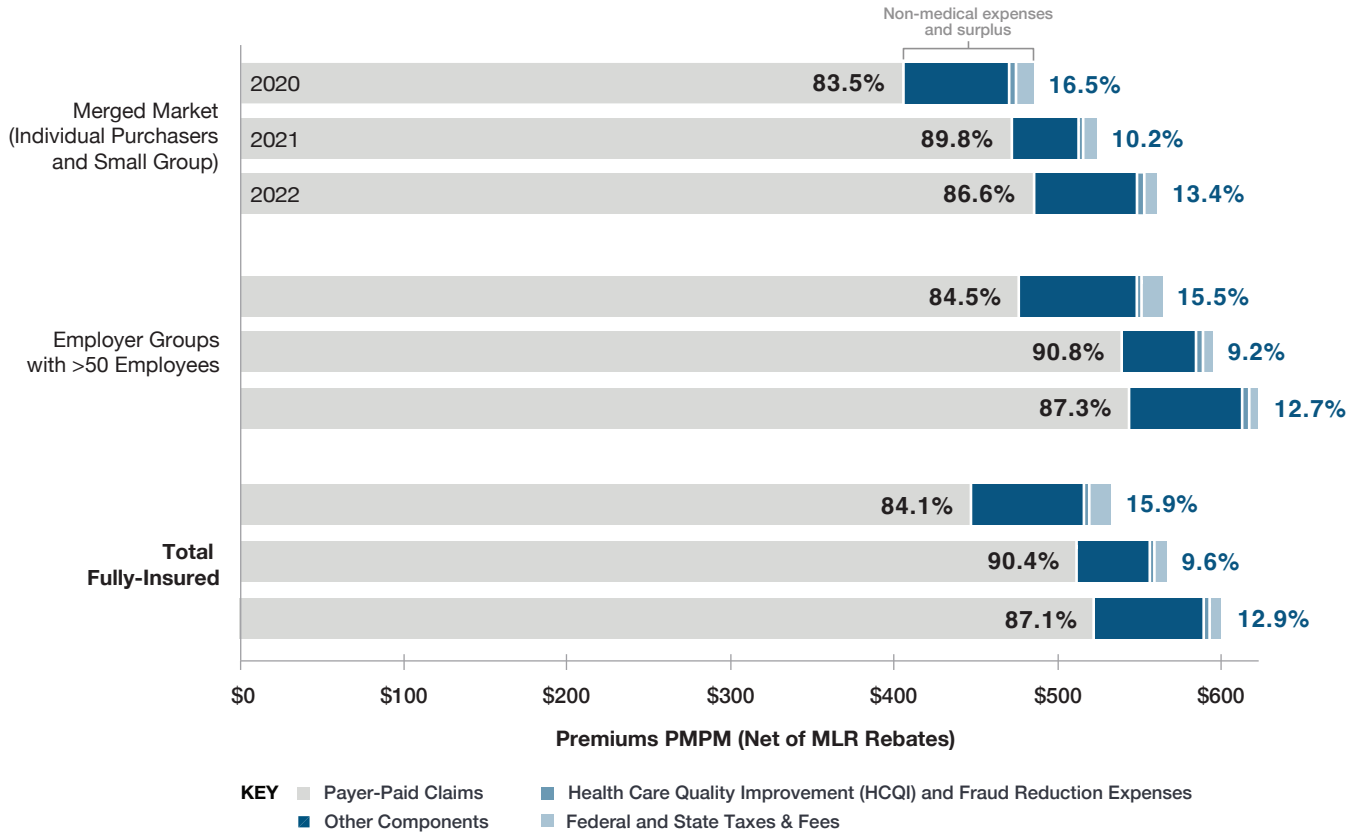
Premiums are set prospectively using data from prior years, which impacts the funds available to payers for non-medical expenses and surplus. The 2022 premiums were calculated in early 2021, based on 2019 and 2020 health care spending data, to account for the uncertainty in trends caused by the pandemic.

In 2022, 87.1% of premiums were used to pay for fully-insured members' medical care.[3] Payers used the remaining 12.9% to pay for plan administration and other expenses, with residual funds representing surplus. This proportion of premium revenue, reflecting non-medical expenses and surplus, was in line with the proportion in pre-pandemic years (13.4% in 2018 and 12.0% in 2019).

When payers' claims liability grows more slowly than earned premiums, the remainder used to cover non-medical expenses and surplus increases. At 12.9%, the proportion of premiums allocated to non-medical expenses and surplus in 2022 was 3.3 percentage points higher than in 2021 (9.6%). In 2020 and 2021, this metric fluctuated substantially due to unexpectedly low claims spending and deferred care in 2020 and rebounding health care utilization in 2021.

The proportion of premium funds that remained after medical claims were paid in 2022 was 13.4% in the Massachusetts merged market and 12.7% for plans sold to larger employers.

Fully-Insured Payer Use of Premiums by Market Segment, 2020-2022



Non-medical expenses and payer surplus grew from 9.6% of premium revenue in 2021 to 12.9% in 2022, and as of 2022 was in line with pre-pandemic levels.

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. 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) Report?

The purpose of the federal MLR report is to measure an insurer's rebate position. Health insurance consumers with fully-insured coverage are protected by federal and state laws that require insurers to spend a minimum percent of collected premiums on medical care. The percentage 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?

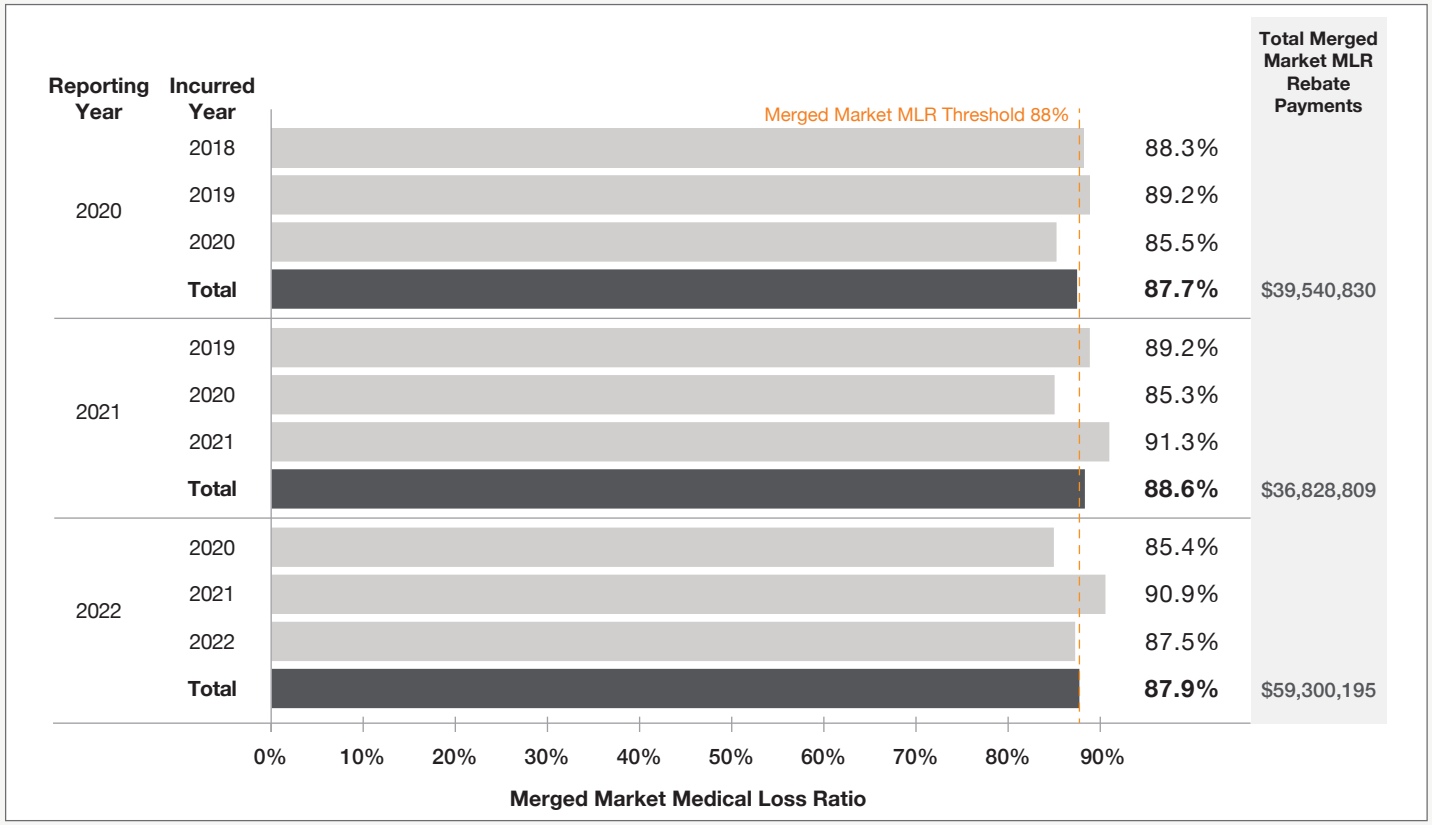
Payer-paid claims percentages in this chapter are based on CHIA's annual financial loss ratio formula, which was developed in accordance with actuarial methods and principles. While the federal MLR and CHIA's annual financial loss ratio use the same source data, the calculation and intended purpose of 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 non-medical 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 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	$\frac{\sum_{i=2020}^{2022} (\text{Incurred Claims}^* + \text{HCQI} + \text{Fraud Reduction Expenses})_i}{\sum_{i=2020}^{2022} (\text{Earned Premiums} - \text{Taxes \& Fees})_i}$ Note: the federal MLR formula considers other financial amounts and adjustment factors not shown here.	$\frac{\text{Incurred Claims}^*}{\text{Earned Premiums} - \text{MLR Rebates}}$

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

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.

Across all insurers, the three-year aggregated merged market MLR for the 2020 reporting year fell just below the 88% threshold at 87.7%, driven largely by the 2020 insured year claims experience. In the 2021 reporting year, the aggregated merged market MLR was 88.6%, which met and exceeded the 88% threshold. The merged market MLR in the 2022 reporting year aggregated to 87.9%, falling just below the 88% threshold.

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 above.

Private Commercial Payer Use of Funds

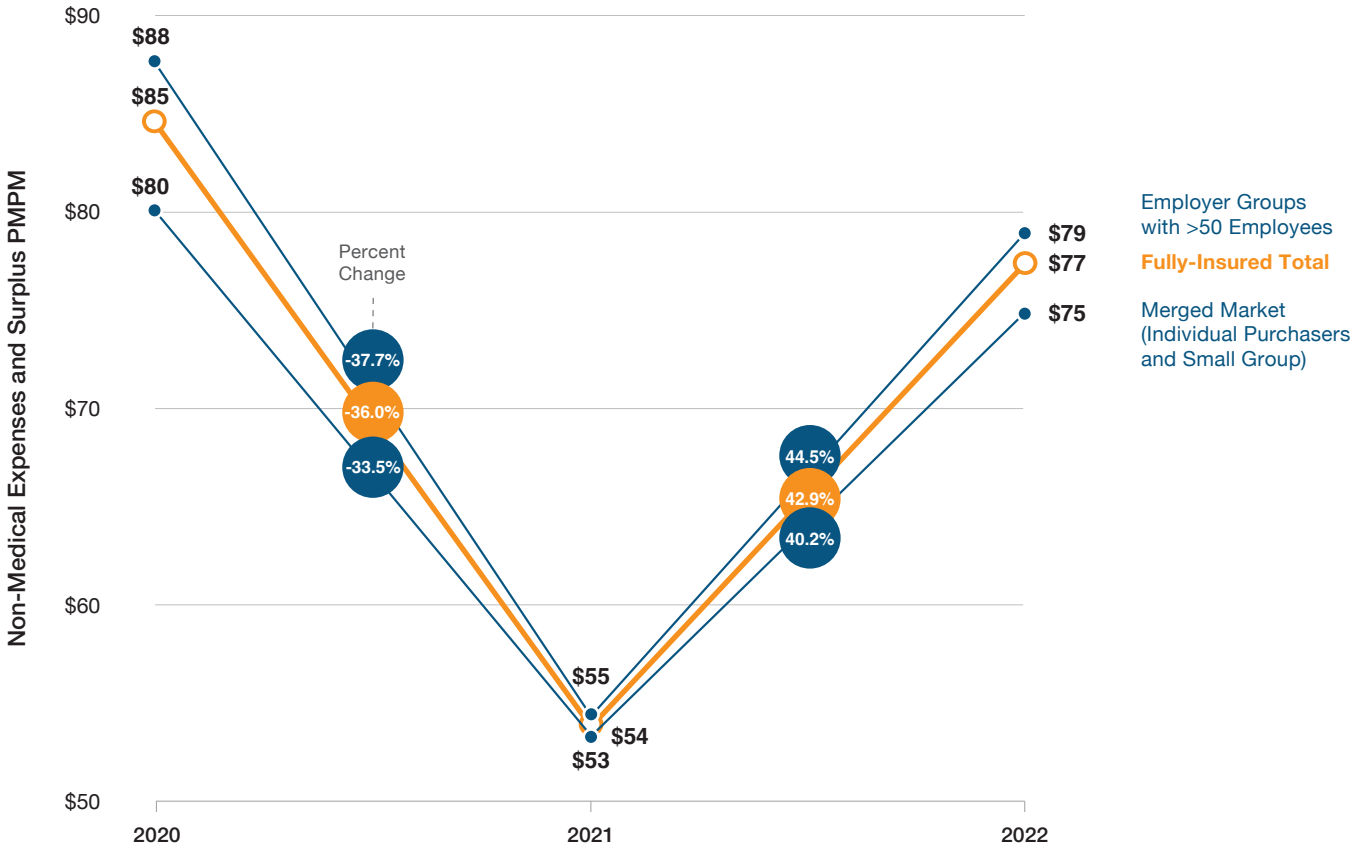
Non-medical expenses and surplus typically fluctuate from year to year, as actual market conditions test assumptions made by health plan actuaries, but these fluctuations have been more drastic due to the impacts of the COVID-19 pandemic. The pandemic caused extraordinary circumstances within the health care system which contributed to unusually low health care spending in 2020 followed by rebounding claims spending in 2021. The growth in health care spending trends from 2021 to 2022 continued to reflect this instability due to the unusually low non-medical expenses and surplus in the 2021 base year.

In 2022, total non-medical expenses and surplus across the private commercial fully-insured market increased 42.9% to $77 PMPM, following a 36.0% decrease from $85 to $54 PMPM between 2020 and 2021. In total, payers paid over $59 million (89.7%) in rebates to individuals and employers in 2022 (see page 98).

In 2022, non-medical expenses and surplus grew by 40.2% to $75 PMPM in the merged market and grew 44.5% to $79 PMPM for larger group plans. In both cases, 2022 PMPM values were below those of 2020 but remained higher than pre-pandemic values in 2019 ($54 PMPM for the merged market and $68 for larger group plans).

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 25.

Fully-Insured Non-Medical Expenses and Surplus by Market Segment, 2020-2022



After paying fully-insured members' medical claims, $77 PMPM remained from premiums in 2022, a 42.9% increase from 2021.

Source: Payer-reported MLR data submitted to CMS.

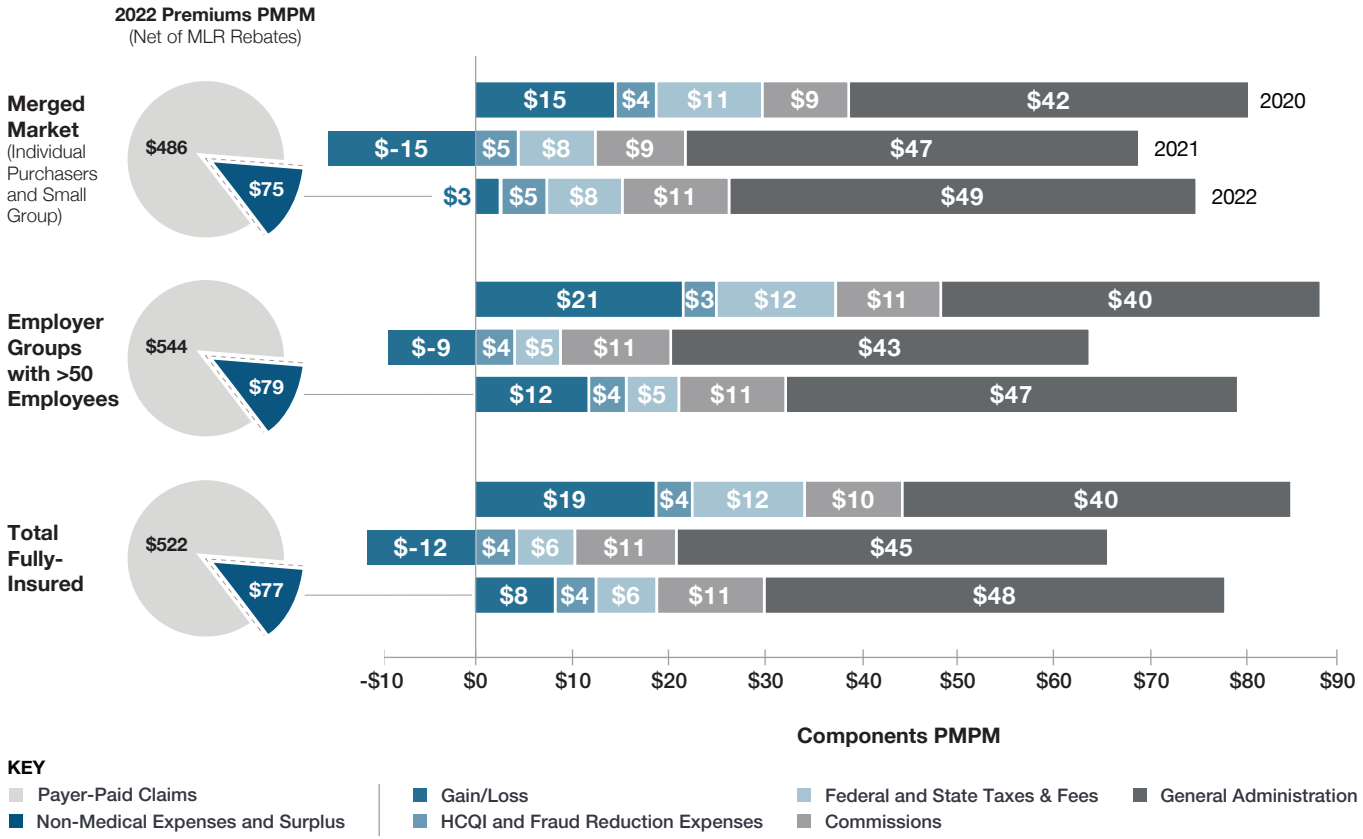
Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Reported premiums are net of MLR rebates. Percent changes are calculated based on non-rounded amounts. See technical appendix.

Private Commercial Payer Use of Funds

Consistent with prior years, general administration represented the largest component of non-medical expenses and surplus at $48 PMPM out of the total $77 PMPM in 2022. Spending for general administration included costs for plan design, claims administration, cost containment, and customer service. Administrative costs were slightly higher in the merged market ($49 PMPM) compared to larger employer plans ($47 PMPM). These differences may reflect efficiencies gained from administering larger accounts.

After covering other expenses, payers reported gains (surplus) of $8 PMPM in aggregate across the fully-insured market in 2022, after reporting losses of $12 PMPM in 2021. In the merged market, these gains totaled $3 PMPM in 2022, following losses of $15 PMPM in 2021. For plans sold to employers with more than 50 employees, payers reported gains of $12 PMPM in 2022, after reporting losses of $9 PMPM in 2021. These figures are market-wide averages, but gains and losses varied by payer and market segment. Payer-reported gains and losses were impacted by rebounding health care utilization in 2021 following deferred care in 2020.

Fully-Insured Non-Medical Expense Components and Surplus by Market Segment, 2020-2022



In 2022, payers reported an aggregate gain of $8 PMPM, in contrast to the losses reported (-$12 PMPM) in 2021.

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. Enrollment figures in this chapter are based on payer-reported MLR data and may differ from prior chapters. 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 2020, 2021 and 2022 reporting years. The following payers were included in analysis: Aetna, Mass General Brigham Health Plan (MGBHP, formerly AllWays), Blue Cross Blue Shield of Massachusetts (BCBSMA), Boston Medical Center HealthNet Plan (WellSense, formerly BMCHP), Cigna, Fallon Health, Harvard Pilgrim Health Care (HPHC), Health New England (HNE), 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-affordablecareact-hhs-notice-of-benefit-and-payment-parameters-for-2018.
3. 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 97.

KEY FINDINGS

Provider and Health System Trends

Since the beginning of the pandemic, statewide inpatient volume has decreased but average length of stay has increased.

Similar to trends in inpatient care, emergency department volume has fallen since the pandemic, but average length of stay has increased.

Nursing facility utilization remained stable between 2021 and 2022, following multiple years of declines between 2019 and 2021.

In HFY 2022, aggregate operating expenses exceeded aggregate operating revenues at acute care hospitals resulting in negative median total margins for all hospital cohorts.

Provider and Health System Trends

This chapter presents information about hospital and nursing facility utilization and financial performance. The first section of this chapter provides an overview of acute hospital inpatient discharges, emergency department, and outpatient observation visits from October 2018 to June 2023, using data from the Acute Hospital Case Mix Database. This section also includes information on quarterly trends in the average length of stay for visits to acute care hospital settings and trends in COVID-19 hospitalizations.

The second section outlines trends in financial performance among acute hospitals for fiscal years 2018 to 2022, as well as a look at the quarterly financial performance for hospital fiscal year 2023 through June 30, 2023. This section also includes a comparison of aggregate acute hospital operating revenue and expenses, with a further look at how temporary staffing expenses have increased since hospital fiscal year (HFY) 2019. These data are sourced from hospital financial reporting to CHIA and reflect both federal and state COVID-related funding that was distributed to hospitals and reported as operating revenue. Finally, similar data for nursing facilities related to occupancy, capacity, and financial performance are presented utilizing cost report data submitted to CHIA. ■

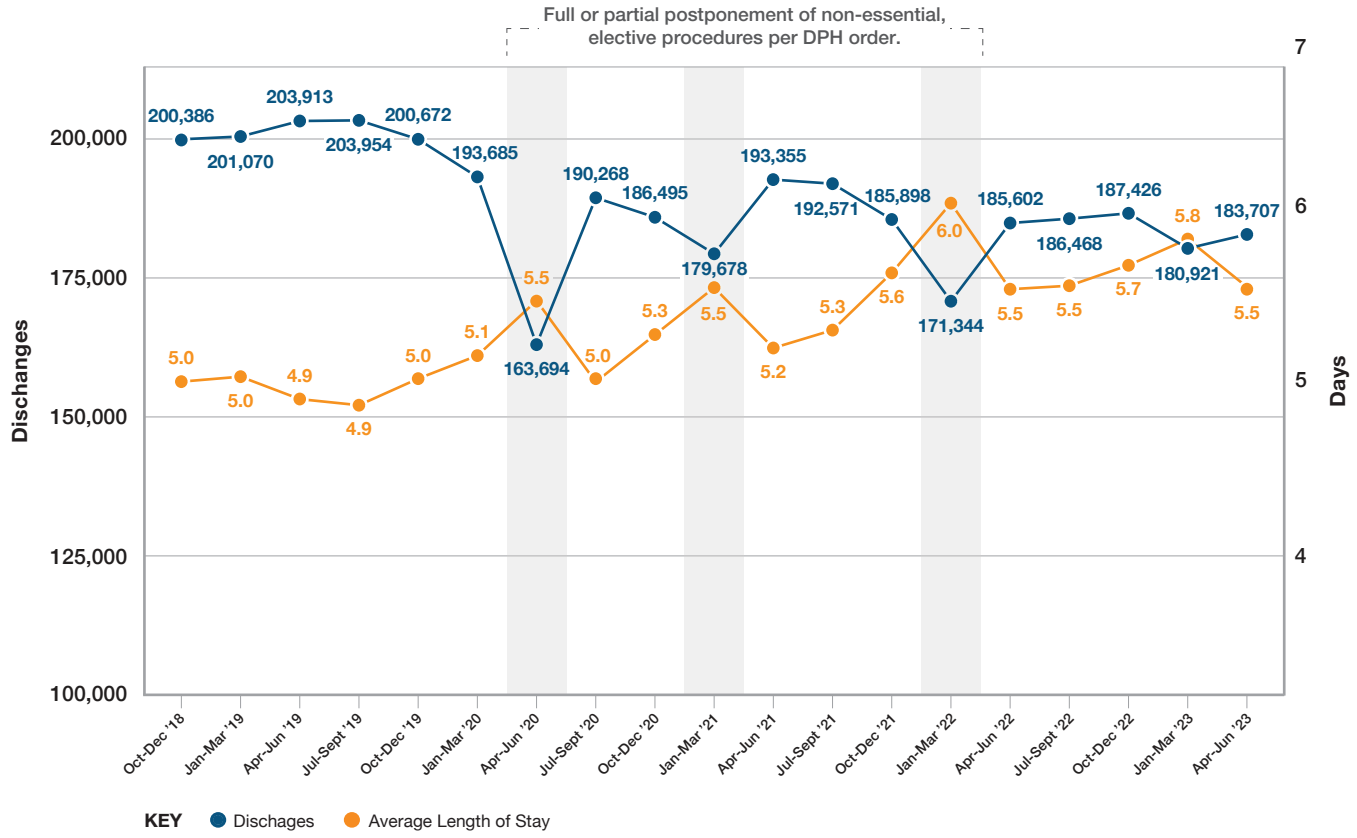
Provider and Health System Trends

Prior to the COVID-19 pandemic, total acute care hospital inpatient discharges were relatively stable between October 2018 and December 2019. Declines in inpatient utilization were observed in April to June 2020, January to March 2021, and January to March 2022, coinciding with "waves" of increased COVID-19 cases occurring during these periods.

Drops in inpatient volume are likely multifactorial but could be 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 for general acute care hospitals to postpone some or all nonessential, elective procedures during peak periods of COVID-19 cases in the Commonwealth.

Inpatient volumes have partially rebounded during periods of reduced COVID-19 transmission, but remain lower over this three-year period. Average length of stay has steadily risen over the same period. These trends can be attributed to throughput challenges (such as placement in post-acute care settings), and shifts in the type and severity of conditions among other factors.

Total Acute Care Hospital Inpatient Discharges, October 2018-June 2023



While acute inpatient hospitalizations have declined 9.9% from FFY 2019 to FFY 2022, the average length of stay has steadily risen.

Source: Hospital Inpatient Discharge Database (HIDD), FFY 2019-2023

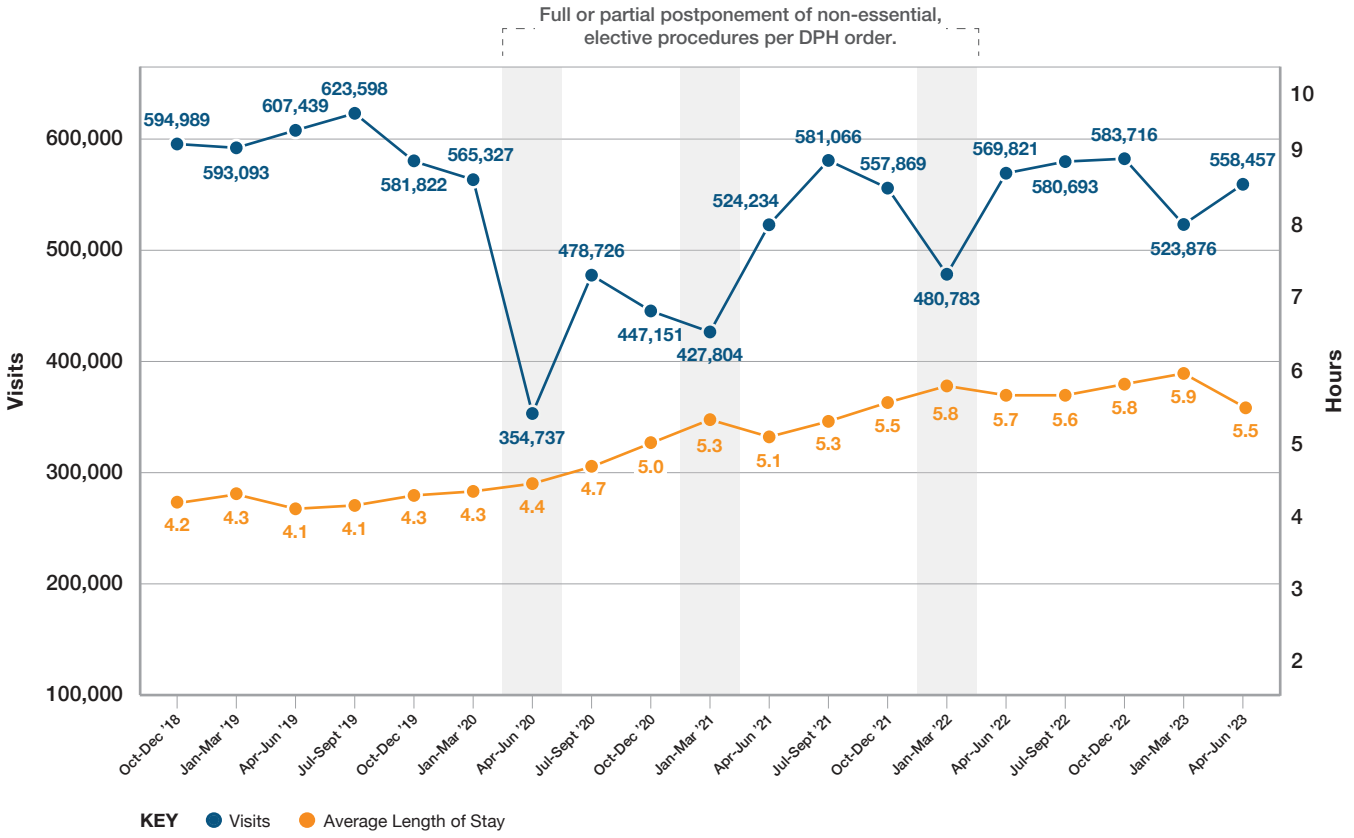
Notes: Federal fiscal years run from October 1 through September 30. The average length of stay (ALOS) was calculated as the difference in the number of days between the discharge date and the admission date. HIDD data for FFY 2023 (October 2022-June 2023) are not considered final and are subject to change. Please see the CHIA website for the most up-to-date information on inpatient utilization.

Provider and Health System Trends

Prior to the start of the COVID-19 pandemic, treat-and-release emergency department (ED) visits were relatively stable from month to month. These visits fell sharply by April 2020 during the first peak period of the COVID-19 pandemic. Since then, the volume of treat-and-release ED has fluctuated considerably, with drops during peak periods of COVID-19 cases and partially rebounding volumes outside of these periods. ED volumes have remained lower, reflecting ongoing throughput challenges and shifts in the type and severity of conditions, among other factors.

At the same time, the average length of stay among ED visits has increased substantially over this period by over an hour.

Total Acute Care Hospital Emergency Department Treat-and-Release Visits, October 2018-June 2023



Similar to trends in inpatient hospitalizations, the volume of treat-and-release ED visits declined 9.5% from FFY 2019 to FFY 2022, while the average length of stay has risen.

Source: Emergency Discharge Database (EDD), FFY 2019–2023

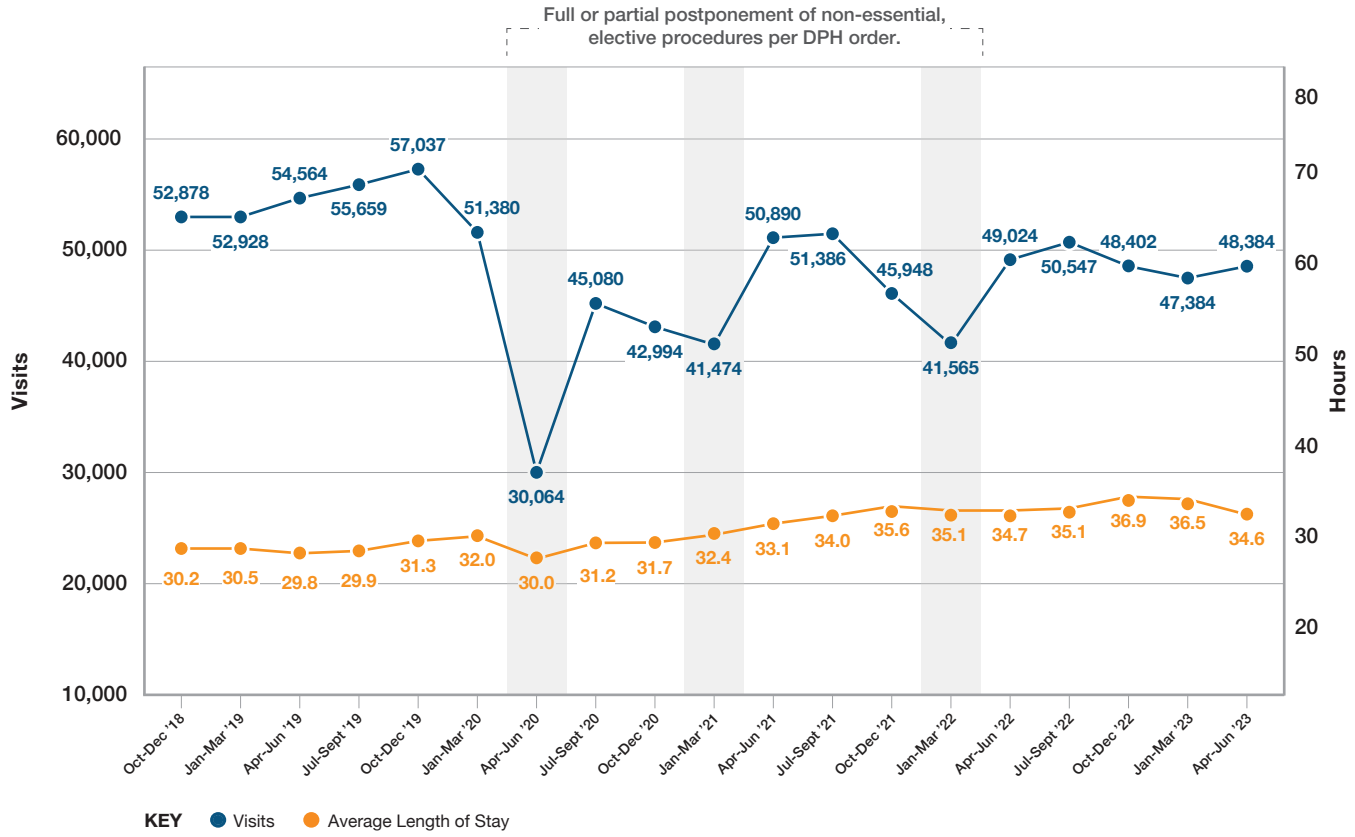
Notes: The average length of stay (ALOS) was calculated as the difference in the number of hours between the discharge time and the admission time. EDD data for FFY 2023 (October 2022-June 2023) are not considered final and are subject to change. Please see the CHIA website for the most up-to-date information on emergency department utilization.

Provider and Health System Trends

Observation visits, like ED visits, are classified as outpatient care and these visits may serve a variety of functions, including the assessment of patients who may require additional diagnostic or therapeutic treatment beyond care in the emergency department, but do not require admission to the inpatient setting. Adults most commonly have observation visits for symptoms such as non-specific chest pain, syncope (commonly referred to as fainting), or abdominal pain. Approximately 60% of observation visits originated in the emergency department and about 30% of observation visits were admitted to inpatient stays.

Observation visits were relatively stable prior to the COVID-19 pandemic. Trends vary month to month largely due to peaks in COVID-19 cases. Drops in observation volume are likely attributable to a decrease in overall utilization such as emergency department visits and planned admissions. The average length of stay in observation has remained relatively stable.

Total Acute Care Hospital Outpatient Observation Visits, October 2018-June 2023



Like trends in inpatient hospitalizations and treat-and-release ED visits, the volume of outpatient observation visits have remained lower than pre-pandemic levels.

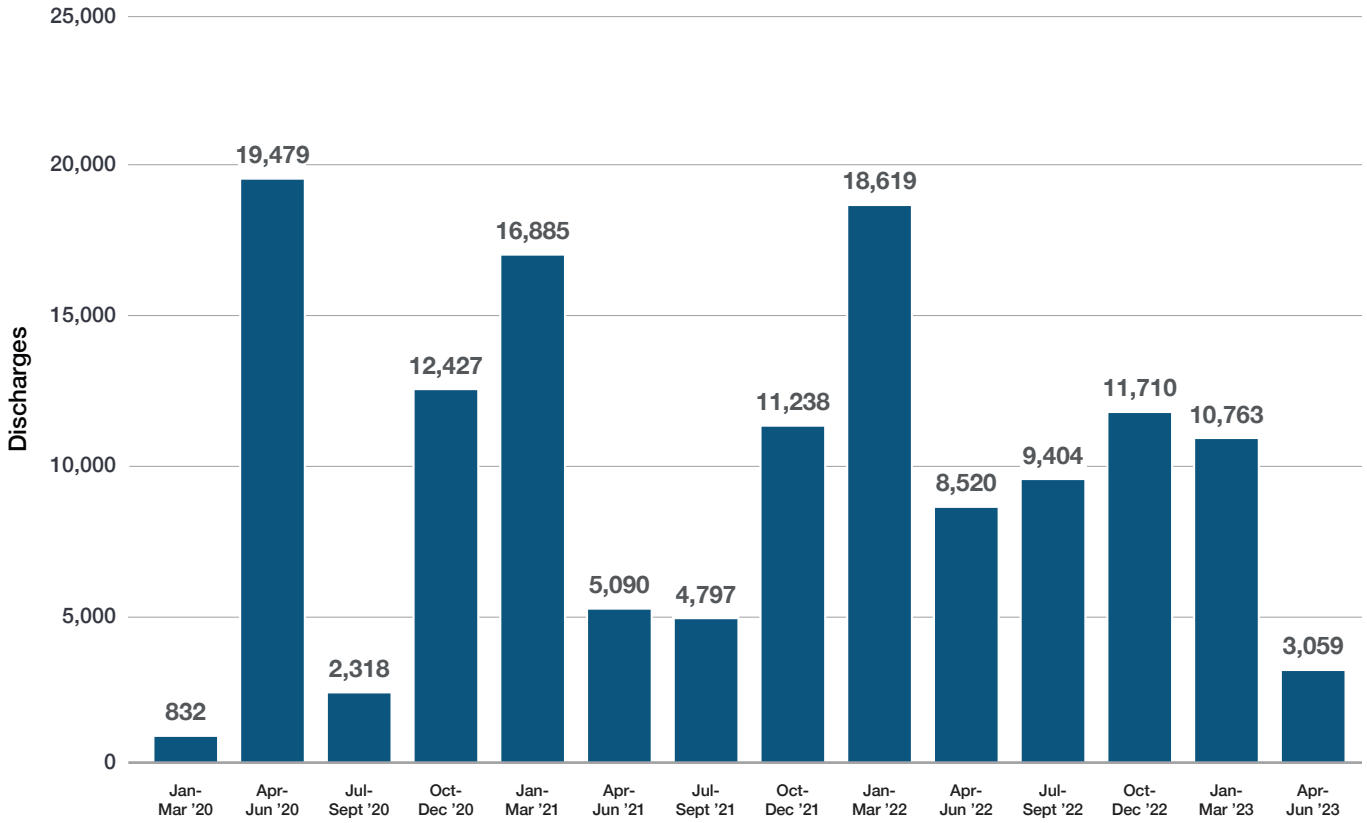
Source: Outpatient Observation Database (OOD), FFY 2019-2023

Notes: The average length of stay (ALOS) was calculated as the difference in the number of hours between the discharge time and the admission time. OOD data for FFY 2023 are not considered final and are subject to change.

Provider and Health System Trends

Hospitalizations associated with any COVID-19 diagnosis (i.e., primary or secondary) followed the overall trend in positive cases in Massachusetts, with an initial peak in COVID-19 hospitalizations in April to June 2020, and additional peak periods in January to March of 2021 and 2022. COVID-19-associated hospitalizations continued to fluctuate seasonally in 2023.

Acute Care Hospital Inpatient Discharges Related to COVID-19, January 2020-June 2023



Inpatient hospitalizations associated with COVID-19 followed the overall trend in positive cases in Massachusetts.

Source: Hospital Inpatient Discharge Database (HIDD), FFY 2019-2023

Notes: HIDD data for FFY 2023 (October 2022–June 2023) are not considered final and are subject to change. Please see the CHIA website for the most up-to-date information on inpatient utilization.

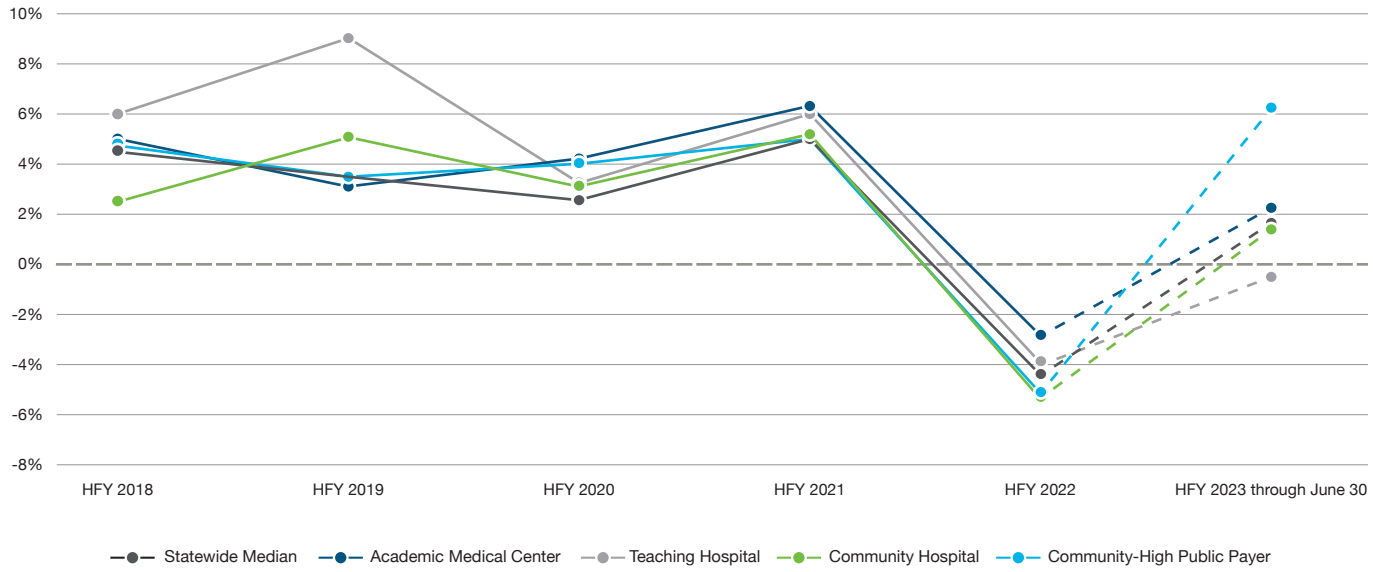
Provider and Health System Trends

Total margin reflects the excess of total revenues over total expenses, including operating and non-operating activities, as a percentage of total revenue. The margins include COVID-19 relief funding reported as operating revenue.

The statewide acute hospital median total margin decreased by 9.2 percentage points, from 5.0% in HFY 2021 to -4.2% in HFY 2022. All four cohorts[1] (Academic Medical Centers, teaching, community, and community-HPP) reported decreases in median total margin. Total margins were impacted by both operating and non-operating activity. Performance varied by hospital, but the majority of hospitals reported overall losses in HFY 2022.

In the quarterly data for HFY 2023, the statewide median total margin through June 30, 2023 was 1.6%. Thirty-four of the 58 hospitals (59%) reported positive total margins through June 30, 2023. The teaching hospital cohort was the only cohort to report a negative median total margin. The quarterly data through June 30, 2023 includes 58 of 60 acute hospitals.

Total Margin Trends by Hospital Cohort



	HFY 2018	HFY 2019	HFY 2020	HFY 2021	HFY 2022	HFY 2023 through June 30
Statewide Median	**4.5%**	**3.5%**	**2.6%**	**5.0%**	**-4.2%**	**1.6%**
Academic Medical Center	5.0%	3.1%	4.2%	6.3%	-2.9%	2.2%
Teaching Hospital	6.0%	9.0%	3.2%	6.0%	-3.8%	-0.5%
Community Hospital	2.5%	5.1%	3.1%	5.2%	-5.2%	1.4%
Community-High Public Payer	4.8%	3.5%	4.0%	5.0%	-5.1%	6.2%

The median acute hospital total margin in HFY 2022 was -4.2%, a decrease of 9.2 percentage points from the prior fiscal year. While all hospital cohorts had negative median total margins in HFY 2022, three cohorts reported positive median total margins for HFY 2023 through June 30, 2023.

Source: Standardized Annual and Quarterly Financial Statements

Notes: Steward Health Care submitted standardized financial statement data for their eight hospitals, but did not submit audited financial statements for 2018-2022. Heywood Healthcare submitted standardized financial statement data, but did not have audited financial statements for 2021 and 2022. Due to this, their data was unable to be independently verified. The statewide acute hospital median includes specialty hospitals. Annual data for HFY 2018-2022 includes 12 months of fiscal year-end data for all hospitals based on each entity's year-end date. Quarterly data for HFY 2023 through June 30 includes six or nine months of fiscal year-end data depending on the hospital's fiscal year end date. For more information see the technical appendix.

Provider and Health System Trends

Operating margin reflects the excess of operating revenues over operating expenses, including patient care and other activities, as a percentage of total revenue. The operating margins also include COVID-19 relief funding reported as operating revenue.

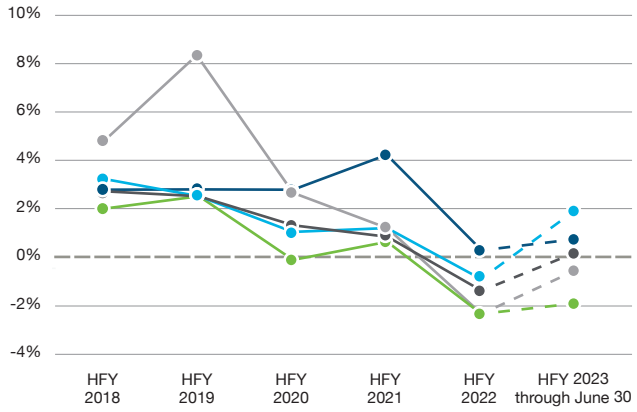
The statewide acute hospital median operating margin decreased by 2.1 percentage points, from 0.8% in HFY 2021 to -1.3% in HFY 2022. All four cohorts reported a decrease in median operating margin. The median operating margin in HFY 2023 through June 30, 2023 was 0.2%, an increase of 1.5 percentage points compared to HFY 2022.

Non-operating margins include items that are not related to operations, such as investment income, contributions, gains from the sale of assets and other unrelated business activities. Non-operating margins are influenced by changes in the investment markets. Starting in HFY 2020, accounting standards required realized and unrealized gains be recognized in financial performance. These results are included in the non-operating margins in this report.

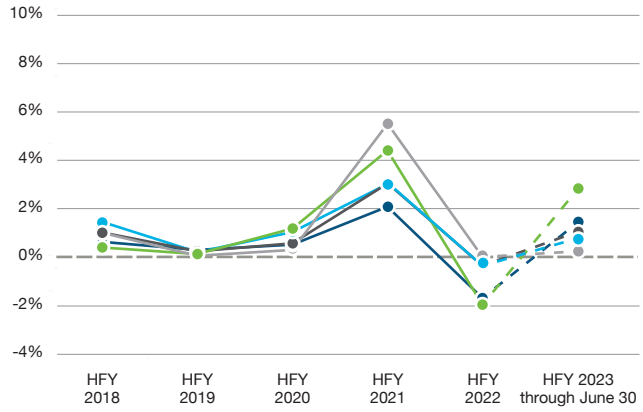
The statewide acute hospital median non-operating margin decreased by 3.4 percentage points, from 3.0% in HFY 2021 to -0.4% in HFY 2022. All cohorts reported a decrease in median non-operating margin. The median non-operating margin in HFY 2023 through June 30, 2023 was 1.0%, an increase of 1.4 percentage points compared to HFY 2022.

Operating and Non-Operating Trends by Hospital Cohort

Operating Margin



Non-Operating Margin



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

	HFY 2018	HFY 2019	HFY 2020	HFY 2021	HFY 2022	HFY 2023 through June 30
Statewide Median	**2.7%**	**2.5%**	**1.3%**	**0.8%**	**-1.3%**	**0.2%**
Academic Medical Center	2.8%	2.8%	2.8%	4.2%	0.3%	0.7%
Teaching Hospital	4.8%	8.3%	2.6%	1.2%	-2.3%	-0.6%
Community Hospital	2.0%	2.5%	-0.1%	0.6%	-2.3%	-1.9%
Community-High Public Payer	3.2%	2.5%	1.0%	1.1%	-0.9%	1.9%

	HFY 2018	HFY 2019	HFY 2020	HFY 2021	HFY 2022	HFY 2023 through June 30
Statewide Median	**1.0%**	**0.2%**	**0.5%**	**3.0%**	**-0.4%**	**1.0%**
Academic Medical Center	0.6%	0.3%	0.5%	2.1%	-1.6%	1.5%
Teaching Hospital	1.0%	0.0%	0.3%	5.5%	0.0%	0.3%
Community Hospital	0.4%	0.1%	1.1%	4.4%	-1.8%	2.9%
Community-High Public Payer	1.4%	0.2%	1.0%	3.1%	-0.3%	0.8%

The statewide median acute hospital operating and non-operating margins were both negative in HFY 2022 and all cohorts reported decreases from the prior year. However, in HFY 2023 through June 30, 2022 the reported statewide median acute hospital operating and non-operating margins were both positive.

Standardized Annual and Quarterly Financial Statements

Notes: Steward Health Care submitted standardized financial statement data for their eight hospitals, but did not submit audited financial statements for 2018-2022. Heywood Healthcare submitted standardized financial statement data, but did not have audited financial statements for 2021 and 2022. Due to this, their data was unable to be independently verified. The statewide acute hospital median includes specialty hospitals. Annual data for HFY 2018-2022 includes 12 months of fiscal year-end data for all hospitals based on each entity's year-end date. Quarterly data for HFY 2023 through June 30 includes six or nine months of fiscal year-end data depending on the hospital's fiscal year end date. For more information see the technical appendix.

Provider and Health System Trends

In HFY 2022 aggregate total operating revenue increased by $2.0 billion (5.5%), with aggregate net patient service revenue, the most significant component of operating revenue, increasing by $1.0 billion (3.2%) when compared to the prior hospital fiscal year. Aggregate expenses increased $3.2 billion (8.9%) in HFY 2022 as compared to the prior fiscal year. For HFY 2022, expenses exceeded total operating revenues by $460 million in aggregate.

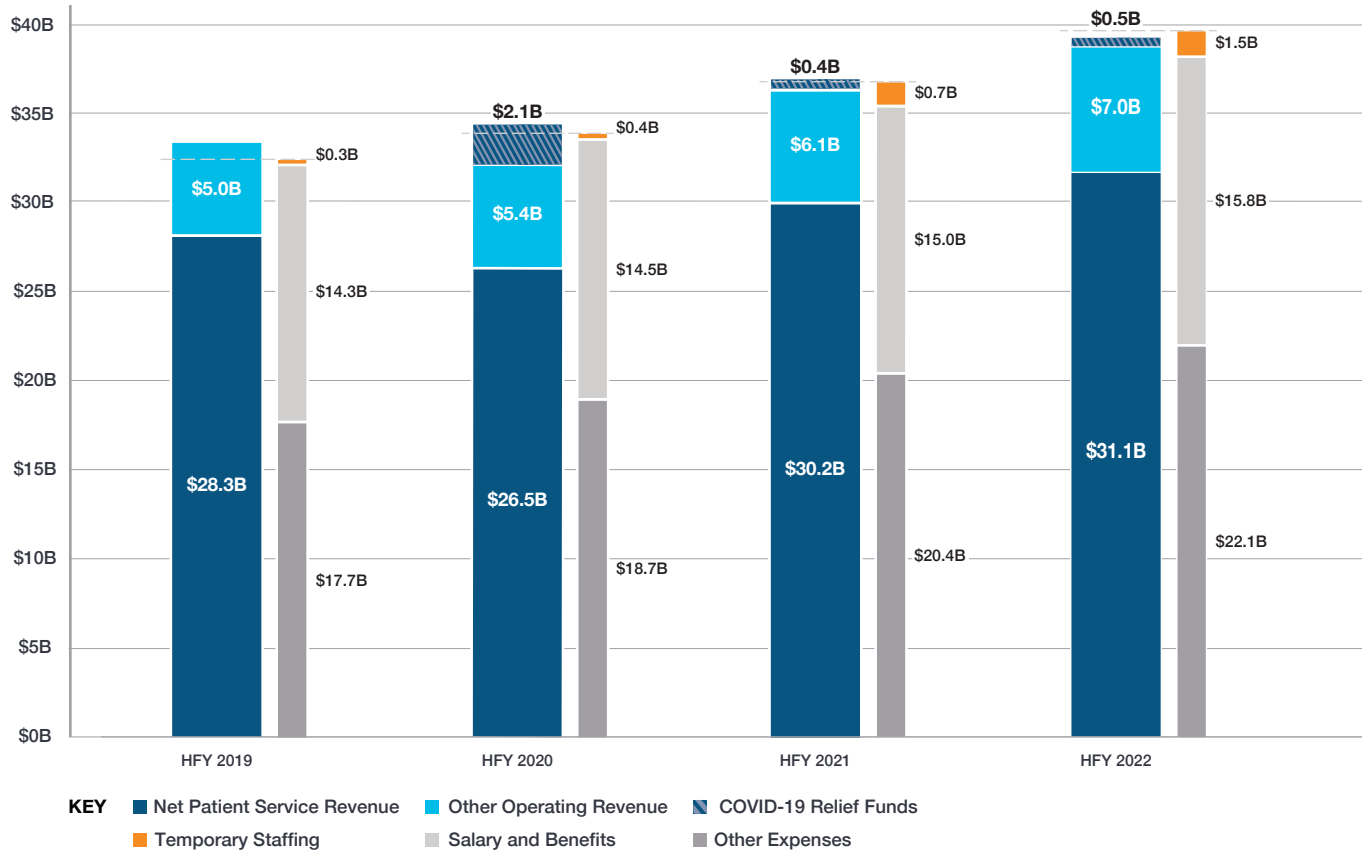
In HFY 2022, hospitals reported $468 million in COVID-19 relief funds in their operating revenue, as compared to $386 million in HFY 2021.

Aggregate workforce spending at acute hospitals, comprised of salary and benefits, and temporary labor costs, increased $1.6 billion (9.8%) in HFY 2022 compared to the prior hospital fiscal year. Workforce spending represented 44% of total expenses in HFY 2022, which is consistent with prior years.

In HFY 2022, temporary labor costs represented 8.9% of workforce spending and 3.9% of total expenses. This was an increase from the prior year, as temporary labor represented 4.7% of workforce expenses and 2.1% of total expenses in HFY 2021.

Aggregate spending on other operating costs, including depreciation, interest, and other operating expenses, increased $1.7 billion (8.2%).

Hospital Operating Revenue and Expense Trends



In HFY 2022, aggregate expenses exceeded aggregate operating revenues by $460 million at acute hospitals.

Source: Standardized Annual and Quarterly Financial Statements

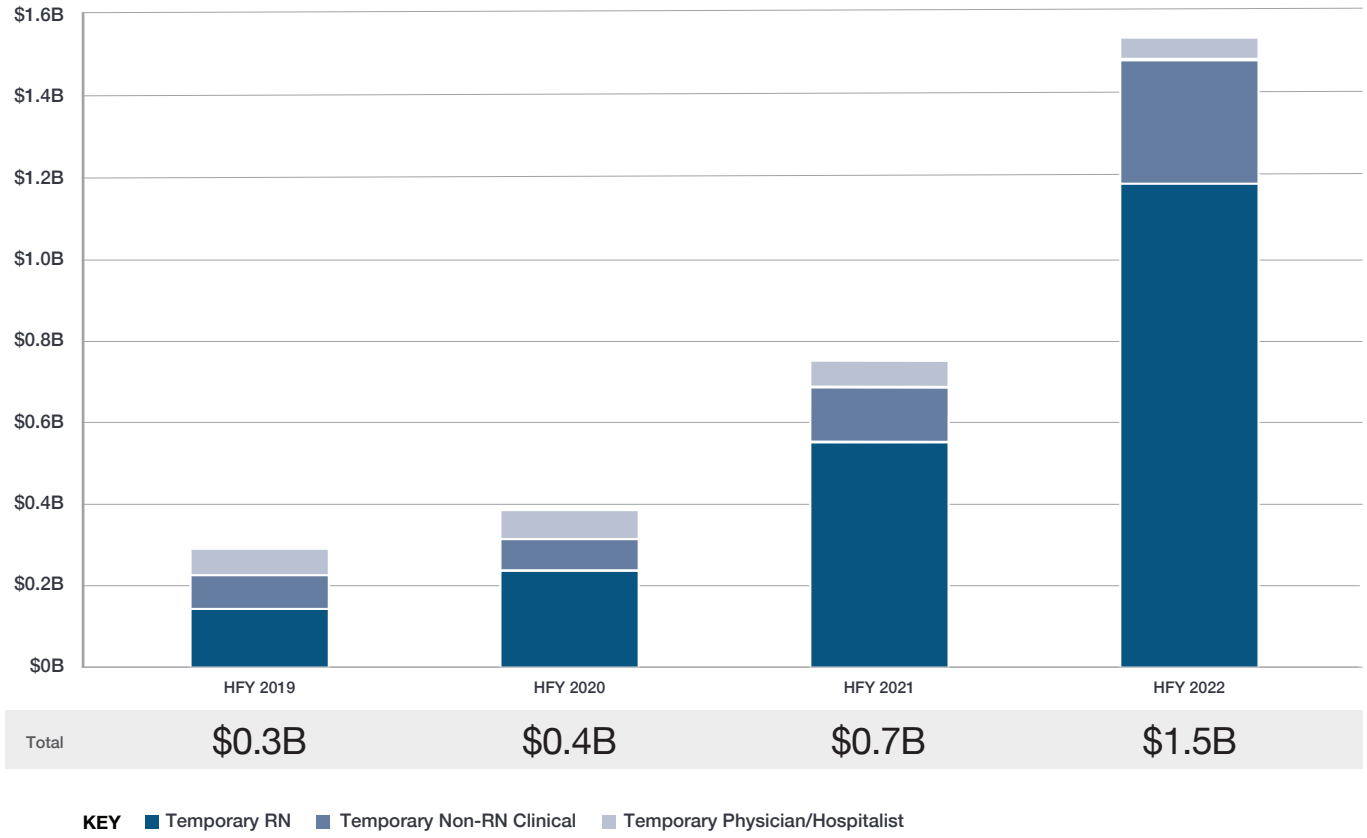
Notes: Alternative payment methods and net assets released from restrictions are not displayed on the graph but are included as part of total operating revenue in the narrative Temporary Staffing costs were removed from previously reported Salary and Benefits and Other Expenses for the purpose of this graph. Hospitals were required to indicate which expense line the Temporary Staffing costs were reported on their financial statement filings in order to do this accurately.

Provider and Health System Trends

Last year, hospitals began reporting temporary labor expenses including registered nurses, physicians or hospitalists, and other clinical staff that are working on short-term contracts or on a temporary basis. In HFY 2022, temporary labor expenses more than doubled compared to the prior hospital fiscal year and grew to more than five times what was reported for HFY 2019, prior to the start of the COVID-19 pandemic.

Temporary registered nurses (RNs) represented $1.2 billion in aggregate spending at acute hospitals and 77.2% of the total temporary labor expenses in HFY 2022.

Hospital Temporary Labor Expense Trends



In HFY 2022, temporary labor expenses more than doubled compared to HFY 2021 and grew to more than five times what was reported for HFY 2019.

Source: Standardized Annual and Quarterly Financial Statements

Notes: $122.9 million in temporary RN expenses in HFY 2021 and $22.3 million in HFY 2022 are due to the nursing strike at Saint Vincent Hospital. Heywood Hospital and Athol Hospital are not included in HFY 2019-2021 as they did not submit data on their temporary labor for those years. They did submit data for HFY 2022 and those expenses are included in the analysis. Mercy Medical Center is not included in HFY 2019-2022 as they did not submit data on their temporary labor expenses.

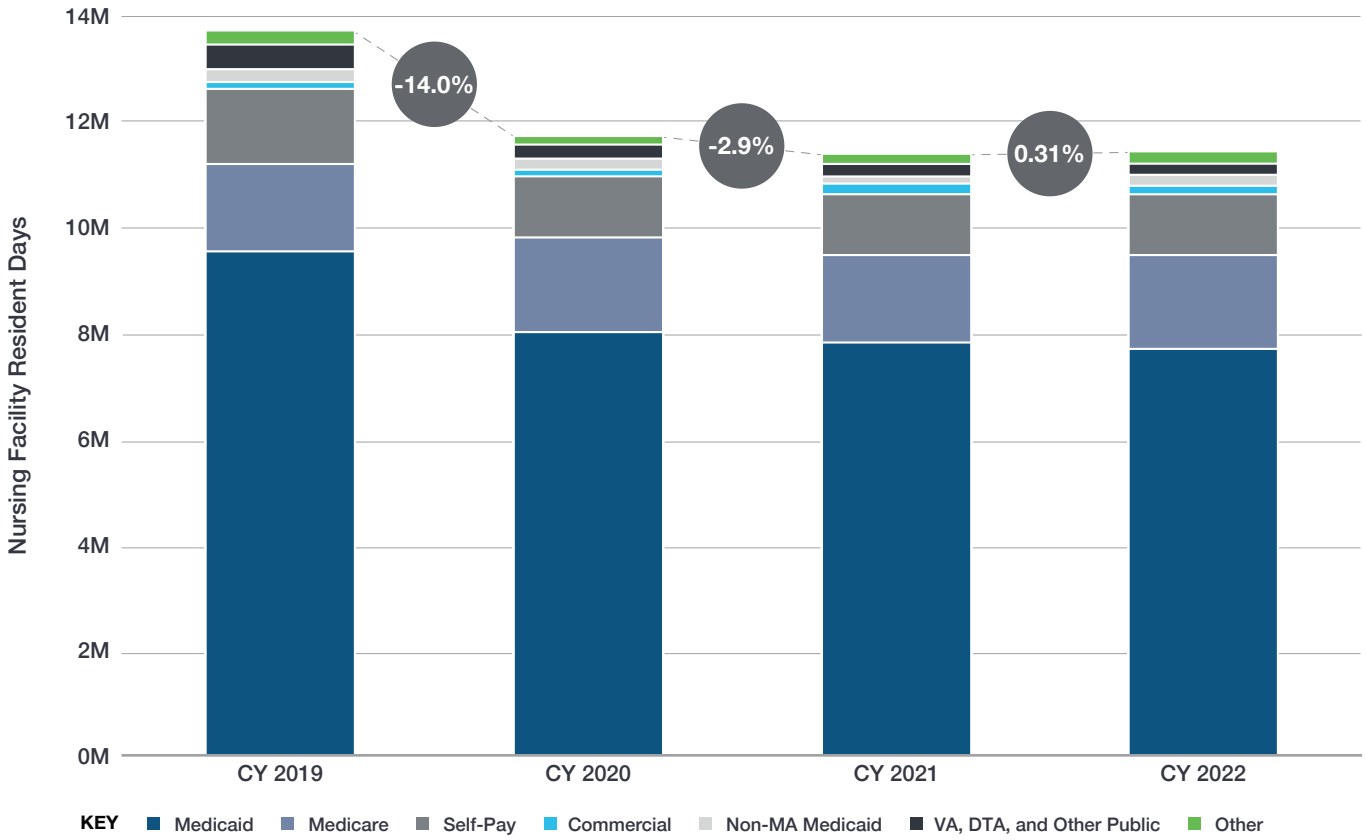
Provider and Health System Trends

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 reside there. This measure accounts for utilization by both short-stay residents, who may be rehabilitating after a hospital inpatient stay, and long-stay residents, who need ongoing support with basic activities of daily living (ADLs).

Overall resident days declined by 16.2% from 2019 to 2022, with the majority of the decrease taking place between 2019 and 2020; total resident days decreased by 14.0% between 2019 and 2020, then further by 2.9% between 2020 and 2021, and was stable between 2021 and 2022. Payers experienced this overall decline at different rates. Medicaid resident days declined by 19.5% from 2019 to 2022, while self-pay days declined by 16.1%, and Medicare resident days increased by 6.1%. The utilization decline seen in 2020 is likely due to a number of factors related to the COVID-19 pandemic, including admissions freezes and increased mortality in nursing facilities, as well as broader rebalancing efforts to expand access to nursing facility alternatives in the home and community.

In 2022, there were 11.4 million overall resident days, of which 93.1% were covered by three payers. Medicaid, the largest payer, covered 7.7 million resident days in 2022, or 67.4% of all days. Medicare was the second largest payer in 2022, covering 1.8 million resident days, or 15.5% of all days. This was followed by self-pay residents, which comprised 1.2 million days, or 10.2% of days. Private insurance and other government programs covered the remaining 6.9% of overall resident days.

Nursing Facility Utilization, by Payer Type



Overall nursing facility resident days declined by 16.2% between 2019 and 2022.

Source: Skilled Nursing Facility Cost Reports (HCF-1/SNF-CR)

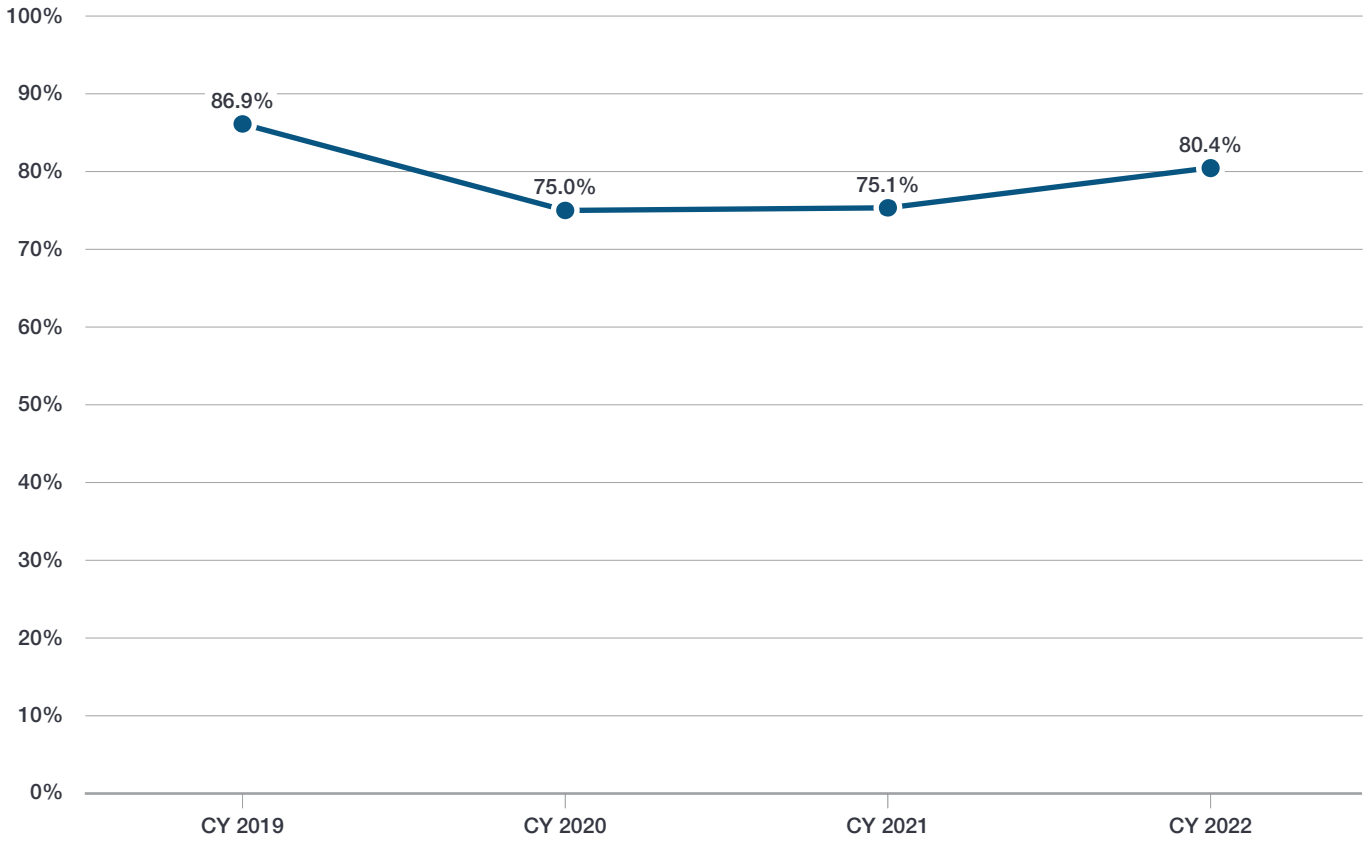
Notes: The nursing facility data used in this section is as-reported by facilities that submit a cost report to CHIA; as such, private pay facilities that do not take Medicaid are not included. Additionally, there are eight facilities whose 2022 data was not submitted in time to be included in this report. They are included in the facility count and bed count on page "Total Facilities, Total Beds, and Median Occupancy by County, 2022," but are otherwise excluded from the data reported in this section. 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.

Provider and Health System Trends

Occupancy rates are used to examine the actual utilization of a facility compared to the total number of licensed beds. 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 total filled beds across all nursing facilities, as a percentage of total licensed beds for a given year.

Nursing facility occupancy decreased by 6.5 percentage points between 2019 and 2022, falling from 86.9% to 80.4%. There was a 5.3 percentage point increase between 2021 and 2022, increasing from 75.1% to 80.4%, following a sharp decline in 2020. The increase from 2021 to 2022 was primarily driven by a decrease in the number of licensed beds. This is due to facility closures, as well as a reduction in licensed beds pursuant to dedensification policies. The change in mean licensed beds was -7% between 2021 and 2022.

Nursing Facility Occupancy Rates, System Level



Nursing facility occupancy decreased from 86.9% in 2019 to 80.4% in 2022. Between 2021 and 2022, nursing facility occupancy increased from 75.1% to 80.4%, following a sharp decline in 2020.

Notes: Where occupancy measures are presented in this slide (aggregate occupancy) and the next page (median occupancy), the measure "licensed beds" is used in the denominator of the occupancy calculation. The term "licensed beds" refers to the number of beds on the license issued to the facility by the Massachusetts Department of Public Health, and represents the total maximum capacity of the facility which is allowed under that license. This may be greater than the actual number of beds which the facility has staffed and available for use at a given time.

Provider and Health System Trends

In 2022, there were 339 total nursing facilities that served MassHealth or other publicly aided residents in Massachusetts. While the aggregate system-level occupancy rate was 80.4%, the median facility occupancy rate statewide was 81.4%.

Excluding the two counties with only one facility each, in 2022, Franklin County had the fewest nursing facilities and licensed beds, with three total facilities and 306 beds and the highest median occupancy rate. Middlesex County had the highest number of total facilities and licensed beds, totaling 67 nursing facilities and 8,092 beds. Excluding the two counties with only one facility each, Barnstable County had the lowest median occupancy rate among all counties in 2022, at 76.6% across 16 nursing facilities.

Median occupancy rates—statewide and in all but one county—were lower in 2022 as compared to 2019. The statewide median occupancy decreased by more than 10% compared to 2019, as did the county-level median occupancy rate for six out of 14 counties. Only Berkshire County saw a slight increase in median occupancy, of 1% between 2019 and 2022.

Total Facilities, Total Beds, and Median Occupancy by County, CY 2022

County	Total Facilities	Licensed Beds	Median Occupancy
Barnstable	16	1,769	76.6%
Berkshire	12	1,291	88.0%
Bristol	29	3,739	78.6%
Dukes	1	61	45.4%
Essex	45	4,977	82.8%
Franklin	3	306	90.2%
Hampden	28	3,192	79.1%
Hampshire	6	755	84.8%
Middlesex	67	8,092	81.1%
Nantucket	1	45	69.9%
Norfolk	33	3,636	78.6%
Plymouth	28	3,321	80.1%
Suffolk	21	2,690	85.2%
Worcester	49	5,814	88.0%
Total	**339**	**39,688**	**81.4%**

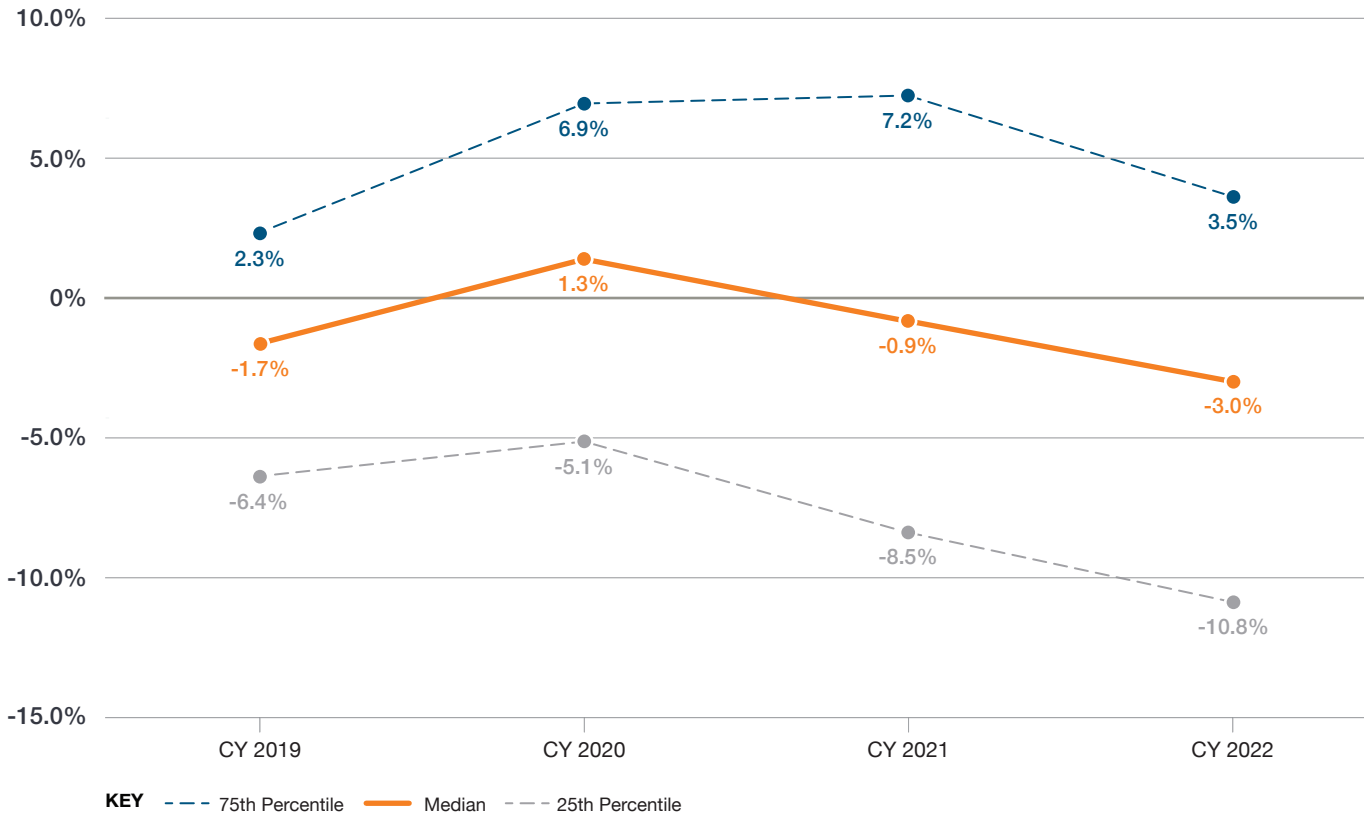
KEY Decrease between 5 and 10% compared to 2019 Decrease by >10% compared to 2019

Nursing facility median occupancy decreased in 13 out of 14 counties between CY 2019 and CY 2022.

Provider and Health System Trends

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 and sale of assets. Starting in 2020, total revenue reported by nursing facilities also included state and federal payments received related to the COVID-19 pandemic. These funds were included in the total margin reported in 2020 through 2022. The system-wide median total margin decreased from -1.7% in 2019 to -3.0% in 2022.

Nursing Facility Median Total Margin

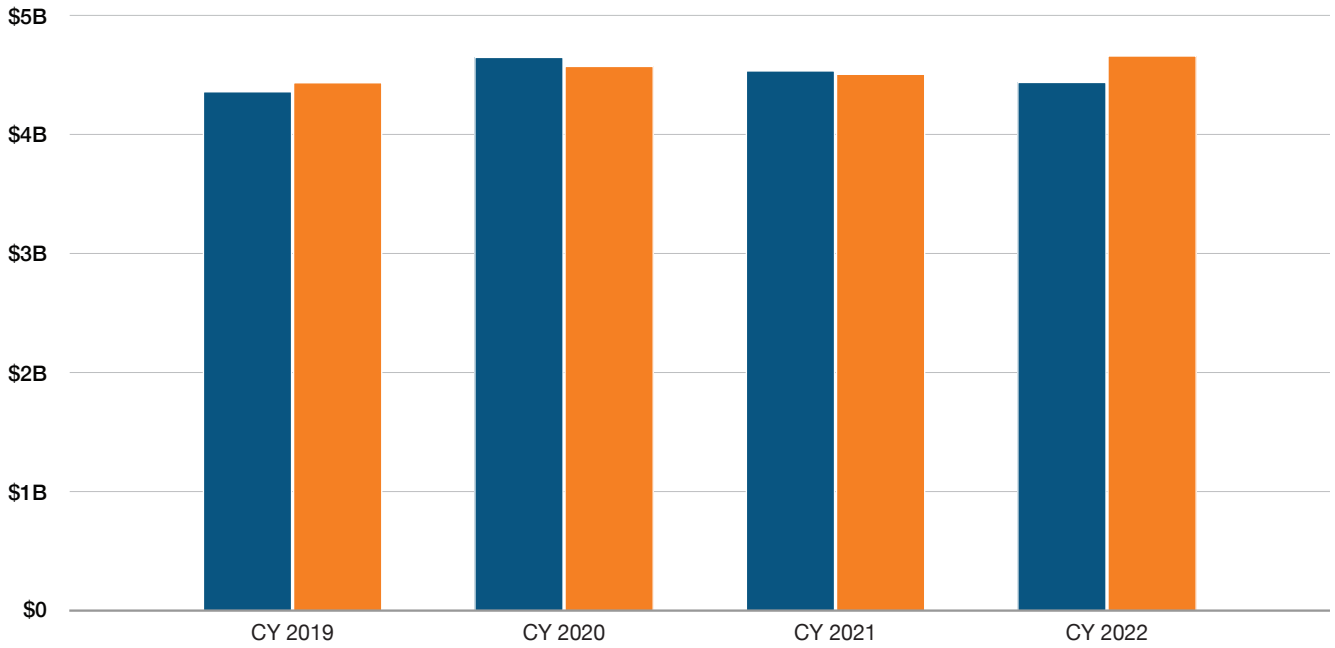


The nursing facility median total margin decreased from -1.7% in 2019 to -3.0% in 2022.

Provider and Health System Trends

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 testing supplies (not reflected in this chart). In 2020 and 2021, with the inclusion of COVID-19-related funding received by nursing facilities, the total reported revenue slightly exceeded reported expenses. In 2022, even with the continuation of certain COVID-19-related financial support, total reported expenses exceeded total reported revenue.

Nursing Facility Total Revenue and Expenses



	CY 2019	CY 2020	CY 2021	CY 2022
Total Reported Revenue	4,357.3	4,640.4	4,529.2	4,423.6
Total Reported Expense	4,438.8	4,562.2	4,506.2	4,644.4

Expressed in millions of dollars.

In 2022, nursing facility total reported expenses exceeded reported revenue.

Provider and Health System Trends Notes

1. Acute hospitals were assigned to one of the following cohorts or hospital types according to the criteria below. For this report, FY 2021 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

Behavioral Health

In 2022, behavioral health spending represented 7.4% of private commercial health expenditures, 16.2% for MassHealth, and 3.1% for Medicare Advantage.

Between FFY 2019 and 2023, approximately 5% of inpatient discharges were associated with a mental health primary diagnosis and approximately 4% were associated with a substance use disorder primary diagnosis.

In 2021, 18.0% of Massachusetts residents reported having had an outpatient behavioral health visit in the prior 12 months; however, nearly 10% of all residents reported that they or someone in their family had forgone behavioral health care due to cost in the same time period.

Overall, 83.4% of all inpatient discharges with behavioral health primary diagnoses were attributed to non-elderly adults in FFY 2022.

Behavioral Health

In 2022, Massachusetts enacted legislation, called the Mental Health ABC Act: Addressing Barriers to Care, expanding access to behavioral health care services, supporting the behavioral health workforce, and, among other initiatives, charged CHIA with monitoring "costs, cost trends, price, quality, utilization, and patient outcomes related to behavioral health service subcategories… including mental health, substance use disorder, outpatient, inpatient, services for children, services for adults, and provider type."[1] Starting in 2023, the Commonwealth began implementation of the **Roadmap for Behavioral Health Reform**, including a 24/7 Behavioral Health Help Line and a statewide network of Community Behavioral Health Centers in communities across the state. This chapter covers a period where not all ABC Act provisions had been implemented yet, including but not limited to, service expansion, $0 cost-sharing behavioral health wellness exams, collaborative care models, and provider reimbursement requirements. Future CHIA data and reporting will track the aggregate spending impact of the investments made through the ABC Act and other state initiatives.

This chapter presents several measures overviewing behavioral health care in Massachusetts for calendar years 2021-2023, including how much insurers and patients paid for mental health and substance use disorder services by age group for pediatric (0-17) and adult populations (18-64), trends in care received in hospital emergency department and inpatient settings, and trends in outpatient services provided by hospitals that specialize in psychiatric and/or substance use disorder treatment. It also provides information on the characteristics of residents who reported having outpatient behavioral health visits, as well as of those residents who reported not receiving outpatient behavioral health care due to cost.

Data Sources and Methodology

Results reported in this chapter utilize several data sets, including a survey of residents, aggregate data reported by payers, provider-reported cost reports, as well as hospital-reported discharge- and visit-level datasets.

Estimates reported from resident survey data on behavioral health visits and unmet need for behavioral health care due to cost come from the 2021 Massachusetts Health Insurance Survey (MHIS). The MHIS is a statewide population survey that was fielded in English and Spanish between July and December 2021 and collected data on 5,000 residents and their families. All estimates provided from this data source are weighted to provide population-based estimates for the non-institutionalized resident population of the Commonwealth. Additional information about the design of the MHIS is available in the **MHIS methodology report**.

To quantify behavioral health-specific spending and utilization trends, members were identified as having a primary diagnosis of mental health or substance use disorder based on lists of diagnosis codes. Utilization measures for acute care and psychiatric hospitals are inclusive of patients with all types of private and public insurance, including MassHealth and original Medicare, as well as self-pay.

Expenditure data only includes information for behavioral health services covered by members' health insurance plans and does not capture behavioral health care that was privately paid for by the patient outside of any insurance plan. Spending measures reflect private commercial health plans, MassHealth, and Medicare Advantage, and capture payments made for all types of inpatient and outpatient behavioral health services. For additional detail on diagnoses and code lists for services classified as behavioral health, see the Primary Care and Behavioral Health data specifications.[2]

More detailed information about behavioral health in Massachusetts can be found in other CHIA reports, including **Behavioral Health and Readmissions in Acute Care Hospitals**, **Primary Care and Behavioral Health Expenditures**, and **Psychiatric and Specialty Care Hospital Profiles**. ■

Behavioral Health

Private commercial spending on behavioral health services (mental health and substance use disorder [SUD] combined), represented 7.4% of total medical spending in 2022, a slight decline from 2021. Mental health service spending represented the majority of private commercial behavioral health spending, at $40 PMPM for mental health services and $8 PMPM for SUD services in 2022. From 2021 to 2022, the proportion of total commercial members with a primary behavioral health diagnosis increased 0.4 percentage points to 22.7%.

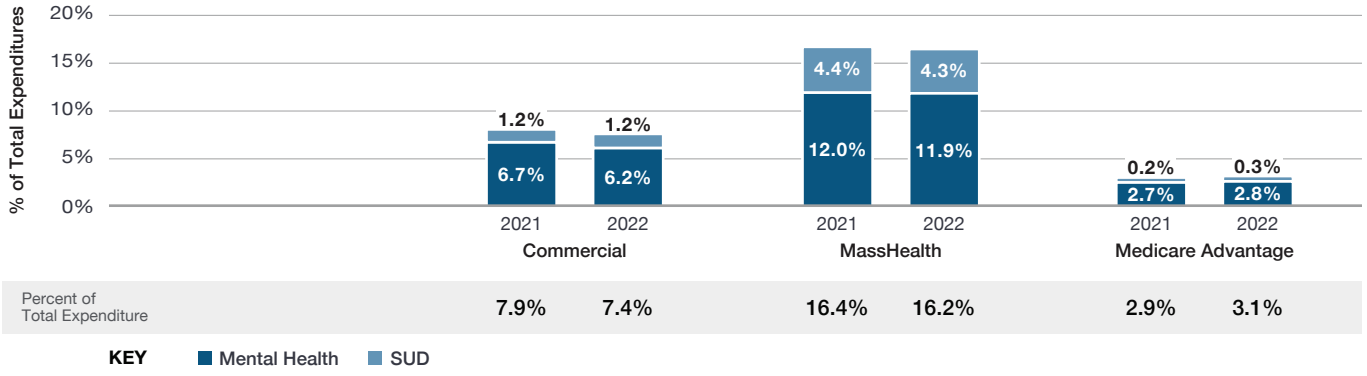
Behavioral health spending accounted for 16.4% of total MassHealth spending in 2021 and 16.2% of spending in 2022. Behavioral health spending on a PMPM basis remained consistent across the two years at $79 PMPM for mental health and $29 PMPM for SUD, totaling $108 PMPM. MassHealth had the highest behavioral health diagnosis prevalence among examined insurance categories, with 26.6% of MassHealth members having a primary behavioral health diagnosis (21.9% having a mental health diagnosis and 4.7% having a SUD diagnosis) in 2022, representing slight declines from 2021.

In 2022, 3.1% of total Medicare Advantage spending was attributed to behavioral health services, with 2.8% for mental health and 0.3% for SUD. Behavioral health PMPM spending increased from 2021, driven by an increase in mental health PMPM from $29 in 2021 to $32 in 2022. In 2022, 14.1% of Medicare Advantage members had a behavioral health diagnosis, a decline from 2021.

Behavioral Health Spending and Diagnosis Prevalence by Insurance Category, 2021-2022

	Commercial		MassHealth		Medicare Advantage	
	2021	**2022**	**2021**	**2022**	**2021**	**2022**
Total Member Months	30.1M	29.0M	12.9M	13.9M	2.2M	2.3M
% Members with MH Diagnosis	20.8%	21.3%	22.7%	21.9%	13.7%	12.5%
% Members with SUD Diagnosis	1.5%	1.4%	4.9%	4.7%	1.6%	1.6%
% Members with BH Diagnosis	**22.3%**	**22.7%**	**27.7%**	**26.6%**	**15.2%**	**14.1%**
Total PMPM	$621	$647	$656	$661	$1,087	$1,147
Mental Health PMPM	$42	$40	$79	$79	$29	$32
SUD PMPM	$7	$8	$29	$29	$3	$3
Behavioral Health PMPM	**$49**	**$48**	**$108**	**$108**	**$31**	**$35**

Percent of Total Expenditures



	Commercial		MassHealth		Medicare Advantage	
Percent of Total Expenditure	**7.9%**	**7.4%**	**16.4%**	**16.2%**	**2.9%**	**3.1%**

KEY ■ Mental Health ■ SUD

In 2022, behavioral health spending represented 7.4% of total commercial expenditures, 16.2% for MassHealth, and 3.1% for Medicare Advantage.

Source: Payer-reported data to CHIA.

Notes: Data for Original Medicare was not available for this analysis. For commercial partial-claim data, CHIA estimated pharmacy spending by service type. MassHealth submitted data includes data for members for which MassHealth is the primary payer, including fee-for-service (excluding FFS Duals, FFS TPL, FFS Limited), MCO/ACO-A, ACO-B, and PCC program types. Analysis represents data from commercial payers that submitted CY2021 and CY2022 data: BCBSMA, Cigna, Fallon, HPHC, HPI, MGBHP, THPP, Tufts Medicare Advantage, and UniCare, representing approximately 75% of the commercial market, 60% of the commercially administered MCO/ACO-A market, and 60% of the Medicare Advantage market. As a result, data may not tie to the Total Health Care Expenditures chapter. Mental health and substance use disorder diagnosis prevalence are not mutually exclusive. Totals do not include any MassHealth supplemental payments. Totals may not sum due to rounding. See technical appendix for additional information.

Behavioral Health

MassHealth plays a central role in the coverage of mental health and substance use disorder care in the Commonwealth.[3] Across all MassHealth plans, spending for MassHealth members on behavioral health services totaled $1.5 billion in 2022, an increase from $1.4 billion in 2021.

Among MassHealth plans, Primary Care ACOs (ACO-Bs) spent the highest proportion of total spending on behavioral health care (17.4%), as well as the highest SUD spending of all plan types ($35 PMPM in 2022). In 2022, 29.3% of ACO-B members had a behavioral health diagnosis, a 1.0 percentage point decline from 2021.

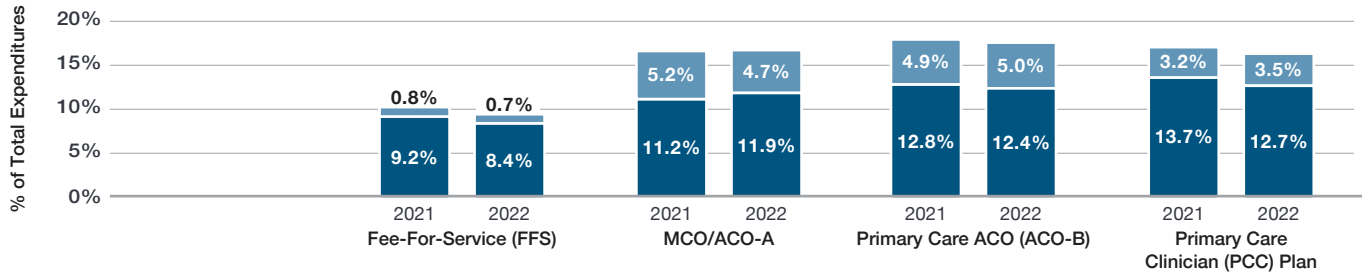
In 2022, behavioral health services accounted for 16.6% of MCO/ACO-A total spending. For this population, mental health spending PMPM increased from $63 PMPM in 2021 to $68 PMPM in 2022, while SUD spending decreased from $29 to $27 PMPM. MassHealth FFS plans reported the lowest proportion of behavioral health service expenditures (9.1% of FFS total) in 2022, driven in part by a 3.6 percentage point decline in the prevalence of members with a behavioral health diagnosis and a 21.7% decline in behavioral health spending PMPM.

In 2022, behavioral health services accounted for 16.2% of PCC Plan total spending. This was reflected by a decrease to $100 PMPM in 2022, driven in part by a decline in the percentage of PCC Plan members with a behavioral health diagnosis during the same time period.

MassHealth Behavioral Health Spending and Diagnosis Prevalence by Program Type, 2021-2022

	Fee-For-Service (FFS)		MCO/ACO-A		Primary Care ACO (ACO-B)		Primary Care Clinician (PCC) Plan	
	2021	2022	2021	2022	2021	2022	2021	2022
Total Member Months	0.9M	1.1M	5.6M	5.9M	5.1M	5.5M	1.3M	1.4M
% Members with MH Diagnosis	17.8%	14.5%	21.7%	21.2%	23.8%	23.2%	26.4%	25.1%
% Members with SUD Diagnosis	2.6%	2.3%	3.7%	3.5%	6.5%	6.1%	5.7%	5.6%
% Members with BH Diagnosis	**20.4%**	**16.8%**	**25.4%**	**24.8%**	**30.3%**	**29.3%**	**32.1%**	**30.7%**
Total PMPM	$829	$705	$558	$576	$694	$711	$802	$787
Mental Health PMPM	$76	$59	$63	$68	$89	$88	$110	$100
SUD PMPM	$7	$5	$29	$27	$34	$35	$26	$28
Behavioral Health PMPM	**$83**	**$65**	**$92**	**$95**	**$123**	**$124**	**$135**	**$127**
Behavioral Health Spending	**$75.3M**	**$68.6M**	**$509.6M**	**$564.5M**	**$633.1M**	**$683.4M**	**$172.1M**	**$179.0M**

Percent of Total Expenditures



	Fee-For-Service (FFS)		MCO/ACO-A		Primary Care ACO (ACO-B)		Primary Care Clinician (PCC) Plan	
Percent of Total Expenditure	**10.0%**	**9.1%**	**16.4%**	**16.6%**	**17.7%**	**17.4%**	**16.9%**	**16.2%**

KEY ■ Mental Health ■ SUD

In 2022, behavioral health spending as a proportion of total spending was comparable across MassHealth plan types, except for FFS.

Source: Payer-reported data to CHIA.

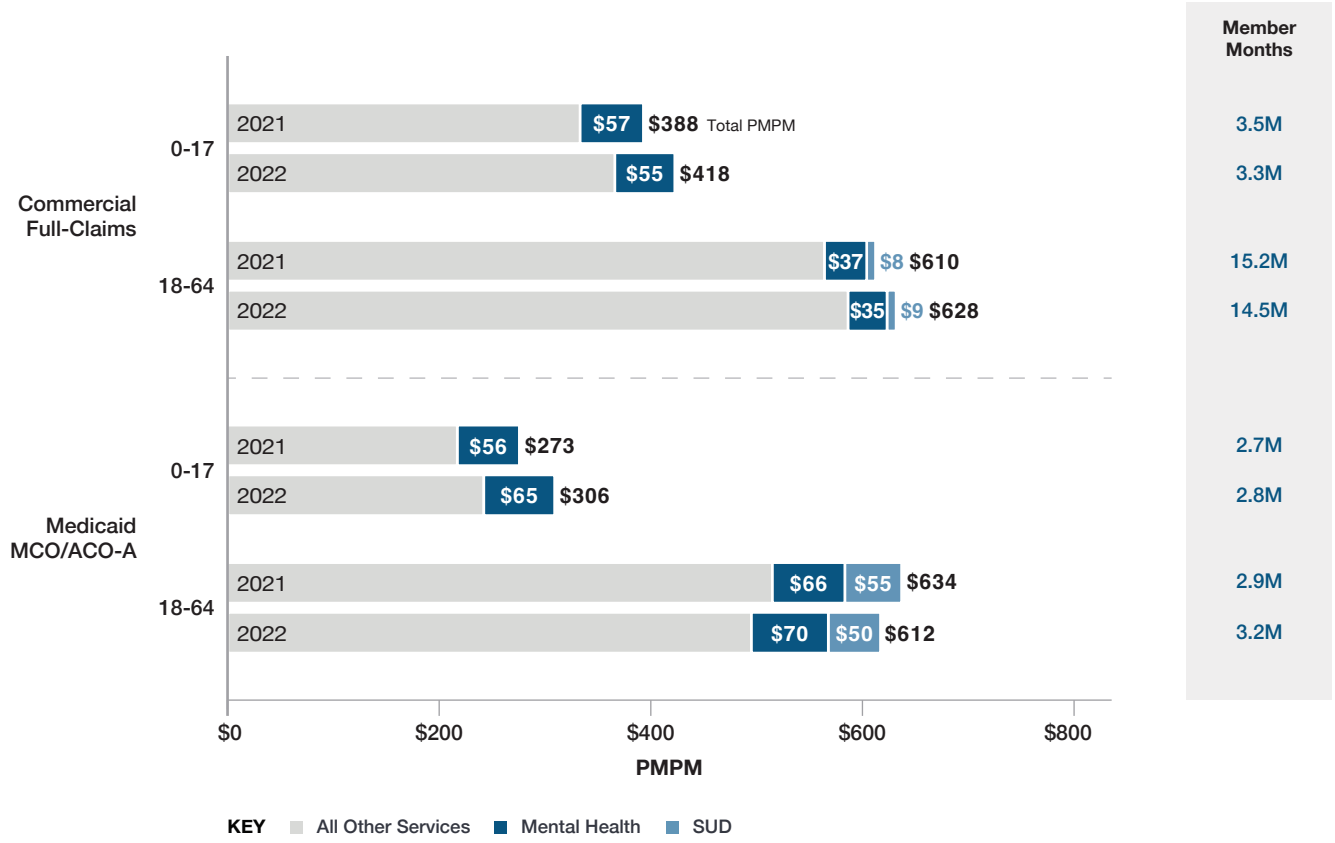
Notes: MassHealth data includes programs administer by MassHealth directly (Fee-For-Service [FFS] (excluding FFS Duals, FFS TPL, FFS Limited), Primary Care ACOs [ACO-B], and Primary Care Clinician [PCC]), and those administered by commercial health plans (Accountable Care Partnerships [ACO-A], Managed Care Organizations [MCO]). Analysis represents data from commercial payers that submitted CY2021 and CY2022 data: Fallon, MGBHP, and THPP, representing approximately 60% of the commercially administered MCO/ACO-A market. As a result, data may not tie to the Total Health Care Expenditures chapter. MCO/ACO-A diagnosis prevalence sourced from data submitted by commercial payers. Mental health and substance use disorder diagnosis prevalence are not mutually exclusive. Totals do not include any MassHealth supplemental payments. Totals may not sum due to rounding. See technical appendix for additional information.

Behavioral Health

In 2022, commercial behavioral health spending was higher for members ages 0-17 ($55 PMPM) than for adults ages 18-64 ($44 PMPM). In 2022, commercial health plans spent $55 PMPM on mental health care for pediatric members, compared to <$1 PMPM on SUD services. Among commercially-insured adults, mental health spending was $35 PMPM and SUD spending was $9 PMPM. Overall, behavioral health spending in 2022 represented 13.1% of total health care expenses for commercially-insured pediatric members, and 7.0% for adults.

Commercially administered Medicaid MCO/ACO-A plans reported higher behavioral health spending for members ages 18-64 than ages 0-17, driven by higher spending on SUD services. Behavioral health spending for Medicaid MCO/ACO-A members ages 0-17 represented a greater proportion of total spending compared to adults (21.5% to 19.6%, respectively). On a PMPM basis, Medicaid MCO/ACO-A mental health spending for members aged 0-17 was $65 PMPM in 2022, an increase from $56 PMPM in 2021. From 2021 to 2022, behavioral health spending for Medicaid MCO/ACO-A members ages 18-64 remained relatively stable as mental health spending increased to $70 PMPM and SUD spending declined to $50 PMPM. In 2022, MassHealth instituted a price increase for a broad range of ACO behavioral health services, while at the same time, behavioral health utilization declined (more rapidly for adults than pediatrics) as MassHealth's member caseload, on average, consisted of healthier, lower-risk members.

Behavioral Health Expenditures by Age Group, 2021-2022



Behavioral health spending was higher for commercially-insured members ages 0-17 than for adults, while the converse was true for Medicaid MCO/ACO-A members driven by SUD expenditures for adults.

Source: Payer-reported data to CHIA.

Notes: Medicare Advantage data not depicted because of low membership reported for members <65+. Commercial results include commercial full-claim data only, reflecting members for whom the payer has access to and is able to report all claims expenses, which accounted for approximately 64% of total commercial member months in 2022 for payers included in this analysis. Analysis represents data from commercial payers that submitted CY2021 and CY2022 data: BCBSMA, Cigna, Fallon, HPHC, HPI, MGBHP, THPP, and Tufts Medicare Advantage. All Other Services includes primary care services and services for all specialties other than behavioral health. Member months and PMPM values may not tie to data presented on page 121 due to low membership volume reported in age groups not represented in the graph (e.g. commercial 65+).

Behavioral Health

Mental health services are delivered in a variety of health care settings, including inpatient treatment, residential care, intensive outpatient programs, and outpatient office visits. Spending for services in these settings differed across insurance categories.

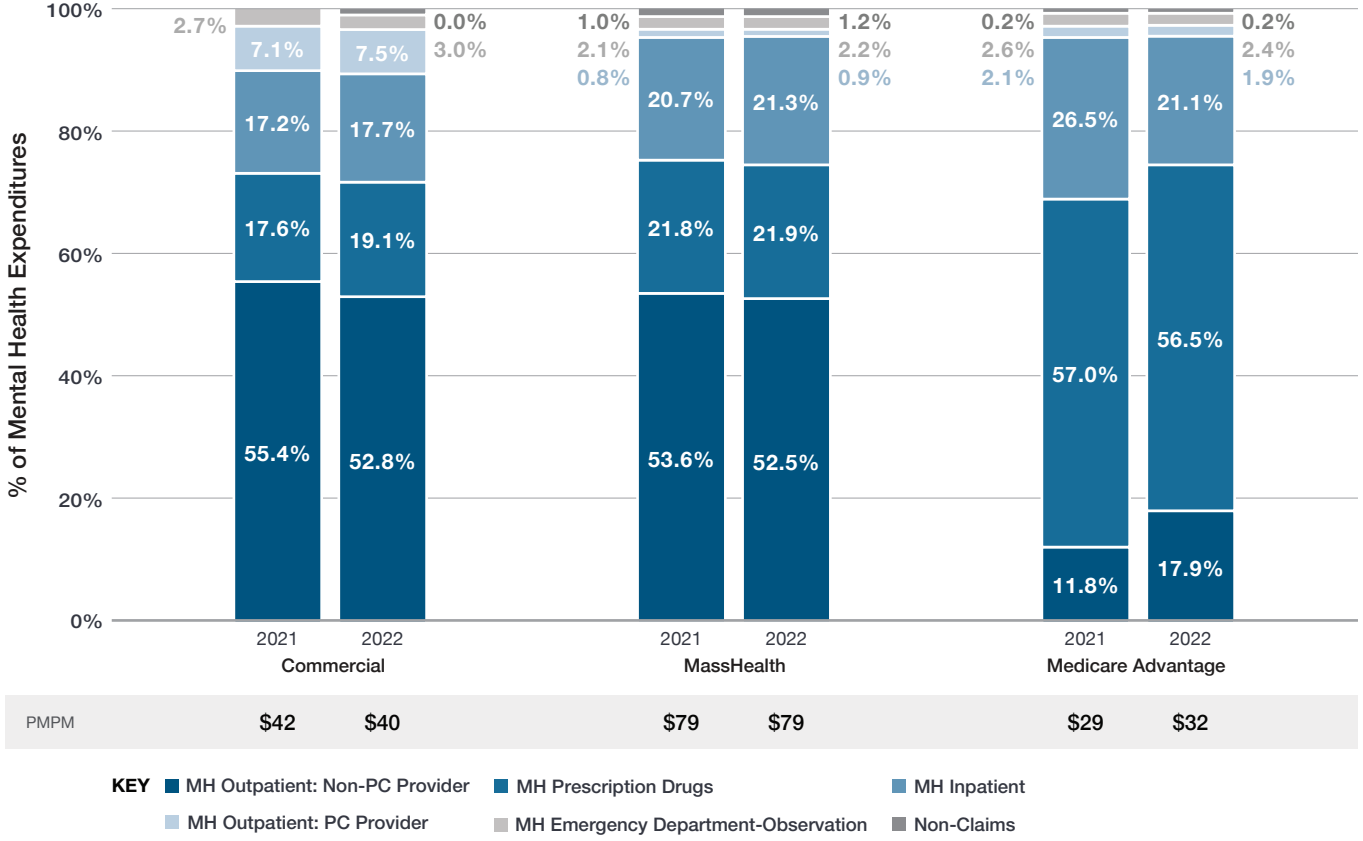
Outpatient mental health services provided by a behavioral health provider accounted for more than half of mental health spending for both commercial and MassHealth members in 2022. Notably, 7.5% of total mental health spending for commercial members was attributed to outpatient care delivered by a primary care provider, compared to 0.9% for MassHealth and 1.9% for Medicare Advantage members.

In contrast, the majority of mental health spending for Medicare Advantage members was for prescription drugs (56.5%), with 17.9% for outpatient mental health delivered by a behavioral health provider. Mental health prescription drugs accounted for 19.1% of commercial and 21.9% of MassHealth mental health spending.

The proportion of mental health spending for inpatient services was similar across insurance categories, at 17.7% for commercial members, 21.3% for MassHealth, and 21.1% for Medicare Advantage.

Across the three examined insurance categories, spending levels for each mental health service category remained relatively stable between 2021 and 2022, though mental health outpatient services provided by a behavioral health provider increased 6.1 percentage points for Medicare Advantage members.

Mental Health Spending by Service Category, 2021-2022



Outpatient mental health services accounted for more than half of mental health spending for both commercial and MassHealth members; in contrast, prescription drug spending accounted for the majority of mental health spending in Medicare Advantage plans.

Source: Payer-reported data to CHIA.

Notes: For commercial partial-claim data, CHIA estimated pharmacy spending by service type. MassHealth submitted data includes data for members for which MassHealth is the primary payer, including fee-for-service (excluding FFS Duals, FFS TPL, FFS Limited), MCO/ACO-A, ACO-B, and PCC program types. Analysis represents data from commercial payers that submitted CY2021 and CY2022 data: BCBSMA, Cigna, Fallon, HPHC, HPI, MGBHP, THPP, Tufts Medicare Advantage, and UniCare, representing approximately 75% of the commercial market, 60% of the commercially administered MCO/ACO-A market, and 60% of the Medicare Advantage market.

Behavioral Health

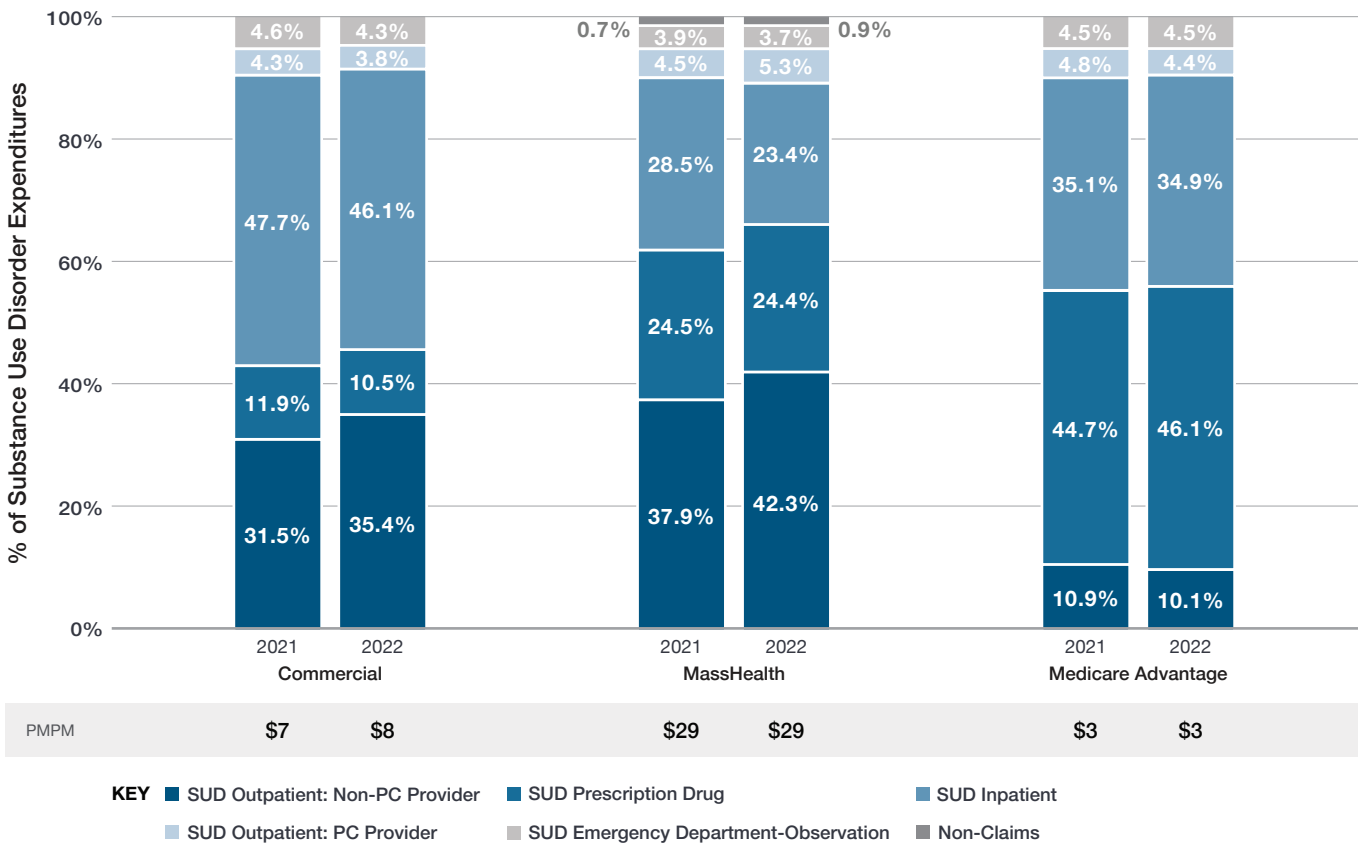
Spending for substance use disorders was distributed differently across care settings as compared to the distribution of spending for mental health services, and these distributions varied among insurance categories.

In 2022, among commercial health plans, inpatient services represented 46.1% of total SUD spending. Commercial spending on SUD outpatient services provided by a behavioral health provider accounted for 35.4% of total SUD spending, a 3.9 percentage point increase from 2021.

For MassHealth members, outpatient services provided by a behavioral health provider accounted for 42.3% of total SUD spending in 2022, a 4.4 percentage point increase from 2021; at the same time, the proportion of total SUD spending attributable to inpatient (23.4% of total SUD spending) declined. MassHealth indicated that the decline in SUD inpatient service expenditures may be linked to a decline in the number of beds available due to staffing shortages.

Prescription drugs represented the largest category of Medicare Advantage SUD spending, accounting for 46.1% in 2022. In contrast to commercial and MassHealth, outpatient services delivered by a behavioral health provider comprised only 10.1% of Medicare Advantage SUD spending. Inpatient services accounted for 34.9% of Medicare Advantage SUD spending.

Substance Use Disorder Spending by Service Category, 2021-2022



In 2022, inpatient and outpatient services provided by a behavioral health provider comprised the largest portion of Commercial and MassHealth SUD spending while prescription drugs accounted for the largest portion of Medicare Advantage SUD spending.

Source: Payer-reported data to CHIA.

Notes: For commercial partial-claim data, CHIA estimated pharmacy spending by service type. MassHealth submitted data includes data for members for which MassHealth is the primary payer, including fee-for-service (excluding FFS Duals, FFS TPL, FFS Limited), MCO/ACO-A, ACO-B, and PCC program types. Analysis represents data from commercial payers that submitted CY2021 and CY2022 data: BCBSMA, Cigna, Fallon, HPHC, HPI, MGBHP, THPP, Tufts Medicare Advantage, and UniCare, representing approximately 75% of the commercial market, 60% of the commercially administered MCO/ACO-A market, and 60% of the Medicare Advantage market.

Behavioral Health

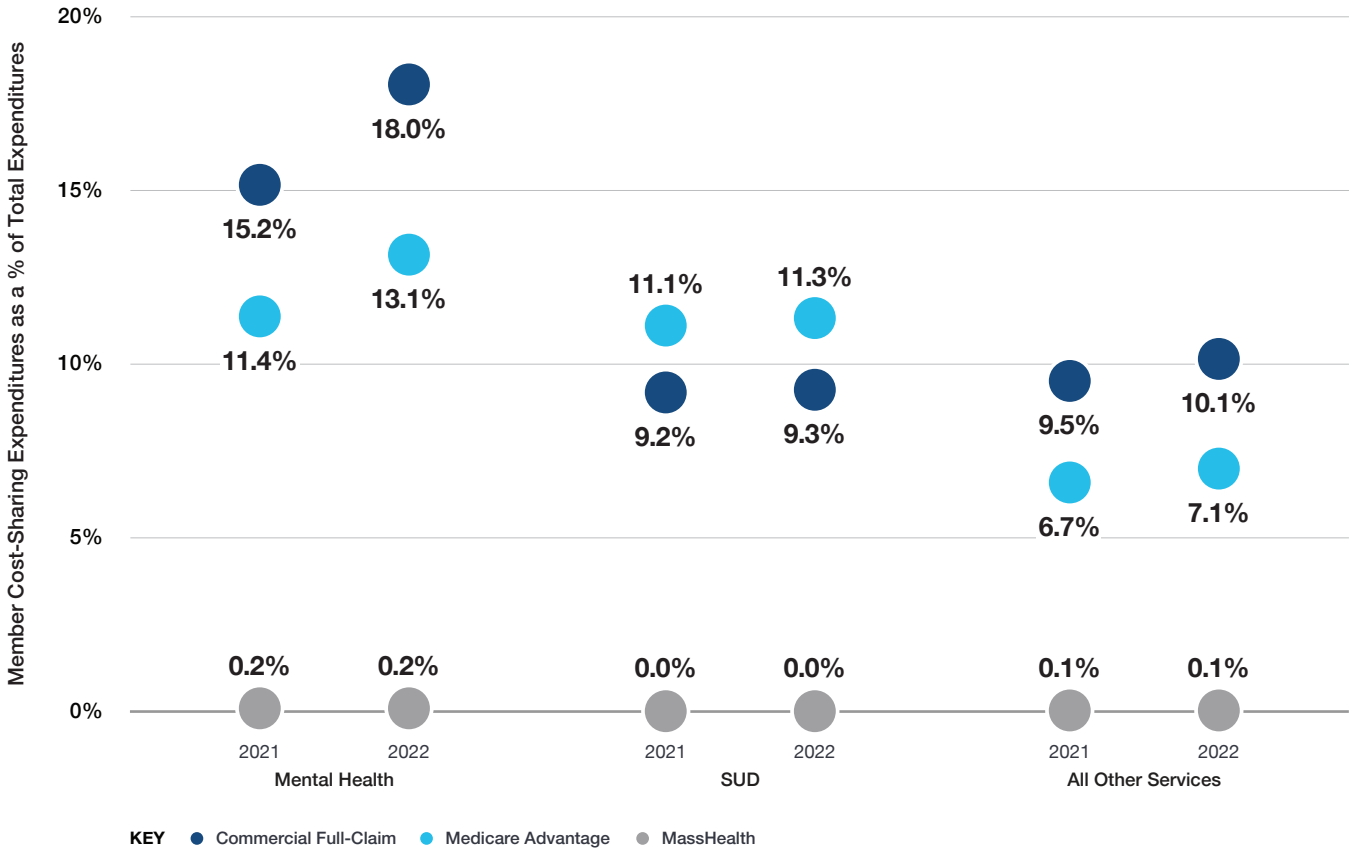
Member cost-sharing represents payments for covered health care services for which the member is financially responsible (e.g., copayments, coinsurance, and deductibles). Cost-sharing metrics presented here reflect the proportion of total payments for mental health, SUD, and all other services (e.g., services not classified as mental health or SUD) that members paid for in 2021 and 2022. Members that paid fully out-of-pocket for behavioral health care are not captured in this data.

In 2022, commercial members were responsible for 18.0% of mental health spending and 9.3% of SUD spending, compared to 10.1% for all other services. From 2021 to 2022, commercial member cost-sharing as a percentage of total expenditures increased 2.8 percentage points for mental health care, 0.6 percentage points for all other services, while remaining relatively stable for SUD services.

Medicare Advantage member cost-sharing as a percentage of total expenditures was highest for mental health services (13.1%), followed by SUD (11.3%), then all other services (7.1%). Medicare Advantage cost-sharing for SUD services was the highest among insurance categories examined. From 2021 to 2022, Medicare Advantage member cost-sharing as a proportion of total spending increased 1.7 percentage points for mental health care, 0.4 percentage points for all other services, and remained consistent for SUD.

Member cost-sharing responsibilities are substantially lower for Medicaid members due to federal and state limits on member cost-sharing for certain members and services.[4]

Member Cost-Sharing for Behavioral Health Services by Insurance Category, 2021-2022



Commercial and Medicare Advantage members were responsible for a higher share of costs for mental health services compared to other health care services.

Source: Payer-reported data to CHIA.

Notes: This analysis includes commercial full-claim data only, reflecting members for whom the payer has access to and is able to report all claims expenses, which accounted for approximately 64% of total commercial member months in 2022 for payers included in this analysis. Analysis represents data from commercial payers that submitted CY2021 and CY2022 data: BCBSMA, Cigna, Fallon, HPHC, HPI, MGBHP, THPP, and Tufts Medicare Advantage. All Other Services includes primary care services and services for all specialties other than behavioral health. See technical appendix for additional information.

Behavioral Health

Acute hospitals contain a majority of medical surgical, pediatric, obstetric, and maternity beds. Acute hospitals with psychiatric units have beds specifically designated to the treatment of psychiatric patients and were reported as distinct cost centers in the hospital cost report. Freestanding psychiatric hospitals provide behavioral health and substance use services. Substance use facilities focus solely on substance use, providing detox and other services on an inpatient basis. This section also includes data from state-operated psychiatric and mental health facilities.

Massachusetts Hospital Statistics, HFY 2022

	Number of Hospitals	Total Licensed Beds	Total Staffed Beds	Median Percent Occupancy	Median Average Length of Stay
Acute Hospitals with Psychiatric Units	35	1,262	1,154	85.7%	14.78
Freestanding Psychiatric Units	13	1,653	1,506	85.9%	16.12
Substance Use Facilities	1	114	114	86.7%	6.22
State-Operated Facilities	5	430	428	89.0%	69.83

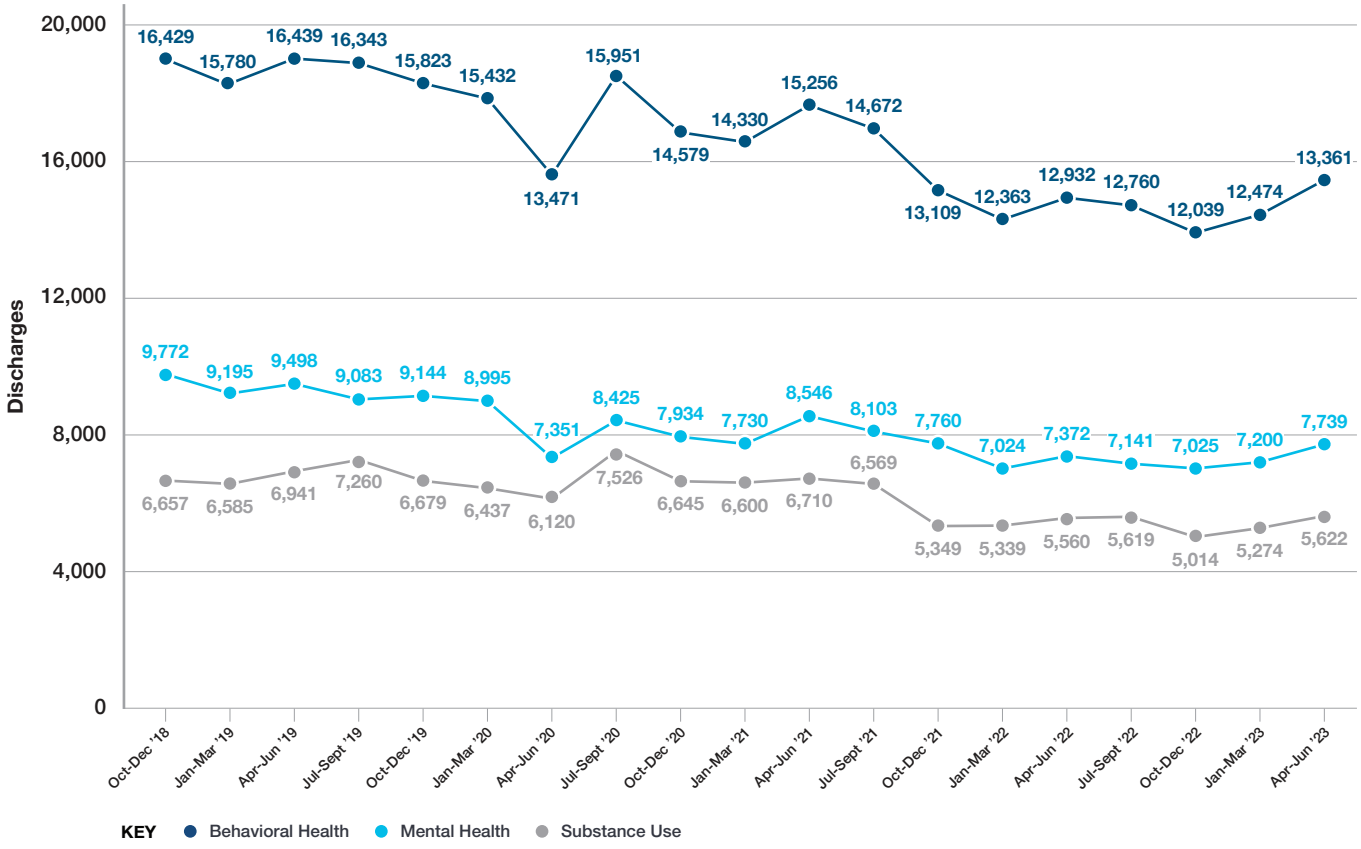
Source: Hospital Cost Reports

Behavioral Health

Between FFY 2019-FFY 2023, inpatient discharges with a behavioral health primary diagnosis accounted for just under 10% of inpatient discharges in the acute care hospital setting. Approximately 5% of inpatient discharges are associated with a mental health primary diagnosis and approximately 4% are associated with a substance use disorder primary diagnosis.

Consistent with inpatient trends at acute care hospitals, total behavioral health inpatient discharges fell during the COVID-19 pandemic in April to June 2020. Apart from an initial rebound in the following quarter (July to September 2020), behavioral health inpatient discharge volume has remained lower than pre-pandemic levels through FFY 2023. This likely reflects systemic capacity issues, including hospital staffing shortages that impact psychiatric unit bed availability in recent years.

Acute Care Hospital Behavioral Health Inpatient Discharge Trends, October 2018-June 2023



Following fluctuations in volume during the pandemic, total inpatient hospitalizations for mental health and substance use conditions are lower than pre-pandemic levels through FFY 2023.

Source: Hospital Inpatient Discharge Database (HIDD), FFY 2019-2023.

Notes: This data source includes only acute care hospitals. It does not include private psychiatric hospitals, substance abuse facilities, or Department of Mental Health hospitals. For this analysis, discharges were categorized into clinically meaningful independent BH categories based on the listed primary diagnosis codes using the Clinical Classification Software Refined (CCSR) for ICD-10-CM diagnoses. Only inpatient discharges among patients aged 2 and older were included in this analysis. Please see the CHIA website for the most up-to-date information on inpatient utilization. HIDD data for FFY 2023 (October 2022-June 2023) are not considered final and are subject to change.

Behavioral Health

Among pediatric inpatient discharges for behavioral health conditions, the most common primary diagnoses were mood-related conditions such as major depressive disorders. Other common conditions included self-harm or suicidal ideation and trauma-related disorders such as posttraumatic stress disorder (PTSD). Discharges for mental health conditions were more common in this age group than discharges for substance use disorders.

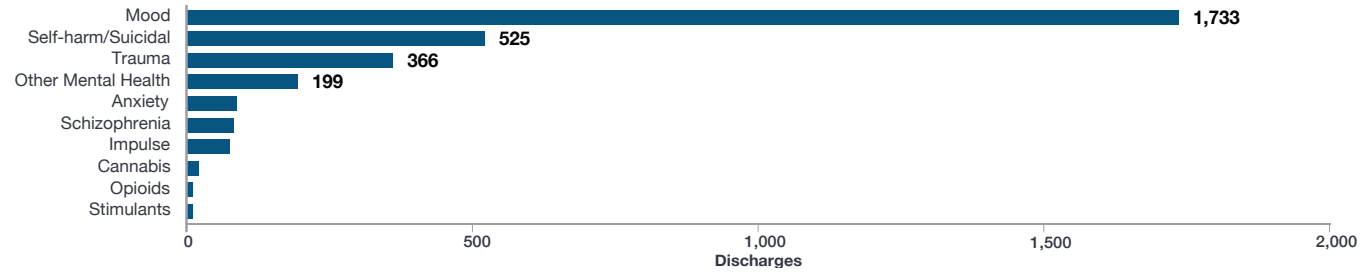
Among adult inpatient discharges for a behavioral health condition, the most common primary diagnoses were alcohol and mood-related disorders. Other common conditions included those associated with schizophrenia and other psychotic disorders, opioid-related disorders, self-harm and suicidal ideation, and trauma-related disorders.

Overall, 83.4% of all inpatient discharges with behavioral health primary diagnoses were attributed to non-elderly adults (18-64).

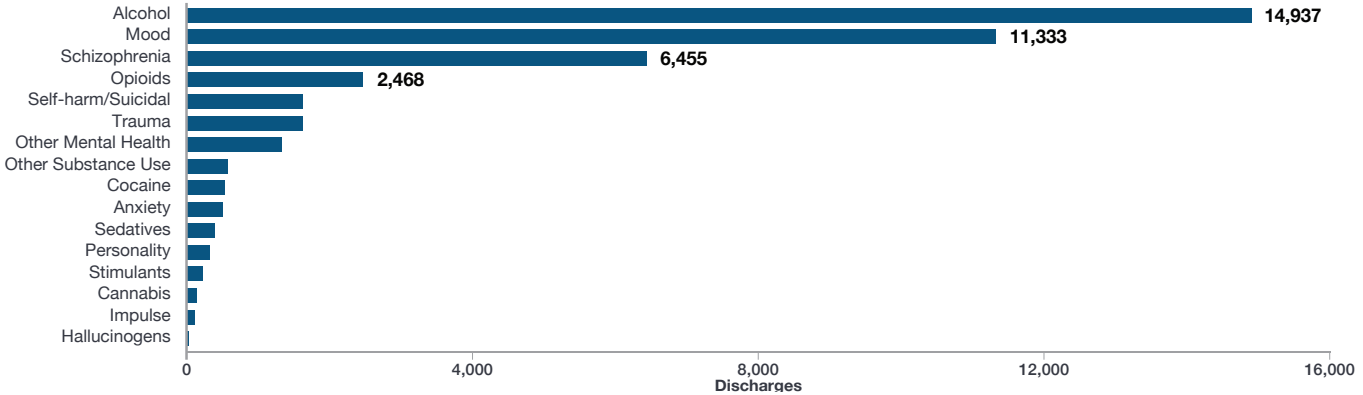
Mood-related disorders were among the most common conditions associated with inpatient hospitalizations in the pediatric population. Alcohol and mood-related disorders were among the most common conditions attributed to inpatient hospitalizations for adult patients aged 18-64 and 65+.

Acute Care Hospital Behavioral Health Inpatient Discharge Trends by Age Group, FFY 2022

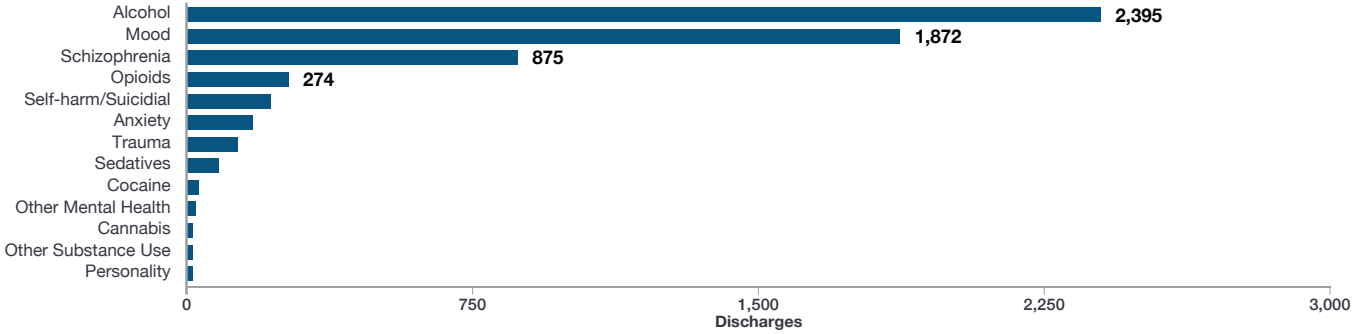
Patients Aged 2-17



Patients Aged 18-64



Patients Aged 65+



Source: Hospital Inpatient Discharge Database (HIDD), FFY 2022.

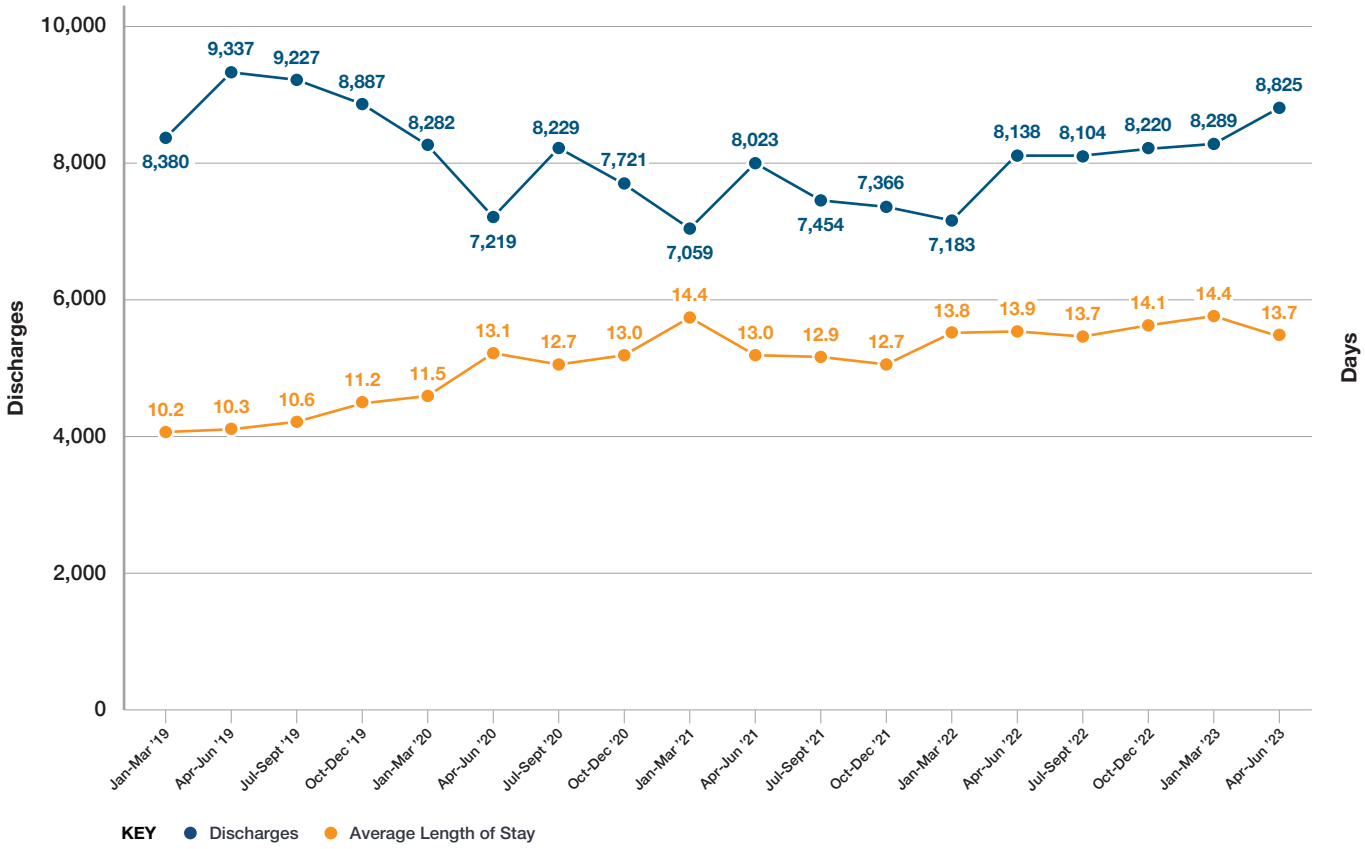
Notes: This data source includes only acute care hospitals. It does not include private psychiatric hospitals, substance abuse facilities, or Department of Mental Health hospitals. For this analysis, discharges were categorized into clinically meaningful independent BH categories based on the listed primary diagnosis codes using the Clinical Classification Software Refined (CCSR) for ICD-10-CM diagnoses. Only inpatient discharges among patients aged 2 and older were included in this analysis. Please see the CHIA website for the most up-to-date information on inpatient utilization.

Behavioral Health

Starting in fiscal year 2018, CHIA has collected data from select non-acute psychiatric hospitals. These data complement those from acute care hospitals by providing an in-depth look at the behavioral health inpatient population served by these institutions.

Using preliminary data, discharges from inpatient psychiatric hospitals decreased from April 2019 to March 2022, most notably during peak periods of the COVID-19 pandemic but have steadily increased since October 2022. As of April-June 2023, there were 8,825 discharges from inpatient psychiatric hospitals, and an average length of stay (ALOS) of 13.7 days.

Total Inpatient Psychiatric Hospital Discharges, January 2019-June 2023



Following fluctuations during the pandemic, inpatient psychiatric hospital volumes have rebounded to near pre-pandemic levels, while the average length of stay has continued to increase over the same period.

Source: Preliminary Behavioral Health Inpatient Hospital Discharge Data (BHID), January 2019-June 2023.

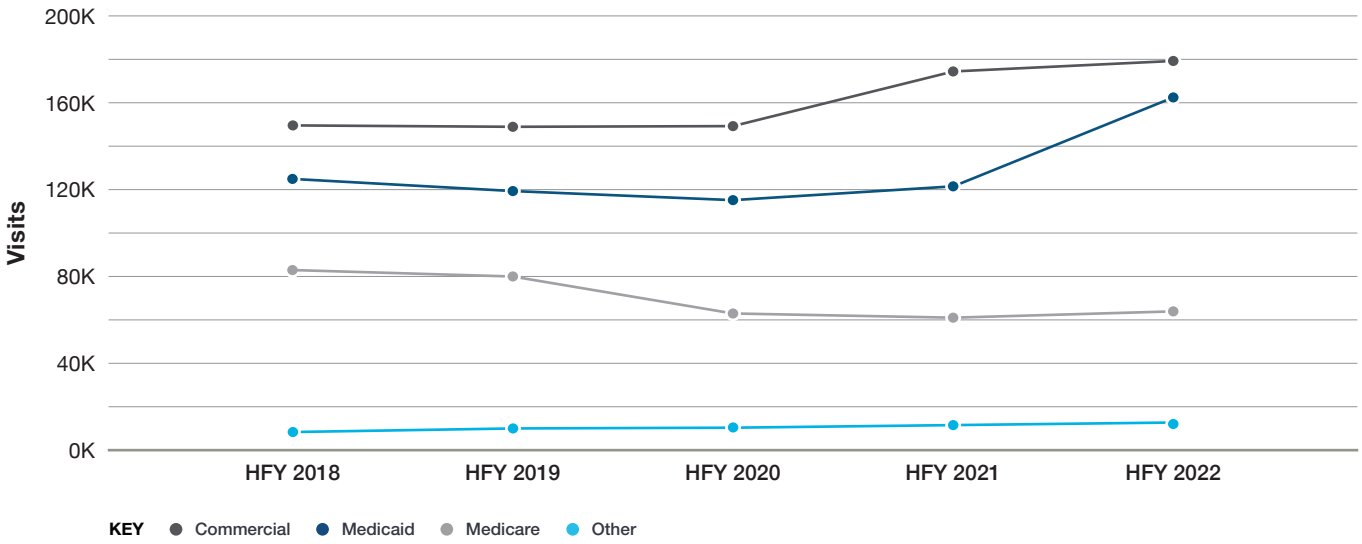
Notes: Data are from 13 non-acute psychiatric hospitals and facilities that are required to submit data to CHIA on a quarterly basis. Certain hospitals are exempt from submitting if they a) had too few admissions, b) are considered part of an acute care hospital or c) are considered a chronic care or rehabilitation hospital. Hospitals controlled by the Department of Mental Health, namely Cape Cod & Islands Community Mental Health Center, Corrigan Mental Health Center, Solomon Carter Fuller Mental Health Center, Taunton State Hospital and Worcester State Hospital are not included in these data. These data are preliminary pending hospital verification reports and CHIA data processing. For more information, please see https://www.chiamass.gov/behavioral-health-facilities-case-mix-data/.

Behavioral Health

This page reflects outpatient visits for freestanding behavioral health facilities* (including freestanding psychiatric hospitals, substance use treatment facilities, and state-operated facilities). Outpatient visits can include clinic, emergency department, and observation visits as well as day programs and other outpatient services as defined and reported by the facility.

Between HFY 2021 and HFY 2022, total statewide outpatient visits increased 13.2% following a 9.2% increase in the prior year. In HFY 2022, apart from the "Other" payer category, outpatient visits increased across all payer types with Medicaid seeing the largest increase of 33.9%.

Outpatient Behavioral Health Utilization



	HFY 2018	HFY 2019	HFY 2020	HFY 2021	HFY 2022
Total Visits	**368,500**	**359,687**	**339,175**	**370,438**	**419,292**
Medicare	83,718	79,927	63,229	61,391	64,488
Medicaid	125,593	120,030	115,746	121,585	162,800
Commercial	150,306	149,374	149,428	174,997	179,592
Other†	8,883	10,356	10,772	12,465	12,412

Source: Hospital Cost Reports

Notes: MiraVista Behavioral Health Center opened in 2021 and first reported cost report data in HFY 2022.

*This data includes freestanding psychiatric and behavioral health hospitals and state-operated facilities only.

† Other includes Worker's Comp, Self-pay, Health Safety Net, ConnectorCare, and Other Government.

Behavioral Health

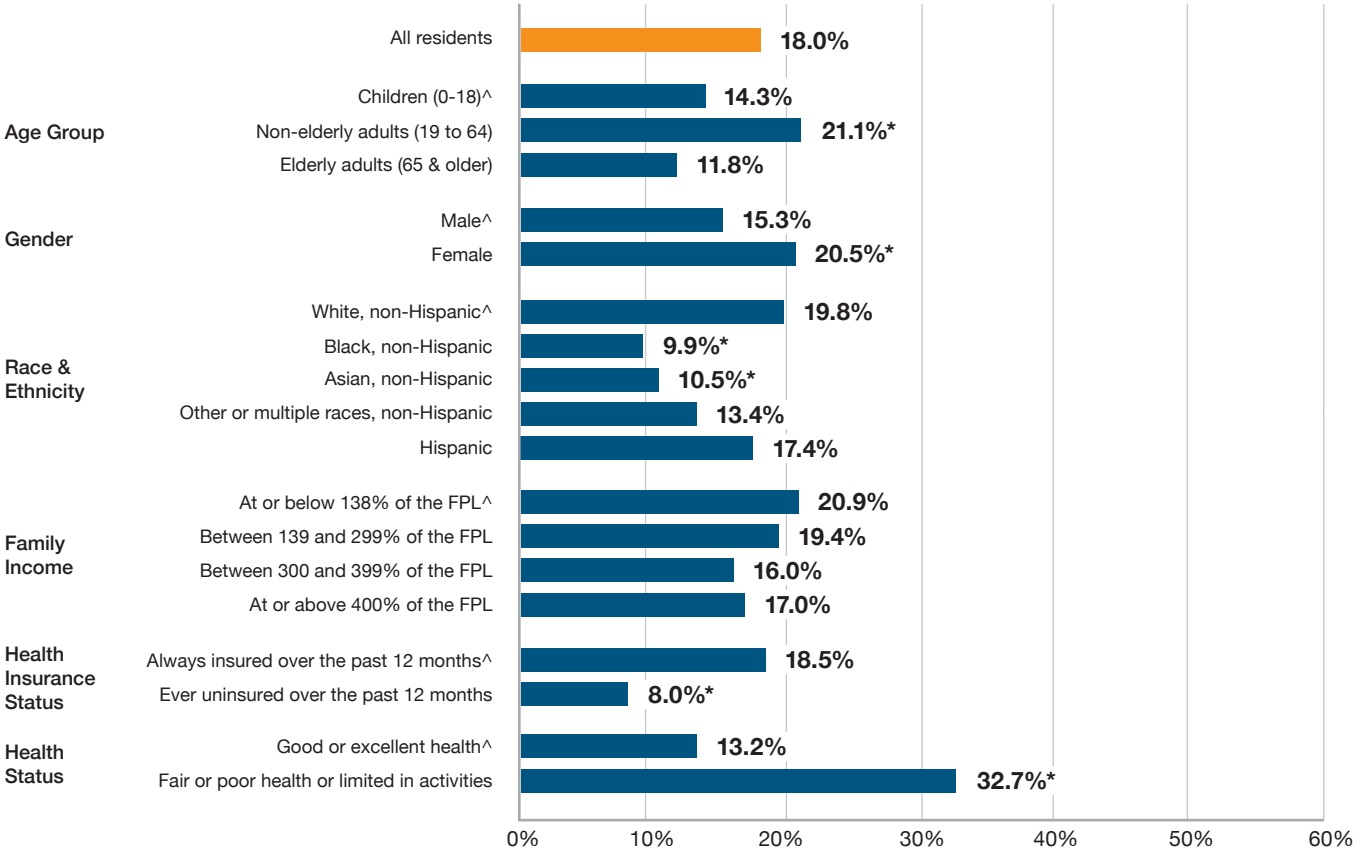
In 2021, residents were surveyed about their utilization of outpatient behavioral health care services. This included any outpatient visit for mental health care or for alcohol or substance use treatment, either in person or via telehealth.

Among non-Hispanic White residents, the rate of reporting a visit for behavioral health care was 19.8%. This was roughly twice as high as the rates reported by non-Hispanic Black and non-Hispanic Asian residents (9.9% and 10.5%, respectively).

Those with full insurance coverage were twice as likely to visit behavioral health providers as their counterparts with gaps in coverage over the past 12 months (18.5% vs. 8.0%).

Visits for behavioral health care in the past 12 months were also more likely to be reported by residents in fair or poor health or limited in activities compared to those in good or excellent health (32.7% vs. 13.2%).

Outpatient Visits for Behavioral Health Care in the Past 12 Months by Resident Characteristics, 2021



Over one in six residents had a behavioral health outpatient visit in the past 12 months, but these visits were much less common for non-Hispanic Black or Asian residents and those with gaps in insurance.

Source: 2021 Massachusetts Health Insurance Survey

Notes: Visits for behavioral health care include visits to a mental health professional and visits for alcohol or substance use care or treatment. Behavioral health care visits include those provided via telehealth. They exclude care provided during an overnight hospital stay or in the emergency room. FPL = Federal Poverty Level. Fair or poor health includes residents who report that they are limited in their activities because of a "physical, mental, or emotional problem."

^Reference group

*Difference from estimate for reference group is statistically significant at the 5% level.

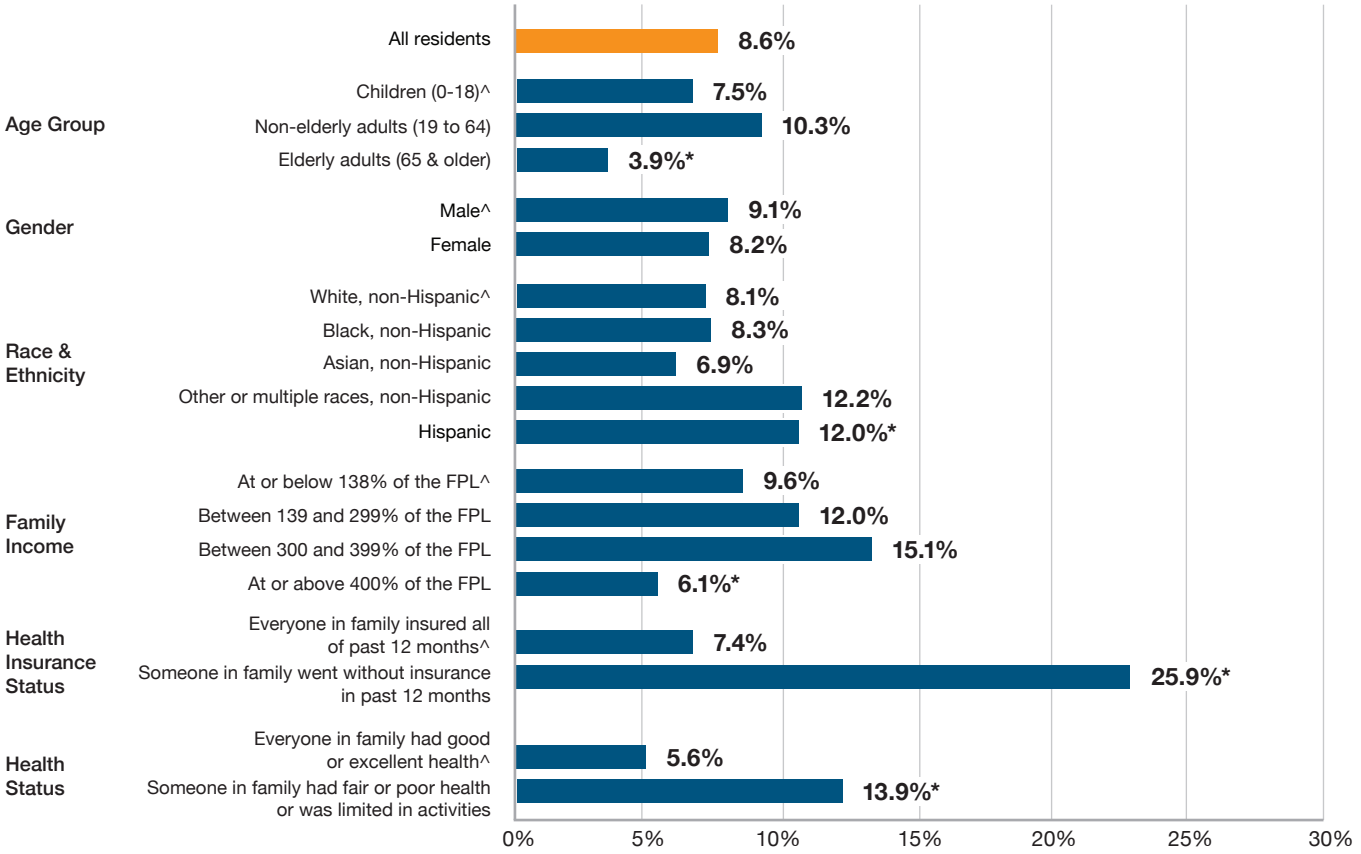
Behavioral Health

The cost of behavioral health care remains a significant affordability barrier to some residents of the Commonwealth. In 2021, 8.6% of Massachusetts residents reported that they or someone in their family had forgone behavioral health care that the resident felt was needed due to cost in the past 12 months.

Over one-quarter of residents who reported that a family member had no health insurance for some or all of the past 12 months also reported an unmet need for behavioral health care due to cost in their family. This rate is over three and a half times higher than for residents in families that were fully insured over the same time period (25.9% vs. 7.4%).

Residents in fair or poor health or who had limitations in activities due to a physical, mental, or emotional problem were both more likely than those in good or excellent health to report having visits for behavioral health care (see previous page); however, this same cohort was still more likely to report an unmet need for behavioral health care (13.9% vs. 5.6%).

Unmet Need for Behavioral Health Care Due to Cost in the Family by Resident Characteristics, 2021



Nearly one in 10 residents reported that they or a family member did not receive behavioral health care that they felt was necessary in the past 12 months due to cost.

Source: 2021 Massachusetts Health Insurance Survey

Notes: Unmet need for behavioral health care due to cost includes unmet need for mental health care or counseling due to cost and unmet need for substance use disorder care or treatment due to cost.

FPL = Federal Poverty Level. Fair or poor health includes residents who report that they are limited in their activities because of a "physical, mental, or emotional problem."

^Reference group

*Difference from estimate for reference group is statistically significant at the 5% level.

Behavioral Health Notes

1. The 193rd General Court of the Commonwealth of Massachusetts. Chapter 177: An Act Addressing Barriers to Care for Mental Health. https://malegislature.gov/Laws/SessionLaws/Acts/2022/Chapter177
2. Center for Health Information and Analysis. "Data Specification Manual." *Center for Health Information and Analysis*. Accessed March 4, 2024. https://www.chiamass.gov/assets/2023-annual-report/2023-Annual-Report.pdf
3. Blue Cross Blue Shield of Massachusetts Foundation. June 2021. "MassHealth's Role in Behavioral Health Care in Massachusetts." Accessed March 4, 2024. https://www.bluecrossmafoundation.org/sites/g/files/csphws2101/files/2021-06/MH_Impact_BH_brief_FINAL.pdf
4. Commonwealth of Massachusetts. "MassHealth Copay Information – For Members." Mass.gov. Accessed March 4, 2024. https://www.mass.gov/info-details/masshealth-copay-information-for-members

KEY FINDINGS

Quality of Care

Performance on clinical quality metrics improved in 2022 compared to 2020 for all Pediatric/Adolescent care measures with data available for both years, including a 20-point increase for Adolescent Immunizations.

Commercial member-reported ratings of their experiences with primary care providers in the domain of Adult Behavioral Health improved 3.0 points from 2021 to 2022—the largest point change during the period.

The adult readmission rate in SFY 2022 was 15.8%, declining slightly from 16% in 2021; heart failure, sepsis, and major respiratory infections remained the most common diagnoses for readmissions.

Eight of 32 reporting acute care hospitals in Massachusetts achieved all three Leapfrog standards for reducing unnecessary maternity-related procedures in 2022.

Quality of Care

Information about health care quality is central to realizing a high-value health care system. CHIA monitors and reports on health care quality using measures selected from the Commonwealth's Aligned Measure Set ("measure set")—a set of quality measures for voluntary adoption by private and public payers and providers, specifically for use in global budget-based risk contracts—which aims to reduce administrative burden and focus quality improvement efforts on meaningful and high priority measures. The measure set was developed and is updated annually by the **Quality Measure Alignment Taskforce** ("Taskforce"), which includes individuals with quality measurement expertise from provider organizations, commercial and Medicaid managed care plans, academic institutions, state agencies, and consumer advocacy organizations. This section covers several measures included in the **2022 Aligned Measure Set**, including commercial and MassHealth member-reported experiences and select Healthcare Effectiveness Data and Information Set (HEDIS®) clinical quality metrics.

To date, the Taskforce has not considered hospital-based measures for inclusion in the Aligned Measure Set because it is designed for use in global budget-based contracts which may not include measures specific to hospital care. However, acknowledging the importance of hospital quality measurement and transparency in health care system monitoring, CHIA measures hospital adult and pediatric readmission rates using the Massachusetts Hospital Inpatient Discharge Database. This chapter also includes results for patient-reported experiences following hospital visits, maternity-related care, and hospital adherence to standards for nursing workforce and hand hygiene. While the measures in this report do not fully evaluate the quality of health care in Massachusetts, the data presented focuses on several important aspects of care. ■

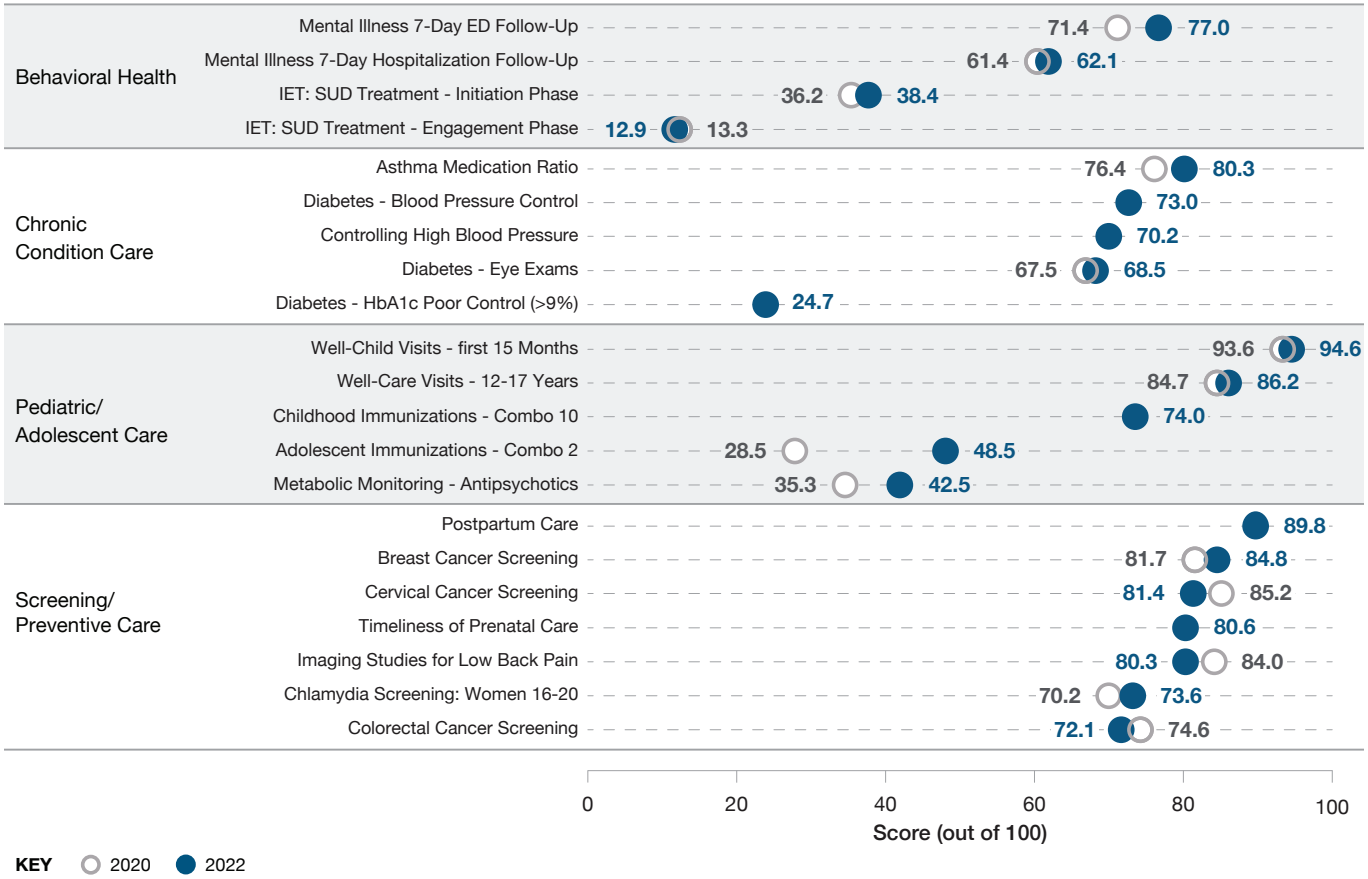
Quality of Care in the Commonwealth

The 2022 Massachusetts Aligned Measure Set is comprised of a total of 35 measures that are endorsed for use in global budget APMs, 23 of which were drawn from the Healthcare Effectiveness Data and Information Set (HEDIS®). This report includes 2022 statewide scores for 20 of the endorsed HEDIS® measures that are in the measure set. Some of these measures were newly collected this year, but 2020 scores are also included for 15 of the 20 measures. For most measures, a higher score is better; note that a lower score is better for HbA1c Poor Control (>9%).

Higher scores were reported in 2022 for 10 of the 15 measures with data available for both years. While many measures that require an in-person test or visit improved, performance on two screening measures—colorectal cancer and cervical cancer—declined in 2022 compared to 2020; however, it is important to note that the recommended age range for the Colorectal Cancer Screening measure changed during this time period, so lower scores are expected for 2022 as the new recommendation is implemented. Adolescent Immunizations, on the other hand, improved notably with the largest score increase observed for the measures where comparison is possible, from 28.5 in 2020 to 48.5 in 2022.

While this chart highlights some high-level findings, CHIA will publish a full report on the Aligned Measure Set in summer 2024.

Statewide Scores on Selected Clinical Quality Measures, 2020 and 2022



Most HEDIS® scores improved in 2022 compared to 2020, including a 20-point increase for Adolescent Immunizations.

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 plans sold on the Connector) products in participating health plans (MGBHP, BCBSMA, Point32Health (HPHC/THP), and HNE). HEDIS is a registered trademark of NCQA.

Notes: Scores are out of 100, and a higher score is better for all measures EXCEPT *Diabetes – HbA1c Poor Control (>9%)* – a lower score is better for this measure. Data for 2021 was not reported because the data is collected biannually. Some measures were collected for the first time this year, so only a 2022 score is available. Measurement periods vary somewhat by measure, but in general a 2022 score refers to performance during calendar year 2022. See databook for specific measure reporting periods. See technical appendix for descriptions of the included measures.

Quality of Care in the Commonwealth

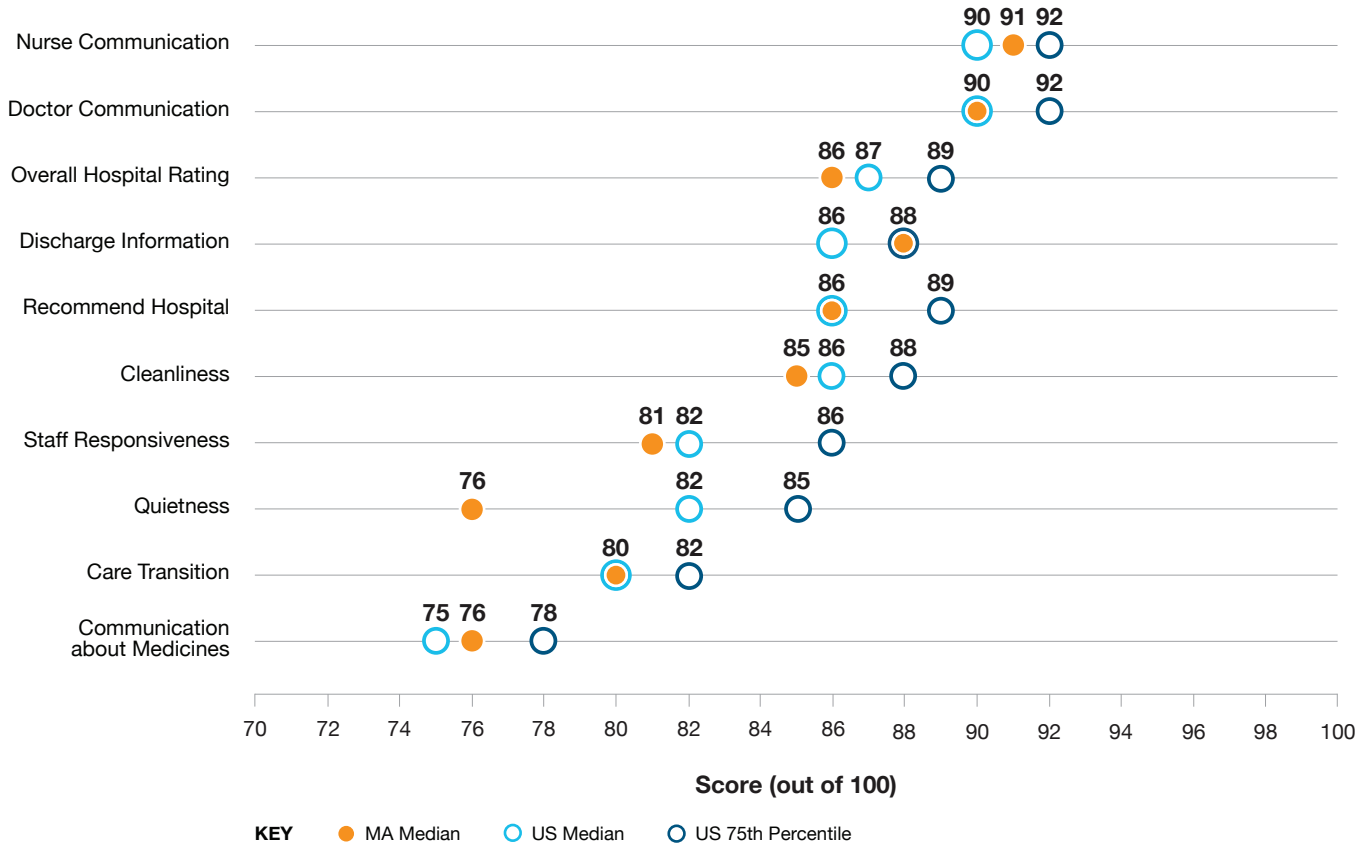
On most measures collected for calendar year 2022, patient-reported scores of Massachusetts hospitals were similar to the median patient-reported scores at hospitals nationally, with Massachusetts scores generally deviating no more than one point from national medians.

Patient experience ratings of Massachusetts hospitals continued to fall below the patient experience ratings of the top-performing (75th percentile) hospitals nationally.

Massachusetts patients rated Nurse and Doctor Communication more highly than other domains of care (median score of 91 and 90 out of 100 for both domains, respectively). Statewide median scores were lowest for Quietness and Communication about Medicines (76 out of 100). See technical appendix for detailed descriptions of each measure domain.

In 2022, the median score in Massachusetts for Quietness was six points below the national median score (76 statewide vs. 82 nationally, out of 100).

Patient-Reported Experience During Acute Hospital Admission, CY 2022



The patient-reported experience ratings of Massachusetts hospitals were similar to the median ratings nationally on most measures; only Quietness deviated notably.

Source: CMS Hospital Compare.

Notes: Includes all payers, patients ages 18+.

Quality of Care in the Commonwealth

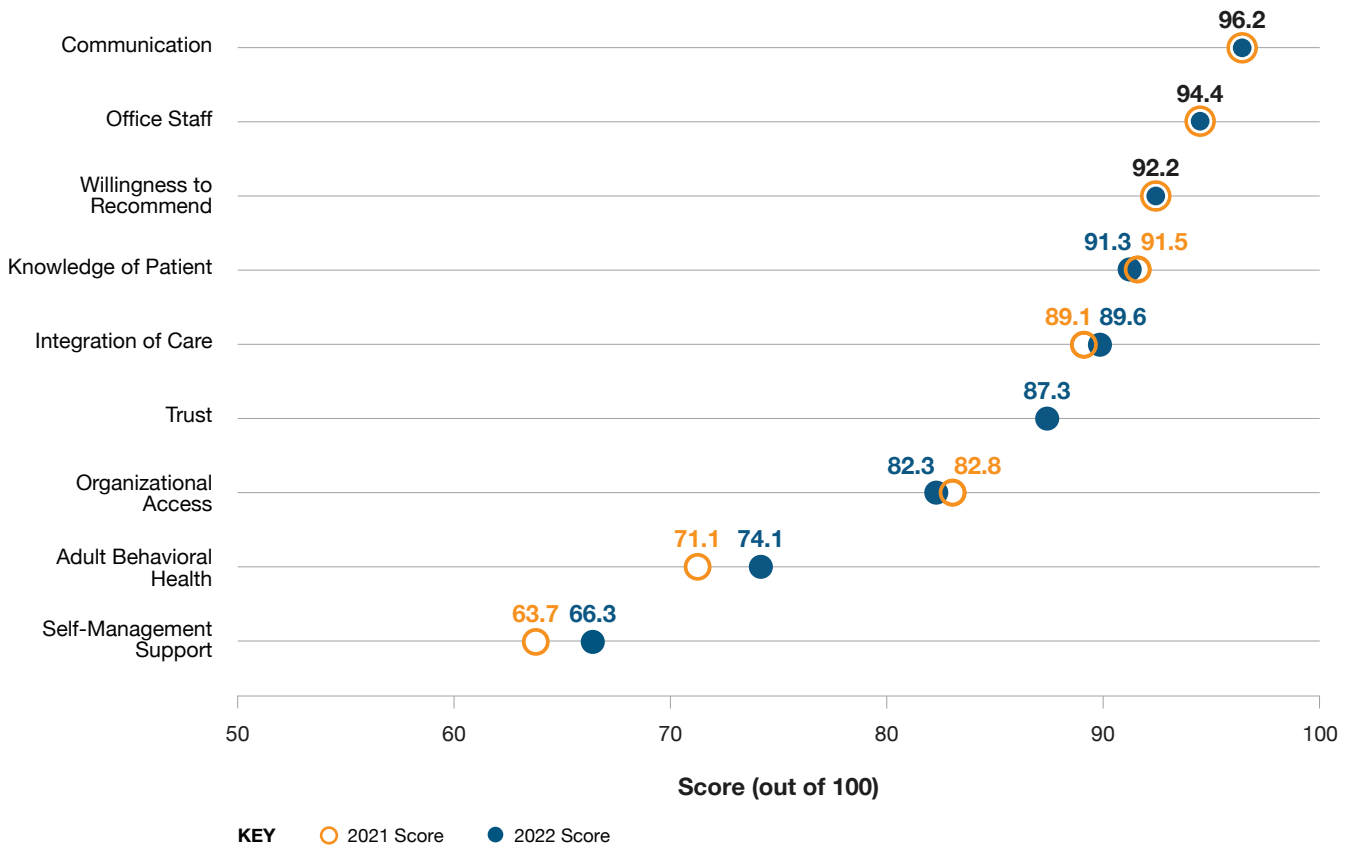
Massachusetts Health Quality Partners (MHQP) issues an annual survey to commercial health plan members who have had a primary care visit during the measurement period to ask patients about their experiences with primary care. The survey is a measure included in the Aligned Measure Set—a slate of quality measures endorsed for use by payers and providers in global budget APMs. More information about the Aligned Measure Set is available throughout this chapter and on the EOHHS Quality Measure Alignment Taskforce website.

Overall, adult patient ratings of their experiences during Massachusetts primary care visits in 2022 were very similar to 2021 ratings. Only ratings in the Adult Behavioral Health and Self-Management Support domains changed notably, and both improved across the two-year period. The statewide rating for the Adult Behavioral Health domain improved 3.0 points in 2022 compared to 2021 (from 71.1 to 74.1)—the largest rating change observed during the reporting period.

As in previous years, Communication was the highest-scoring measure in 2022 (96.2 out of 100), whereas Adult Behavioral Health and Self-Management Support had the lowest scores (74.1 and 66.3, respectively).

While this report highlights some high-level results of the patient experience survey, CHIA will publish a full report on the Aligned Measure Set, including provider-level results and MHQP's Measured Equity program statewide results stratified by race and ethnicity, in summer 2024.

Primary Care Patient-Reported Experiences for Adults, 2021-2022



The patient-reported rating of experiences with primary care providers in the domain of Adult Behavioral Health improved 3.0 points from 2021 to 2022—the largest point change during the period.

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

Notes: Adult patients' ages 18+. Survey conducted on a sample of commercial health plan members. 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. The Trust composite is a new domain this year and refers to how patients answered questions about trust in their provider's decisions and consideration of the patient's best interest. See technical appendix for specific survey questions.

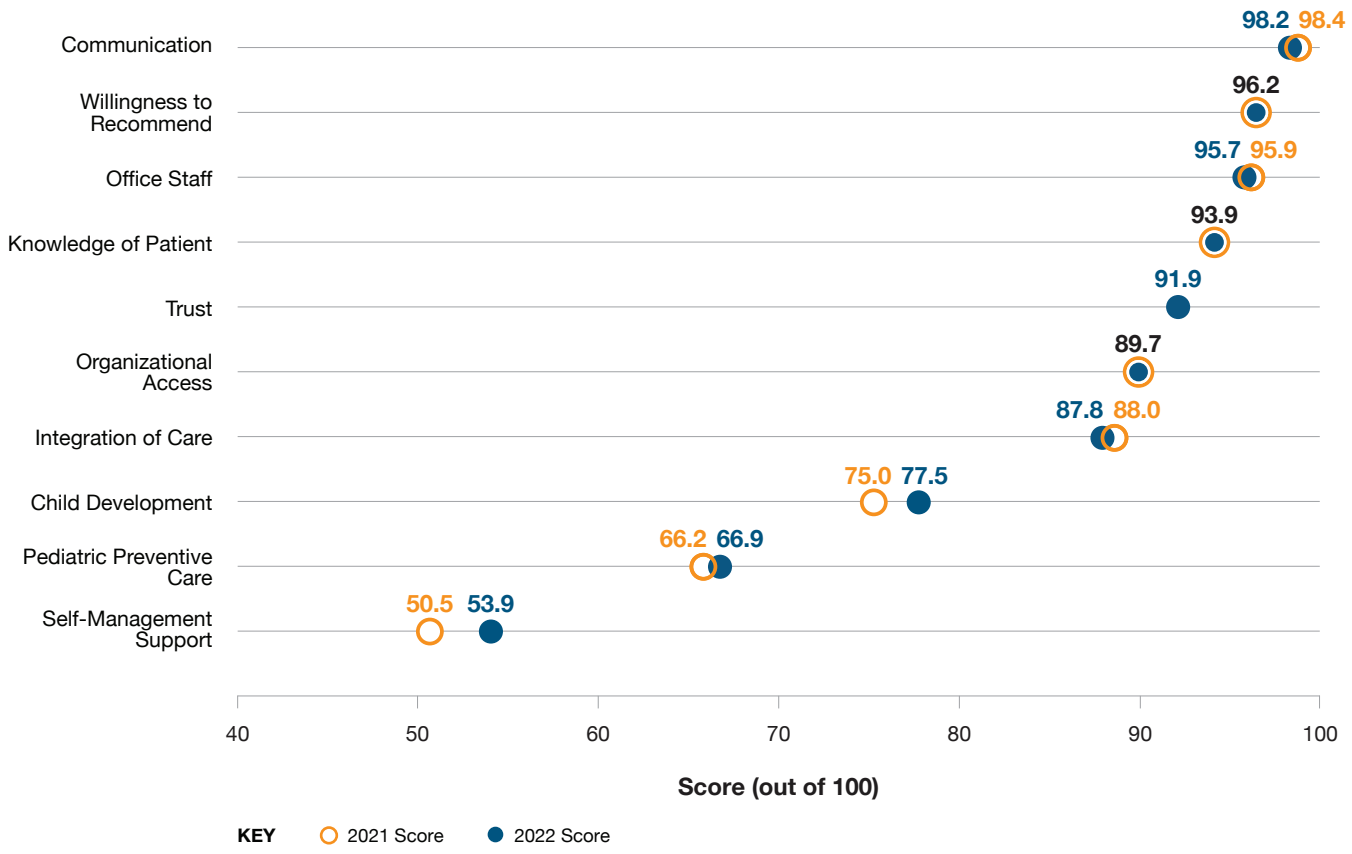
Quality of Care in the Commonwealth

Similar to adult patient-reported experiences with primary care providers, Communication was the highest-scoring domain for pediatric visits in 2022, followed by Willingness to Recommend (98.2 and 96.2 out of 100, respectively).

Caregivers rated pediatric visit experiences in most survey domains very similarly in 2022 compared to 2021, but notable improvements were observed in the three lowest-scoring domains—Child Development (increased from 75.0 in 2021 to 77.5 in 2022), Pediatric Preventive Care (increased from 66.2 to 66.9), and Self-Management Support (increased from 50.5 to 53.9).

While this report highlights some high-level results of the patient experience survey, CHIA will publish a full report on the Aligned Measure Set, including provider-level results and MHQP's Measured Equity program statewide results stratified by race and ethnicity, in summer 2024.

Primary Care Patient-Reported Experiences for Pediatrics, 2021-2022



Caregiver ratings of pediatric primary care visits improved in the domains of Self-Management Support, Pediatric Preventive Care, and Child Development between 2021 and 2022.

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. 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' caregivers answered questions about provider engagement with caregivers to talk about their child's home environment (addressing exercise, food, computer, safety, etc.). The Trust composite is a new domain this year and refers to how caregivers answered questions about trust in their child's provider's decisions and consideration of the child's best interest. See technical appendix for specific survey questions.

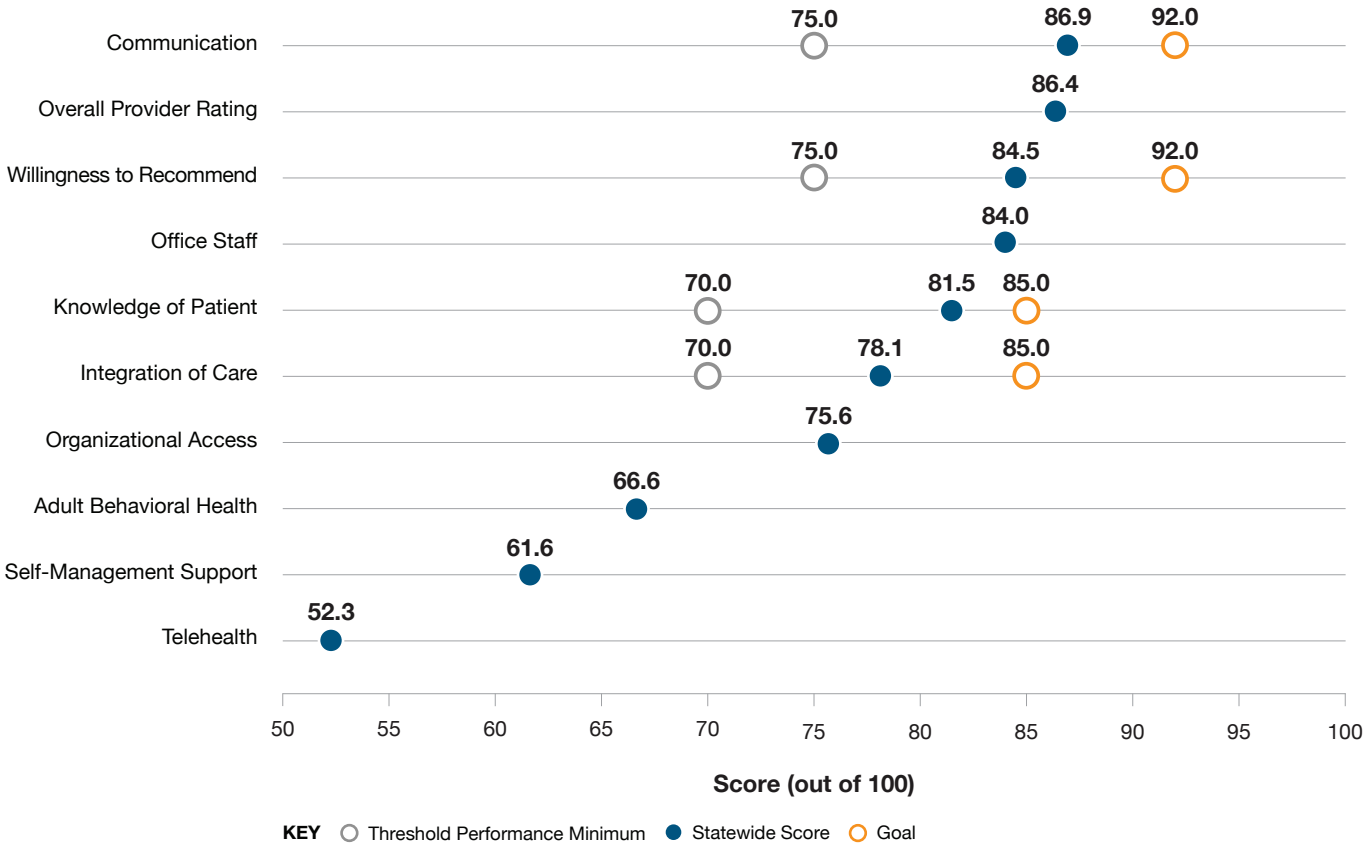
Quality of Care in the Commonwealth

MassHealth issued a primary care Patient Experience Survey (PES) to a sample of ACO adult members that had a primary care visit in 2022. For a subset of the survey domains, MassHealth established a threshold performance minimum and a goal performance benchmark for ACO performance, which are used in some components of the pay-for-performance ACO quality incentive model. The threshold performance benchmark is a minimum level of expected performance an ACO must achieve to be eligible for quality incentives, and the goal benchmark rewards high performance, as identified by MassHealth. MassHealth ACO primary care providers surpassed the threshold performance minimum for all applicable measures and are making progress toward achieving the goal benchmarks.

Overall, adult patients expressed positive experiences with their primary care providers in 2022, with the highest score in the Communication domain (86.9 out of 100) and the lowest score for the Telehealth domain (52.3 out of 100). MassHealth ACO scores are similar to, but slightly lower than, comparable surveys of members covered under commercial health plans in 2022 (see pages 139-140 for commercial PES results).

Telehealth utilization was brought to the forefront in 2020 due to the COVID-19 pandemic and is a domain that was first included in the survey in 2022 and is evolving as we learn more about how both patients and providers experience telehealth.[1] See Notes for a description of the Telehealth composite.

MassHealth Member Primary Care Patient-Reported Experiences for Adults, 2022



Patient-reported experiences scored above 75 out of 100 on seven out of 10 domains, with the Communication measure having the highest score, while the Telehealth domain scored lowest at 52.3 out of 100.

Source: Massachusetts Health Quality Partners, MassHealth Member Experience Survey (MES).

Notes: Adult patients' ages 18+. Survey conducted on a sample of MassHealth ACO plan members and was in the field May-August 2023. According to the March 2024 Enrollment Trends Report, MassHealth ACO-A and ACO-B plan members comprised 52.1% of total MassHealth membership in December 2022. 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. The Telehealth score currently represents a series of individual questions related to understanding technical difficulties (being able to see and hear clearly during a visit), rating of a visit, recommendation to family and friends and whether it should be a visit option in the future. See technical appendix for specific survey questions.

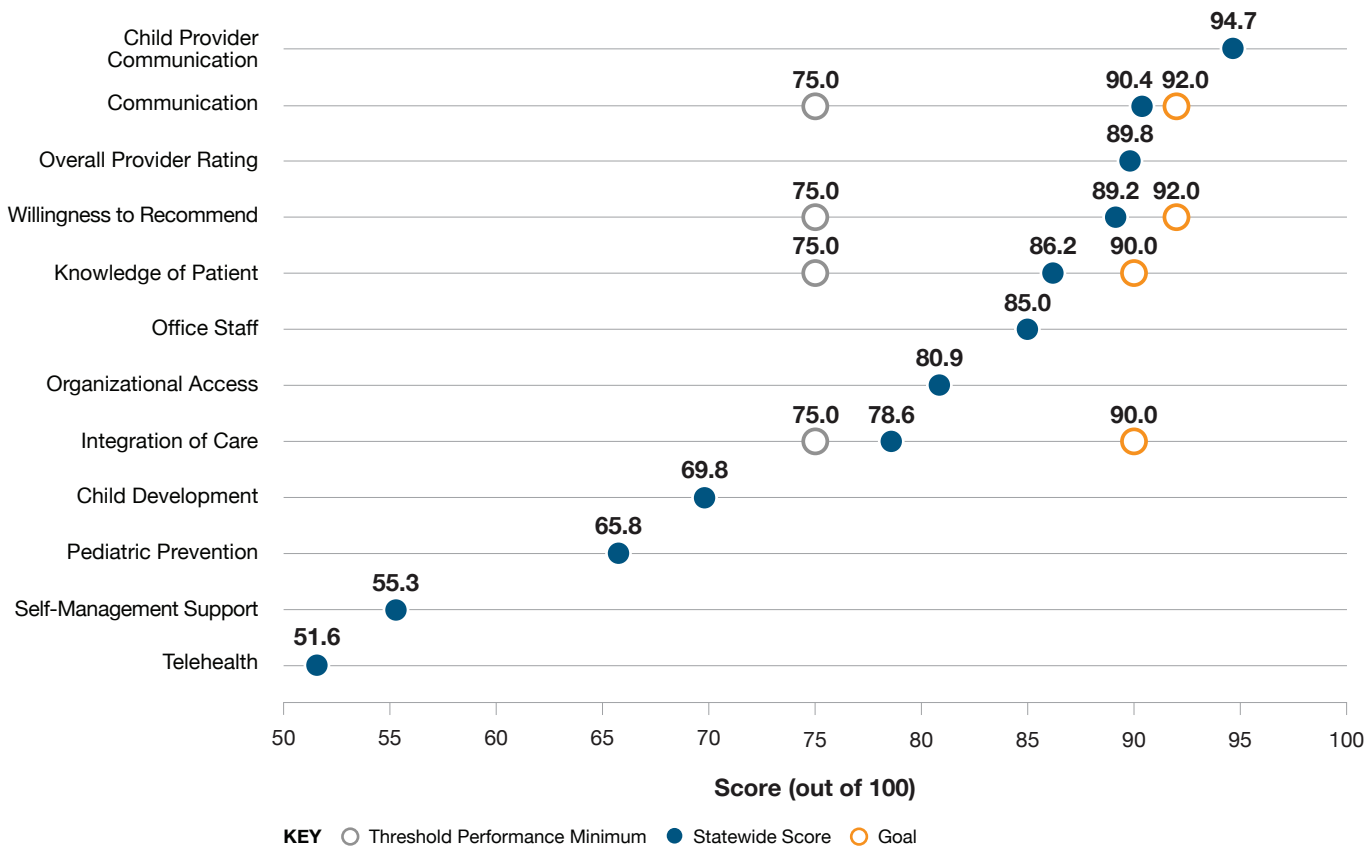
Quality of Care in the Commonwealth

Similar to adult patient-reported experiences with MassHealth ACO primary care providers, pediatric visits scored highest in the Child Provider Communication and Communication domains of care (94.7 and 90.4 out of 100 points, respectively).

Among the four applicable measures, all surpassed the minimum performance threshold and three of the four scored at least 10 points higher than the threshold rate, but none reached the goal score set by MassHealth.

As observed in the adult population, caregivers of patients receiving pediatric care reported the lowest satisfaction in the Telehealth and Self-Management Support domains (51.6 and 55.3, respectively). Pediatric Prevention and Child Development also scored below 75 with scores of 65.8 and 69.8, respectively, identifying opportunities for improvement in pediatric patient experiences.

MassHealth Member Primary Care Patient-Reported Experiences for Pediatrics, 2022



2022 patient-reported experience scores were highest for Child Provider Communication, and lowest for Telehealth.

Source: Massachusetts Health Quality Partners, MassHealth Member Experience Survey (MES).

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 May-August 2023. 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.). The Telehealth score currently represents a series of individual questions related to understanding technical difficulties (being able to see and hear clearly during a visit), rating of a visit, recommendation to family and friends and whether it should be a visit option in the future. See technical appendix for specific survey questions.

Quality of Care in the Commonwealth

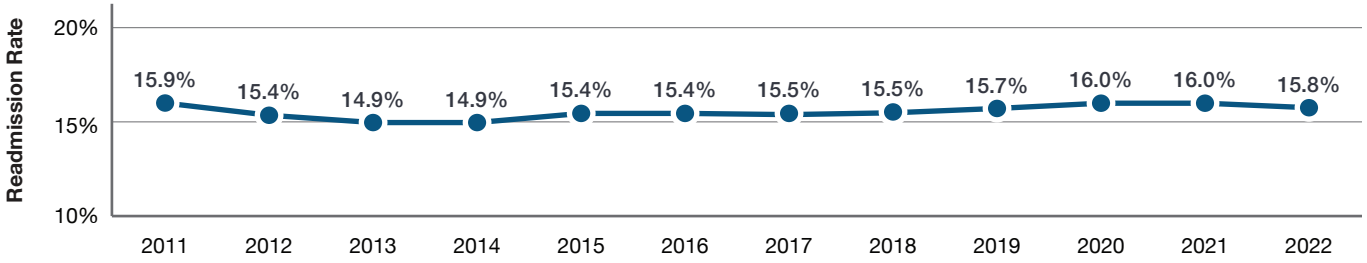
While there are some situations in which a second hospitalization within 30 days of a prior hospitalization is part of a predetermined plan of care, most readmissions are unplanned. Unplanned adult readmissions are often used as an indicator of health system performance and quality of care.

The adult readmission rate in 2022 was 15.8%, a slight decline from 16% in 2021. While statewide trends provide important insight about adult readmissions overall, the volume and rate of readmissions by common discharge diagnoses provides additional insights for clinicians and policymakers.

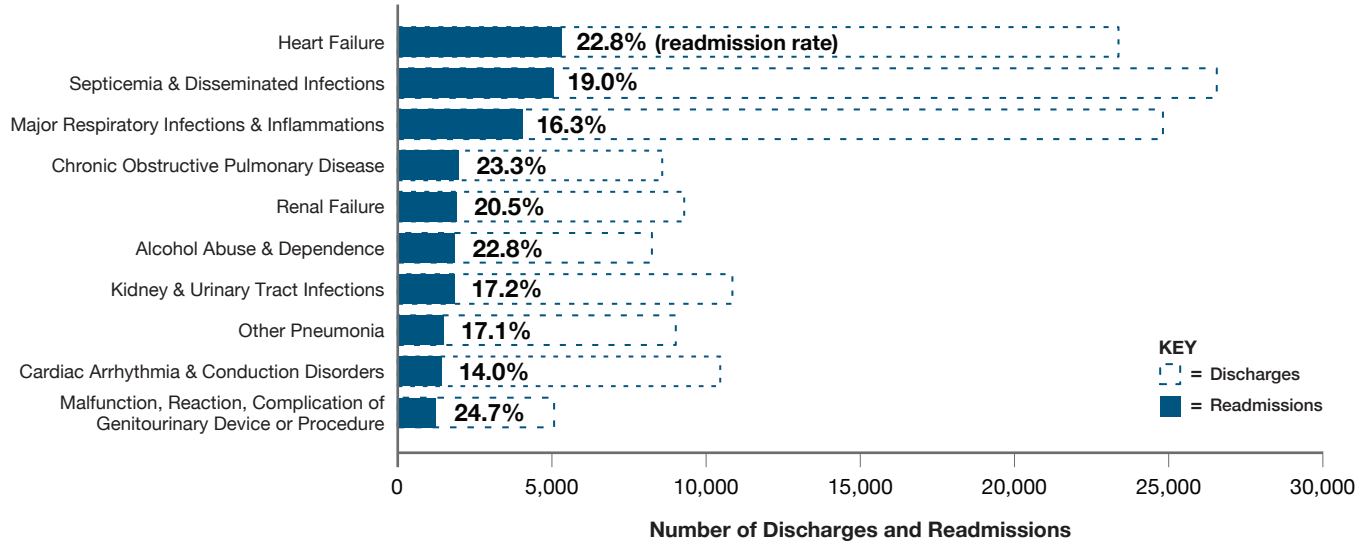
In 2022, heart failure, sepsis, major respiratory infections, and chronic obstructive pulmonary disease led to the most readmissions in the Commonwealth. The readmission rates for many of these discharge diagnoses were well above the statewide average of 15.8%.

Trends in Statewide All-Payer Adult Acute Hospital Readmission and Top Readmission Diagnoses, SFY 2011-2022

Adult Readmission Rate, SFY 2011-2022



Adult Discharge Diagnoses with the Highest Number of Readmissions, SFY 2022



The adult readmission rate in SFY 2022 was 15.8%, declining slightly from 16% in 2021. The most common diagnoses for readmissions were heart failure, sepsis, and major respiratory infections.

Source: Massachusetts Hospital Inpatient Discharge Database, July 2010 to June 2022.

Notes: The discharge diagnosis and description are based on APR-DRG version 30.0. The adult readmission measure is adapted from the Yale/CMS hospital-wide readmission measure, v12.0, covering all-cause, all-payer unplanned readmissions, excluding discharges for obstetric, primary psychiatric, rehabilitative or cancer treatment.

Quality of Care in the Commonwealth

While unplanned readmissions are commonly used as an indicator of health care system performance and care quality in adult populations, similar initiatives and programs to measure and analyze readmissions have been developed for monitoring the pediatric inpatient population. In addition to controlling costs, addressing unplanned pediatric readmissions is essential for promoting better health outcomes, improving quality of care, and enhancing patient and family satisfaction for this vulnerable population. Moreover, analyzing pediatric readmissions separately from adult readmissions is especially important for payers and providers that serve both populations.

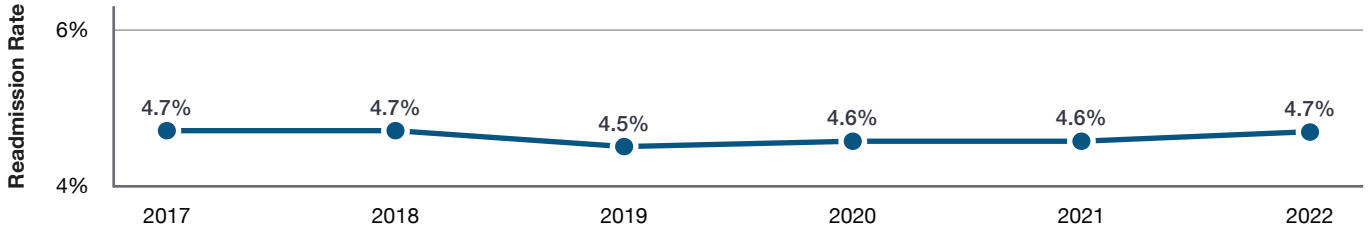
The pediatric readmission rate in 2022 was 4.7%, remaining stable across the six-year period.

Across six years of data from 2017 to 2022, the diagnoses leading to the most readmissions were neonate-related diagnoses, acute bronchitis and RSV pneumonia, seizures, and treatment of cancer.

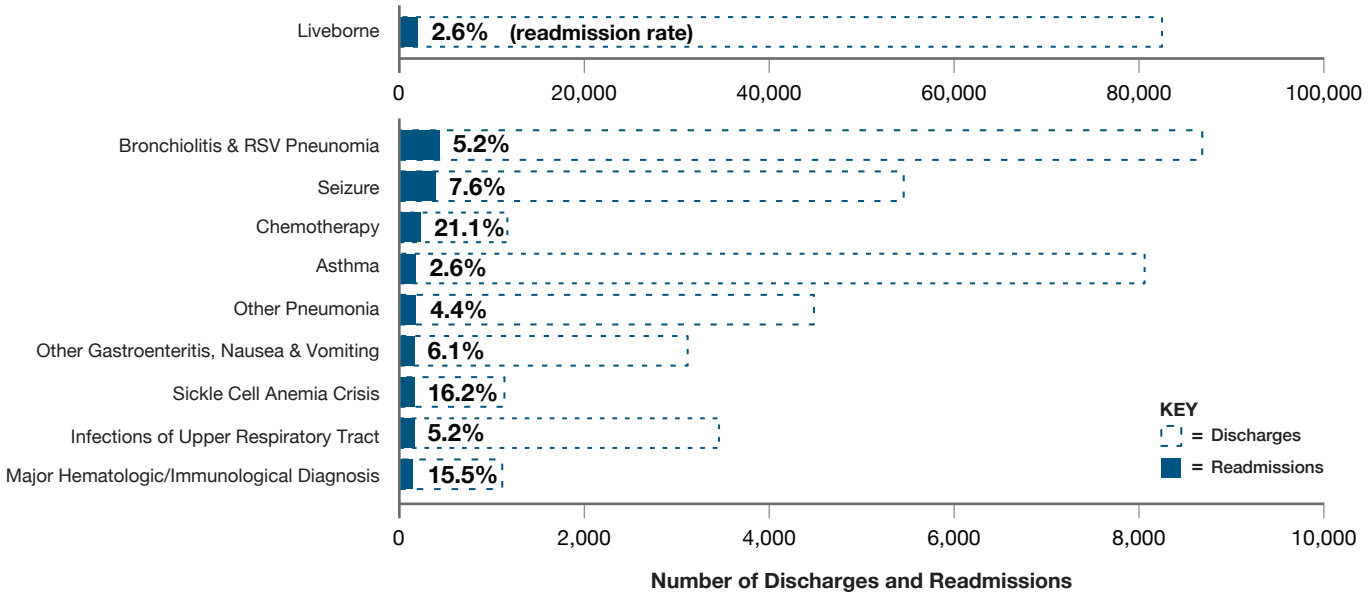
Despite having the most readmissions, neonate-related admissions had one of the lowest readmission rates whereas eligible discharges for cancer treatment had one of the highest readmission rates followed by sickle cell anemia.

Trends in Statewide All-Payer Pediatric Acute Hospital Readmissions and Top Readmission Diagnoses, SFY 2017-2022

Pediatric Readmission Rate, SFY 2017-2022



Pediatric Discharge Diagnoses with the Highest Number of Readmissions, SFY 2017-2022



The statewide average pediatric readmission rate was 4.7% in 2022, remaining stable across the six-year period. Despite having the most readmissions, neonate-related inpatient admissions had one of the lowest pediatric readmissions *rates.* Discharges for cancer treatment and sickle cell anemia had among the highest readmission rates.

Source: Massachusetts Hospital Inpatient Discharge Database, July 2016 to June 2022.

Notes: The discharge diagnosis and description are based on APR-DRG version 34.0. Analyses include eligible discharges for pediatric patients with any payer, excluding discharges for healthy newborns, obstetric or primary mental health care. See technical appendix for more information.

Quality of Care in the Commonwealth

Childbirth is the most common reason for a hospital admission in Massachusetts. To reduce potentially harmful and unnecessary maternity procedures, The Leapfrog Group—a national nonprofit watchdog organization—sets standards and collects voluntary data from hospitals to measure performance.

In 2022, eight of the 32 reporting hospitals achieved all three maternity care standards, and 31 reporting hospitals achieved at least one standard. One reporting hospital achieved no standards.

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 23.6% of women with low-risk pregnancies deliver via cesarean section (C-section). Finally, Leapfrog identifies 5% or below as the target for the share of childbirths in which episiotomies are performed.

Hospitals performed well on the Episiotomy measure—28 of the 32 reporting hospitals achieved this standard. However, only eight of the 32 reporting hospitals achieved the standard for the C-section measure, indicating potential overuse of the procedure among low-risk pregnancies.

Rates of Maternity-Related Procedures Relative to Performance Targets, by Hospital, 2022

	C Section	Early Elective Deliveries	Episiotomy
Leapfrog Standard	**≤ 23.6%**	**≤ 5.0%**	**≤ 5.0%**
Achieved Three Standards (8 Hospitals)			
Beth Israel Deaconess Hospital Plymouth	21.7%	0.0%	1.2%
CHA Cambridge Hospital	22.7%	0.0%	2.1%
Lowell General Hospital - Main Campus	19.7%	0.0%	1.7%
Melrose-Wakefield Hospital	19.9%	2.0%	4.4%
Mercy Medical Center	22.6%	0.0%	1.9%
Milford Regional Medical Center	22.5%	0.0%	4.8%
Mount Auburn Hospital	19.5%	0.0%	2.0%
St. Luke's Hospital	23.0%	0.0%	2.0%
Achieved Two Standards (20 Hospitals)			
Anna Jaques Hospital	36.5%	0.0%	2.3%
Baystate Medical Center	28.5%	4.3%	1.4%
Berkshire Medical Center	27.0%	0.0%	1.3%
Beth Israel Deaconess Medical Center	28.1%	0.0%	1.2%
Beverly Hospital	25.5%	0.0%	3.1%
Boston Medical Center	32.6%	1.6%	2.1%
Brigham and Women's Hospital	26.1%	1.5%	2.6%
Cape Cod Hospital	24.2%	0.0%	0.3%
Charlton Memorial Hospital	28.2%	0.0%	4.0%
Cooley Dickinson Hospital	28.9%	0.0%	2.9%
Emerson Hospital	28.6%	0.0%	4.2%
Fairview Hospital	24.6%	0.0%	1.1%
Massachusetts General Hospital	27.4%	0.0%	2.0%
Newton-Wellesley Hospital	30.3%	2.0%	3.1%
South Shore Hospital	31.7%	0.0%	4.5%
St. Elizabeth's Medical Center	28.1%	0.0%	3.0%
Steward Good Samaritan Medical Center, Inc.	33.1%	0.0%	1.2%
Sturdy Memorial Hospital	28.6%	0.0%	4.3%
Tufts Medical Center	29.9%	0.0%	0.6%
Winchester Hospital	23.9%	0.0%	2.0%

	C Section	Early Elective Deliveries	Episiotomy
Leapfrog Standard	**≤ 23.6%**	**≤ 5.0%**	**≤ 5.0%**
Achieved One Standard (3 Hospitals)			
Baystate Franklin Medical Center	31.5%	15.8%	2.4%
Holy Family Hospital - Methuen	32.7%	0.0%	6.2%
Lawrence General Hospital	32.8%	8.3%	2.8%
Achieved No Standards (1 Hospital)			
Salem Hospital	31.3%	10.8%	5.3%

KEY

- Achieved the Standard
- Considerable Achievement
- Some Achievement
- Limited Achievement

Eight of the 32 reporting Massachusetts acute care hospitals achieved all three standards for reducing unnecessary maternity care, and are the only hospitals that achieved the standard for C-section deliveries among low-risk pregnancies.

Source: The Leapfrog 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. Considerable, Some, and Limited Achievement refer to how close the rate was to the recommendation, with Considerable Achievement indicating a rate only slightly higher than the recommendation, and Limited Achievement indicating greater deviation.

Quality of Care in the Commonwealth

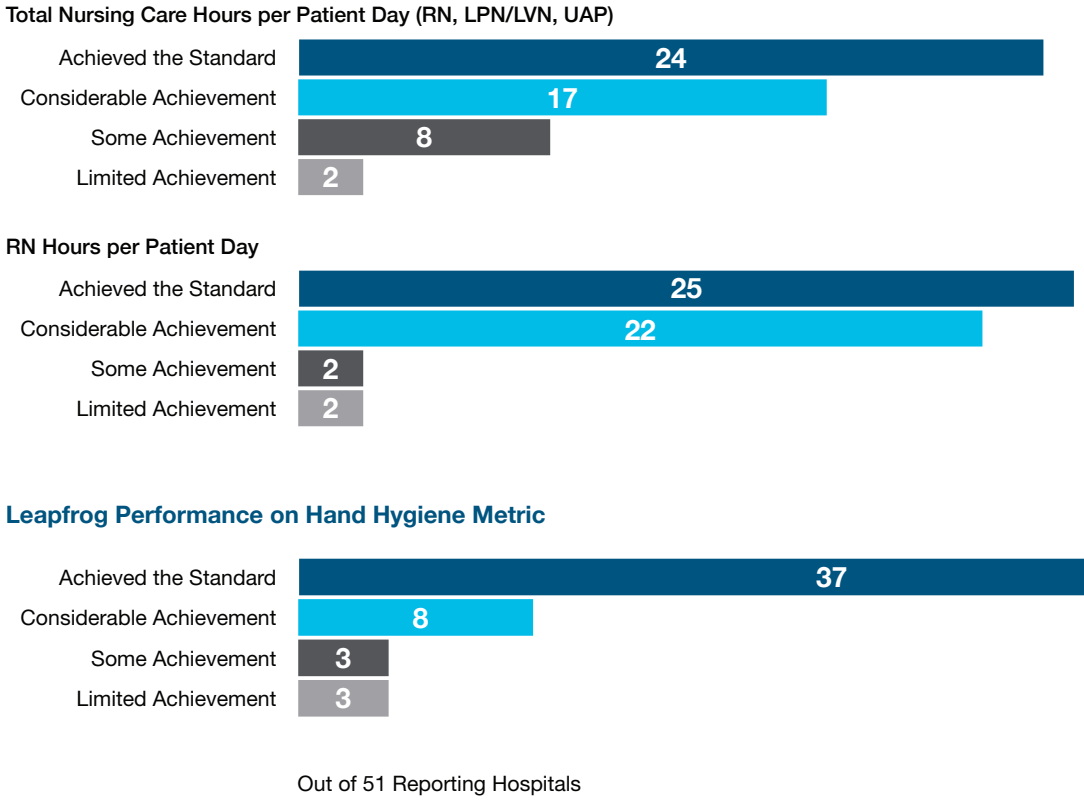
There are many aspects of a hospital's operations that contribute to overall quality and safety of care. Studies have examined the relationship between nurse staffing and patient outcomes, and evidence continues to grow that supports an association between increased nursing hours per patient day with lower odds of patient mortality, lower rates of patient falls and pressure ulcers, shorter hospital stays, and higher patient satisfaction.[2,3,4]

This report includes a subset of Leapfrog Hospital Survey Nursing Workforce measures, focusing on: (1) Total Nursing Care Hours per Patient Day and (2) Registered Nurse (RN) Hours per Patient Day. The Hand Hygiene score is based on performance on five domains of hand hygiene: monitoring, feedback, training and education, infrastructure, and culture.

In 2022, approximately half of the 51 reporting hospitals achieved the standard for both Nursing Workforce measures. Hospitals performed well on the Hand Hygiene metric—37 of the 51 reporting hospitals achieved Leapfrog's standard, which emphasizes hospital monitoring and feedback practices. However, some hospitals did report limited or some achievement in all domains and indicate opportunities for improvement. Hospital-specific results are available in the databook and details about Leapfrog's standards and scoring are available in the technical appendix.

Hospital Adherence to the Leapfrog Standards for Nursing Workforce and Hand Hygiene, 2022

Leapfrog Performance on Nursing Workforce Metrics



Leapfrog Performance on Hand Hygiene Metric

> In 2022, approximately half of the 51 reporting hospitals achieved the standards for both Nursing Workforce measures: Total Nursing Care Hours per Patient Day and RN Hours per Patient Day.

Source: The Leapfrog 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. The measure of total nursing care hours includes all nursing staff with direct patient care responsibilities, including RN, licensed vocational/practical nurses (LVN/LPN), and unlicensed assistive personnel (UAP). See technical appendix for information on Leapfrog's standards and scoring methodologies.

Quality of Care Notes

1. For more information on patient and clinician-reported experiences with telehealth services, visit: Massachusetts Health Quality Partners. Telehealth Satisfaction: Up for Clinicians, Down for Patients (Brighton, October 2022), https://www.mhqp.org/2022/10/19/telehealth-satisfaction-up-for-clinicians-down-for-patients/
2. The Leapfrog Group. Factsheet: Nursing Workforce (Boston, April 2023), https://ratings.leapfroggroup.org/sites/default/files/inline-files/2023%20Nursing%20Workforce%20Factsheet.pdf
3. Pitkäaho T, Partanen P, Miettinen MH, Vehviläinen-Julkunen K. The relationship between nurse staffing and length of stay in acute-care: a one-year time-series data. *J Nurs Manag.* 2016;24(5):571-579
4. Rogowski JA, Staiger D, Patrick T, Horbar J, Kenney M, Lake ET. Nurse staffing and NICU infection rates. *JAMA Pediatr.* 2013;167(5):444-450

Index of Acronyms

ACA	Affordable Care Act
ACO	Accountable Care Organization
ADL	Activities of Daily Living
ALOS	Average Length of Stay
AMC	Academic Medical Center
APM	Alternative Payment Method
APTC	Advance Premium Tax Credit
ACS	American Community Survey
ARPA	American Rescue Plan Act
ASO	Administrative Services Only
BCBSMA	Blue Cross Blue Shield of Massachusetts
BH	Behavioral Health
BHID	Behavioral Health Inpatient Hospital Discharge Database
BIDCO	Beth Israel Deaconess Care Organization
BILH	Beth Israel Lahey Health
BMC	Boston Medical Center
BMCHP	Boston Medical Center HealthNet Plan
CARES Act	Coronavirus Aid, Relief, and Economic Security Act
CCSR	Clinical Classification Software Refined
CHIA	Center for Health Information and Analysis
CMS	Centers for Medicare & Medicaid Services
CSR	Cost-Sharing Reduction
DMH	Department of Mental Health
DPH	Department of Public Health
DTA	Department of Transitional Assistance
ED	Emergency Department
EDD	Emergency Department Databases
EPO	Exclusive Provider Organization
ESI	Employer-Sponsored Insurance
FFCRA	Families First Coronavirus Response Act
FFS	Fee-for-Service
FFY	Federal Fiscal Year
FPL	Federal Poverty Level
GIC	Group Insurance Commission
HCAHPS	Hospital Consumer Assessment of Healthcare Providers and Systems
HCQI	Health Care Quality Improvement
HDHP	High Deductible Health Plan
HEDIS	Healthcare Effectiveness Data and Information Set

Index of Acronyms (continued)

HFY	Hospital Fiscal Year
HHA	Home with Home Health Agency Care
HIDD	Hospital Inpatient Discharge Databases
HMO	Health Maintenance Organization
HNE	Health New England
HPHC	Harvard Pilgrim Health Care
HPI	Health Plans, Inc.
HPP	High Public Payer
HSA	Health Status Adjusted
HSN	Health Safety Net
ICD-10-CM	International Classification of Diseases, Tenth Revision, Clinical Modification
IRS	Internal Revenue Service
MA	Massachusetts
MCO	Managed Care Organization
MGB	Mass General Brigham Community Physicians Organization
MGBHP	Mass General Brigham Health Plan
MGL	Massachusetts General Law
MH	Mental Health
MHIS	Massachusetts Health Insurance Survey
MHQP	Massachusetts Health Quality Partners
MLR	Medical Loss Ratio
NCPHI	Net Cost of Private Health Insurance
NCQA	National Committee for Quality Assurance
NEQCA	New England Quality Care Alliance
NPSR	Net Patient Service Revenue
NQF	National Quality Forum
OOD	Outpatient Observation Databases
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
PMPM	Per Member Per Month
POS	Point-of-Service
PPO	Preferred Provider Organization
PTSD	Post-Traumatic Stress Disorder
SCO	Senior Care Options
SFY	State Fiscal Year
SHCE	Supplemental Health Care Exhibit

Index of Acronyms (continued)

SHIP PA	Student Health Insurance Plan Premium Assistance
SI	Self-Insured
SNF	Skilled Nursing Facility
SQMS	Standard Quality Measure Set
SUD	Substance Use Disorder
THCE	Total Health Care Expenditures
THP	Tufts Health Plan
THPP	Tufts Health Public Plans
TME	Total Medical Expenses
UPPL	Unified Pharmacy Product List
VA	Veterans Affairs
ZCTA	ZIP Code Tabulation Area

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.

Affordability Issues: In the Massachusetts Health Insurance Survey, affordability issues are defined as any of the following: problems paying family medical bills in the past 12 months; having family medical bills at the time of the survey that are being paid off over time, also known as family medical debt; spending a high share of family income on out-of-pocket health care expenses, defined as 5% or more of income for families below 200% of the Federal Poverty Level or 10% or more of income for other families, in the past 12 months; or having unmet family needs for health care due to cost in the past 12 months.

Aligned Measure Set: A set of quality measures for voluntary adoption by private and public payers and providers, specifically for use in global budget-based risk contracts, which aims to reduce administrative burden and focus quality improvement efforts on meaningful and high priority measures. The measure set was developed and is updated annually by the Quality Measure Alignment Taskforce.

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

American Community Survey (ACS): An annual survey conducted by the United States Census Bureau. Data on community demographics is gathered and made publicly available at https://data.census.gov/table.

Glossary of Terms (continued)

Annualized trend: Calculates a smooth spending trend across multiple years, also known as compound annual trend. CHIA used the annualized trend to examine per capita spending for 2019 to 2021 and was calculated as (2021 Value/2019 Value)^(1/2)-1.

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 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).

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 state-based health insurance marketplace where individuals, families, and small businesses can purchase health plans from insurers.

High Deductible Health Plan (HDHP): As defined by the IRS, a health plan with an individual plan deductible

Glossary of Terms (continued)

exceeding $1,400 or a family plan deductible exceeding $2,800 for 2020, 2021, and 2022.

High Share of Family Income Spent on Out-of-Pocket Health Care Expenses: For families under 200% of the Federal Poverty Level, spending 5% or more, or for all other families, spending 10% or more, of family income on out-of-pocket health care expenses. Out-of-pocket health care expenses include all family spending on deductibles, copays, and coinsurance for benefits covered by insurance, and all family spending on non-covered medical, dental, and vision services that family members paid for directly. Out-of-pocket expenses do not include premiums for health insurance.

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.

Glossary of Terms (continued)

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.

Out-of-Pocket Expenses: Out-of-pocket expenses include spending by an individual consumer on deductibles, copays, and coinsurance for benefits covered by insurance, and all spending on non-covered medical, dental, and vision services that the individual pays for directly. Out-of-pocket expenses do not include premiums for health insurance.

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).

Premium Retention: The difference between the total premiums collected by payers (net of MLR rebates) and the total spent by payers on incurred medical claims.

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.

Glossary of Terms (continued)

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 in-network providers.

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

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

Treat-and-Release Emergency Department (ED) Visit: An emergency department visit not resulting in an inpatient admission or an outpatient observation stay at the same facility.

Glossary of Terms (continued)

Unmet Family Needs for Health Care Due to Cost: Health care that a resident or a family member living in the household perceived as necessary but decided to forgo in the past 12 months due to the cost of that care. This includes the following types of health care: doctor care; nurse practitioner, physician assistant, or midwife care; specialist care; mental health care or counseling; substance use care or treatment; prescription drugs; dental care; vision care; or medical equipment.

Zip Code Tabulation Area (ZCTA): ZIP Code Tabulation Areas or ZCTAs (pronounced zik-tahs) are a geographic product of the U.S. Census Bureau created to allow mapping, display, and geographic analyses of the United States Postal Service (USPS) Zone Improvement Plan (ZIP) Codes dataset.

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