Performance of the Massachusetts Health Care System

Annual Report
March 2023

CHIA.

Performance of the Massachusetts Health Care System

Annual Report
March 2023

CENTER FOR HEALTH INFORMATION AND ANALYSIS

CHIA.

Table of Contents

Table of Contents (continued)

Table of Contents (continued)

Table of Contents (continued)

Table of Contents (continued)

2023 Annual Report Key Findings

Total health care expenditures (THCE) in Massachusetts totaled $67.9 billion in 2021. From 2019 to 2021, THCE per resident increased at an annualized rate of 3.2%. THCE per capita increased 9.0% in 2021 to $9,715 per resident, following a 2.3% decline in 2020.

While most service categories experienced fluctuations in spending due to the impacts of the pandemic, pharmacy spending both gross and net of rebates increased consistently in 2020 and 2021, resulting in the fastest three-year service category growth rates. From 2019 to 2021, pharmacy spending increased at an annualized rate of 7.5% net of rebates, and 9.6% gross of rebates.

In 2021, spending on behavioral health (BH) services comprised 6.6% of total health care spending for commercial members, 15.9% for Medicaid MCO/ACO-A members, and 1.9% for Medicare Advantage members. During this time period, payers reported that 18.9% of commercial members had a behavioral health diagnosis, compared to 23.8% of Medicaid MCO/ ACO-A members, and 18.6% of Medicare Advantage members.

In 2020, overall acute hospital inpatient discharge volume declined driven largely by decreases in the number of planned procedures and related hospitalizations; at the same time, the average length of stay continued to increase due to several factors including throughput challenges and shifts in the type and severity of conditions.

2023 Annual Report Key Findings

(CONTINUED)

The statewide acute hospital median total margin increased by 2.6 percentage points, from 2.6% in HFY 2020 to 5.2% in HFY 2021; this was followed by a decrease to a statewide median total margin of -4.4% in HFY 2022, as of data reported through June 30, 2022.

Private commercial health plan member cost-sharing increased by 16.9% in 2021 to $58 PMPM. At the same time, enrollment in high deductible health plans grew by 4.1%—now accounting for 42.7% of total enrollments in the private commercial market.

Between 2019 and 2021, premiums as well as claims covered by payers and employers increased at annualized rates of 4.7% and 5.7%, respectively, surpassing wages and salaries (3.6%) and regional inflation (2.2%).

After growing rapidly due to the COVID-19 pandemic and resulting policy directives, telehealth spending declined slightly from $1.8 billion in 2020 to $1.7 billion in 2021. In both years, spending for telehealth services provided by non-physician professionals, such as nurse practitioners, physical and occupational therapists, and certain behavioral health providers, accounted for more than half of telehealth spending.

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 2021, during which policies to support Massachusetts residents and the health care system evolved in response to the COVID-19 pandemic. Given the significant impacts of the pandemic on the health care system in 2020 and 2021, CHIA analyzed relevant metrics on an annualized basis over the three-year period of 2019 to 2021, as well as year-over-year trends.

Calendar year 2021 marked the second year of the COVID-19 pandemic, a period in which health care utilization and payer and provider finances experienced continued volatility. Following depressed utilization and spending levels in 2020, utilization and service intensity rebounded in 2021, which led to accelerated health care spending growth and system-wide capacity strains. Adding to financial pressures, 2021 saw the expiration of federal provider relief funds, and payers recorded losses due to claims costs exceeding premium revenues. At the same time, Massachusetts residents continued to face affordability challenges accessing needed care. This report examines each of these trends in more detail, presenting results on total health care expenditures, hospital utilization, private commercial member enrollment and costs, and payer and provider financial and quality performance. The report also includes a new chapter on behavioral health and additional data on COVID-19 and telehealth expenditures.

This report also includes a new chapter on behavioral health and additional data on COVID-19 and telehealth expenditures.

Total Health Care Expenditures

In 2021, Total Health Care Expenditures (THCE) in Massachusetts increased to $67.9 billion. From 2019 to 2021, THCE per capita increased at an annualized rate of 3.2%, reflecting compound annual growth. THCE per capita increased 9.0% in 2021 to $9,715 per resident, following a 2.3% decline in 2020.

On a service category level, all claims-based service categories experienced spending increases from 2020 to 2021 as utilization rebounded. From 2020 to 2021, hospital outpatient, physician, and non-claims spending experienced the greatest reversals in trend when compared to the prior year. Hospital outpatient, the second largest service category, grew the fastest in 2021 at 18.9%, followed by other professional at 15.9%, and physician at 15.5%. Hospital inpatient and other medical spending also increased in 2021 after declining in 2020. Non-claims comprised the smallest portion of overall spending and was the only service category to experience lower spending in 2021, decreasing 14.8%, after increasing 27.8% the prior year due to fluctuations in COVID-19 supplemental funding and utilization-related impacts on risk settlements with providers.

Unlike other service categories that experienced fluctuations in spending trends across the three-year period, pharmacy spending continued to increase on both a gross and net-of-rebates basis, resulting in the highest annualized trend over the three-year period at 9.6% and 7.5%, respectively. Due to the COVID-19 pandemic and resulting policy directives, telehealth utilization also increased during this time period which led to significant spending growth, increasing from $3.0 million in 2019 to $1.8 billion in 2020. Telehealth spending declined slightly in 2021 to $1.7 billion, driven by declining telehealth spending for physician services, while telehealth spending increased for hospital outpatient, other medical, and other professional services, which includes behavioral health providers. In 2021, other professional spending for services delivered via telehealth represented 20.3% of total other professional spending, followed by 9.3% for physicians.[1]

Commercial Insurance

Total expenditures for private commercial health plans, which comprised 37.5% of THCE in 2021, increased at an annualized trend of 3.6% from 2019 to 2021. Following a decline in 2020, commercial spending grew 12.2% from 2020 to 2021 despite membership declines (-3.4%), resulting in a dramatic increase in per member per month (PMPM) spending.

Hospital outpatient and physician spending were the largest commercial service categories. In 2021, overall increases in commercial spending were driven by increases in hospital outpatient and physician services, a reversal from 2020 when these service categories

were drivers of the decline. Spending for all claims-based service categories increased from 2020 to 2021, while non-claims spending declined as payers cited that increased utilization in 2021 led to decreased surplus payments to providers in risk contracts compared to 2020. In 2021, commercial pharmacy spending—both gross (+7.9%) and net (+5.6%) of rebates—grew at a rate similar to the prior year.

Commercial health plans reported that 18.9% of members received care for a behavioral health condition in 2021, totaling $941 million in behavioral health expenditures, representing 6.6% of total commercial expenditures. Members enrolled in private commercial health plans paid out of pocket for a higher proportion of covered behavioral health care services as compared to other service types.

Fully insured health insurance premiums grew at an annualized rate of 4.4% from 2019 to 2021, with accelerated single-year growth in 2021 (6.6%) compared to the previous year (2.3%) and more broadly, fully insured premium increases grew faster than wages and salaries and regional inflation during the same time period. The premiums reported in 2020 reflect COVID-19 premium credits that some insurers provided back to members in 2020 due to the low utilization of health care services resulting from the pandemic. Projected increases in health care spending and lower premiums in 2020 were the primary drivers of the higher year-over-year growth increases in 2021.

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. Premiums for plans in effect in 2020 and 2021 were developed using data from before the COVID-19 pandemic and its full impact on health care utilization was known. In 2020, after paying for members' health care expenses, the funds available to health plans to cover non-medical expenses and contributions to surplus increased 35.5%, as health care expenses were lower than projected with members cancelling or deferring care with the onset of the COVID-19 pandemic. In 2021, however, as members returned to more typical levels of health care service utilization, the premium revenue available for health plan non-medical expenses and contributions to surplus declined by 36.0% from the prior year to $54 PMPM in 2021, falling below 2019 levels. After covering members' health care expenses and administrative costs, payers reported average overall losses of $12 PMPM in 2021.

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

networks. From 2020 to 2021, HDHP enrollment increased from 38.6% to 42.7% of the private commercial market, increasing faster than the previous year and continuing a long-term growth trend. Enrollment in tiered network and limited network products remained stable.

In 2021, private commercial member cost-sharing for all services remained slightly below 2019 levels, declining at an annualized rate of 0.7% over the three-year period. However, member cost-sharing increased 16.9% to $58 PMPM from 2020 to 2021 after declining 15.7% the prior year. Although member cost-sharing for certain COVID-19 services remained mandatorily waived in 2021, payers reinstated member cost-sharing for services that had been voluntarily waived at the onset of the pandemic. As member cost-sharing experienced a slight annualized decline from 2019 to 2021, claims paid by payers and self-insured employers increased at an annualized rate of 5.8%. In 2021, the percentage of costs covered by members was 10.2% compared to 11.4% in 2019.

Public Insurance Programs

Total MassHealth expenditures, representing a quarter of THCE spending, increased at an annualized rate of 5.2% from 2019 to 2021 as enrollment increased in both 2020 and 2021. MassHealth experienced yearly spending increases in 2020 and 2021, at 3.2% and 7.2%, respectively, as MassHealth enrollment increased 4.5% in 2020 and 10.9% in 2021. Enrollment continued to grow as MassHealth was required to provide continuous coverage under the federal public health emergency and accordingly, suspended redetermination activities in 2020 and 2021. However, as enrollment increases outpaced spending increases, MassHealth overall PMPM spending declined.

Similar to the overall market, MassHealth spending growth in 2021 was driven by increases across all claims-based service categories. Other medical spending, which includes spending for services such as home health and long-term care, represented the largest MassHealth service category and increased at an annualized rate of 2.4%, growing 11.0% from 2020 to 2021, after declining 5.5% the prior year. MassHealth pharmacy spending gross of rebates increased at an annualized rate of 12.9%, with an accelerated yearly increase in 2021 (17.9%) compared to 2020 (8.0%). Net of rebates, MassHealth pharmacy spending grew at an annualized rate of 8.6%, growing 6.9% from 2020 to 2021. In addition to minimum rebates dictated by federal law, MassHealth maximizes rebates to reduce net prescription drug costs by negotiating directly with drug manufacturers for supplemental rebates and through its newly established Unified Pharmacy Product List (UPPL).

In 2021, nearly one quarter (23.8%) of members enrolled in MassHealth MCO/ACO-A plans had a primary behavioral health diagnosis. Spending on behavioral health services for these members totaled $751 million, or 15.9% of total MCO/ACO-A health care spending.

Total Medicare spending increased at an annualized rate of 3.5% from 2019 to 2021, as spending increased 10.8% in 2021 after falling 3.4% the prior year. In 2021, Medicare Advantage (+21.3%) spending increased faster than original Medicare (+8.6%), as enrollment in Medicare Advantage plans continued to increase. Hospital inpatient spending accounted for the largest Medicare service category, increasing 6.6% in 2021 after declining 6.1% the prior year, resulting in 2021 spending returning to 2019 levels. Similar to the overall market, hospital outpatient and physician spending increased the fastest in 2021 after experiencing the largest declines in 2020. Medicare pharmacy spending both gross and net of rebates continued to increase across the three-year period. Among Medicare Advantage plans, spending on behavioral health services totaled $66.3 million in 2021, representing 1.9% of total Medicare Advantage spending.

Hospital, Health System, and Provider Trends

Acute hospital inpatient and emergency department (ED) utilization declined between early 2020 and 2022 from relatively stable pre-pandemic baselines, with the steepest declines coinciding with peak periods of COVID-19 cases in the Commonwealth. This timing is consistent with state directives for providers to postpone certain nonessential, elective procedures. Outside 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 continued to increase in FFY 2021 and FFY 2022. The increasing length of stay is due to throughput challenges and shifts in the type and severity of conditions, among other factors, and has resulted in significant strains on hospital capacity.

The total volume of inpatient hospitalizations for behavioral health conditions declined during the pandemic and has not rebounded as of FFY 2022. Behavioral health conditions represented 7.7% of primary diagnoses for acute care inpatient hospitalizations and 6.5% of ED visits between July and September 2022. The number of outpatient service visits provided by freestanding behavioral health hospitals and DMH-operated facilities decreased by 5.7% from HFY 2019 to HFY 2020, then increased 8.8% between HFY 2020 to HFY 2021.

In HFY 2021, overall acute hospital profitability, as measured by the median total margin, was 5.2%, an increase of 2.6 percentage points compared to the prior hospital fiscal year. Changes in total margin were influenced by non-operating margins, including realized and unrealized gains and losses on investments, during this period. The statewide median operating margin was 1.1%, a decrease of 0.2 percentage points, while the median non-operating margin was 3.0%, an increase of 2.5 percentage points. Hospitals reported $386 million in federal and state relief funding in their operating revenue in HFY 2021 compared to $2.1 billion in HFY 2020. Both the total and operating margins include COVID-19 relief funding reported as operating revenue.

In the HFY 2022 data available through June 30, 2022, hospitals reported a negative statewide median total margin (– 4.4%). The median operating and non-operating margins were both negative as well during this time period. This period reflects 9 months of fiscal year data for most hospitals.

In 2021, total utilization in nursing facilities was 11.4 million resident days, most of which (69%) were Medicaid resident days. Overall resident days declined by 16.5% between 2019 and 2021. The median occupancy rate, which is a measure of utilization compared to capacity, declined from 90.5% to 76.5% between 2019 and 2021. Total reported revenue by nursing facilities in 2021 was $4.53 billion, which includes COVID-19 related funding received by facilities. In 2021, the total reported revenue slightly exceeded total reported expense, which was $4.51 billion.

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. Nearly all commercial and MassHealth MCO/ACO-A members covered under APM arrangements, and 82.9% of Medicare Advantage members covered under APM arrangements, were covered by a global budget in 2021. APM adoption remained relatively stable for commercial payers and MassHealth, while APM adoption for Medicare Advantage decreased by 3.6 percentage points from 2020 to 2021. 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 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, but even without direct financial incentive, quality measurement and reporting are essential for advancing value-based care. This report includes MassHealth Member Experience Survey (MES) findings for 2019-2021, which were issued to samples of ACO members with a primary care visit in each respective year. For survey domains with data for all three years, the 2021 patient-reported experience rating was lower than the 2019 rating, indicating that satisfaction with primary care visits in both the adult and pediatric MassHealth populations declined across the three-year period. Most differences were approximately 1-2 percentage points, but among patients with a pediatric visit, the rating for Organizational Access declined 3.6 percentage points, from 85.8 in 2019 to 82.2 in 2021—the largest change observed across both adult and pediatric patients surveyed. This report also includes results from a similar survey of members enrolled in private commercial health plans, as well as data on hospital performance measures. •

Executive Summary Notes

1 Telehealth expenditures were reported to CHIA for private commercial, MassHealth, and Medicare Advantage members, representing 84.9% of Massachusetts residents included in THCE.

Total Health Care Expenditures

KEY FINDINGS

From 2019 to 2021, THCE per capita increased at an annualized rate of 3.2%. THCE per resident grew 9.0% in 2021 after falling 2.3% the previous year due to the effects of the pandemic.

Commercial, Medicare, and MassHealth spending experienced annualized growth from 2019 to 2021 at 3.6%, 3.5%, and 5.2%, respectively. Over this three-year period, commercial membership declined while enrollment increased in Medicare and MassHealth.

Pharmacy spending net of rebates increased at an annualized rate of 7.5% from 2019 to 2021, the fastest three-year growth of any service category. On a gross basis, pharmacy spending increased 9.6% during this time.

Telehealth utilization and spending increased dramatically in 2020 and remained high in 2021, most notably for services provided by non-physician professionals such as nurse practitioners, physical therapists, and behavioral health providers.

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 2021 performance periods, the benchmark was set at 3.1%.[1]

THCE encompasses health care expenditures for Massachusetts residents from public and private sources, including all categories of medical expenses and all 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 other categories of expenditures such as vision and dental care.

Given the significant impacts of the COVID-19 pandemic on health care spending in 2020 and 2021, this report includes data on annualized trends from 2019 to 2021, in order to provide a more accurate and contextualized picture of THCE during this time period. Annualized trends reflect

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

the compound annual growth rate from 2019 to 2021. For more information, please see the technical appendix. Additionally, as in previous reports, percent changes are presented in comparison to the previous calendar year. For more detail into 2019 to 2020 trends, please see CHIA's 2022 Annual Report.

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

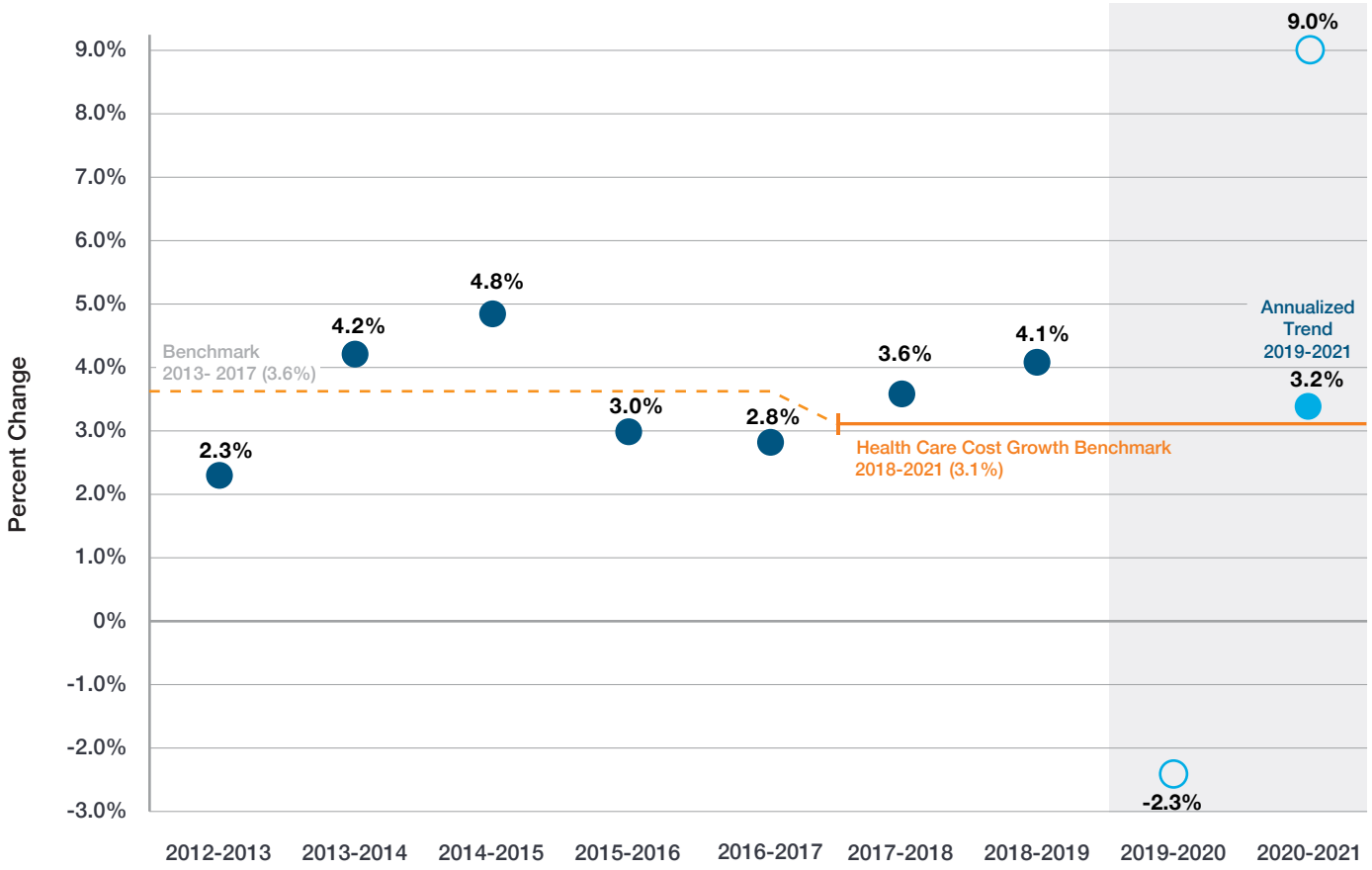
For the first time, CHIA is additionally reporting data on telehealth spending to investigate the impact of the pandemic on telehealth services, with data collected for calendar years 2019 to 2021. •

From 2019 to 2021, THCE per capita increased at an annualized rate of 3.2%, reflecting compound annual growth.[3] The yearly THCE per capita trends were driven by the impacts of the COVID-19 pandemic on the Commonwealth and its health care system, as pandemic-related disruptions led to an unprecedented decline in THCE from 2019 to 2020, followed by rebounding spending from 2020 to 2021.

Between 2020 and 2021, per capita THCE growth was 9.0%, lower than growth in the Massachusetts economy (+9.6%), but faster than national wages and salaries (7.3%) and regional inflation (4.4%).[4]

National health care spending, as measured by the Centers for Medicare and Medicaid Services' (CMS) National Health Expenditure Accounts, increased 2.7% from 2020 to 2021, a deceleration from the 10.3% the year prior. However, these trends include federal funding for public health programs and financial assistance to health care providers, including federal funding from the CARES Act and Paycheck Protection Program, some of which is spending not captured in Massachusetts THCE. Excluding government public health activities spending, such as funding for CDC and FDA activities, national health care spending increased 4.1% in 2021.

Per Capita Total Health Care Expenditure Trends, 2013-2021



Total Health Care Expenditures per capita increased at an annualized rate of 3.2% from 2019 to 2021.

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 in 2020 and 2021. THCE does include COVID-19 relief payments distributed by MassHealth.

Components of Total Health Care Expenditures, 2019-2021

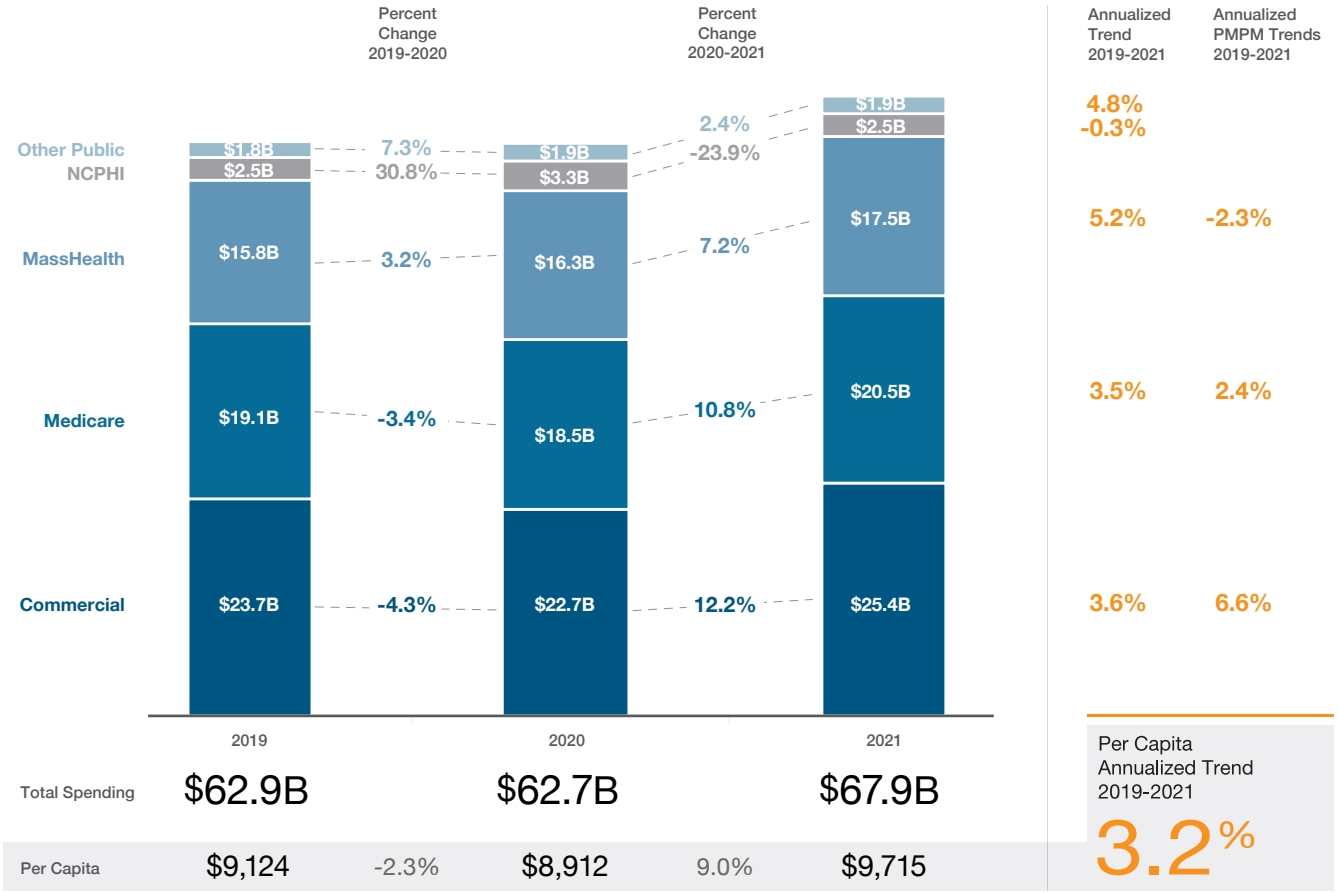
Massachusetts THCE totaled $67.9 billion in 2021. THCE spending per resident increased to $9,715 per capita in 2021, increasing at an annualized rate of 3.2% from 2019. The dramatic yearly trends in the Commonwealth's overall THCE were driven by the continued impact of the COVID-19 pandemic on the health care system, as utilization rebounded in 2021 after falling in 2020.

Total commercial spending increased at an annualized rate of 3.6% over the three-year period, growing to $25.4 billion in 2021. Commercial spending increased 12.2% in 2021 after declining 4.3% in 2020. Commercial enrollment declined in both 2020 and 2021 (-2.1% and -3.4%, respectively).

Medicare spending totaled $20.5 billion in 2021 and increased at a 3.5% annualized rate from 2019 to 2021. From 2020 to 2021, Medicare spending increased 10.8% in 2021 after declining 3.4% the previous year. Medicare enrollment increased in both 2020 (+1.1%) and 2021 (+0.9%).

MassHealth spending, totaling $17.5 billion in 2021, increased at the fastest annualized rate, 5.2%, after experiencing yearly spending increases in 2020 and 2021, at 3.2% and 7.2%, respectively. During this same time period, MassHealth enrollment increased by 4.5% in 2020 and 10.9% in 2021.

The net cost of private health insurance (NCPHI) was the only component to have a negative annualized trend at -0.3%.



In 2021, spending for all components of THCE increased above 2019 levels, except for NCPHI.

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. 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 in 2020 and 2021. THCE does include COVID-19 relief payments distributed by MassHealth. Please see databook for detailed information.

Components of Total Health Care Expenditures:

Private Commercial Insurance by Product Type, 2019-2021

THCE COMPONENTS
Detailed View

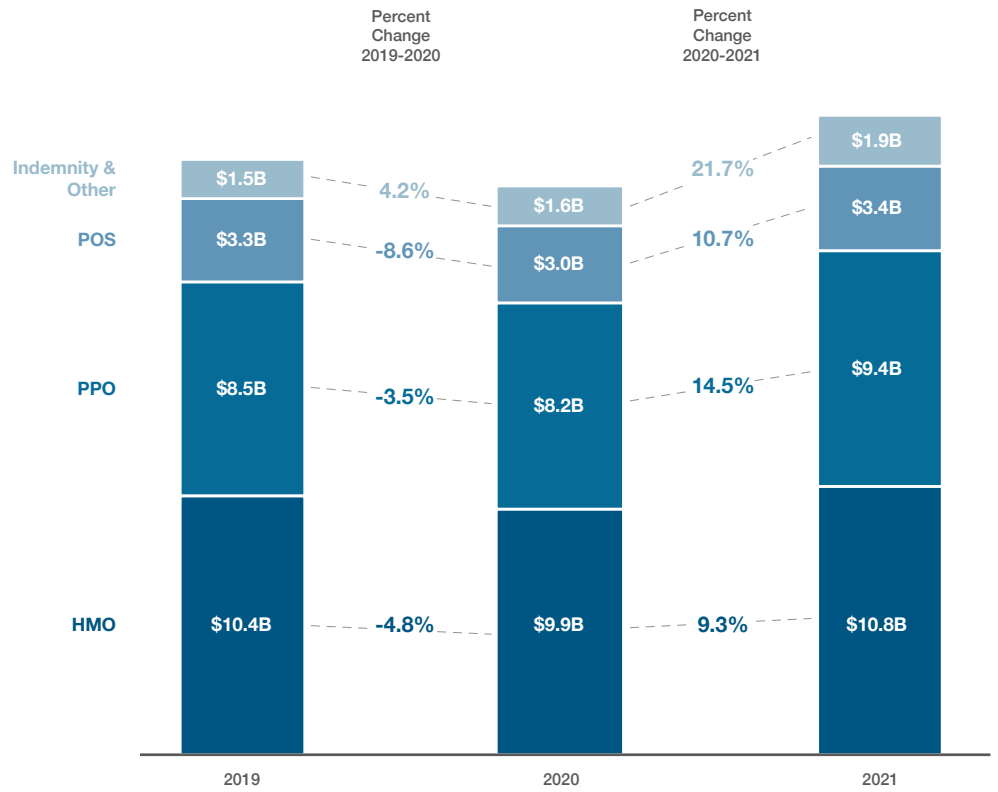
Within the commercial insurance market, private payers offer a variety of insurance product types, varying by the provider networks offered, referral requirements, and cost-sharing levels, among other factors.

Commercial spending increased at an annualized rate of 3.6% from 2019 to 2021. From 2020 to 2021, commercial spending grew 12.2% despite membership declines, leading to a 16.1% increase in per member per month (PMPM) spending.

The most common commercial insurance products in Massachusetts are Health Maintenance Organization (HMO) plans, which require that a member select a primary care provider to manage the member's care. From 2019 to 2021, overall spending on HMO products increased at an annualized rate of 2.0%. From 2020 to 2021, HMO spending increased 9.3% while membership declined 5.9%.

Spending for Preferred Provider Organization (PPO) plans, which allow members to schedule visits without a referral, increased at an annualized rate of 5.1%. From 2020 to 2021, PPO spending increased 14.5%, though membership decreased by 1.4%. Point-of-Service (POS) plans, which offer both in-network and out-of-network coverage options, experienced an annualized trend of 0.6%. From 2020 to 2021, POS spending increased 10.7% as enrollment declined 4.2%.

The Indemnity & Other product type category increased at an annualized rate of 12.6%, with spending and membership increases in both 2020 and 2021. For additional insight on commercial enrollment trends, see CHIA's enrollment trends resources and publications.[5]



From 2019 to 2021, commercial spending increased at an annualized rate of 3.6%, accompanied by membership declines in both 2020 and 2021.

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. Annualized trend for 2019 to 2021 was calculated as (2021 Value/2019 Value)^(1/2)-1 and reflects compound annual growth. Please see databook for detailed information.

Components of Total Health Care Expenditures:
Medicare Programs, 2019-2021

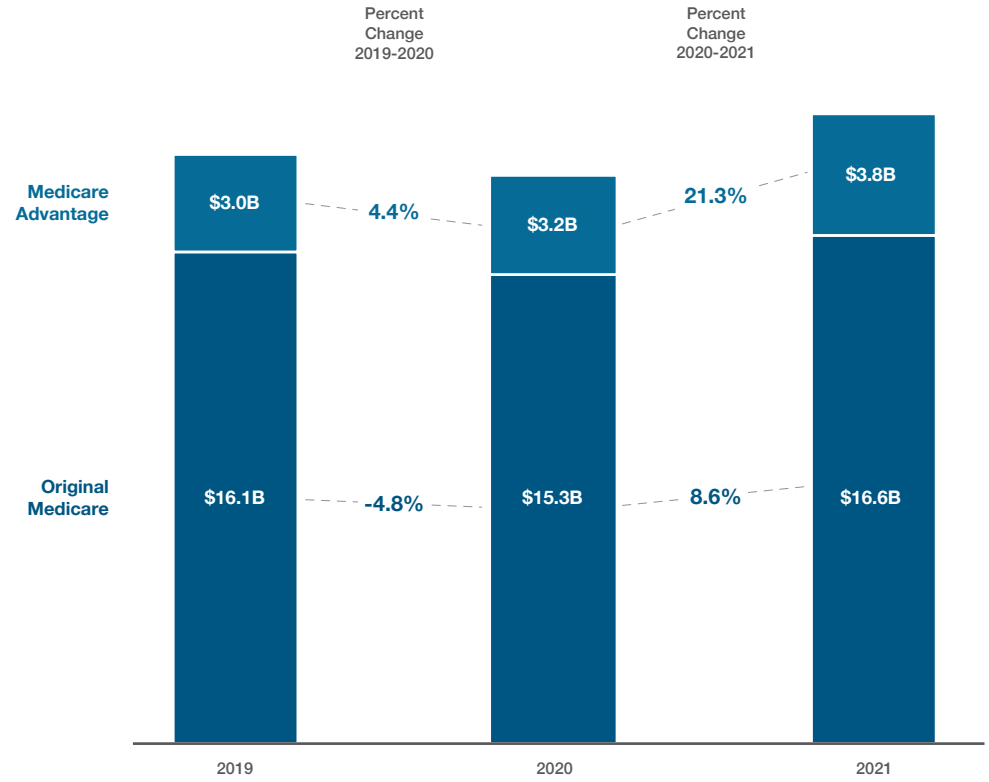
THCE COMPONENTS
Detailed View

In 2021, 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 2019 to 2021, total Medicare expenditures increased at an annualized rate of 3.5%. From 2020 to 2021, Medicare spending increased 10.8% to $20.5 billion, accompanied by a 0.9% increase in overall enrollment, resulting in 9.8% growth PMPM.

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 traditional Medicare (76.8% in 2021). However, the share of members enrolling in Medicare Advantage plans continued to grow to 23.2% in 2021 (an uptick from 21.2% in 2020).

Medicare Advantage spending increased at an annualized trend of 12.5% from 2019 to 2021. From 2020 to 2021, Medicare Advantage spending increased 21.3% while enrollment increased 10.5%, driven by increased membership in Aetna (+29.4%) and United (+26.1%) plans.

Over the three-year period, Original Medicare spending increased at an annualized rate of 1.7%. From 2020 to 2021, Original Medicare spending increased by 8.6% despite a 1.7% decrease in enrollment in 2021. This yearly increase in Massachusetts' Original Medicare spending was faster than the national trend, estimated at 3.8% growth in 2021.[6]



Overall Medicare spending increased at an annualized rate of 3.5% from 2019 to 2021, accompanied by membership increases in both 2020 and 2021.

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. 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. Annualized trend for 2019 to 2021 was calculated as (2021 Value/2019 Value)^(1/2)-1 and reflects compound annual growth. Please see databook for detailed information.

Components of Total Health Care Expenditures:
MassHealth by Program Type, 2019-2021

THCE COMPONENTS
Detailed View

In 2021, approximately 2.1 million Massachusetts residents relied on MassHealth for either primary or partial/secondary medical coverage.

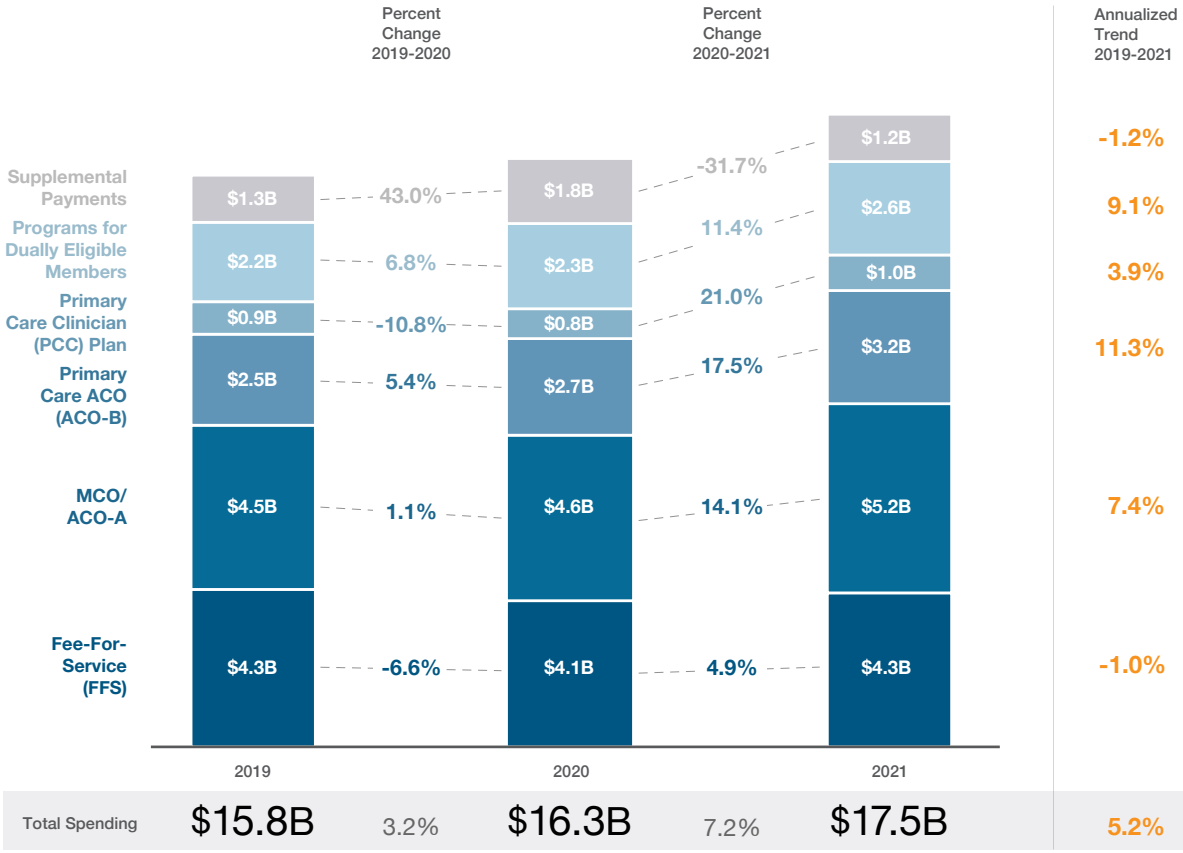
From 2019 to 2021, MassHealth spending increased at an annualized trend of 5.2%, while membership cumulatively increased 15.9%. From 2020 to 2021, overall MassHealth spending increased by 7.2%, while membership increased 10.9%. Under the federal public health emergency, MassHealth was required to provide continuous coverage, suspending redetermination activities in 2020 and 2021. For more information on MassHealth enrollment, see page 23.

From 2019 to 2021, all MassHealth program types, except for FFS, experienced positive annualized growth rates.

From 2020 to 2021, all MassHealth program types experienced increased spending, accompanied by increases in enrollment. However, overall PMPM spending decreased as enrollment increases outpaced spending increases, driven by increased enrollment of children and adults without disabilities, who generally incur less costs compared to other MassHealth members.[7]

MCO/ACO-A programs represented the largest share of spending at $5.2 billion in 2021, a 7.4% annualized increase from 2019. From 2020 to 2021, MCO/ACO-A spending increased 14.1% as enrollment increased 12.0%. In 2021, the Primary Care Clinician (PCC) plan experienced spending (+21.0%) and enrollment (+16.5%) growth for the first time since ACO-A implementation in 2018.

MassHealth supplemental payments decreased 1.2% from 2019 to 2021, largely driven by yearly fluctuations in COVID-19 supplemental payments ($495 million in 2020 and $43 million in 2021).



Overall MassHealth spending increased at an annualized rate of 5.2% from 2019 to 2021, as enrollment increased in both 2020 and 2021.

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

Notes: Members of MCO-Administered ACOs (ACO-C) are counted within the MCO population. For additional information on enrollment in MassHealth programs, see CHIA's Enrollment Trends reporting. MassHealth programs for dually eligible members include Senior Care Options (SCO), for members ages 65 and older; the Program of All-inclusive Care for the Elderly (PACE) for members 55 and older; and One Care, for members ages 21 to 64. One-third of 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. Annualized trend for 2019 to 2021 was calculated as (2021 Value/2019 Value)^(1/2)-1 and reflects compound annual growth. During 2020 and 2021, 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 category. Please see databook for detailed information.

As of December 2021, approximately 1.4 million Massachusetts residents relied on MassHealth for their primary medical coverage, an increase of 23.5% compared to March 2020.

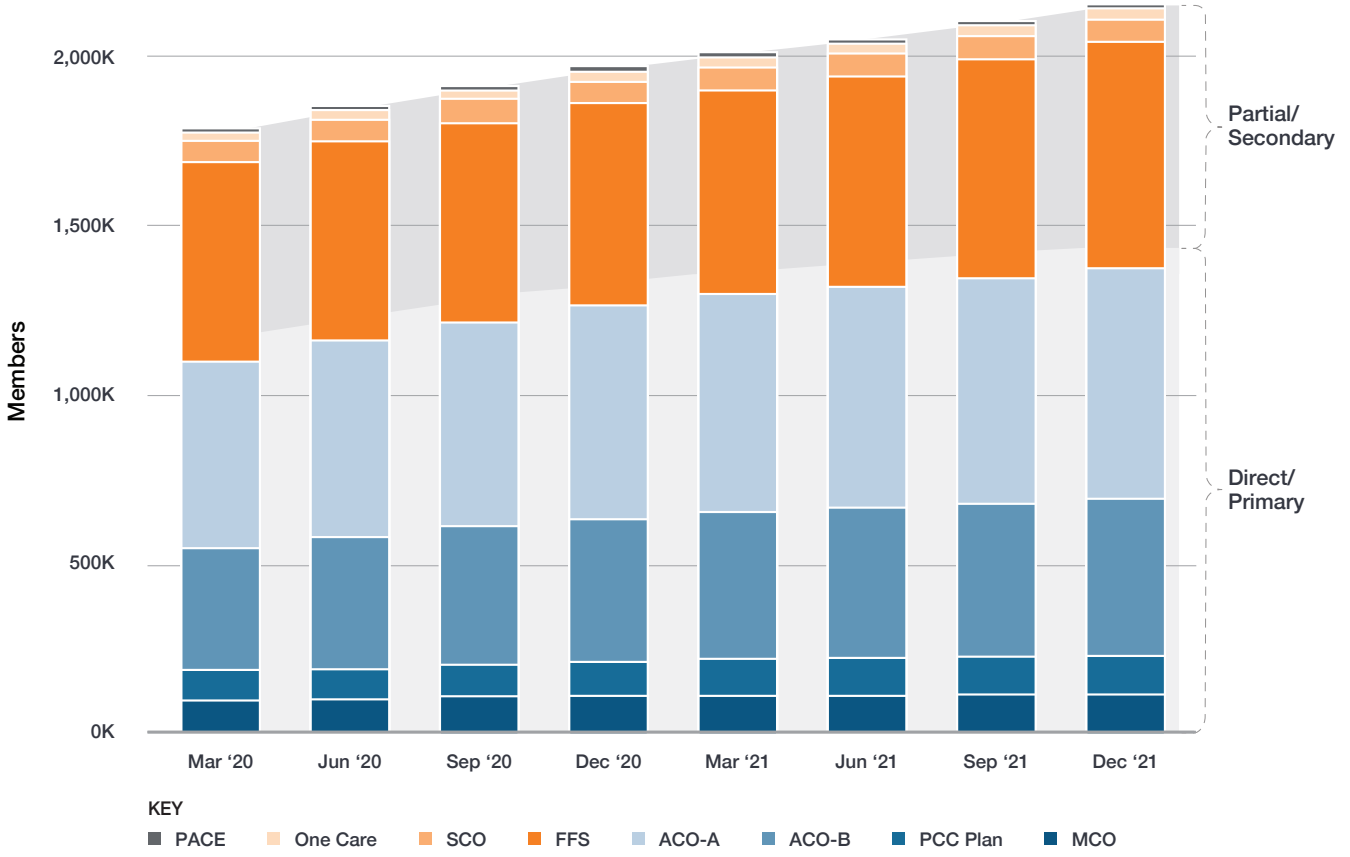
An additional 709,000 residents received partial or secondary coverage from MassHealth, an increase of 15.3% since March 2020.

These increases are largely attributable to the federal Families First Coronavirus Response Act (FFCRA), which mandated Medicaid programs continue coverage for all members enrolled on or after March 18, 2020, regardless of changes in beneficiary circumstances or scheduled redetermination assessments.

The continuous coverage requirement for Medicaid programs is ending on March 31, 2023, per the Consolidated Appropriations Act of 2023. This condition is now independent of the duration of the federal COVID-19 public health emergency, which is expected to expire on May 11, 2023.

Components of Total Health Care Expenditures:

MassHealth Enrollment by Delivery System, 2020-2021



Source: MA APCD

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

Components of Total Health Care Expenditures:

Net Cost of Private Health Insurance by Market Sector, 2019-2021

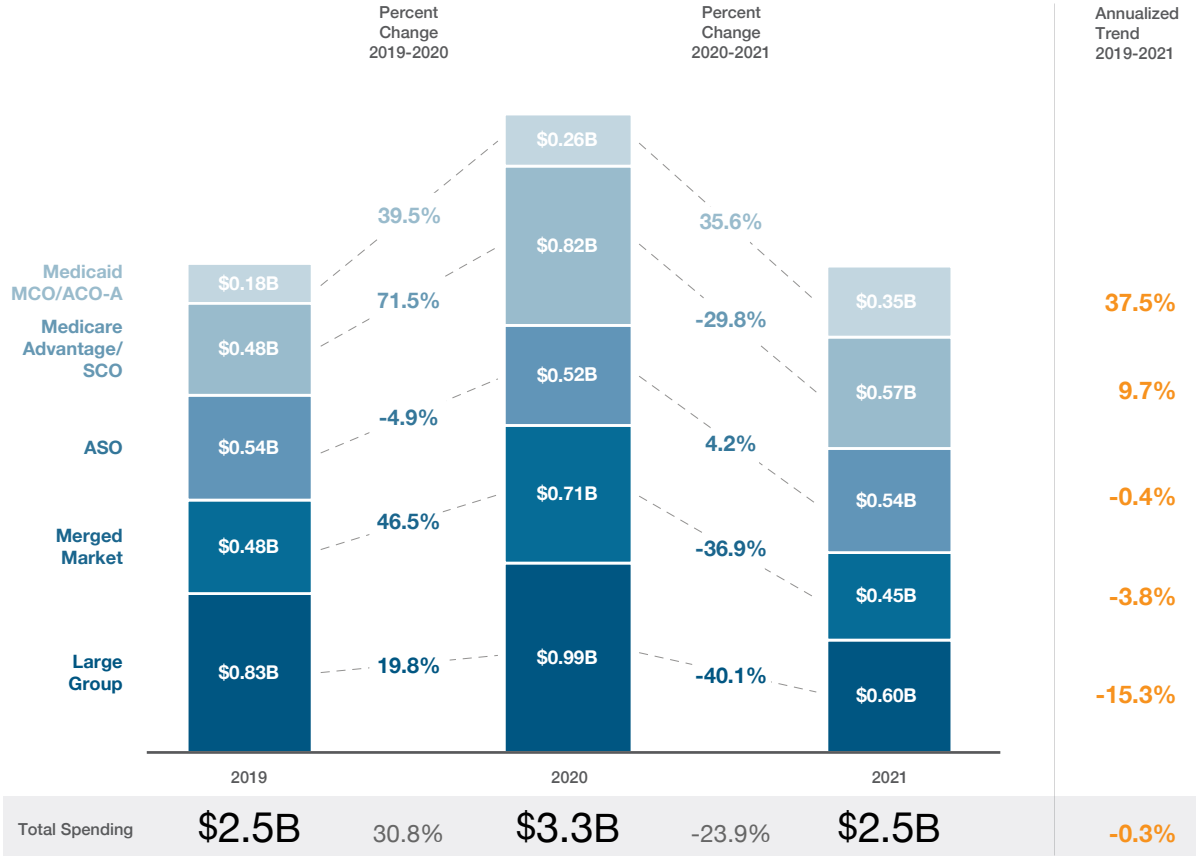
THCE COMPONENTS
Detailed View

NCPHI captures the private administrative costs of health insurance for Massachusetts residents and is broadly defined as the difference between the premiums health plans receive on behalf of Massachusetts residents and the expenditures for covered benefits incurred for those same members. Premiums are set prospectively based on historical data and actuarial assumptions, so NCPHI fluctuates from year to year depending on how closely actuarial projections match actual spending on health care services.

From 2019 to 2021, NCPHI decreased slightly at an annualized trend of -0.3%, as NCPHI decreased by 23.9% in 2021 to $2.5 billion, following a 30.8% increase the previous year. In the fully-insured commercial market, large group NCPHI declined at an annualized rate of 15.3%. NCPHI for merged market and Administrative Services Only (ASO), which represents contracts between health plans and self-insured employers, experienced negative annualized trends at 3.8% and 0.4%, respectively.

Medicaid MCO/ACO-A had the fastest annualized growth (+37.5%) in NCPHI among all market sectors, however, these plans cost less to administer on a PMPM basis than the fully-insured merged market and large group NCPHI averages.

NCPHI balances are used to pay general administrative expenses and broker commissions, as well as taxes and fees. Medical loss ratio rebates and premium credits paid to members are accounted for in these figures. For more information on payer use of funds, see page 122.



NCPHI remained relatively stable from 2019 to 2021, with an annualized trend of -0.3%.

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.

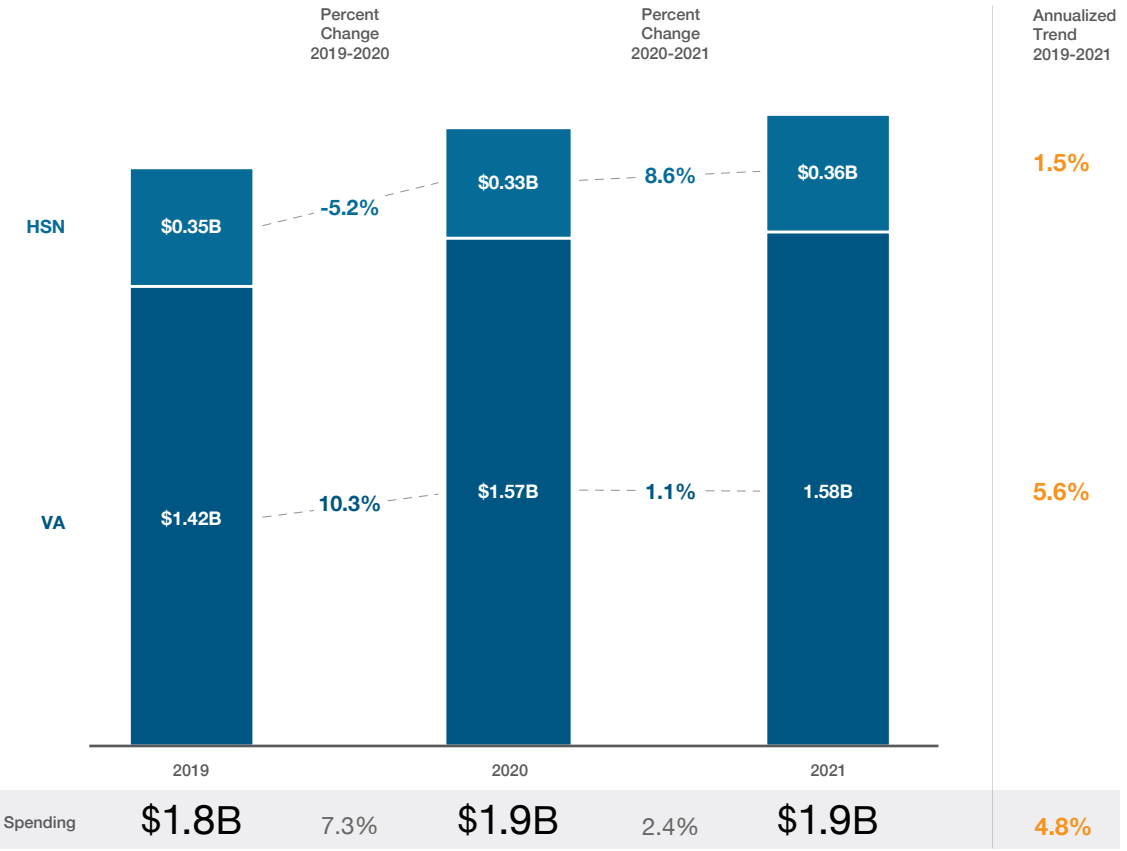
Notes: NCPHI large group combines the fully-insured mid-size, large, and jumbo groups. The self-insured category (ASO) reflects fees collected by payers for administrative services only. Annualized trend for 2019 to 2021 was calculated as (2021 Value/2019 Value)^(1/2)-1 and reflects compound annual growth. Please see databook for detailed information.

Components of Total Health Care Expenditures:
Other Public Programs, 2019-2021

THCE COMPONENTS
Detailed View

The U.S. Department of Veterans Affairs, through its Veterans Health Administration division, provides health care for certain eligible U.S. military veterans. Medical spending for Massachusetts veterans increased at an annualized trend of 5.6% from 2019 to 2021. In 2021, VA spending remained relatively stable, increasing 1.1%, after increasing 10.3% in 2020. Total VA medical spending nationally increased 1.6% between 2020 and 2021.[8]

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 increased at an annualized rate of 1.5% from 2019 to 2021. From 2020 to 2021, HSN spending increased 8.6% to $0.36 billion after declining 5.2% the previous year.



Annualized health care spending for the Veterans Health Administration and the Health Safety Net increased from 2019 to 2021.

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

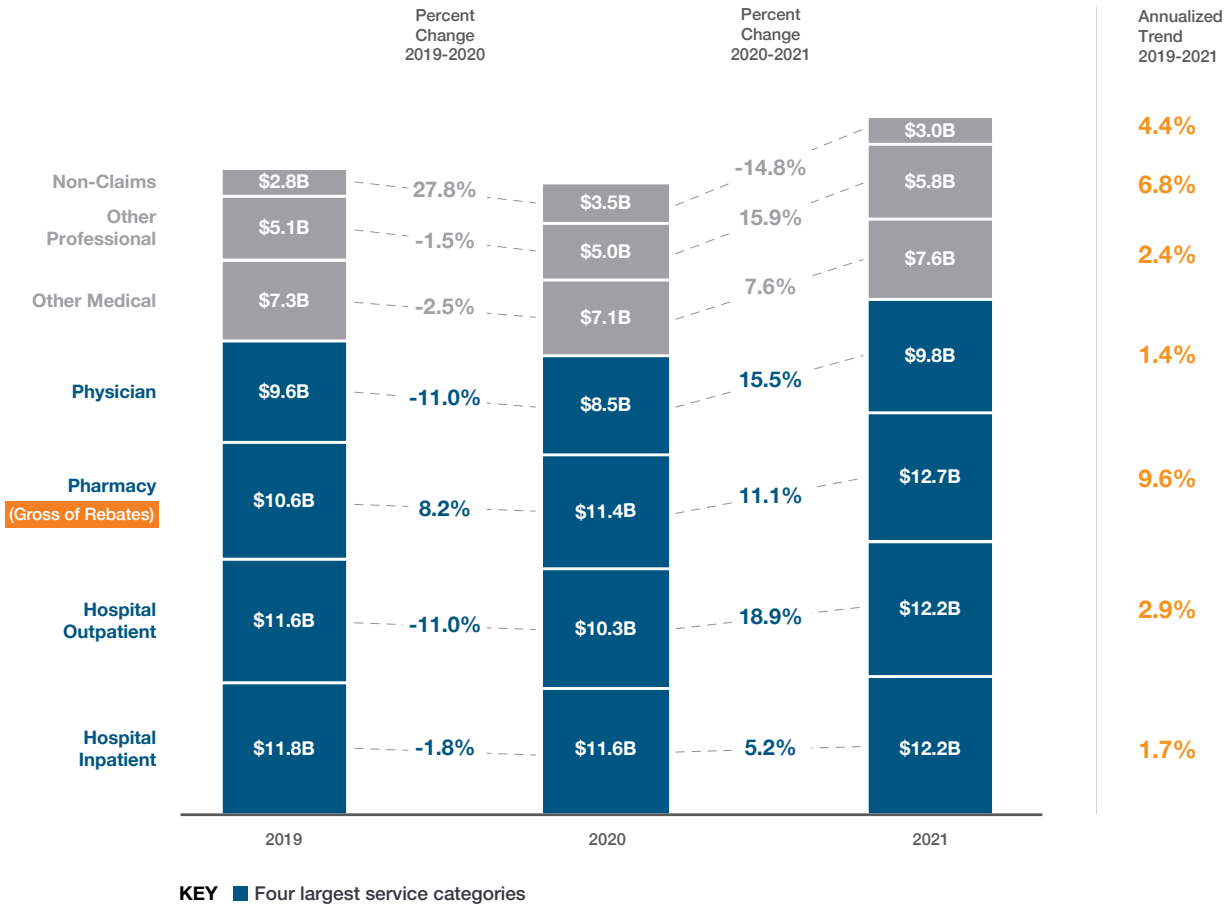
Notes: Veterans Affairs data sourcing updated, see technical appendix for details. HSN spends and reports on the hospital fiscal year (HFY). Percent changes are calculated based on non-rounded expenditure amounts. Annualized trend for 2019 to 2021 was calculated as (2021 Value/2019 Value)^(1/2)-1 and reflects compound annual growth. Please see databook for detailed information.

Total Health Care Expenditures by Service Category, 2019-2021: Gross of Prescription Drug Rebates

From 2019 to 2021, service category spending trends were impacted by the COVID-19 pandemic, with spending for most service categories falling in 2020 followed by rebounding spending in 2021.

Hospital outpatient, physician, and non-claims spending experienced the greatest reversal in trends from 2020 to 2021 when compared to 2019 to 2020. Though hospital outpatient and physician spending both increased more than 10% from 2020 to 2021, these increases followed declines in spending from 2019 to 2020, resulting in annualized spending growth of less than three percent for both service categories. Non-claims spending increased at an annualized trend of 4.4%, with yearly trends driven by fluctuations in COVID-19 supplemental funding ($495 million in 2020 and $43 million in 2021) and by utilization experiences impacting risk settlement payouts to providers.

Prescription drug spending experienced growth in both years, increasing at an annualized rate of 7.5% net of rebates and 9.6% gross of rebates. Spending for other professional services, which includes care provided by a licensed practitioner other than a physician (such as nurse practitioner or psychologist), grew at the second highest annualized rate of any service category at 6.8%, driven by a 15.9% increase in spending from 2020 to 2021. Hospital inpatient spending increased at an annualized rate of 1.7%, and other medical spending, which includes skilled nursing facilities and home health services, increased at an annualized trend of 2.4%.



Spending increased from 2020 to 2021 across all service categories for which claims were incurred, following declines in most service categories from 2019 to 2020.

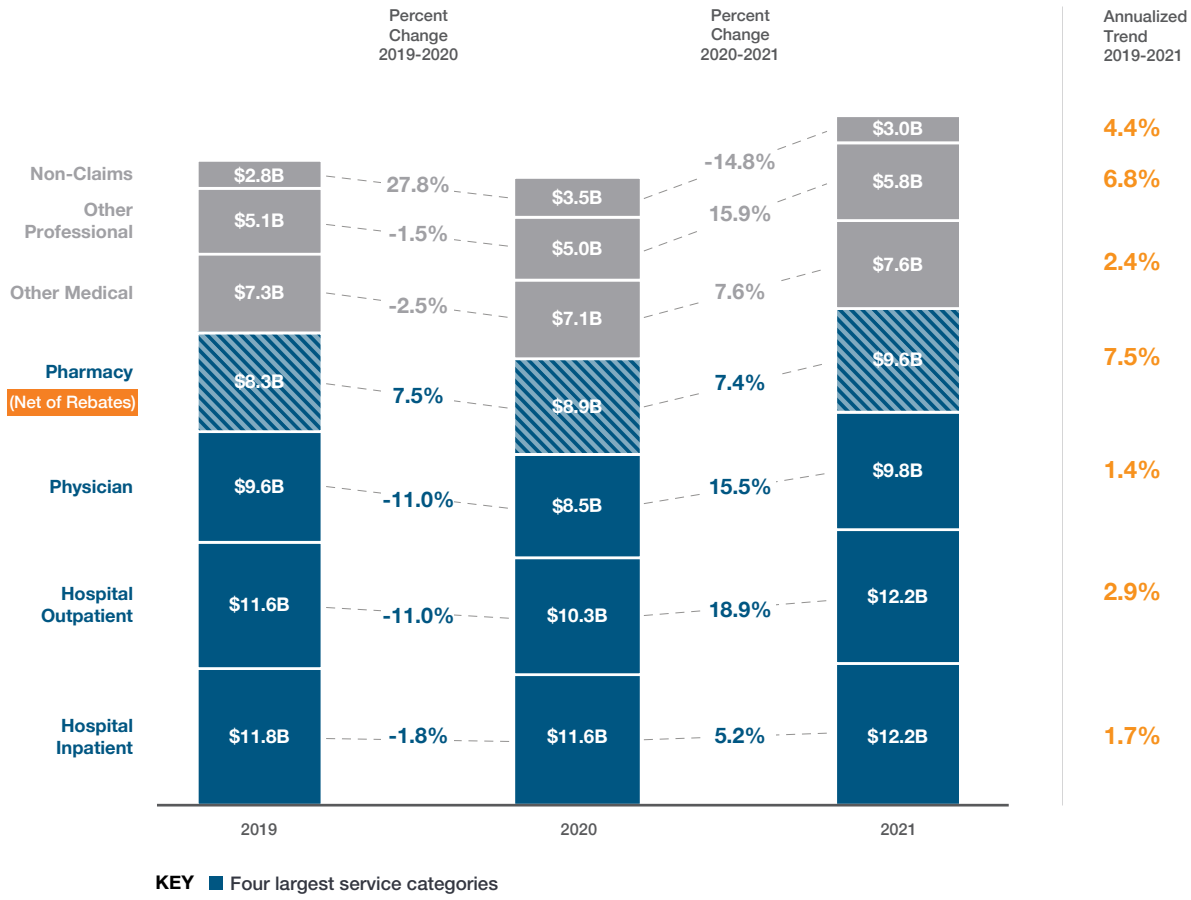
Source: Payer-reported data to CHIA and other public sources.

Notes: Excludes net cost of private health insurance, VA, and HSN. Percent changes are calculated based on non-rounded expenditure amounts. Annualized trend for 2019 to 2021 was calculated as (2021 Value/2019 Value)^(1/2)-1 and reflects compound annual growth. Please see databook for detailed information.

Total Health Care Expenditures by Service Category, 2019-2021: Net of Prescription Drug Rebates

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

Both public and private payers negotiate with drug manufacturers to receive rebates on their members' prescription drug utilization. Net of prescription drug rebates, pharmacy spending totaled $9.6 billion in 2021, a 7.5% annualized increase from 2019. After accounting for rebates, pharmacy expenditures were reduced by $3.1 billion in 2021. Prescription drug rebates grew 23.8% between 2020 and 2021, a significantly faster rate than the previous year (+10.7%). Of the $604.6 million in additional rebates paid between 2020 and 2021, approximately 60% went to MassHealth. In 2021, MassHealth implemented a partial unified formulary to maximize rebate collection, driving the increases in 2021 rebate amounts. Nationally, in 2021, the American Rescue Plan eliminated the Medicaid rebate cap. See page 32 for further details on pharmacy rebates.[9]



Net of rebates, pharmacy spending increased at an annualized trend of 7.5% from 2019 to 2021.

Source: Payer-reported TME 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. Annualized trend for 2019 to 2021 was calculated as (2021 Value/2019 Value)^(1/2)-1 and reflects compound annual growth. Please see databook for detailed information.

Change in Total Health Care Expenditures by Service Category, 2019-2021

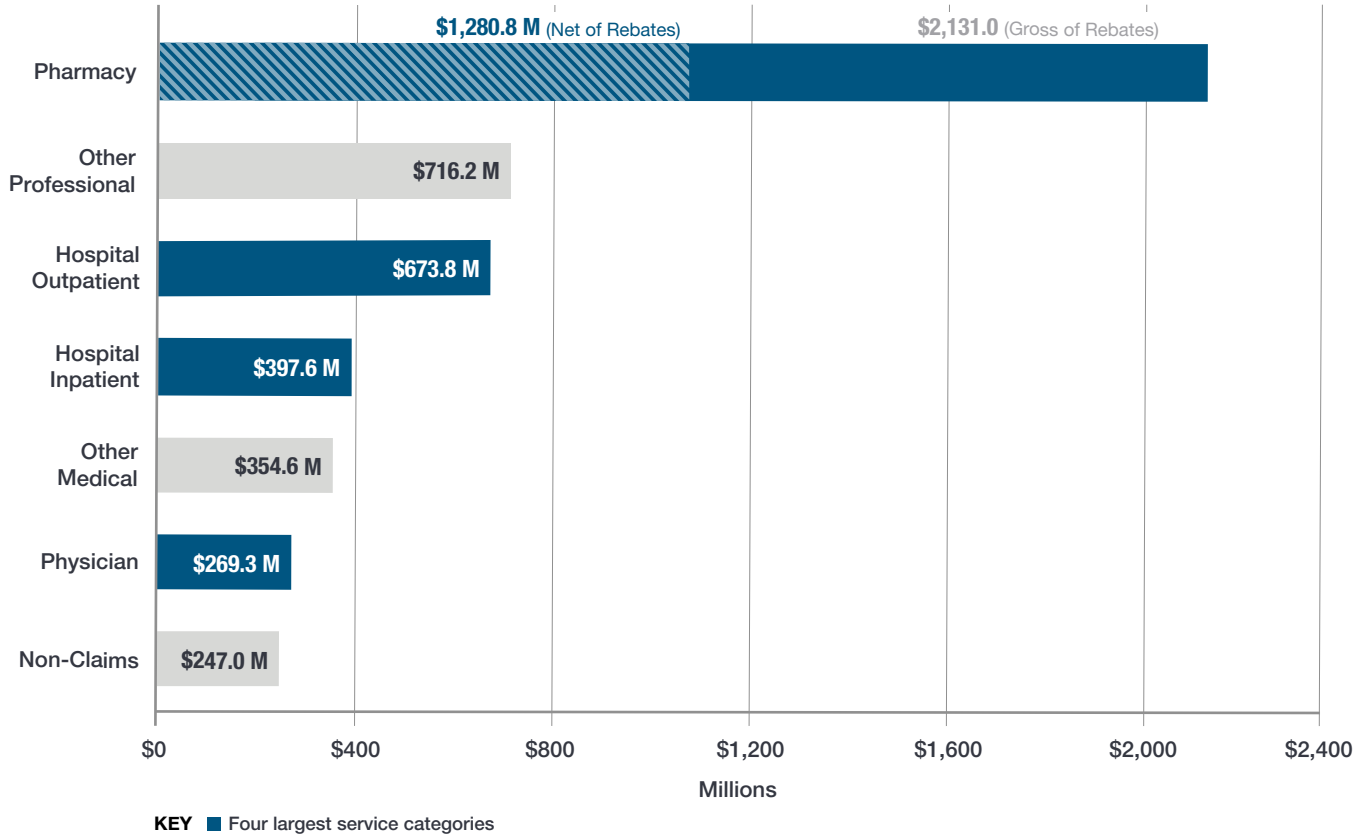
From 2019 to 2021, THCE in Massachusetts increased by $5.0 billion gross of pharmacy rebates and $3.9 billion net of rebates.

From 2019 to 2021, pharmacy spending gross of rebates was the largest component of medical expenditure increases, growing over $2 billion. Net of rebates, pharmacy spending remained the largest contributor at over $1 billion.

Though other professional was not one of the four largest service categories, it was the second largest contributor to medical expenditure increases from 2019 to 2021, growing $716.2 million, driven by increases in both 2020 and 2021.

From 2019 to 2021, hospital outpatient expenditures increased $673.8 million while hospital inpatient expenditures increased $397.6 million. Spending for physician services was the second smallest contributor to THCE growth from 2019 to 2021, growing $269.3 million.

Non-claims spending increased $247.0 million from 2019 to 2021.



Pharmacy spending net of rebates was the largest contributor to the THCE increase from 2019 to 2021.

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

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

Commercial spending totaled $25.4 billion in 2021, representing 37.5% of overall THCE spending.

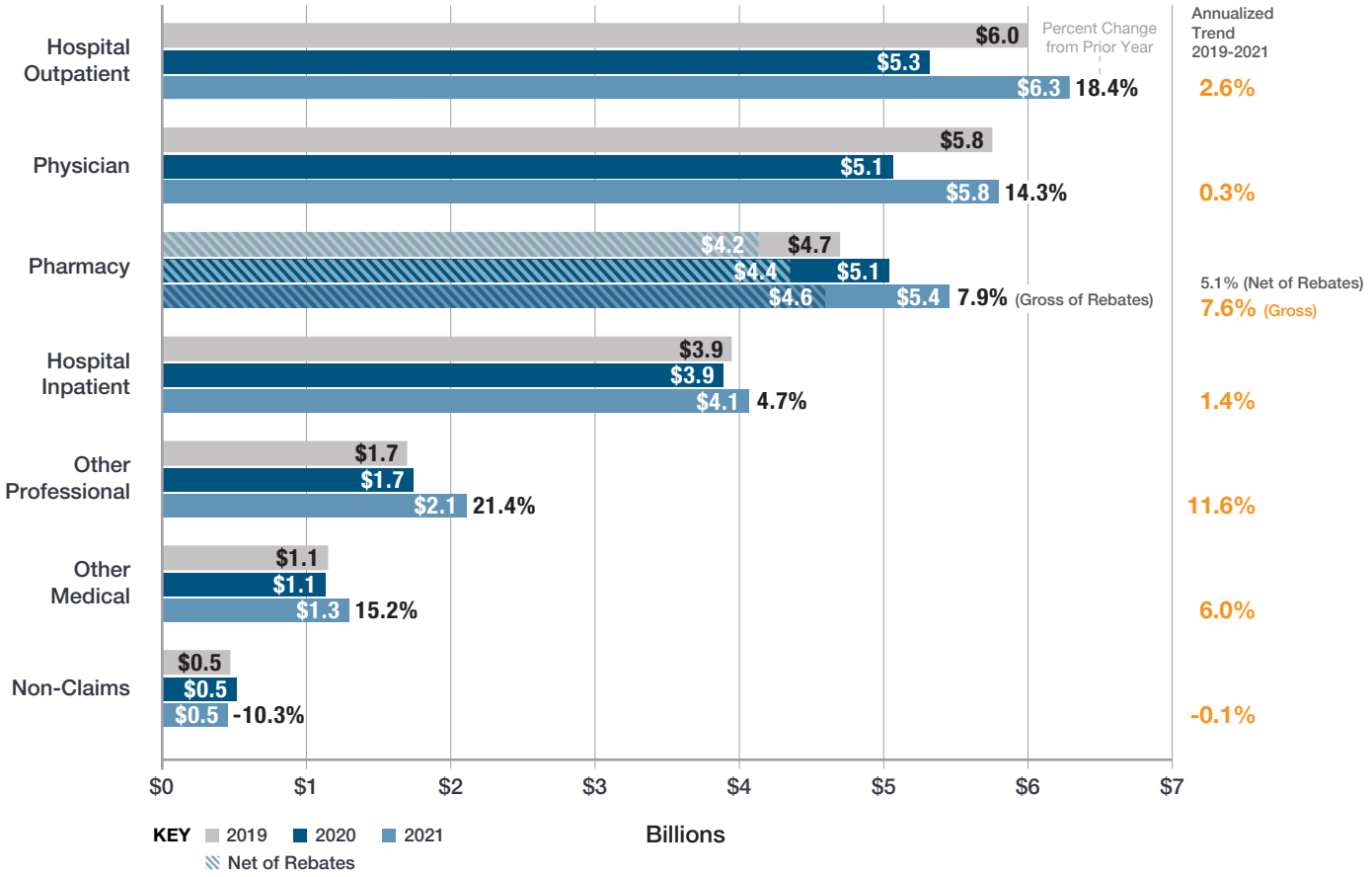
All claims-related service categories experienced increased annualized spending growth from 2019 to 2021. Hospital outpatient and physician spending continued to be the two largest components of commercial spending and increased at annualized rates of 2.6% and 0.3%, respectively. However, on a year-to-year basis, these two service categories were the biggest drivers of both the spending decrease in 2020 as utilization fell and the spending increase in 2021 as utilization rebounded.

Pharmacy spending gross of rebates increased at an annualized trend of 7.6% from 2019 to 2021 and grew 7.9% from 2020 to 2021. Net of rebates, pharmacy spending increased at an annualized rate of 5.1%, increasing 5.6% in 2021 alone.

Spending for other professional services increased at the fastest annualized rate from 2019 to 2021, growing 11.6% on average from 2019 to $2.1 billion in 2021. From 2020 to 2021, other professional spending increased 21.4%.

From 2019 to 2021, non-claims spending declined slightly by an annualized rate of 0.1%, as the 11.3% increase in 2020 was followed by a 10.3% decline in 2021. Payers noted that increased utilization in 2021 led to decreased surplus payments compared to 2020, when utilization dropped and led to unexpectedly high surplus payments.

Components of Total Health Care Expenditures:
Commercial Spending by Service Category, 2019-2021



From 2020 to 2021, hospital outpatient and physician spending were the largest contributors to commercial spending increases, after being the largest contributors to spending declines the previous year.

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. Pharmacy trend data displayed above is gross of prescription drug rebates. Excludes net cost of private health insurance. Percent changes are calculated based on non-rounded expenditure amounts. Annualized trend for 2019 to 2021 was calculated as (2021 Value/2019 Value)^(1/2)-1 and reflects compound annual growth. Please see databook for detailed information.

Components of Total Health Care Expenditures:

Medicare Spending by Service Category, 2019-2021

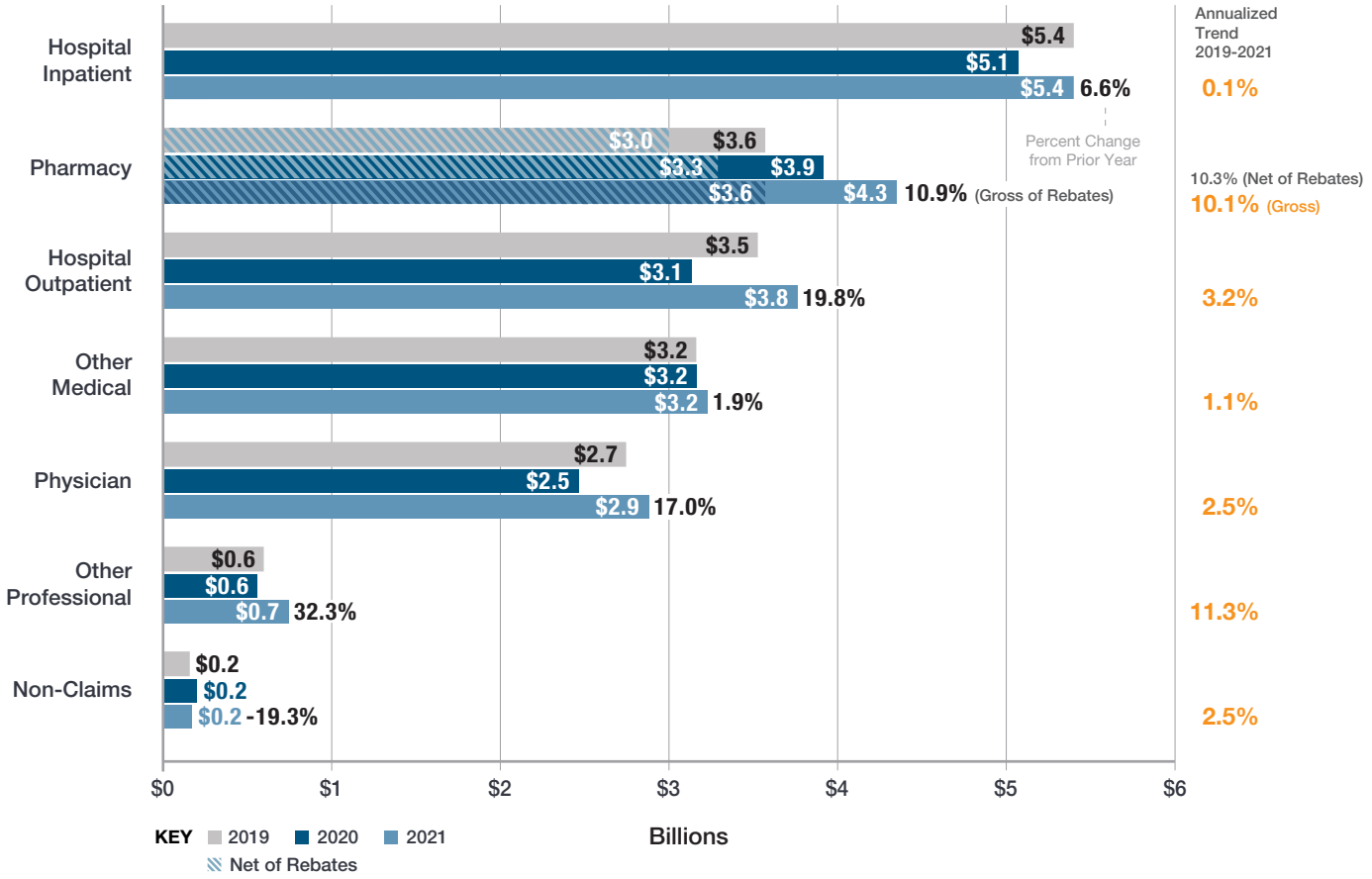
Medicare spending totaled $20.5 billion in 2021, representing 30.2% of overall THCE spending. All service categories experienced annualized growth from 2019 to 2021, ranging from rates of 0.1% to 11.3%.

Hospital inpatient was the largest service category and accounted for over one-fourth of Medicare spending in 2021, totaling $5.4 billion, and increased at an annualized trend of 0.1% from 2019. Pharmacy spending, gross of rebates, was the second largest component of Medicare spending and increased at an annualized rate of 10.1% from 2019 to $4.3 billion in 2021. Net of rebates, pharmacy spending increased at an annualized rate of 10.3%. From 2020 to 2021, pharmacy gross of rebates increased 10.9% and pharmacy net of rebates increased 4.9%.

Medicare hospital outpatient and physician spending increased at annualized trends of 3.2% and 2.5%, respectively. From 2020 to 2021, hospital outpatient and physician were among the fastest growing service categories, each increasing by more than 15%.

Though it was the smallest component of Medicare claims spending, other professional experienced the greatest annualized trend at 11.3%. From 2020 to 2021, other professional spending increased 32.3%.

Medicare non-claims spending increased at an annualized rate of 2.5%, declining 19.3% after increasing 30.3% the previous year.



Hospital inpatient was the largest Medicare service category, increasing at an annualized rate of 0.1% as 2021 spending returned to 2019 levels.

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

Notes: Pharmacy trend data displayed above is gross of prescription drug rebates. Percent changes are calculated based on non-rounded expenditure amounts. Annualized trend for 2019 to 2021 was calculated as (2021 Value/2019 Value)^(1/2)-1 and reflects compound annual growth. Please see databook for detailed information.

MassHealth spending totaled $17.5 billion in 2021, representing 25.8% of overall THCE spending.

Other Medical, which includes long term care, and home health services, was the largest component of MassHealth spending, totaling $3.1 billion in 2021, and increased at an annualized rate of 2.4% since 2019. From 2020 to 2021, Other Medical spending increased 11.0%.

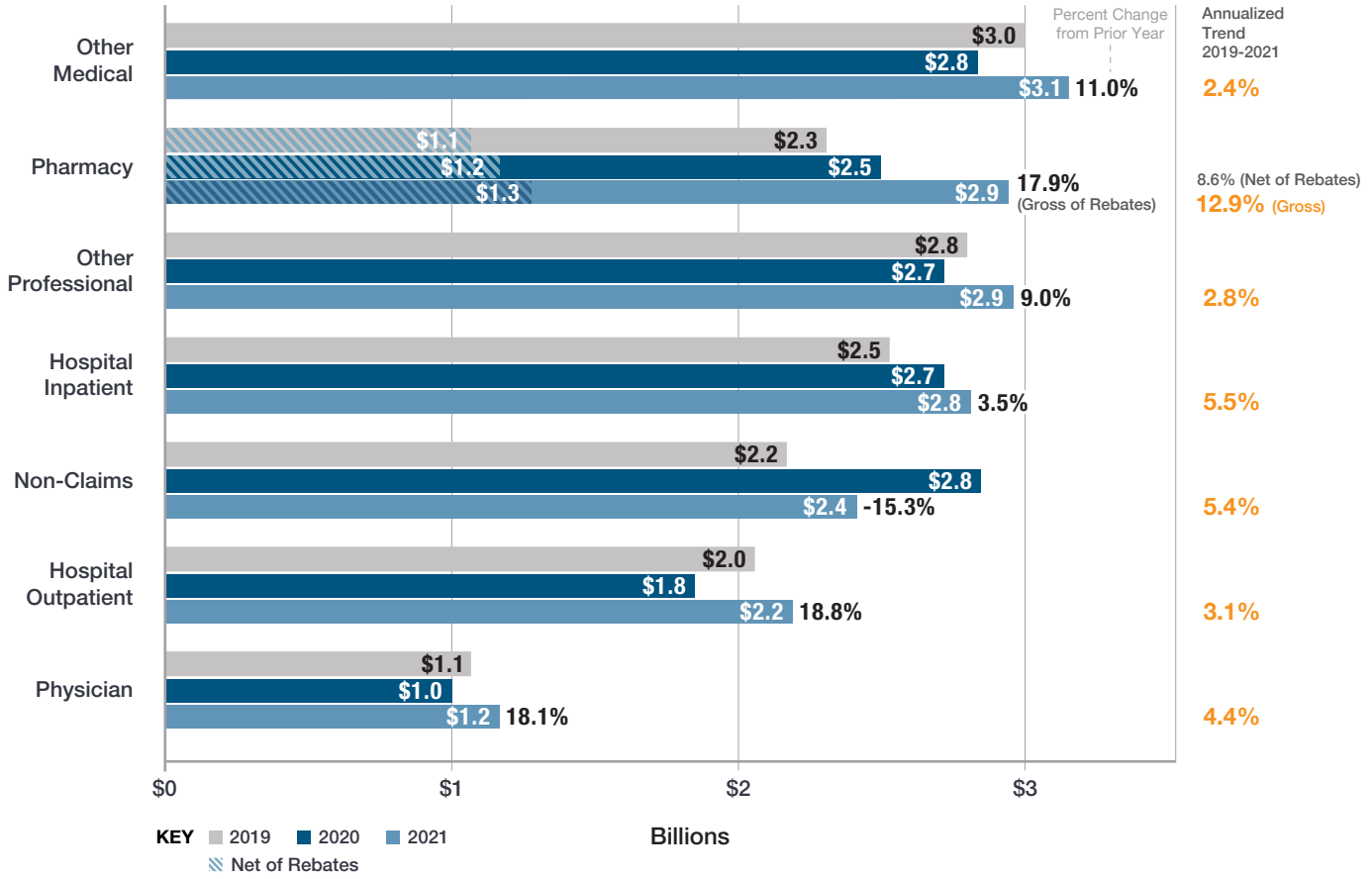
In 2021, pharmacy spending gross of rebates increased at an annualized rate of 12.9%, increasing 17.9% from 2020 to 2021 alone. MassHealth maximizes rebates to reduce net prescription drug costs by negotiating directly with drug manufacturers for supplemental rebates and through its newly established Unified Pharmacy Product List (UPPL).[10] Net of rebates, MassHealth pharmacy spending grew at an annualized rate of 8.6%. From 2020 to 2021, pharmacy net of rebates grew 6.9% to $1.3 billion in 2021.

Non-claims decreased 15.3% from 2020 to 2021, following a large increase the previous year (+31.2%) which was driven in part by certain one-time supplemental COVID-19 relief funding.

Hospital outpatient and physician spending represented a smaller portion of overall spending for MassHealth when compared to the commercial market and increased at annualized rates of 3.1% and 4.4%, respectively. From 2020 to 2021, hospital outpatient (+18.8%) and physician spending (+18.1%) experienced the fastest spending increases.

Components of Total Health Care Expenditures:

MassHealth Spending by Service Category, 2019-2021



Spending for Other Medical, which includes home health and long term care services, was the largest MassHealth service category, increasing at an annualized rate of 2.4% from 2019 to 2021.

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

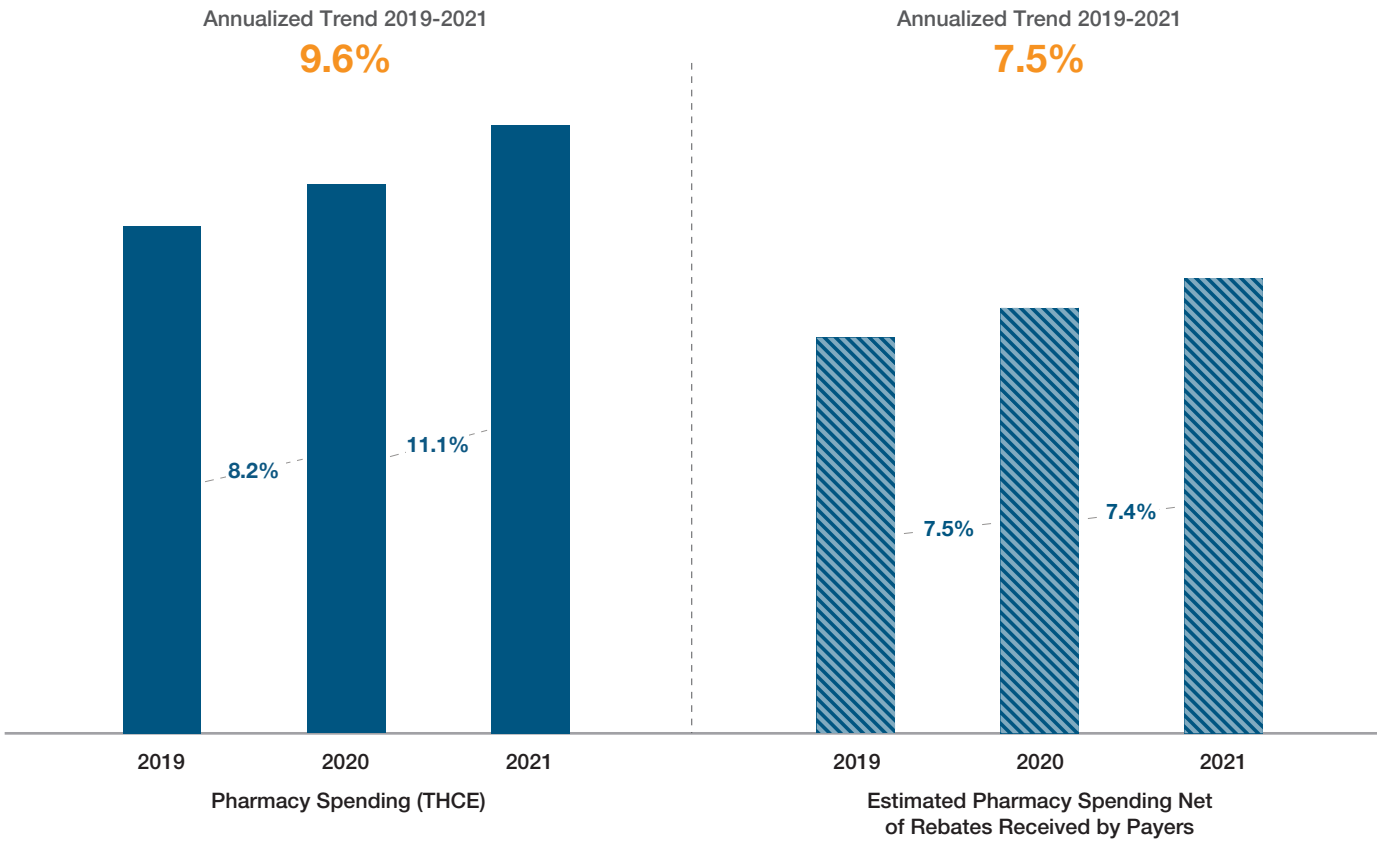
Notes: Pharmacy trend data displayed above is gross of prescription drug rebates. Percent changes are calculated based on non-rounded expenditure amounts. Annualized trend for 2019 to 2021 was calculated as (2021 Value/2019 Value)^(1/2)-1 and reflects compound annual growth. Please see databook for detailed information.

Estimated Impact of Rebates on Pharmacy Spending and Growth, 2019-2021

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

In 2021, gross prescription drug expenditures totaled $12.7 billion, a 9.6% annualized increase from $10.6 billion in 2019. In 2021, gross spending grew 11.1%, a faster rate than the prior year. Prescription drug rebates are estimated to have grown over the last three years, from $2.3 billion in 2019 to $3.1 billion in 2021. Net of rebates, expenditures for prescription drugs grew at an annualized rate of 7.5% from 2019 to 2021, increasing on a year-to-year basis of 7.5% in 2020 and 7.4% in 2021.

MassHealth maximizes rebates to reduce net prescription drug costs by negotiating directly with drug manufacturers for supplemental rebates and through its newly established UPPL.[11] MassHealth plans reported the highest rebate percentage of all insurance categories, with rebates representing 66.8% of FFS and PCC pharmacy spending and 57.2% of MCO pharmacy spending in 2021.



Prescription drug rebates increased from $2.3 billion in 2019 to $3.1 billion in 2021.

Source: Payer-reported data to CHIA.

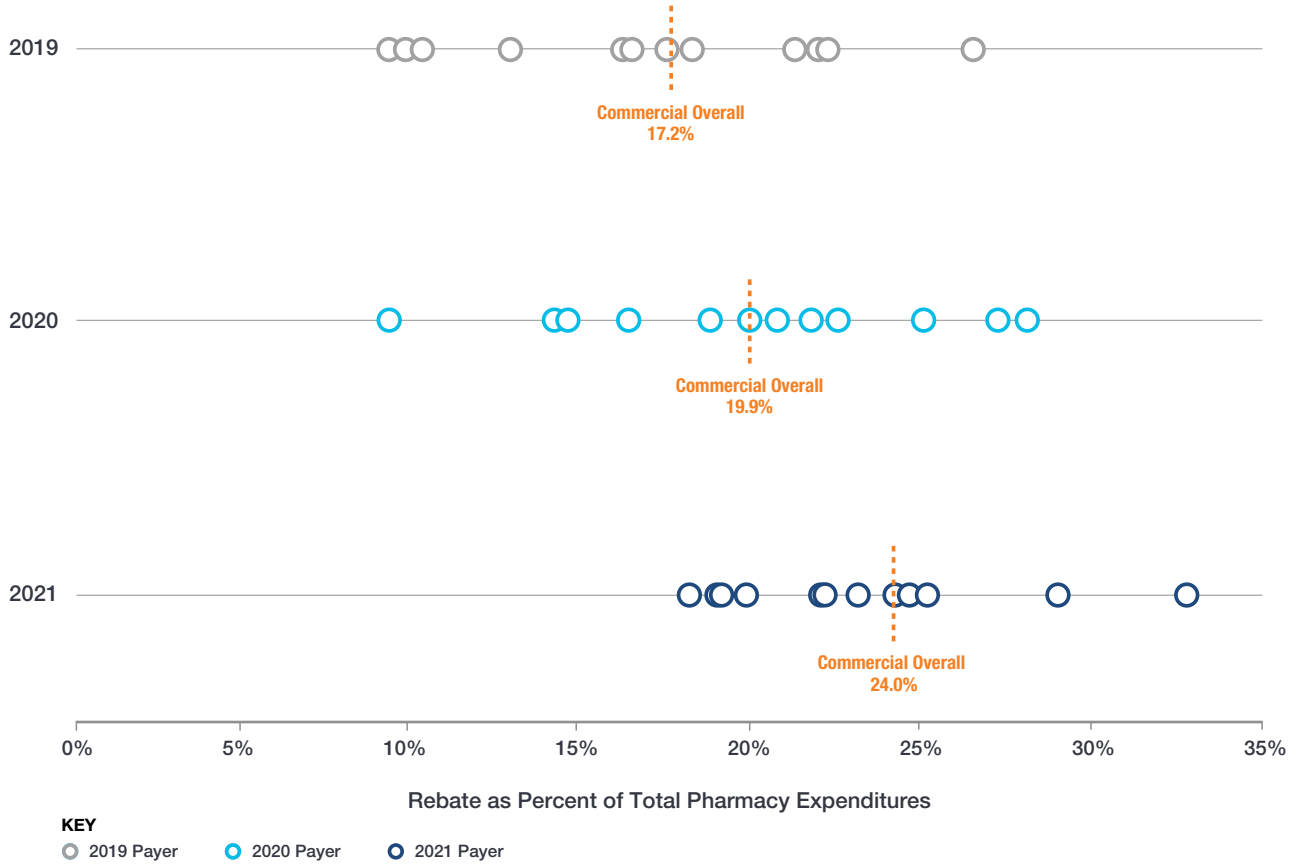
Notes: Total pharmacy payments reported by payers in THCE may include prescription drug price concessions or discounts transmitted at the point-of-sale, including coverage gap discounts. Pharmacy spending net of rebates estimates the impact of reducing the total pharmacy costs to payers by retrospective rebates, in addition to any price discounts included in THCE. Annualized trend for 2019 to 2021 was calculated as (2021 Value/2019 Value)^(1/2)-1.

Range of Payer-Reported Commercial Rebates as a Percentage of Gross Pharmacy Expenditures, 2019-2021

Overall, commercial payers received 24.0% of pharmacy spending back from manufacturers, often via PBMs, in the form of rebates in 2021, a 4.1 percentage point increase from 2020.

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 2021, six payers reported rebate proportions within two percentage points of the overall commercial rebate proportion, as compared to four payers in 2019 and 2020.



Across the commercial market in 2021, 24.0% of pharmacy expenditures were returned to payers in the form of rebates.

Source: Payer-reported data to CHIA.

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

Telehealth in the Commonwealth

At the beginning of the COVID-19 pandemic, the Division of Insurance (DOI) required insurers to cover medically necessary services delivered via telehealth that would have been covered if delivered in-person. Additionally, telehealth reimbursement was required to be 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.[12,13] In March 2020, MassHealth enacted policies which would allow for medically necessary services to be delivered via telehealth and reimbursed at the same rate as covered in-person services.[14] Similarily, 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.[15] The national public health emergency was renewed again on January 11, 2023.[16]

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 for varying durations of time depending on the service. Specifically, it requires payment parity for behavioral health services in perpetuity; for certain primary care and chronic disease management services through January 1, 2023; and all other services through 90 days after the end of the state of emergency.[17]

Telehealth use and spending increased dramatically in 2020, and though declining slightly, remained at high levels through 2021, as more flexible telehealth payment policies encouraged care to shift from in-person to virtual setting.

For a more detailed look into telehealth services, the Health Policy Commission's *Telehealth Use in the Commonwealth and Policy Recommendations* found that telehealth use 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 via telehealth declined, while the proportion of behavioral health visits provided via telehealth remained high.[18] Other reports from FAIR Health, Center for Improving Value in Health Care, and the Massachusetts Association of Health Plans (MAHP) similarly show that both nationally and in Massachusetts, telehealth use increased drastically in 2020 and remained high throughout 2021. These reports also showed that mental health diagnoses were the top telehealth diagnoses, and behavioral health providers saw the highest percentage of patients via telehealth in 2020 and 2021.[19,20,21]

For the first time in its annual reporting cycle, CHIA is reporting results on telehealth expenditure data by service category. CHIA collected telehealth spending aggregated by service category as part of its 2022 data collection cycle requirements. In collecting this data, CHIA provided guidance to data submitters on telehealth codes, which was not an exhuastive list. Data submitters were encouraged to use their internal methodologies for capturing telehealth spending. Reported telehealth spending in this section does not include spending from dually eligible programs (SCO, PACE, OneCare), and was not captured for Original Medicare members.

For more information on Original Medicare telehealth utilization and spending, an analysis by the Bipartisan Policy Center found that, nationally, Original Medicare telehealth spending increased dramatically in 2020 to represent 2.0% of total Original Medicare spending, then decreased in 2021 to represent 1.8% of spending. Additionally, the report found that primary care visits accounted for the highest proportion of Original Medicare telehealth visits, and telehealth use for behavioral health services rose in 2020 and remained high in 2021.[22]

CHIA collected telehealth spending data in response to stakeholder interest in telehealth services and implications for health equity. The MAHP report *Bridging the Digitial Divide -Advancing Telehealth Equity* found that telehealth uptake varied by geographic location, with utilization higher in more densely populated areas such as Eastern Massachusetts, compared to Central and Western Massachusetts.[23] An internal analysis by CHIA similarly found that telehealth spending on a PMPM basis was highest in Eastern Massachusetts. Additionally, when linked to median income data, telehealth spending PMPM was greater in zip codes in the highest median income quartile compared to zip codes in the lowest median income quartile.

Telehealth expenditure data in this chapter is reported for calendar years 2019, 2020, and 2021. •

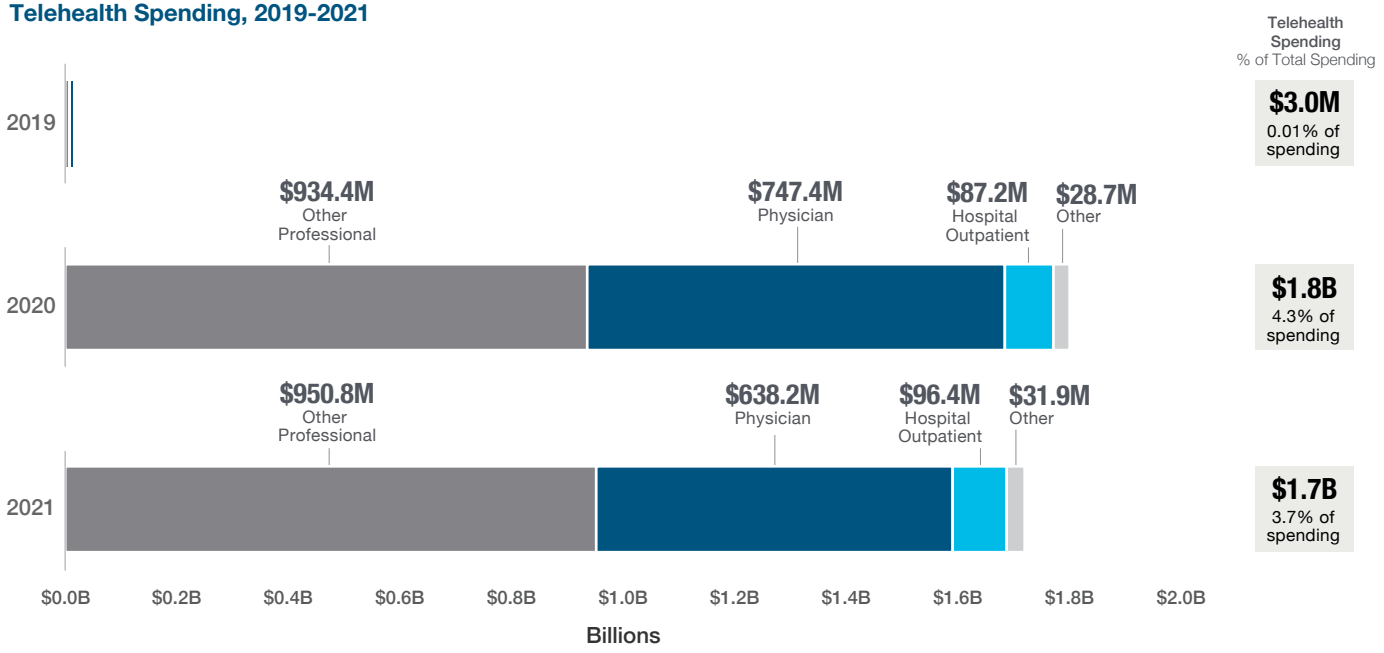
Components of Total Health Care Expenditures:
Telehealth Spending

Total telehealth spending reported by commercial, Medicare Advantage, and MassHealth MCO/ACO-A, ACO-B, PCC, and FFS plans totaled $1.8 billion in 2020 (4.3% of spending) and $1.7 billion in 2021 (3.7% of spending). Commercial telehealth spending increased 1.5% from 2020 to 2021 ($1,188.2 M to $1,206.5 M), while MassHealth telehealth spending decreased 16.5% ($561.0 M to $468.5 M). Medicare Advantage total telehealth spending decreased 12.8% from 2020 to 2021 ($48.5 M to $42.3 M).

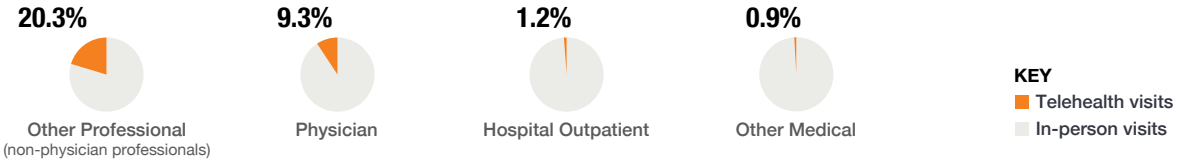
Total telehealth spending increased dramatically from 2019 to 2020 and then declined (-4.5%) from 2020 to 2021. The drop in spending from 2020 to 2021 was driven by decreased physician telehealth spending (-14.6%) while spending across all other service categories continued to increase. Spending for 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 more than half of all telehealth spending in 2020 (52.0%) and 2021 (55.4%). Commercial payers stated that other professional telehealth spending continued to grow in 2021 due to large increases in behavioral health telehealth visits.

Telehealth spending represented 20.3% of total payments to other professionals for all combined insurance categories in 2021. This proportion was highest for commercial at 35.3%, compared to 20.0% for Medicare Advantage, and 11.3% for MassHealth. For all other service categories, the proportion of telehealth spending was relatively consistent across insurance categories.

Telehealth Spending, 2019-2021



Telehealth Spending as a Percentage of Total Service Category Spending, 2021



Populations included: Commercial; MassHealth FFS, PCC, ACO-B, MCO/ACO-A; Medicare Advantage
Represents 84.9% of overall THCE membership

Source: Payer-reported data to CHIA

Notes: The included populations represent 84.9% of overall THCE membership. Aetna and Cigna were excluded due to data quality concerns. Not all payers reported telehealth spending by service category for CY 2019, but those who did not report by service category reported $2.4 million in telehealth spending in 2019; this total is not included in the graph above. Percent changes are calculated based on non-rounded expenditure amounts. Please see databook for detailed information.

Total Health Care Expenditures Notes

1. Pursuant to M.G.L. c.6D §9, the benchmark for 2019 and 2020 is equal to the PGSP minus 0.5% (or 3.1%). Detailed information available at 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. Massachusetts 2021 state population was sourced from the U. S. Census Bureau's yearly population estimates.
4. Public data sourced from the U.S. Bureau of Economic Analysis and the U.S. Bureau of Labor Statistics.
5. Center for Health Information and Analysis. "Enrollment in Health Insurance." 2022. chiamass.gov/enrollment-in-health-insurance/.
6. National trends in Medicare spending are estimated based on data reported to CHIA by CMS.
7. Blue Cross Blue Shield of Massachusetts Foundation prepared by Commonwealth Medicine University of Massachusetts Chan Medical School. "MassHealth: The Basics: Facts and Trends." October 2022. https://www.bluecrossmafoundation.org/sites/g/files/csphws2101/files/2022-10/MassHealthBasics2022_FINAL_1.pdf.
8. U.S. Department of Veterans Affairs. 2022. "National Center for Veterans Analysis and Statistics: Fiscal Year 2021." https://www.va.gov/vetdata/expenditures.asp.
9. Garfield, Rachel, Rachel Dolan, and Elizabeth Williams. 2021. "Costs and Savings under Federal Policy Approaches to Address Medicaid Prescription Drug Spending." KFF. June 22, 2021. https://www.kff.org/medicaid/issue-brief/costs-and-savings-under-federal-policy-approaches-to-address-medicaid-prescription-drug-spending/.
10. 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.
11. 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.
12. Anderson, Gary, Division of Insurance. 2020. "Bulletin 2020-04: Emergency Measures to Address and Stop the Spread of COVID-19 (Coronavirus)." March 16, 2020. https://www.mass.gov/doc/bulletin-2020-04-emergency-measures-to-address-and-stop-the-spread-of-covid-19-coronavirus/download.
13. Department of Public Health, and Executive Office of Health and Human Services. "COVID-19 State of Emergency." Mass.gov. https://www.mass.gov/info-details/covid-19-state-of-emergency.
14. Tsai, Daniel. 2020. "MassHealth All Provider Bulletin 289: MassHealth Coverage and Reimbursement Policy for Services Related to Coronavirus Disease 2019 (COVID-19)." March 2020. https://www.mass.gov/doc/all-provider-bulletin-289-masshealth-coverage-and-reimbursement-policy-for-services-related-to/download.
15. Center for Medicare & Medicaid Services. 2023. "Physicians and Other Clinicians: CMS Flexibilities to Fight COVID-19." February 24, 2023. https://www.cms.gov/files/document/physicians-and-other-clinicians-cms-flexibilities-fight-covid-19.pdf.
16. Administration for Strategic Preparedness & Response, HHS. "List of Public Health Emergency Declarations." Aspr.hhs.gov. https://aspr.hhs.gov/legal/PHE/Pages/default.aspx.
17. General Court of the Commonwealth of Massachusetts. 2020. "Chapter 260 of the Acts of 2020: An Act Promoting A Resilient Health Care System That Puts Patients First." https://malegislature.gov/Laws/SessionLaws/Acts/2020/Chapter260.
18. Massachusetts Health Policy Commission. January 2023. "Telehealth Use in the Commonwealth and Policy Recommendations." https://www.mass.gov/doc/telehealth-use-in-the-commonwealth-and-policy-recommendations/download.
19. FAIR Health. "Monthly Telehealth Regional Tracker." https://www.fairhealth.org/states-by-the-numbers/telehealth.
20. Center for Improving Value in Health Care. November 2022. "Telehealth Service Analysis." https://www.civhc.org/covid-19/telehealth-services-analysis/.
21. Massachusetts Association of Health Plans, Department of Population Medicine, and Massachusetts Health Quality Partners. November 2022. "Bridging the Digital Divide: Advancing Telehealth Equity." https://www.mahp.com/wp-content/uploads/2022/11/WIFI_Study_2022.pdf.
22. Bipartisan Policy Center. October 2022. "The Future of Telehealth after COVID-19: New Opportunities and Challenges." https://bipartisanpolicy.org/report/future-of-telehealth/.
23. Massachusetts Health Policy Commission. January 2023. "Telehealth Use in the Commonwealth and Policy Recommendations." https://www.mass.gov/doc/telehealth-use-in-the-commonwealth-and-policy-recommendations/download.

A Closer Look: COVID-19 Spending

As part of CHIA's fall 2022 TME-APM data collection, commercial payers reported aggregate expenditures for services related to COVID-19. Data displayed in the following charts includes data submitted by 17 commercial health plans with commercial, Medicaid MCO/ACO-A, Medicare Advantage, SCO, PACE, and One Care lines of business. No data was collected for programs solely administered by public payers, such as MassHealth Fee-For-Service or Original Medicare. Data presented represents approximately 68% of total THCE membership. However, MassHealth separately reported $24 million on COVID-19 testing in 2020 and $42.4 million on testing and $12.8 million on vaccinations in 2021 for the Fee-For-Service population.

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. For more information, please see the data specifications and accompaying COVID-19 Related Code List.

Data submitters reported aggregate COVID-19 spending data by COVID-19 expense type and TME service category for CY 2020 and CY 2021. CHIA asked payers to submit data for three mutually-exclusive COVID-19 expense categories: COVID-19 Treatment, Testing and Labs, and Vaccine Administration.

Reported data only includes spending that was able to be captured by insurance carriers. It does not include spending from free city or state clinics that did not collect or require insurance for COVID-19 services, such as free testing or vaccination. Additionally, as the federal government purchased the COVID-19 vaccines in 2020

and 2021, those costs are not included in this analysis; only the administration costs of vaccinations are included. Any other federal, state, or city financial assistance for vaccinations or testing were not included. To identify COVID-19-related treatment spending, payers used their own internal methodologies based on claims diagnoses, often the primary diagnosis but varied at times to be inclusive of primary, secondary, or tertiary diagnoses.

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. •

A Closer Look: COVID-19 Spending

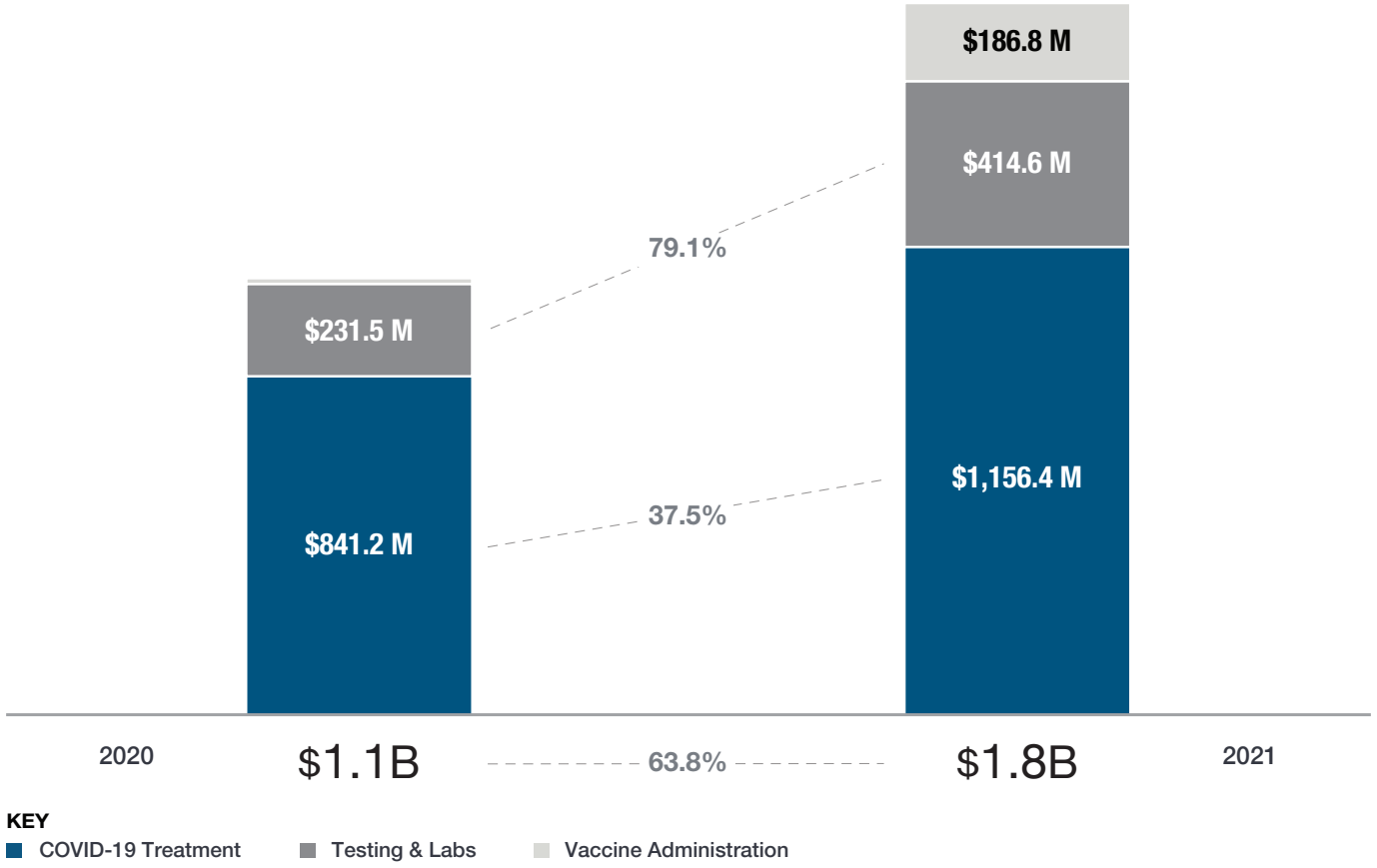
From 2020 to 2021, spending for COVID-19-related services as reported by commercially administered health plans increased 63.8%, from $1.1 billion to $1.8 billion, corresponding with an increase in COVID-19 cases, tests, and vaccinations, as reported through the DPH dashboard.[1]

In both 2020 and 2021, spending for COVID-19 treatment constituted the largest category of spending, increasing 37.5% from $841.2 million to $1.2 billion. During this same time period, annual confirmed COVID-19 cases as reported to the state increased from approximately 374,000 in 2020 to 686,000 in 2021.[2]

Spending for COVID-19 testing and labs increased 79.1% from $231.5 million in 2020 to $414.6 million in 2021. The number of COVID-19 tests administered increased from nearly 11 million in 2020 to over 25 million in 2021. This total reflects spending for tests when covered by insurance. Additionally, this does not include insurance coverage for rapid antigen tests, which was not effective until 2022.[3]

Spending for COVID-19 vaccine administration totaled $186.8 million in 2021, as vaccines became widely available to the public.[4] This total is limited to vaccine administration costs when insurance status was collected, and does not include the direct cost of the vaccine as COVID-19 vaccines were purchased by the federal government.

Spending on COVID-19-Related Services, 2020-2021



Spending on COVID-19-related services increased from 2020 to 2021, as COVID-19 cases, tests, and vaccines increased across the state.

Source: Payer-reported data to CHIA.

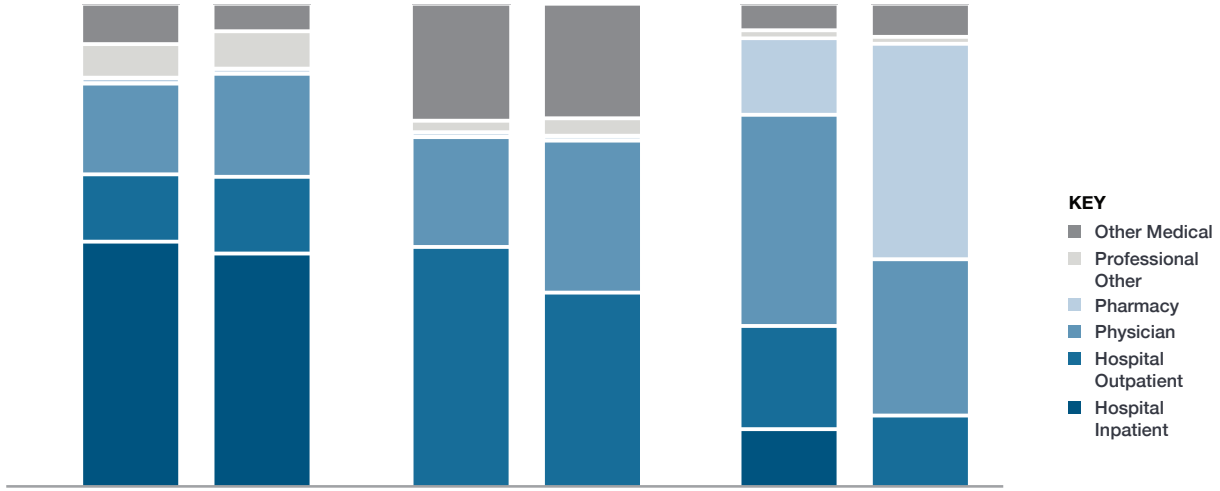
Notes: Percent change of vaccine administration not shown since vaccines were only available to a very limited population in 2020; vaccine administration paid through commercially administered health plans totaled approximately $265K in 2020. COVID-19-related treatment spending may include spending when COVID-19 was not the primary diagnosis. Data represents spending for approximately 68% of total THCE membership, reflecting private commercial, MassHealth MCO/ACO-A, SCO, PACE, One Care, and Medicare Advantage members. Percent changes are calculated based on non-rounded expenditure amounts.

Spending on COVID-19-Related Services by Service Category, 2020-2021

In 2021, total COVID-19-related spending represented 4.8% of total spending reported by commercial payers, up 1.5 percentage points from 2020. Hospital inpatient had the highest proportion of COVID-19-related spending in 2020 and 2021 at 6.9% and at 8.5%, respectively. In 2021, 6.2% of physician and 5.6% of other medical spending were for COVID-19-related services.

Nearly 50% of COVID-19 treatment spending was reported in the hospital inpatient service category, followed by 21.8% reported as physician spending. Forty percent of spending for testing and labs was reported in physician services in 2021, and 23.8% was reported as other medical to reflect lab fees.

In 2020, approximately $265,000 in vaccine administration was allocated across service categories, as vaccines first became available to certain health care workers in December 2020. However, in 2021, a larger portion of vaccine administration costs fell under the pharmacy service category as vaccines were rolled out to the public. Some vaccine administration spending was captured in the other service category, which includes payments to providers for administering vaccines at mass vaccination sites.



	2020	2021	2020	2021	2020	2021
Total COVID-19 Spending	$841.2M	1,156.4M	231.5M	414.6M	0.3M	186.8M

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

	Hospital Inpatient	Physician	Hospital Outpatient	Professional Other	Other Medical	Pharmacy	Total
2020	6.9%	3.6%	3.2%	2.7%	4.6%	0.0%	**3.3%**
2021	8.5%	6.2%	4.4%	3.7%	5.6%	1.1%	**4.8%**

Source: Payer-reported data to CHIA.

Notes: Payers reported COVID-19-related spending data by TME service category. COVID-19-related treatment spending may include spending when COVID-19 was not the primary diagnosis. Data represents spending for approximately 68% of total THCE membership, reflecting private commercial, MassHealth MCO/ACO-A, SCO, PACE, One Care, and Medicare Advantage members.

A Closer Look: COVID-19 Spending Notes

1 Massachusetts Department of Public Health. COVID-19 Response Reporting. Accessed February 22, 2023. https://www.mass.gov/info-details/covid-19-response-reporting.

2 Massachusetts Department of Public Health. COVID-19 Response Reporting. Accessed February 22, 2023. https://www.mass.gov/info-details/covid-19-response-reporting.

3 U.S. Department of Health & 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. January 10, 2022. 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.

4 Mass.gov. Massachusetts' COVID-19 vaccination phases. https://www.mass.gov/info-details/massachusetts-covid-19-vaccination-phases.

Provider and Health System Trends

KEY FINDINGS

Inpatient and emergency department utilization declined from a relatively stable pre-pandemic baseline in months coinciding with peak periods of COVID-19 cases, with partial recovery in intervening periods.

The average length of stay for acute care inpatient hospitalizations had been slowly increasing prior to the COVID-19 pandemic and has continued to increase in FFY 2021 and FFY 2022.

There were 11.4 million nursing facility resident days in 2021, a 2.9% reduction in utilization compared to the prior year.

While all hospital cohorts had positive median total margins in HFY 2021, all reported negative median total margins for HFY 2022 through June 30, 2022.

Provider and Health System Trends

This chapter presents information about trends in the utilization of health care services and financial performance among hospitals and nursing facilities. Now three years into the pandemic, health care providers and residents are still adjusting to the historic impacts of COVID-19.

The first section of this chapter provides an overview of acute hospital inpatient discharges and emergency department visits from 2018 to 2022, using data from the Acute Hospital Case Mix Database. This section also includes information about the trend in the average length of stay for inpatient hospitalizations and the distribution of COVID-19 hospitalizations by payer type and discharge setting.

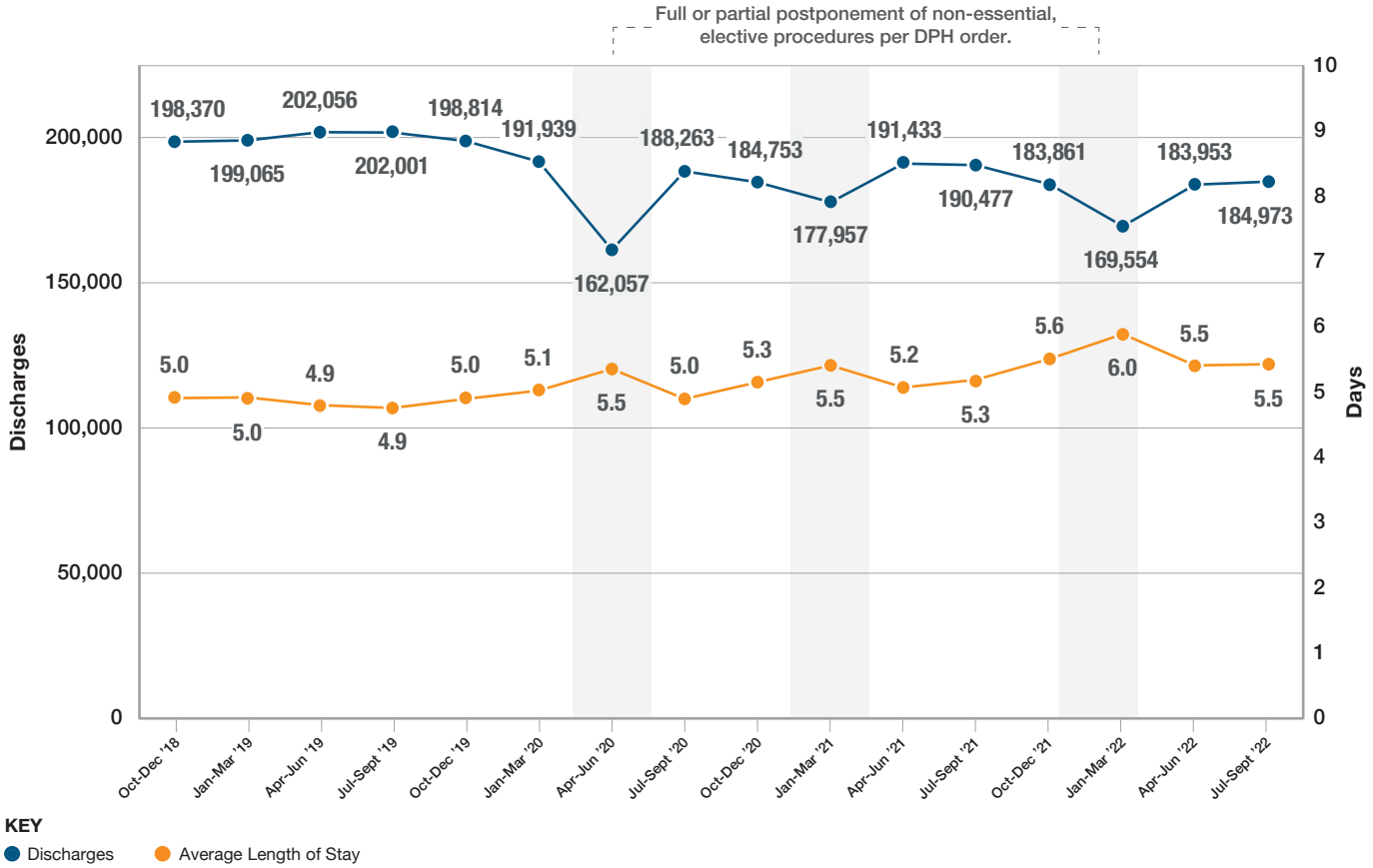
To illustrate the ongoing impact of the pandemic on health system sustainability, the second section outlines trends in financial performance among acute hospitals for fiscal years 2017 to 2021, as well as a look at the quarterly financial performance for hospital fiscal year 2022 through June 30, 2022. 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. •

Total Acute Care Hospital Inpatient Discharges, October 2018-September 2022

Prior to the COVID-19 pandemic, total acute care inpatient hospitalizations 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 peak periods of COVID-19 cases. At the same time, the average length of stay among inpatient hospitalizations increased over this period, with peaks during the months when COVID-19 cases were highest.

The observed drops in inpatient volume are mainly attributable to a decrease in the number of adult non-obstetric hospitalizations, particularly planned admissions for procedures such as hip and knee replacements. The timing of these trends is consistent with directives for providers to postpone some or all nonessential, elective procedures during peak periods of COVID-19 cases in the Commonwealth.

Despite moderate declines in inpatient volume, increases in the average length of stay during this time period due to throughput challenges and shifts in the type and severity of conditions, among other factors, have resulted in significant strains on hospital capacity.



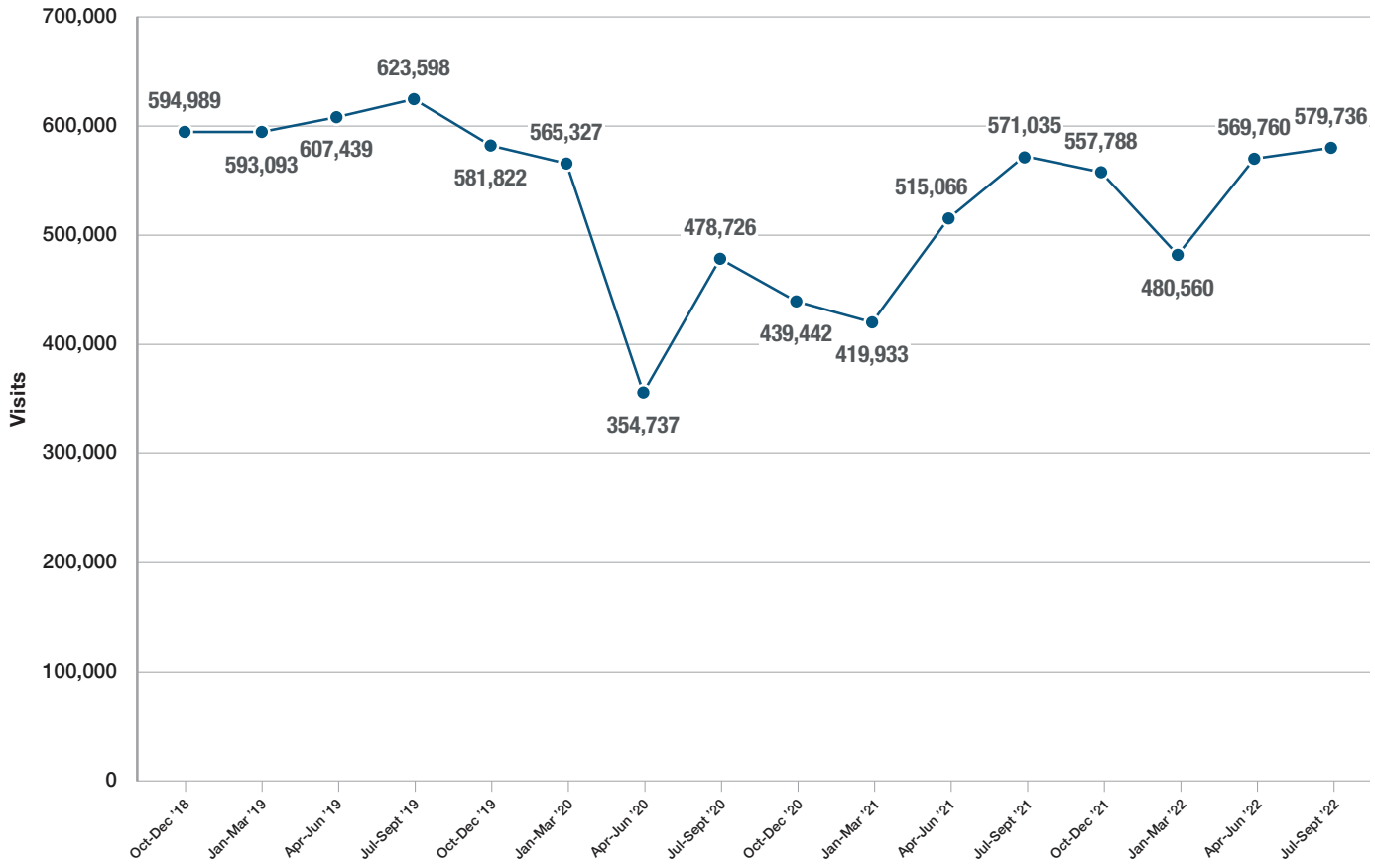
Between 2018 and 2022, overall inpatient discharge volume decreased while the average length of stay increased.

Source: Hospital Inpatient Discharge Database (HIDD), FFY 2019-2022.

Notes: Total hospitalizations and average length of stay by quarter were counted based on date of discharge. HIDD data for FFY 2022 (October 2020 to September 2022) are not considered final and are subject to change. Due to incomplete data in FFY 2021, Sturdy Memorial Hospital, which comprised slightly less than 1% of inpatient discharges in other years, was excluded from this analysis. Please see the technical appendix to this report for details of average length of stay calculations and the CHIA website for the most up-to-date information on inpatient utilization.

Prior to the start of the COVID-19 pandemic, treat-and-release emergency department (ED) visits were relatively stable from month to month. These ED 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 visits has fluctuated considerably, with drops during peak periods of COVID-19 cases and partially rebounding volumes outside of these periods.

Total Acute Care Hospital Emergency Department Treat-and-Release Visits, October 2018-September 2022



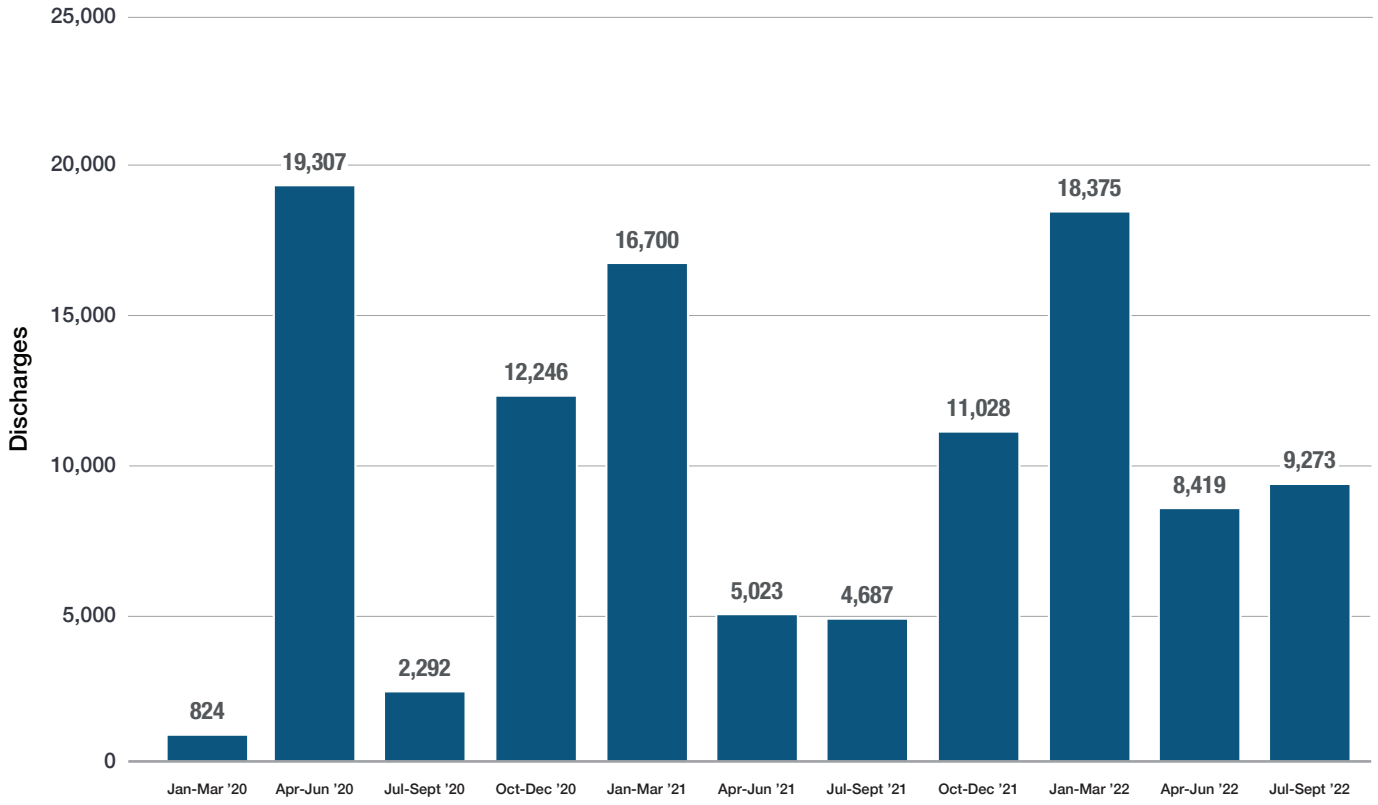
Similar to trends in inpatient hospitalizations, the volume of treat-and-release ED visits fell during peak periods of COVID-19 cases.

Source: Emergency Department Database (EDD), FFY 2019 to 2022.

Notes: Treat-and-release ED visits are emergency department visits not associated with an inpatient admission or an outpatient observation stay. Total treat-and-release ED visits by quarter were counted based on the date of departure from ED. EDD data for FFY 2022 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.

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

Acute Care Hospital Inpatient Discharges Related to COVID-19, January 2020-September 2022



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

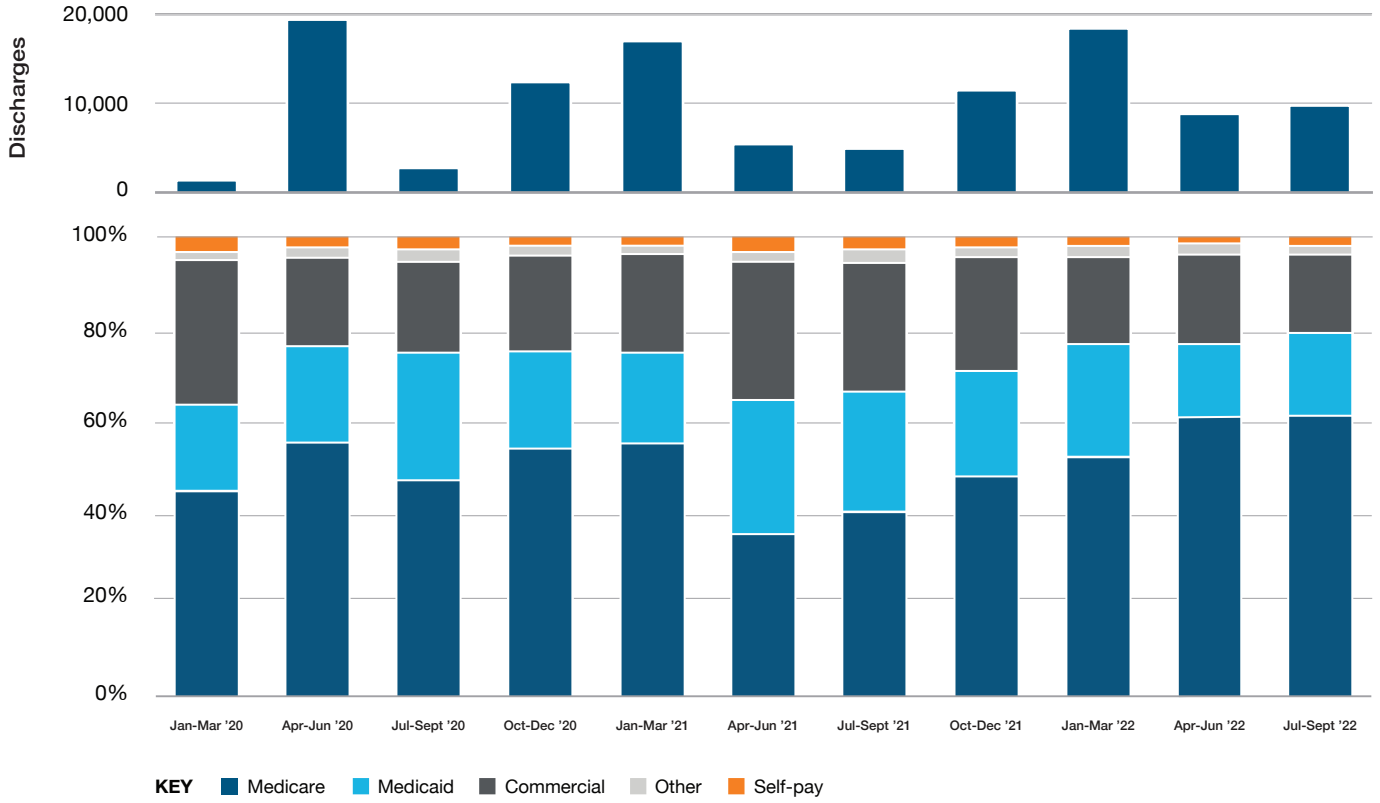
Source: Hospital Inpatient Discharge Database (HIDD), FFY 2020-2022.

Notes: Hospitalizations associated with COVID-19 by quarter were counted based on the date of discharge. HIDD data for FFY 2022 (October 2020 to September 2022) are not considered final and are subject to change. Due to incomplete data in FFY 2021, Sturdy Memorial Hospital, which comprised slightly less than 1% of inpatient discharges in other years, was excluded from this analysis. A discharge was classified as being associated with COVID-19 if it had a primary or secondary ICD-10-CM diagnosis indicating confirmed or suspected COVID-19 and a date of admission on or after April 1, 2020, or a primary or secondary diagnosis of other (not SARS-associated) coronavirus and a date of admission on or before March 31, 2020. Starting January 1, 2021, new ICD-10-CM codes were added related to COVID-19, including J12.82 (Pneumonia due to coronavirus disease 2019).

Please see the CHIA website for the most up-to-date information on inpatient utilization.

Prior to the COVID-19 pandemic, inpatient hospitalizations with an expected primary payer type of Medicare typically made up slightly less than half of total inpatient volume. Throughout the pandemic, this share was higher among inpatient hospitalizations associated with a diagnosis of COVID-19; over half of these hospitalizations had Medicare as the expected primary payer type. The share of hospitalizations associated with COVID-19 with an expected primary payer type of Medicare was especially high in peak periods of COVID-19 cases in Massachusetts. During non-peak times, the distribution of expected primary type was closer to the non-COVID-19 and pre-pandemic baseline inpatient volumes.

Acute Care Hospital Inpatient Discharges Related to COVID-19 by Expected Primary Payer Type, January 2020-September 2022



About half of inpatient hospitalizations associated with COVID-19 had Medicare as the expected primary payer type.

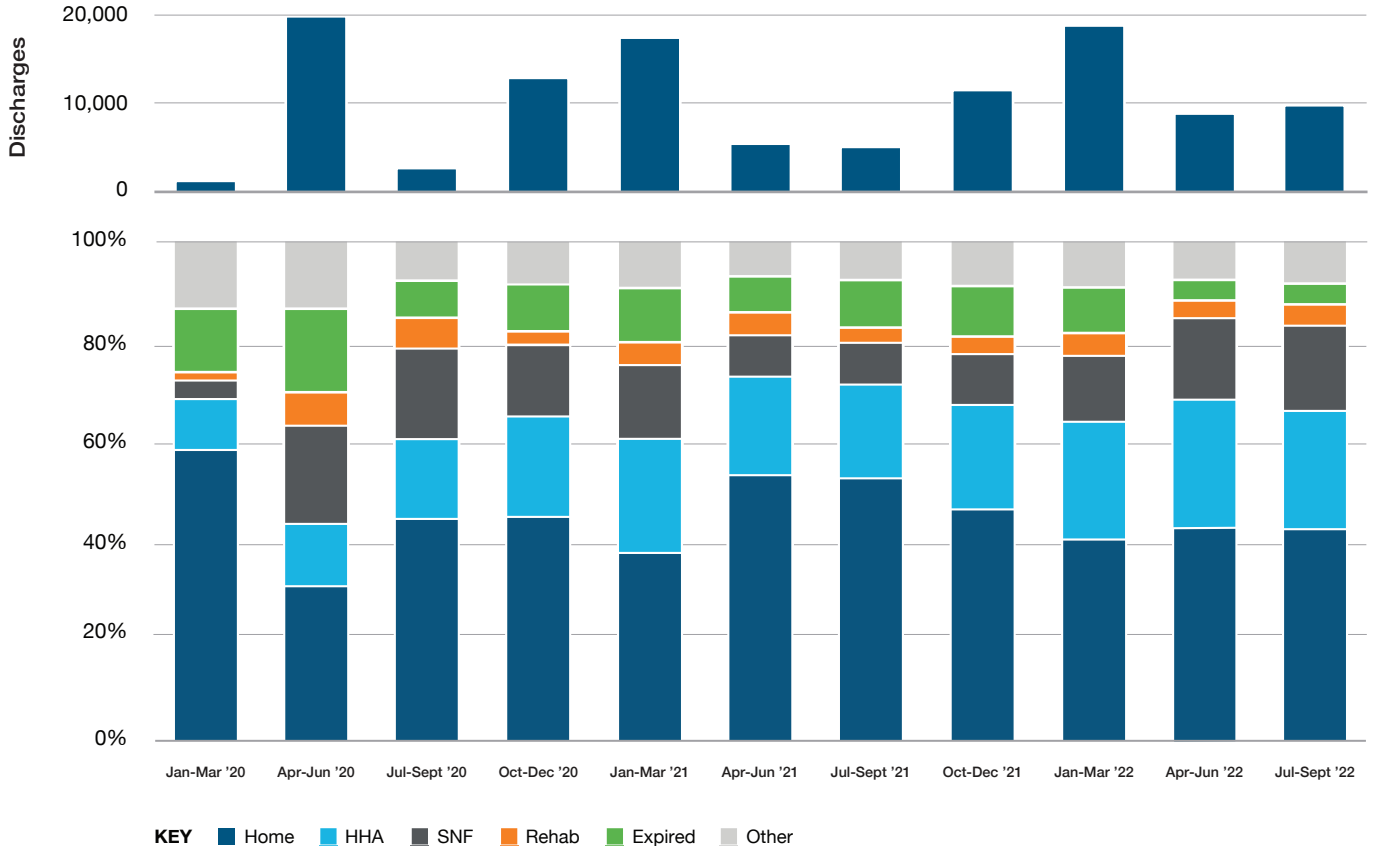
Source: Hospital Inpatient Discharge Database (HIDD), FFY 2020-2022.

Notes: Hospitalizations associated with COVID-19 by quarter were counted based on the date of discharge. Data from the FFY 2022 HIDD (October 2020 to September 2022) are not considered final and are subject to change. Due to incomplete data in FFY 2021, Sturdy Memorial Hospital, which comprised slightly less than 1% of inpatient discharges in other years, was excluded from this analysis. Payer type is the expected primary payer on the discharge as reported by the hospital. For this analysis, payer type categories were derived from payer source codes and assigned to five categories: Medicare, Medicaid, commercial, self-pay, and other. Medicare includes traditional Medicare and Medicare Advantage. There were 28 discharges associated with COVID-19 with a missing expected primary payer type, comprising less than 0.1% of COVID-related discharges; these were suppressed from the graphic.

Please see the CHIA website for the most up-to-date information on inpatient utilization.

During peak periods of COVID-19 cases, more acute care inpatient hospitalizations associated with a COVID-19 diagnosis resulted in a discharge to a rehabilitation facility or skilled nursing facility (SNF), and fewer resulted in a discharge to home, as compared to non-peak periods. Additionally, COVID-19 was also associated with higher in-hospital mortality, with 17% of all inpatient hospitalizations associated with COVID-19 resulting in the death of the patient in the hospital between April and June 2020.

Acute Care Hospital Inpatient Discharges Related to COVID-19 by Discharge Setting, January 2020-September 2022



Over the course of the pandemic, inpatient hospitalizations associated with COVID-19 were increasingly more likely to result in a discharge to HHA.

Source: Hospital Inpatient Discharge Database (HIDD), FFY 2020-2022.

Notes: Hospitalizations associated with COVID-19 by quarter were counted based on the date of discharge. HIDD data for FFY 2022 (October 2020 to September 2022) are not considered final and are subject to change. Due to incomplete data in FFY 2021, Sturdy Memorial Hospital, which comprised slightly less than 1% of inpatient discharges in other years, was excluded from analyses using data from the HIDD. For this analysis, discharge setting information reported by the facility was classified into one of six mutually exclusive categories: home, home with home health agency care (HHA), skilled nursing facility (SNF), rehabilitation (or rehab), expired (death of patient in hospital), or other. There were two discharges associated with COVID-19 with a missing discharge setting, comprising less than 0.1% of COVID-related discharges; these were suppressed from the graphic.

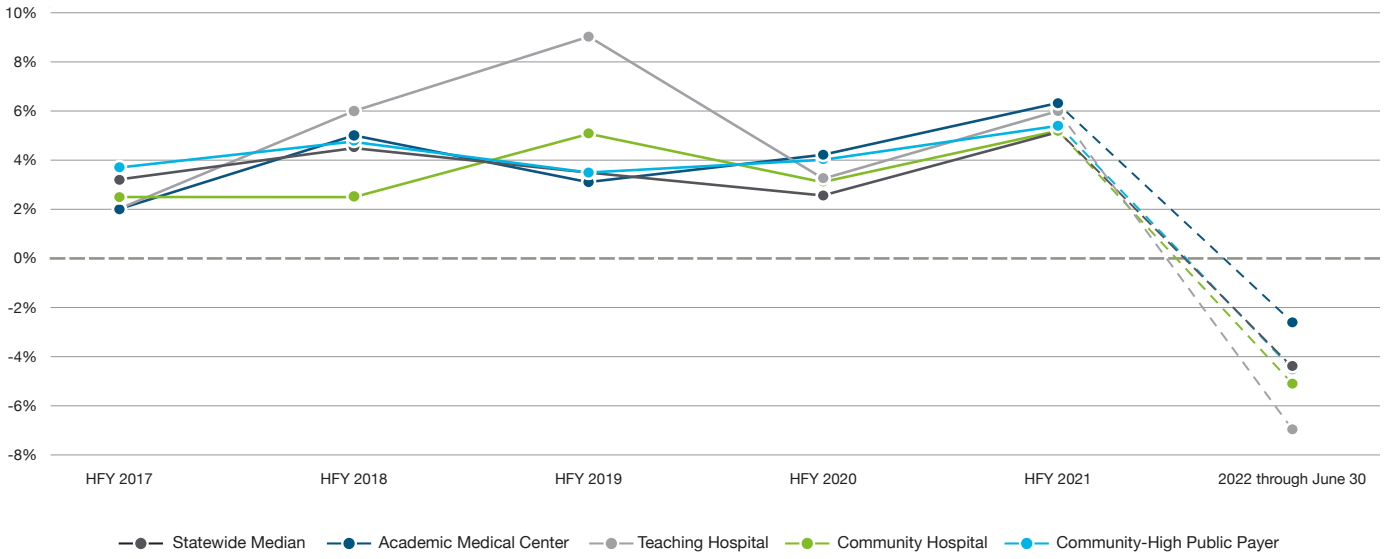
Please see the CHIA website for the most up-to-date information on inpatient utilization.

Total Margin Trends by Hospital Cohort

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 increased by 2.6 percentage points, from 2.6% in HFY 2020 to 5.2% in HFY 2021. Forty-eight of 59 hospitals reported positive total margins in HFY 2021. All four cohorts reported increases in median total margin during that period.[1] HFY 2021 margins include $386 million in COVID-19 relief funding reported as operating revenue compared to $2.1 billion in HFY 2020.

In the quarterly data for HFY 2022, the statewide median total margin through June 30, 2022 was -4.4%. Thirteen of 59 hospitals reported positive total margins through June 30, 2022. All four cohorts reported negative total margins. The quarterly data through June 30 includes 59 of 61 acute hospitals.



	HFY 2017	HFY 2018	HFY 2019	HFY 2020	HFY 2021	June 30, 2022
Statewide Median	**3.2%**	**4.5%**	**3.5%**	**2.6%**	**5.2%**	**-4.4%**
Academic Medical Center	2.0%	5.0%	3.1%	4.2%	6.3%	-2.6%
Teaching Hospital	2.0%	6.0%	9.0%	3.2%	6.0%	-7.0%
Community Hospital	2.5%	2.5%	5.1%	3.1%	5.2%	-5.1%
Community-High Public Payer	3.7%	4.8%	3.5%	4.0%	5.4%	-4.5%

The median acute hospital total margin in HFY 2021 was 5.2%, an increase of 2.6 percentage points from the prior fiscal year. While all hospital cohorts had positive median total margins in HFY 2021, all reported negative median total margins for HFY 2022 through June 30, 2022.

Source: Standardized Annual and Quarterly Financial Statements.

Notes: Heywood Healthcare was not able to submit HFY 2021 financial data in time to be included in this publication. Steward Health Care submitted standardized financial statement data for their eight hospitals, but did not submit audited financial statements. Due to this, their data was unable to be independently verified. The statewide acute hospital median includes specialty hospitals. Annual data for HFY 2017-2021 includes 12 months of fiscal year-end data for all hospitals based on each entity's year-end date. Quarterly data for HFY 2022 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.

Operating and Non-Operating Trends by Hospital Cohort

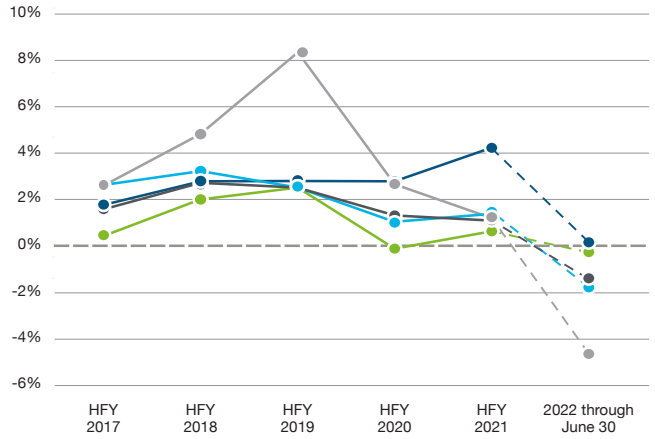
Operating margin reflects the excess of operating revenues over operating expenses, including patient care and other activities, as a percentage of total revenue. The operating margins include COVID-19 relief funding reported as operating revenue.

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.

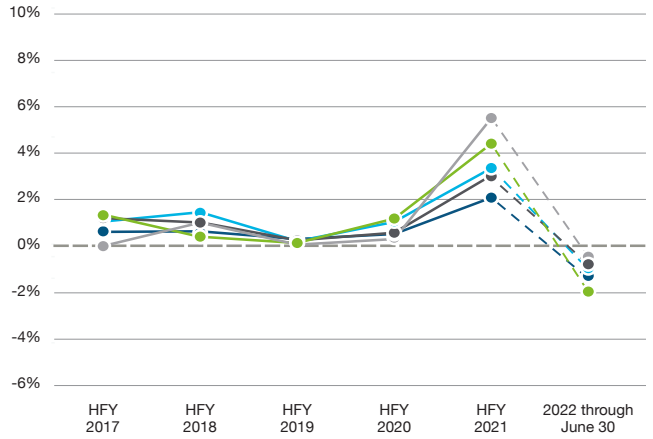
The statewide acute hospital median operating margin decreased by 0.2 percentage points from HFY 2020 to HFY 2021, from 1.3% to 1.1%. The median operating margin in HFY 2022 through June 30, 2022 was -1.4%, a further decrease of 2.5 percentage points compared to HFY 2021.

The statewide acute hospital median non-operating margin increased by 2.5 percentage points from HFY 2020 to HFY 2021. All cohorts reported an increase in median non-operating margin. The median non-operating margin in HFY 2022 through June 30 was -0.8%. All cohorts reported negative non-operating margins in HFY 2022 through June 30, 2022.

Operating Margin



Non-Operating Margin



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

	HFY 2017	HFY 2018	HFY 2019	HFY 2020	HFY 2021	June 30, 2022
Statewide Median	**1.6%**	**2.7%**	**2.5%**	**1.3%**	**1.1%**	**-1.4%**
Academic Medical Center	1.8%	2.8%	2.8%	2.8%	4.2%	0.2%
Teaching Hospital	2.7%	4.8%	8.3%	2.6%	1.2%	-4.7%
Community Hospital	0.4%	2.0%	2.5%	-0.1%	0.6%	-0.3%
Community-High Public Payer	2.6%	3.2%	2.5%	1.0%	1.4%	-1.8%

	HFY 2017	HFY 2018	HFY 2019	HFY 2020	HFY 2021	June 30, 2022
Statewide Median	**1.2%**	**1.0%**	**0.2%**	**0.5%**	**3.0%**	**-0.8%**
Academic Medical Center	0.6%	0.6%	0.3%	0.5%	2.1%	-1.3%
Teaching Hospital	0.0%	1.0%	0.0%	0.3%	5.5%	-0.6%
Community Hospital	1.3%	0.4%	0.1%	1.1%	4.4%	-2.0%
Community-High Public Payer	1.1%	1.4%	0.2%	1.0%	3.3%	-1.0%

The statewide median acute hospital operating and non-operating margins were 1.1% and 3.0%, respectively, in HFY 2021. However, in HFY 2022 through June 30, 2022 the reported statewide median acute hospital operating and non-operating margins were both negative.

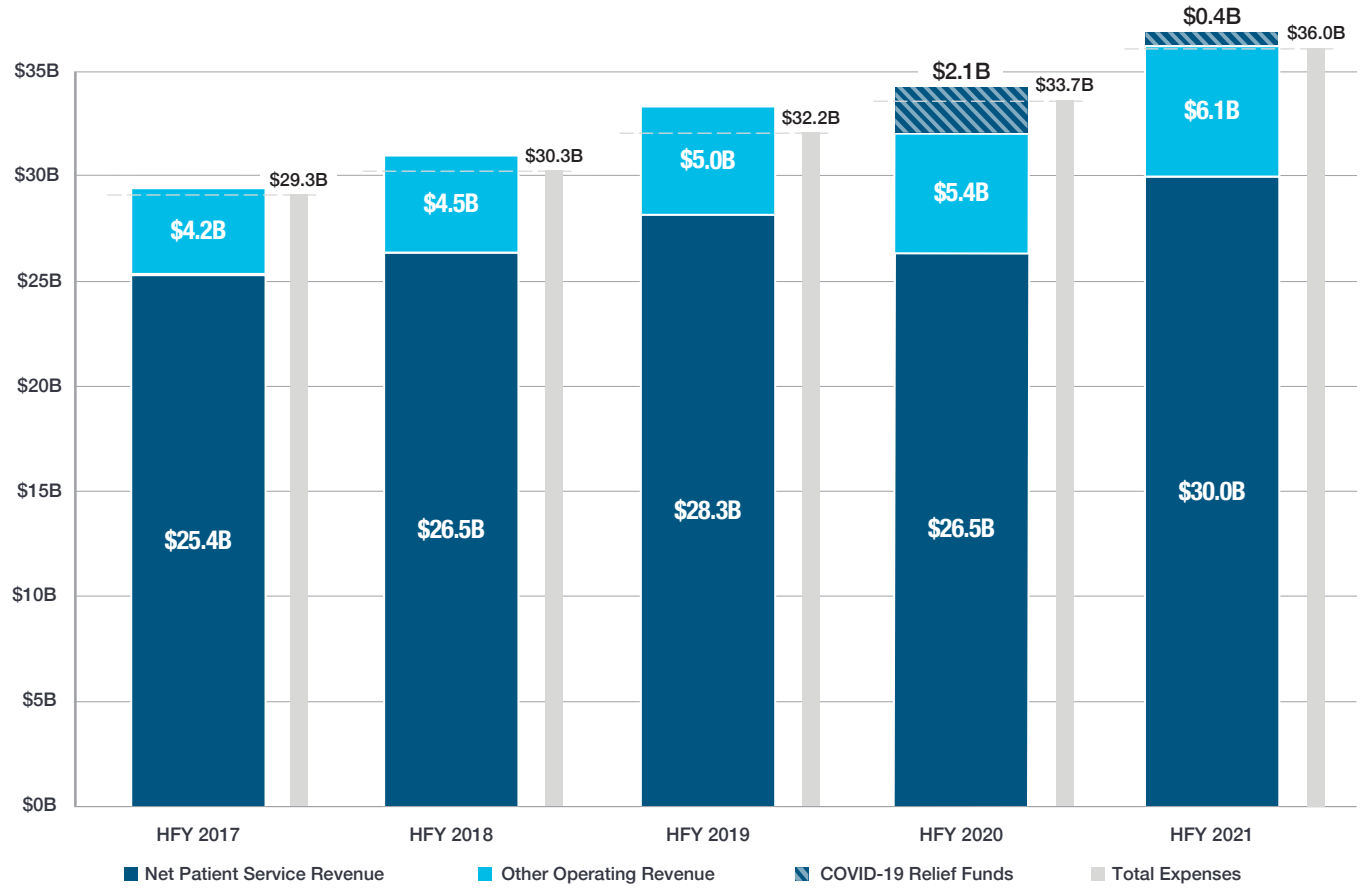
Source: Standardized Annual and Quarterly Financial Statements

Notes: Heywood Healthcare was not able to submit HFY 2021 financial data in time to be included in this publication. Steward Health Care submitted standardized financial statement data for their eight hospitals, but did not submit audited financial statements. Due to this, their data was unable to be independently verified. The statewide acute hospital median includes specialty hospitals. Annual data for HFY 2017-2021 includes 12 months of fiscal year-end data for all hospitals based on each entity's year-end date. Quarterly data for HFY 2022 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.

Hospital Operating Revenue and Expense Trends

In HFY 2021, aggregate total operating revenue increased by $2.5 billion (7.1%) when compared to the prior fiscal year. Hospitals reported $386 million in total COVID-19 relief funds in their operating revenue in HFY 2021, as compared to $2.1 billion in the prior year. Aggregate net patient service revenue, the most significant component of operating revenue, increased by $3.5 billion (13.1%) from the prior year in HFY 2021, as compared to a $1.8 billion decrease (-6.3%) from the prior year reported in HFY 2020.

Aggregate expenses increased $2.4 billion (7.1%) in HFY 2021 as compared to the prior fiscal year.



Aggregate Net Patient Service Revenue returned to pre-pandemic levels in HFY 2021. Aggregate expenses totaled $36 billion in HFY 2021, an increase of 7.1% from the prior fiscal year.

Source: Standardized Annual and Quarterly Financial Statements

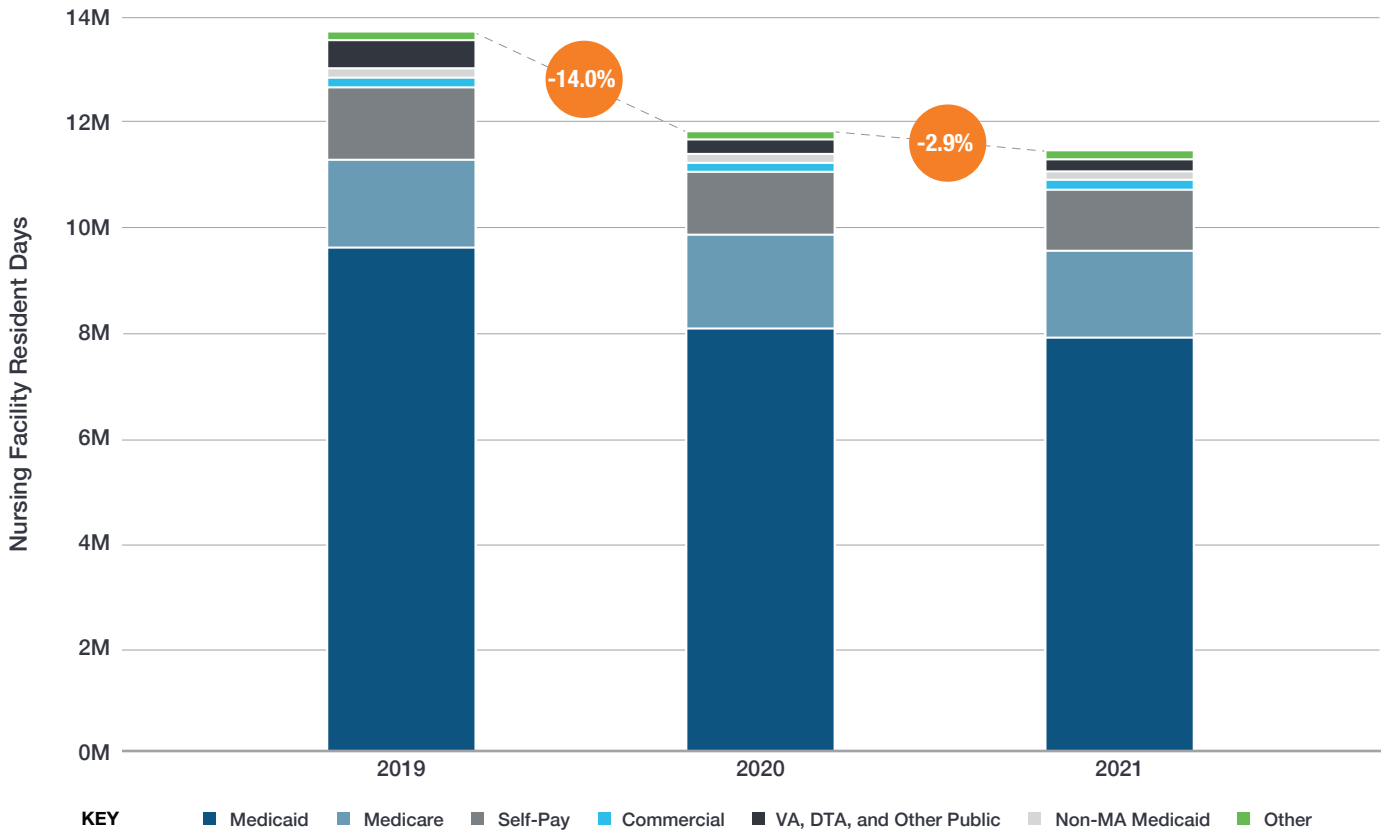
Notes: Heywood Healthcare was not able to submit HFY 2021 financial data in time to be included in this publication. Steward Health Care submitted standardized financial statement data for their eight hospitals, but did not submit audited financial statements. Due to this, their data was unable to be independently verified. Beth Israel Lahey Health became financially consolidated in March 2019. Due to this for HFY 2019, seven months of financial data was reported for the system and its affiliated hospitals representing the period from March 1 through September 30, 2019. For comparative purposes, the HFY 2019 revenue and expenses were annualized to represent 12 months of data.

Nursing Facility Utilization, by Payer Type

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 16.5% from 2019 to 2021, with the majority of the decrease taking place between 2019 and 2020; total resident days decreased by 14.0% between 2019 and 2020, and then further by 2.9% between 2020 and 2021. Payers experienced this overall decline at different rates. Medicaid resident days declined by 18.2% from 2019 to 2021, while self-pay days declined by 17.9%, and Medicare resident days remained stable. The utilization decline seen in 2020 is likely due to a number of factors related to the COVID-19 public health emergency, 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 2021, there were 11.4 million overall resident days, of which 93.4% were covered by three payers. Medicaid, the largest payer, covered 7.8 million resident days in 2021, or 68.7% of all days. Medicare was the second largest payer in 2021, covering 1.7 million resident days, or 14.6% of all days. This was followed by self-pay residents, which comprised 1.1 million days, or 10.1% of days. Private insurance and other government programs covered the remaining 6.6% of overall resident days.

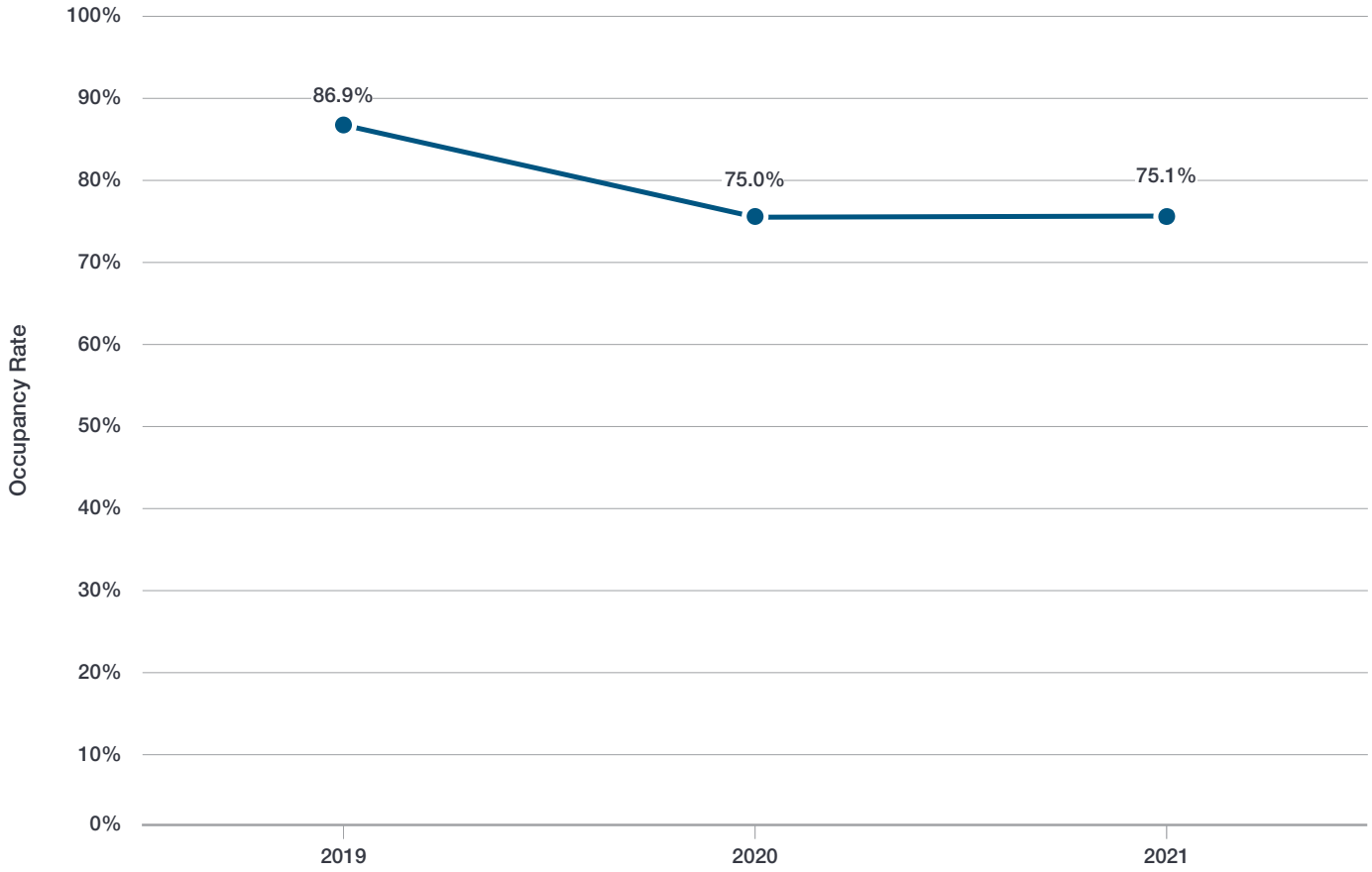


Overall nursing facility resident days declined by 16.5% between 2019 and 2021.

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

Nursing Facility Annual Occupancy Rates

Occupancy rates are used to examine the actual utilization of a facility compared to capacity. Occupancy rates can be an indicator of financial stability as higher occupancy generates increased income to offset both fixed and variable expenses. The system-level occupancy rates depicted here measure the total filled beds across all nursing facilities, as a percentage of total licensed beds for a given year. Nursing facility occupancy decreased by 11.8 percentage points between 2019 and 2021, falling from 86.9% to 75.1%.



Nursing facility occupancy decreased from 86.9% in 2019 to 75.1% in 2021.

Notes: Where occupancy measures are presented in this slide (aggregate occupancy) and the next slide (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.

Total Facilities, Total Beds, and Median Occupancy by County, 2021

In 2021, there were 349 total nursing facilities that served MassHealth or other publicly aided residents in Massachusetts. While the aggregate system-level occupancy rate was 75.1%, the median occupancy rate statewide was 76.5%. Excluding the two counties with only one facility each, Franklin County had the fewest nursing facilities and licensed beds, with three total facilities and 306 beds in 2021. Middlesex County had the highest number of total facilities and licensed beds, totaling 69 nursing facilities and 8,528 beds.

Excluding the two counties with only one facility each, Bristol County had the lowest median occupancy rate among all counties in 2021, at 73.4% across 30 nursing facilities. Essex County had the next-lowest median occupancy rate, at 74.3% across 47 facilities in 2021.

Median occupancy rates—statewide and in each county—were lower in 2021 as compared to 2019. In all but two counties (Hampshire and Nantucket), the median occupancy rate decreased by more than 10% as compared to 2019.

County	Total Facilities	Licensed Beds	Median Occupancy
Barnstable	16	1,767	75.3%
Berkshire	12	1,357	75.9%
Bristol	30	3,894	73.4%
Dukes	1	61	54.0%
Essex	47	5,209	74.3%
Franklin	3	306	79.2%
Hampden	28	3,262	77.7%
Hampshire	6	757	78.7%
Middlesex	69	8,528	78.4%
Nantucket	1	45	79.1%
Norfolk	36	4,029	75.1%
Plymouth	28	3,321	75.8%
Suffolk	23	2,976	79.4%
Worcester	49	5,882	80.2%
Total	**349**	**41,394**	**76.5%**

KEY

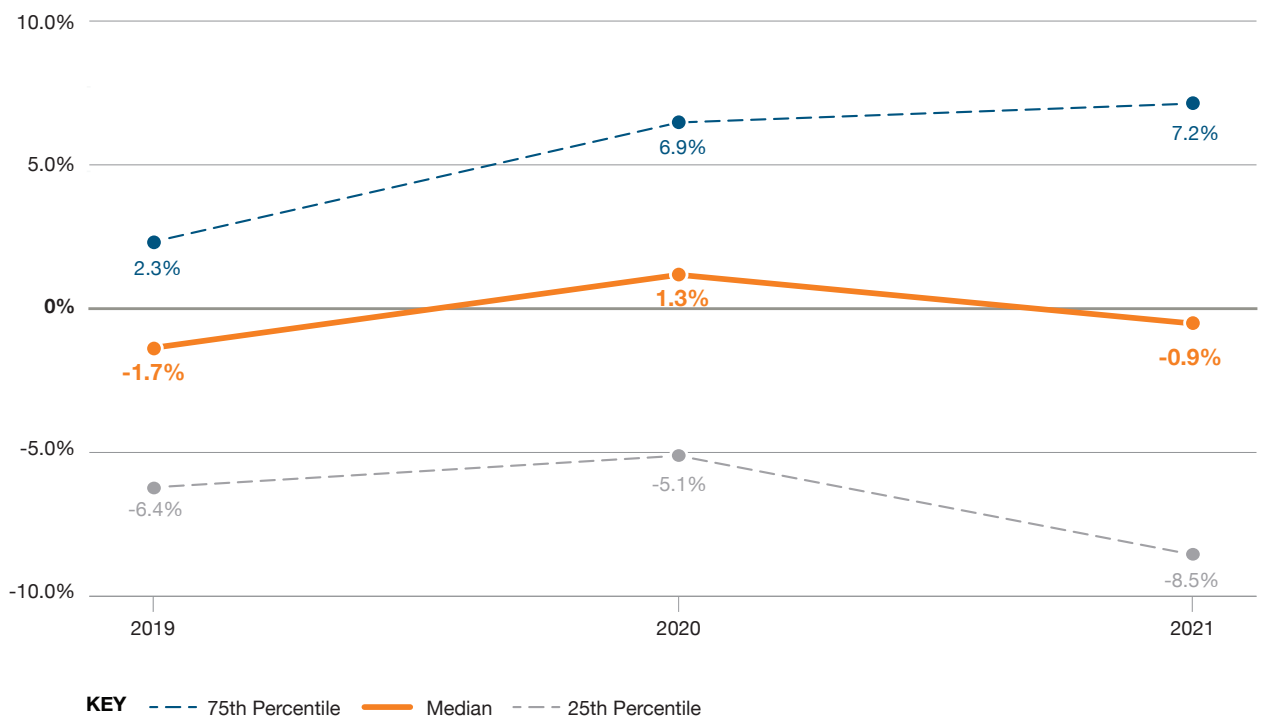
Decrease between 5 and 10% compared to 2019

Decrease by >10% compared to 2019

Middlesex County had the highest number of total facilities and licensed beds in 2021, while Franklin County had the lowest among counties with more than one facility.

Nursing Facility Median Total Margin

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. In 2020 and 2021, total revenue reported by nursing facilities also included state and federal payments received related to the COVID-19 public health emergency. These funds were included in the total margin reported in 2020 and 2021. The system-wide median total margin increased from -1.7% in 2019 to -0.9% in 2021.

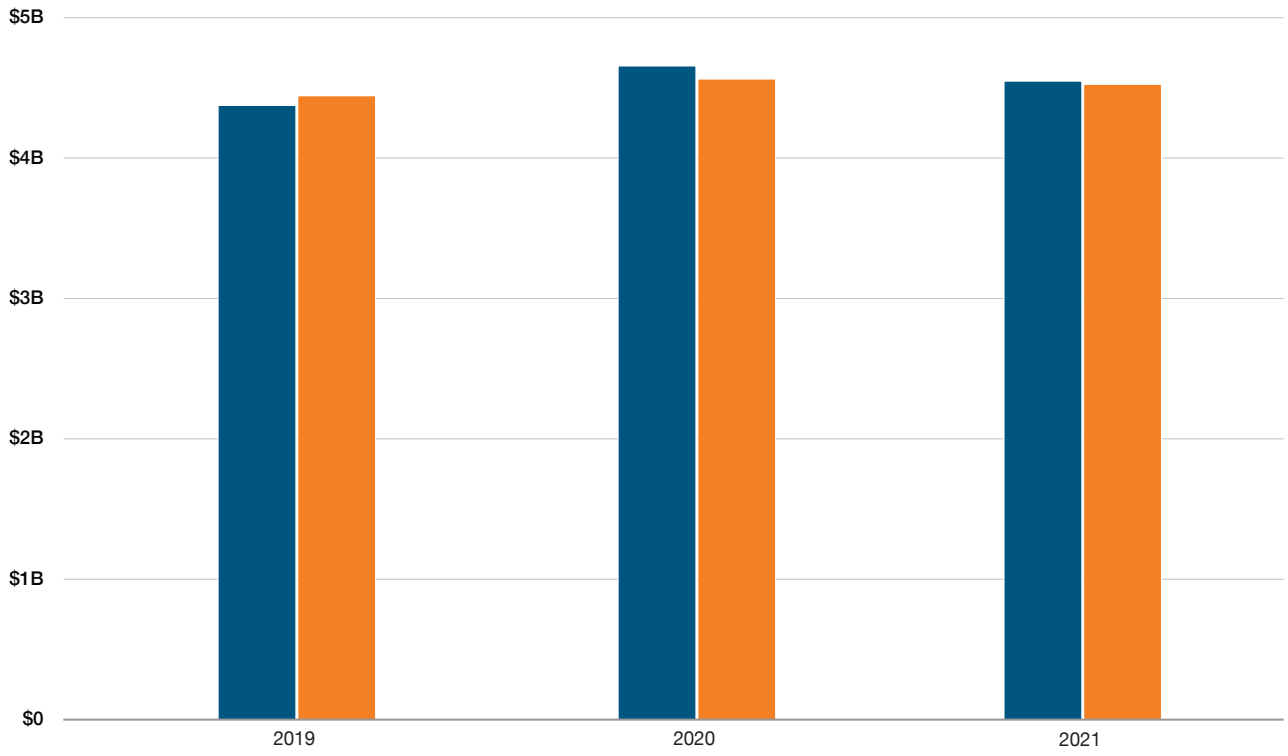


The nursing facility median total margin increased from -1.7% in 2019 to -0.9% in 2021.

Note: Reflects updates to the calculation of CY 2019 and CY 2020 profit margin as compared to the Annual Report published in 2022.

In 2020 and 2021, with the inclusion of COVID-19-related funding received by nursing facilities, the total reported revenue slightly exceeded reported expenses, unlike in 2019. During the public health emergency, both the Commonwealth and the federal government provided support to nursing facilities, which included both financial support (reflected in this chart), and in-kind services such as clinical staff augmentation and rapid testing supplies (not reflected in this chart).

Nursing Facility Total Revenue and Expenses



	2019	2020	2021
Total Reported Revenue	4,357.3	4,640.4	4,529.2
Total Reported Expense	4,438.8	4,562.2	4,506.2

Expressed in millions of dollars.

In 2020 and 2021, the total revenue including COVID relief funding slightly exceeded total expenses.

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 2020 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 full-time 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.

Behavioral Health

KEY FINDINGS

Behavioral health spending represented 6.6% of total commercial expenditures, 15.9% for Medicaid MCO/ACO-As, and 1.9% for Medicare Advantage plans.

Substance use disorder-related spending represented 33.3% of Medicaid MCO/ACO-A behavioral health spending, compared to 17.1% for Medicare Advantage, and 12.3% for commercial plans.

Member cost-sharing represented a greater proportion of behavioral health spending compared to all other services for commercial and Medicare Advantage members.

Total statewide outpatient visits reported at freestanding psychiatric and behavioral health hospitals and state-operated facilities increased 8.8% from HFY 2020 to HFY 2021 after a 5.7% decrease from HFY 2019 to HFY 2020.

Behavioral Health

Accessing care for behavioral health, which includes mental health and substance use disorders, life stressors and crises, and stress-related physical symptoms, has long been a challenge for Massachusetts residents.[1] In 2021, 12.4% of Massachusetts adults reported poor mental health for at least 15 days during the past month.[2] In a separate survey of Massachusetts residents, 8.3% reported that they or a family member in their household had a need for mental health care or counseling that went unmet due to cost.[3] Additionally, due to capacity constraints in both acute psychiatric inpatient settings and community behavioral health services, a growing share of patients seen in Massachusetts emergency departments (EDs) for behavioral health conditions has resulted in the patient staying longer than necessary. CHIA is currently analyzing these visits to better understand the factors contributing to the probability and duration of boarding of these patients in the ED, to be published in the near future. In recent years, these existing workforce and capacity shortages, combined with affordability issues, service fragmentation, and increasing prevalence and severity of conditions have all been exacerbated by the COVID-19 pandemic, making behavioral health an area of increasing public policy focus.[4]

In 2022, Massachusetts enacted legislation 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..."[5] This new chapter presents several measures overviewing behavioral health care in Massachusetts, including how much insurers and patients paid for services, 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. Included measures utilize several data assets, including aggregate data reported by payers, provider-reported cost reports, as well as provider-reported discharge- and visit-level datasets. This chapter 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.[6]

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 the MassHealth program and traditional Medicare, as well as self-pay. Spending measures reflect only commercial plans, including the commercially administered MassHealth MCO/ACO-A and Medicare Advantage lines of business, but capture payments made for all types of inpatient and outpatient behavioral health services.

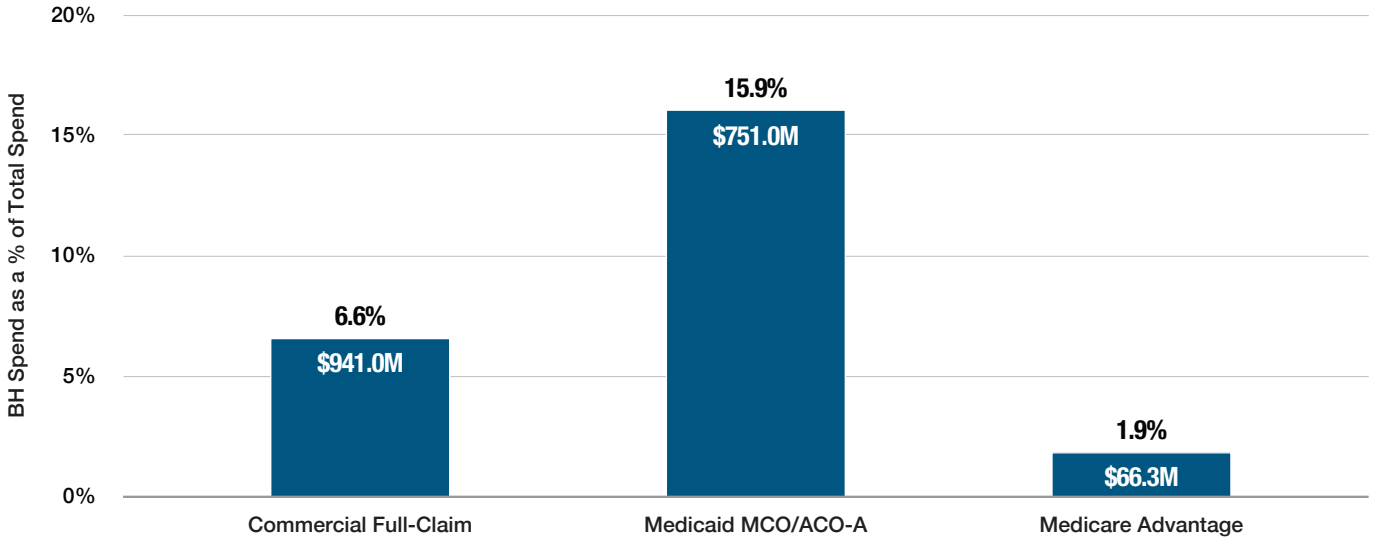
More detailed information about behavioral health in Massachusetts can be found in other CHIA reports, including Behavioral Health and Readmissions in Acute Care Hospitals, Behavioral Health Expenditures, and Psychiatric and Specialty Care Hospital Profiles. •

Behavioral Health Spending by Insurance Category, 2021

Commercial spending on behavioral health services for members for whom all claims data was available (commercial full-claim) totaled $941.0 million in 2021, representing 6.6% of total medical spending. Behavioral health spending for members in Medicaid MCO/ACO-A plans comprised 15.9% of spending in 2021, totaling $751.0 million. Medicare Advantage behavioral health spending totaled $66.3 million in 2021, representing 1.9% of Medicare Advantage spending.

In 2021, 18.9% of commercial members had a behavioral health diagnosis, compared to 23.8% of Medicaid MCO/ACO-A members and 18.6% of Medicare Advantage members.

Behavioral health spending was defined by identifying specific combinations of procedure, place of service, revenue, and provider codes for medical claims with a principal behavioral health diagnosis. For additional detail on diagnoses and code lists for services classified as behavioral health, see the Primary Care and Behavioral Health data specifications.[7]



	Commercial Full-Claim	Medicaid MCO/ACO-A	Medicare Advantage
Total Member Months	24.0M	9.1M	3.3M
Percent of Members with a Behavioral Health Diagnosis	18.9%	23.8%	18.6%
Total Expenditures	$14.3B	$4.7B	$3.5B
Behavioral Health Expenditures	$941.0M	$751.0M	$66.3M

Behavioral health spending represented 6.6% of total commercial expenditures, 15.9% for Medicaid MCO/ACO-As, and 1.9% for Medicare Advantage plans.

Source: Payer-reported data to CHIA.

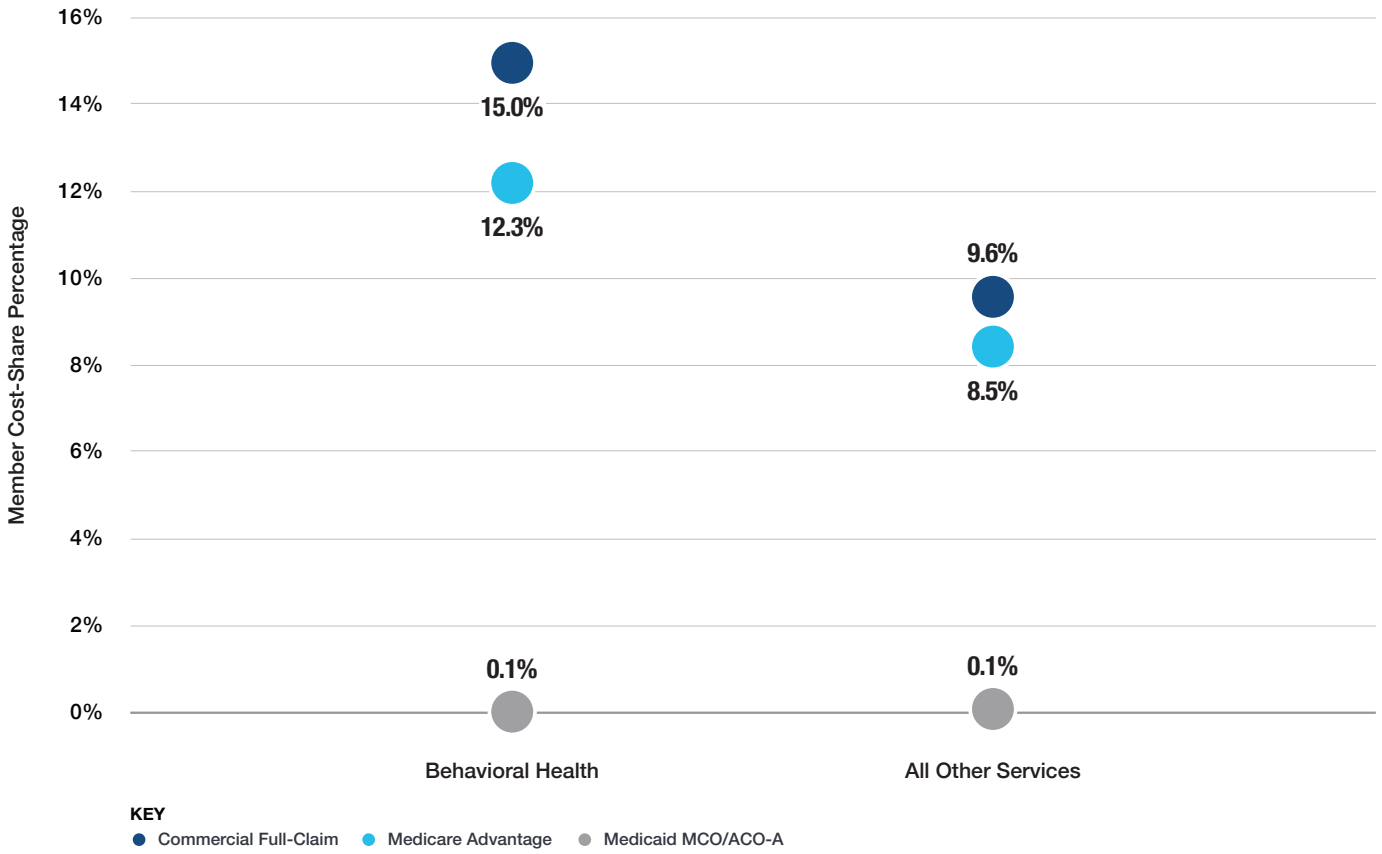
Notes: Aetna and Cigna were excluded due to data quality concerns. Figures on this page reflect data for commercial members for whom all claims data was available (commercial full-claim). See technical appendix for additional information.

Member Cost-Sharing as a Percentage of Total Expenditures by Insurance Category, 2021

Member cost-sharing represents the proportion of payments for health care services covered by insurance for which the member is financially responsible, such as copayments and deductibles. Member cost-sharing can be used to measure the financial burden on members for their care. The cost-sharing metrics presented here reflect the proportion of total payments for behavioral health services that members paid in 2021. Members that paid fully out-of-pocket for behavioral health care are not captured in this data. A BCBS Foundation report found that 16% of mental health providers do not accept commercial insurance, and 10% do not accept any insurance.[8]

For commercially insured members in 2021, behavioral health member cost-sharing represented 15.0% of behavioral health expenditures, compared to 9.6% for all other services. Member cost-sharing comprised 12.3% of behavioral health and 8.5% of all other service spending for Medicare Advantage members.

For Medicaid MCO/ACO-A members, member cost-sharing represented 0.1% of total spending for both behavioral health and all other services. Member cost-sharing is substantially lower for the Medicaid MCO/ACO-A population due to limits on member cost-sharing from caps on copayments or elimination of cost-sharing for certain members and services.[9]



Member cost-sharing represented a greater proportion of behavioral health spending compared to all other services for commercial and Medicare Advantage members.

Source: Payer-reported data to CHIA.

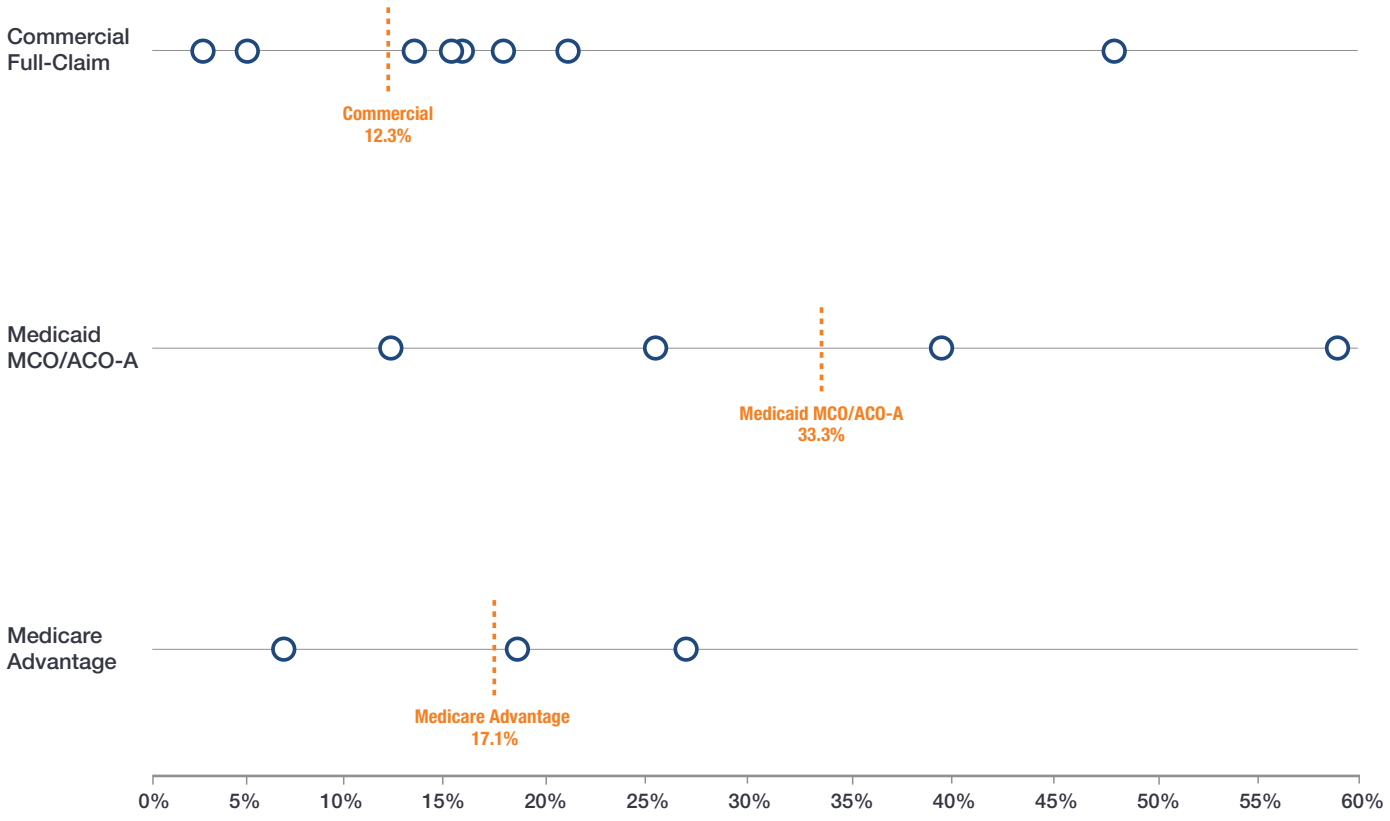
Notes: Aetna and Cigna were excluded due to data quality concerns. All Other Services includes primary care services and services for all specialties other than behavioral health. See technical appendix for additional information.

Range of Payer-Reported Substance Use Disorder Expenditures as a Percentage of Total Behavioral Health Expenditures by Insurance Category, 2021

In 2021, private commercial spending on substance use disorder (SUD) services represented 12.3% of total commercial behavioral health spending, compared to 17.1% for Medicare Advantage plans. The proportions of SUD spending reported by payers ranged from 2.5% to 47.8% for commercial plans. Medicare Advantage plans reported ranges from 6.5% to 26.5%. Medicaid MCO/ACO-A plans reported a higher proportion of SUD-related spending, representing 33.3% of total behavioral health spending, with percentages ranging from 11.7% to 58.8%.

SUD spending made up 0.8% of total commercial expenditures, 0.2% of total spending for Medicare Advantage, and 5.5% of total Medicaid MCO/ACO-A spending.

To collect this data, CHIA asked payers to report aggregate SUD spending for 2021. SUD spending was reported as a subset of total behavioral health spending and identified using diagnosis and procedure billing codes. For example, spending for services for which the primary reason for the visit was SUD, such as counseling for alcohol misuse, or the administration of methadone, was reported as SUD expenditures.



Substance use disorder-related spending represented 33.3% of Medicaid MCO/ACO-A behavioral health spending, compared to 17.1% for Medicare Advantage, and 12.3% for commercial.

Source: Payer-reported data to CHIA.

Notes: Five plans were excluded, either because data was not reported or due to data quality concerns. See technical appendix for additional information.

Commercial Behavioral Health Expenditures Per Member Per Month for Pediatric and Non-Pediatric Physician Groups, 2021

Pursuant to Chapter 177 of the Acts of 2022, an Act addressing barriers to care for mental health, CHIA examined spending for behavioral health services for physician groups that see primarily pediatric members. Within the commercial population, 23.2% of pediatric members in 2021 had a principal behavioral health diagnosis, compared to 18.7% of adult members.

CHIA examined behavioral health spending for members with a primary behavioral health diagnosis separately for provider organizations with majority pediatric patient panels, and those with majority adult panels.

For patients at pediatric physician groups, spending on behavioral health services was $222 PMPM. Among physician groups serving a majority of adult patients, behavioral health PMPM spending totaled $207 for commercially insured members.

	Member Months with a BH Diagnosis	Total Member Months	Total Expenditures	BH PMPMs
Pediatric	0.2M	1.0M	$53.6M	$222
Non-Pediatric	4.3M	23.0M	$887.4M	$207

Behavioral health PMPM spending was slightly higher for pediatric provider groups in comparison to those serving primarily adults.

Source: Payer-reported data to CHIA.

Notes: Aetna and Cigna have were excluded due to data quality. All other services includes primary care services and services for all specialties other than behavioral health. Figures on this page represent behavioral health spending per behavioral health member month for commercial-full members. Data displayed represents payments to pediatric physician groups, defined as having more than 80% of attributed members under 18. See technical appendix for additional information.

Massachusetts Hospital Statistics, HFY 2021

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. There is currently one privately-owned substance use facility in Massachusetts.

State-operated facilities included in this data are operated by DMH to provide psychiatric and mental health care for those with otherwise limited access to facilities providing such care.

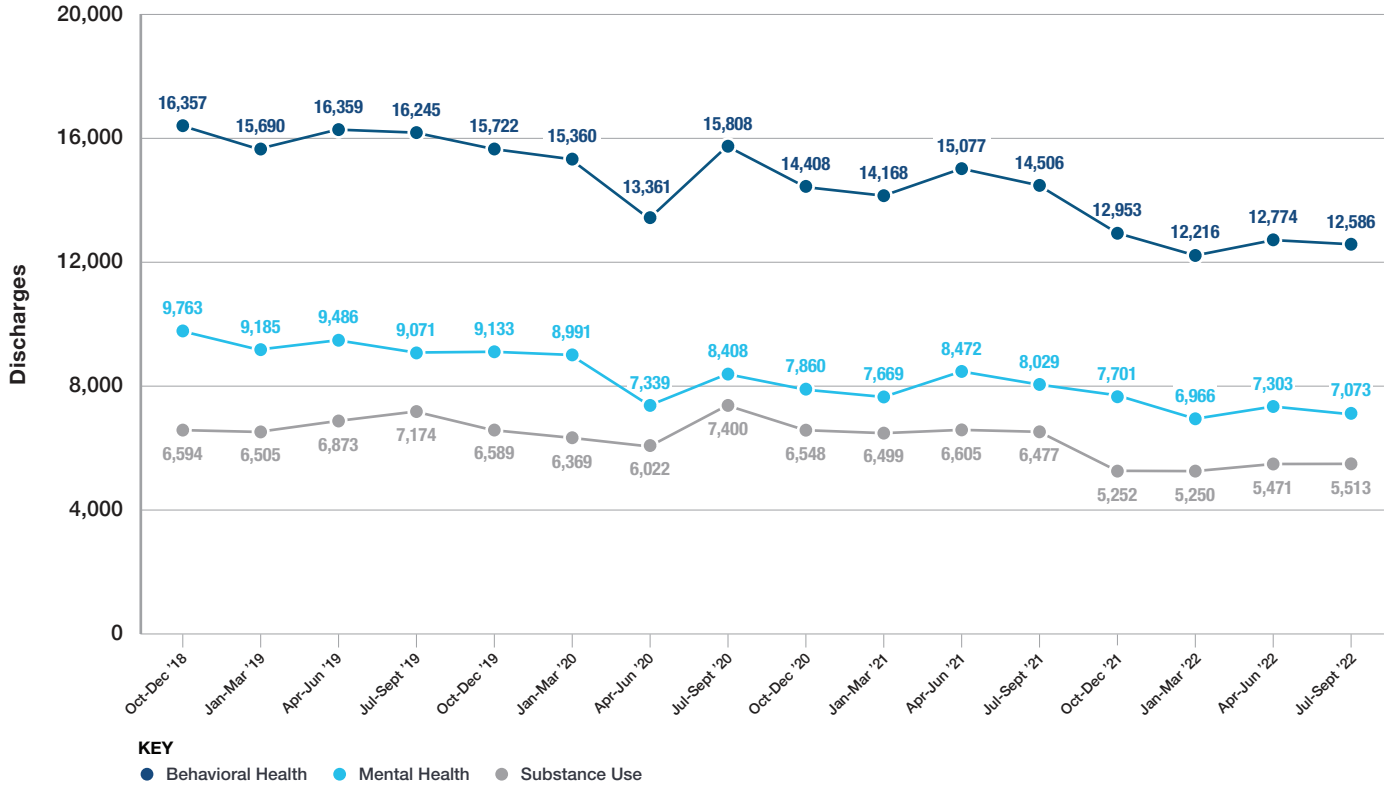
	Number of Hospitals	Total Licensed Beds	Total Staffed Beds	Median Percent Occupancy	Median Average Length of Stay
Acute Hospitals with Psychiatric Units	36	1,266	1,202	82.5%	12.79
Freestanding Psychiatric Hospitals	12	1,535	1,390	88.0%	13.39
Substance Use Facilities	1	114	114	74.6%	5.77
State-Operated Facilities	5	427	425	86.4%	75.59

Source: Hospital Cost Reports

Total Acute Care Hospital Inpatient Discharges with Behavioral Health Primary Diagnosis, October 2018-September 2022

In FFY 2019, 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 (ranging from 4.3%-5.5% between FFY 2019 and 2022) and approximately 4% are associated with a substance use disorder primary diagnosis (ranging from 3.4%-4.4% between FFY 2019 and 2022).

Like inpatient trends at acute care hospitals, total behavioral health inpatient discharges fell due to the COVID-19 pandemic in April to June 2020. After a rebound in the following quarter, July to September 2020, behavioral health inpatient discharges gradually declined in total volume over FFY 2021 and 2022.



Following fluctuations in volume during the pandemic, total inpatient hospitalizations for mental health and substance use conditions have fallen during FFY 2022.

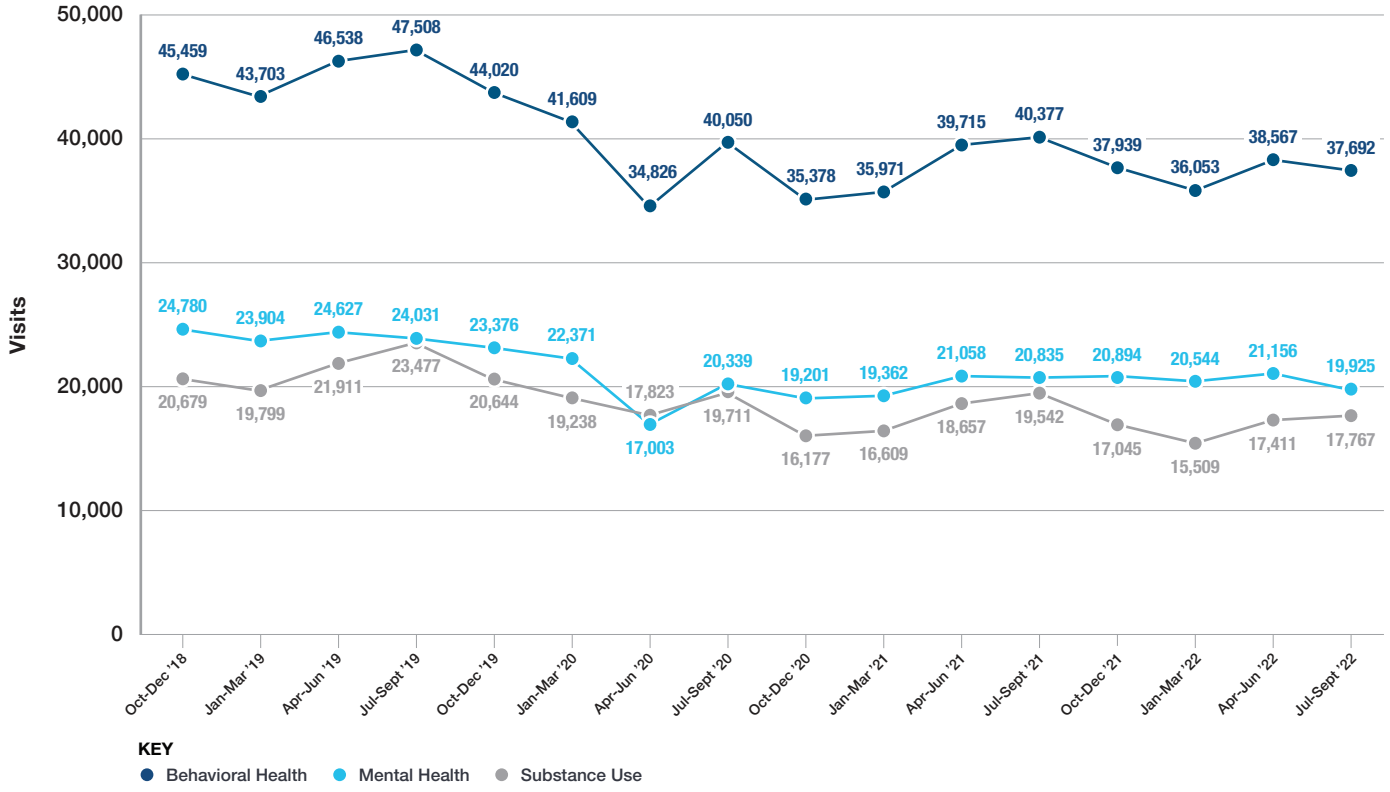
Source: Hospital Inpatient Discharge Database (HIDD), FFY 2019-2022.

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. HIDD data for FFY 2022 (October 2020 to September 2022) are not considered final and are subject to change. Due to incomplete data in FFY 2021, Sturdy Memorial Hospital, which comprised nearly 1% of inpatient discharges in other years, was excluded from this analysis. For this analysis, discharges were categorized into clinically meaningful 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.

Total Emergency Department Treat-and-Release Visits with Behavioral Health Primary Diagnosis, October 2018-September 2022

Prior to the COVID-19 pandemic, the volume of visits for behavioral health (BH) conditions in the emergency department (ED) was relatively constant, ranging from 7.4-7.7% of visits. While total ED visits fell during the first peak period of the COVID-19 pandemic, the proportion of visits that were for BH conditions increased to 9.8% between April and June of 2020. ED visits for BH conditions briefly increased again during the summer months of 2020 and then decreased during the second peak period of the pandemic. The proportion of ED visits that were for BH conditions was 6.5% between July and September of 2022.



Similar to inpatient hospitalization trends, treat-and-release emergency department visits for behavioral health conditions fell during the pandemic and have not returned to pre-pandemic volumes as of FFY 2022.

Source: Emergency Department Database (EDD), FFY 2019 to 2022.

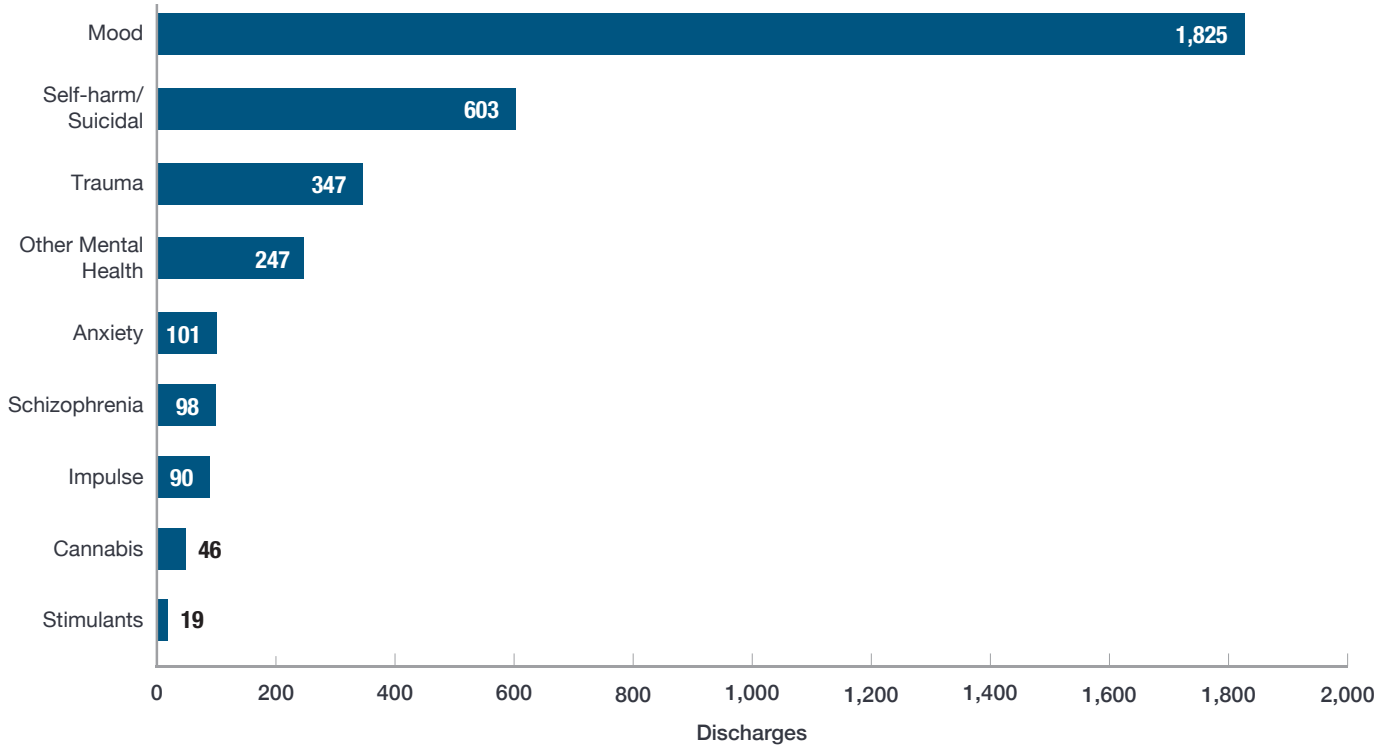
Notes: This data source includes only emergency departments associated with acute care hospitals. It does not include private psychiatric hospitals, substance abuse facilities, or Department of Mental Health hospitals. EDD data for FFY 2022 are not considered final and are subject to change. For this analysis, visits were categorized into clinically meaningful independent behavioral health 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 emergency department utilization.

Acute Care Hospital Inpatient Discharges with a Behavioral Health Primary Diagnosis by Condition Category among Patients Aged 2-17, FFY 2021

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 post-traumatic stress disorder (PTSD).

Discharges for mental health conditions were more common in this age group than discharges for substance use disorders.



Over half of pediatric hospitalizations for behavioral health conditions in FFY 2021 were for mood disorders such as major depressive disorder.

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

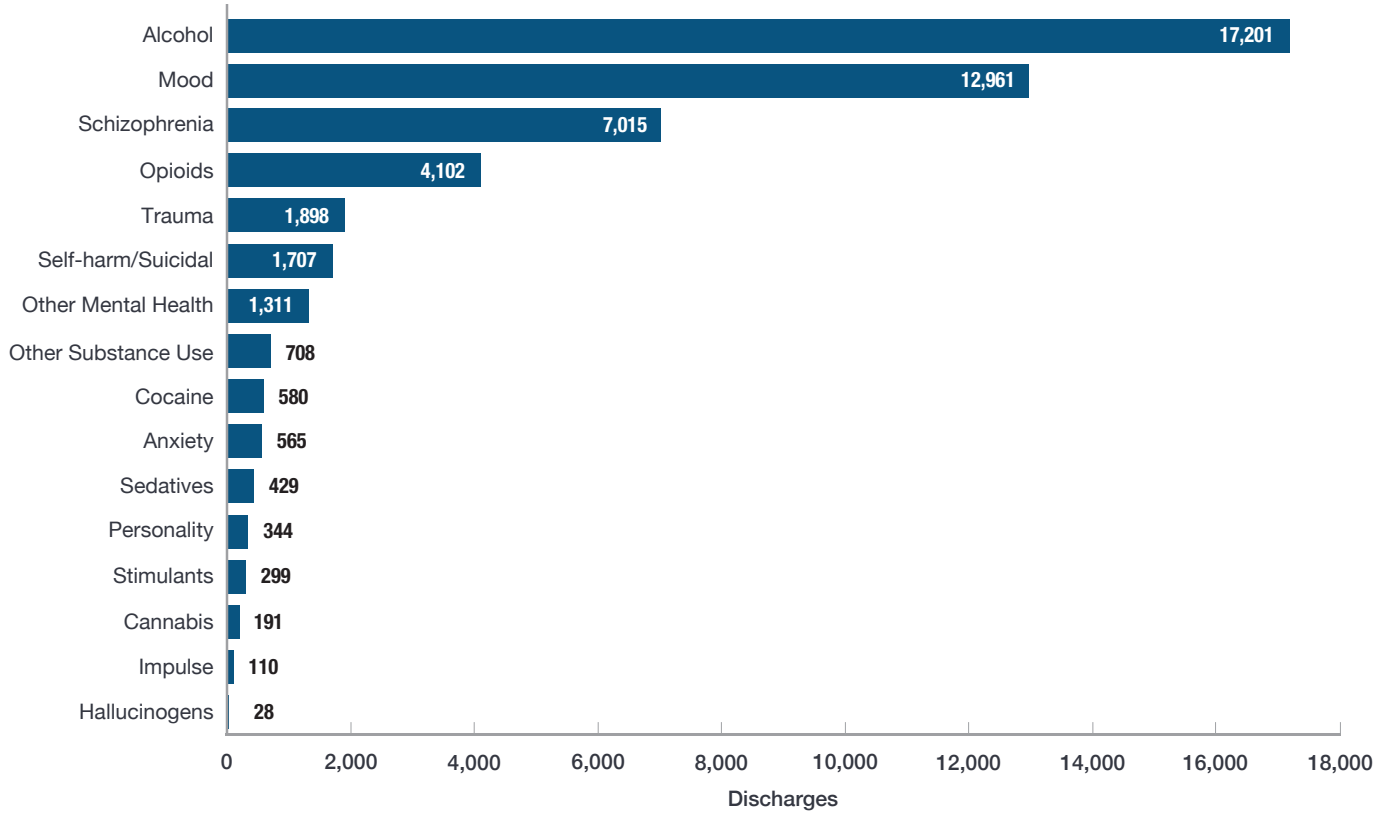
Notes: This data source includes only acute care hospitals. It does not include private psychiatric hospitals, substance abuse facilities, or Department of Mental Health hospitals. Due to incomplete data in FFY 2021, Sturdy Memorial Hospital, which comprised nearly 1% of inpatient discharges in other years, was excluded from this analysis. 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. For full category descriptions and definitions, please see technical appendix to this report. 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.

Acute Care Hospital Inpatient Discharges with a Behavioral Health Primary Diagnosis by Condition Category among Patients Aged 18-64, FFY 2021

Alcohol and mood-related disorders are the most common conditions attributed to inpatient discharges with a behavioral health primary diagnosis among non-elderly adults between the ages of 18 and 64. Other common conditions include those associated with schizophrenia and other psychotic disorders, opioid-related disorders, trauma-related disorders, and self-harm and suicidal ideation.

Overall, 83.4% of all inpatient discharges with behavioral health primary diagnoses were attributed to non-elderly adults (data not shown).



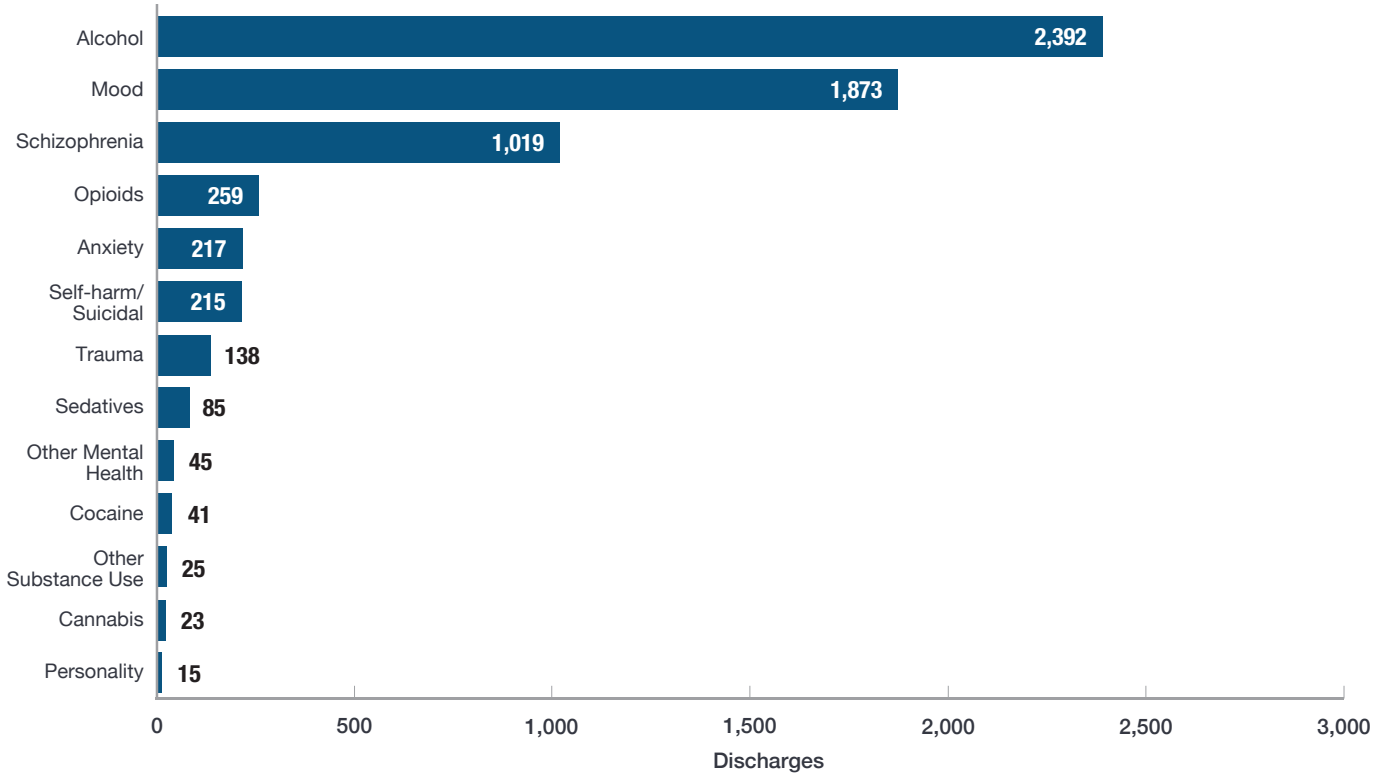
Over four in five inpatient hospitalizations for behavioral health conditions were for adult patients aged 18-64, with alcohol and mood-related disorders being the most common conditions in this group in FFY 2021.

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

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. Due to incomplete data in FFY 2021, Sturdy Memorial Hospital, which comprised nearly 1% of inpatient discharges in other years, was excluded from this analysis. 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. For full category descriptions and definitions, please see technical appendix to the report. Please see the CHIA website for the most up-to-date information on inpatient utilization.

Acute Care Hospital Inpatient Discharges with a Behavioral Health Primary Diagnosis by Condition Category among Patients Aged 65+, FFY 2021

Similar to non-elderly adults, alcohol and mood-related disorders were the most common conditions attributed to inpatient discharges with a behavioral health primary diagnosis among elderly adults, followed by schizophrenia and other psychotic disorders, opioid-related disorders, anxiety disorders, and self-harm and suicidal ideation.



Like adult patients aged 18-64, alcohol and mood-related disorders were the most common conditions attributed to inpatient hospitalizations for elderly patients aged 65 and older in FFY 2021.

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

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. Due to incomplete data in FFY 2021, Sturdy Memorial Hospital, which comprised nearly 1% of inpatient discharges in other years, was excluded from this analysis. 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. For full category descriptions and definitions, please see technical appendix to this report.

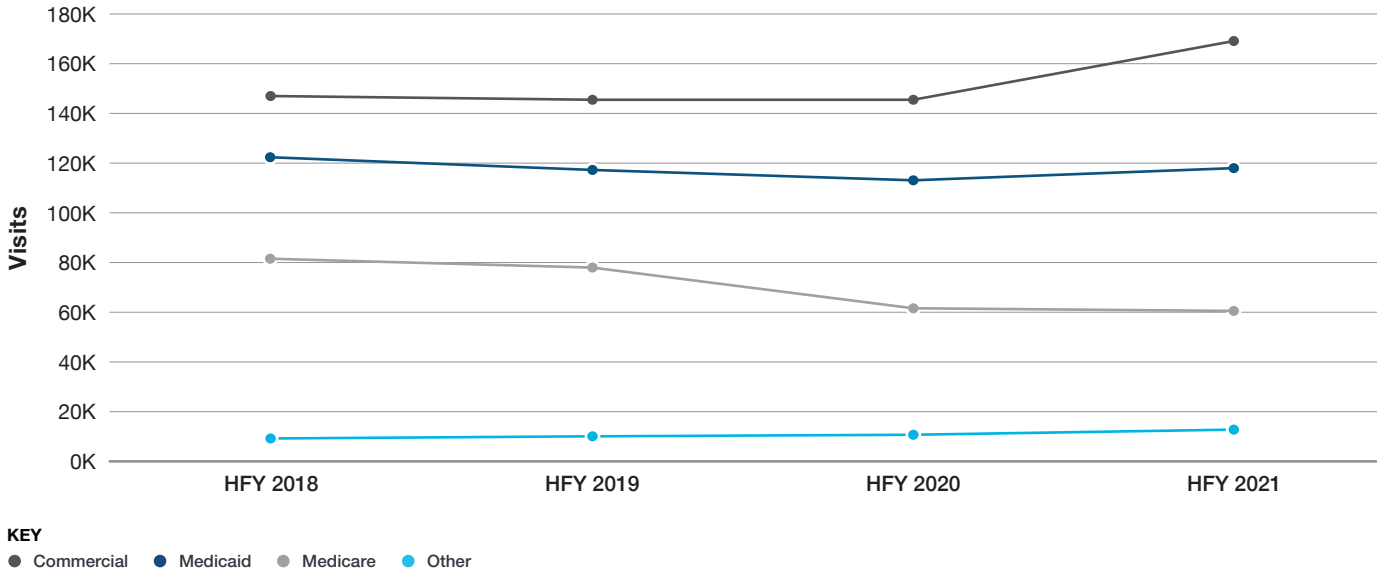
Please see the CHIA website for the most up-to-date information on inpatient utilization.

Outpatient Behavioral Health Utilization

This page reflects outpatient visits for freestanding psychiatric hospitals, substance use facilities, and state-operated facilities.

Total statewide outpatient visits reported at freestanding behavioral health hospitals* and state-operated facilities increased 8.8% from HFY 2020 to HFY 2021 after a 5.7% decrease from HFY 2019 to HFY 2020. Outpatient visits increased for the Medicaid, Commercial, and Other† payer types, with Commercial seeing the largest increase of 16.4%. Visits for Medicare patients decreased 3.1% from HFY 2020 to HFY 2021.

Outpatient visits can include clinic, emergency department, and observation visits as well as day programs and other outpatient services reported by the hospital or facility.



	HFY 2018	HFY 2019	HFY 2020	HFY 2021
Medicare	83,718	79,927	63,229	61,247
Medicaid	125,593	120,030	115,746	121,320
Commercial	150,306	149,374	149,428	173,957
Other	8,883	10,356	10,772	12,415
TOTAL	**368,500**	**359,687**	**339,175**	**368,939**

Source: Hospital Cost Reports.

Notes:
* 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 Notes

1. American Medical Association. “What is Behavioral Health?” Available at https://www.ama-assn.org/delivering-care/public-health/what-behavioral-health.
2. Massachusetts Department of Public Health. “Profile of Health among Massachusetts Adults, 2021 Results from the Behavioral Risk Factor Surveillance System.” Available at https://www.mass.gov/lists/brfss-statewide-reports-and-publications#2021-.
3. Center for Health Information and Analysis. “Findings from the 2021 Massachusetts Health Insurance Survey.” Available at https://www.chiamass.gov/massachusetts-health-insurance-survey/.
4. Massachusetts Executive Office of Health and Human Services “Roadmap for Behavioral Health Reform” Available at https://www.mass.gov/roadmap-for-behavioral-health-reform.
5. Chapter 177 “An Act Addressing Barriers to Care for Mental Health.” Available at https://malegislature.gov/Laws/SessionLaws/Acts/2022/Chapter177.
6. A 2017 report from the Blue Cross Blue Shield Foundation of Massachusetts found that 10% of behavioral health providers did not accept any insurance, 16% did not accept commercial insurance, 38% did not accept Medicare, and 45% did not accept MassHealth.

   Blue Cross Blue Shield of Massachusetts Foundation. “Access to Outpatient Mental Health Services in Massachusetts.” *Blue Cross Blue Shield Foundation of Massachusetts*. October 31, 2017. https://www.bluecrossmafoundation.org/publication/access-outpatient-mental-health-services-massachusetts.
7. Center for Health Information and Analysis. “Data Specification Manual.” *Center for Health Information and Analysis*. Accessed March 7, 2023. https://www.chiamass.gov/assets/docs/p/pbhc/PCBH-2022-Data-Specification-Manual.pdf.
8. Blue Cross Blue Shield of Massachusetts Foundation. “Access to Outpatient Mental Health Services in Massachusetts.” *Blue Cross Blue Shield Foundation of Massachusetts*. October 31, 2017. https://www.bluecrossmafoundation.org/publication/access-outpatient-mental-health-services-massachusetts.
9. Commonwealth of Massachusetts. “MassHealth Copay Information - For Members.” Mass.gov. Accessed March 7, 2023. https://www.mass.gov/info-details/masshealth-copay-information-for-members.

Quality of Care in the Commonwealth

KEY FINDINGS

Among adult members surveyed in the commercial population, patient experience ratings for office visits in 2021 were higher than 2018 ratings in six of the eight measures reported.

Among adult and pediatric MassHealth ACO members, patient-reported ratings of experiences with telehealth decreased from 2020 to 2021, indicating less satisfaction with telehealth services in 2021.

Readmission rates for patients hospitalized with any diagnosis of COVID-19 were consistently lower than for patients hospitalized for reasons other than COVID-19, 11.7% vs. 15.6%, respectively, in the last quarter of SFY 2021.

Ten of 34 reporting acute care hospitals in Massachusetts achieved all three Leapfrog standards for reducing unnecessary maternity-related procedures in 2021.

Quality of Care in the Commonwealth

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

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

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

Where possible, this chapter includes multiple years of data to review changes in results throughout the COVID-19 pandemic. While some results presented in this report were likely affected by changes in utilization due to the COVID-19 pandemic, it is important to note that there were also adjustments to data collection and reporting

requirements for reporting periods 2019 and 2020 to allow the health care system to respond to the crisis, and in some cases because of insufficient data for reporting. These adjustments could include allowing providers to submit 2019 data for 2020, foregoing public reporting, or pausing non-essential data collection. Throughout the chapter, any such data reporting adjustments will be identified in the chart notes, and specific reporting period dates for each measure can be found in the report databook. •

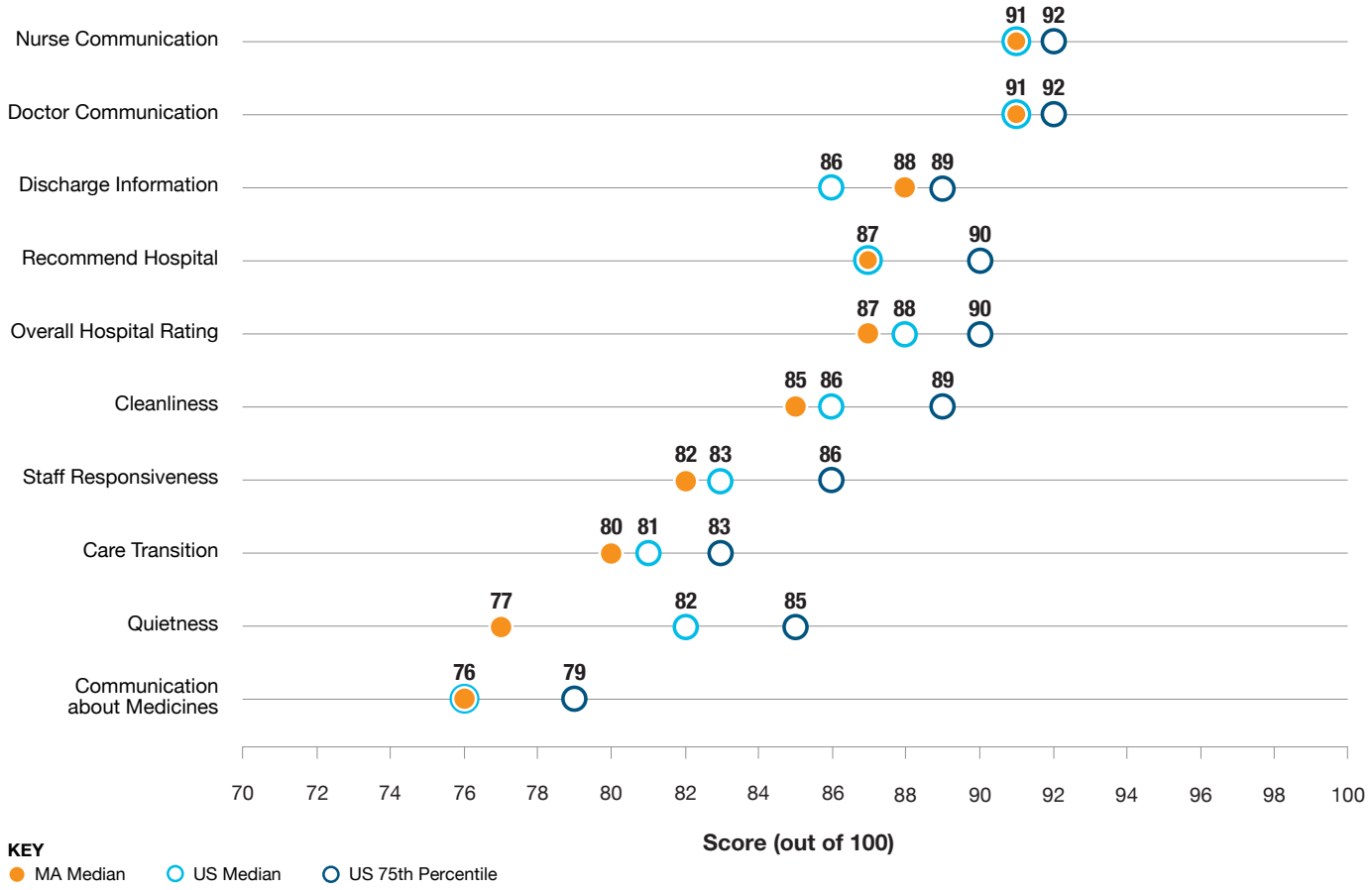
Patient-Reported Experience During Acute Hospital Admission, CY 2021

On most measures collected for calendar year 2021, patient-reported scores of Massachusetts hospitals were similar to the median scores of patients at hospitals nationally, with Massachusetts scores generally deviating no more than one point from national medians.

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 out of 100 for both domains), matching the national median. Statewide median scores were lowest for Quietness and Communication about Medicines (77 and 76, respectively, out of 100). See technical appendix for detailed descriptions of each measure domain.

In 2021, the median score in Massachusetts for Quietness was five points below the national median score (77 statewide vs. 82 nationally, out of 100).



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

Source: CMS Hospital Compare.

Notes: Includes all payers, patients ages 18+. Only the most recent year of data is shown because COVID-19-related modifications to the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey reporting requirements in 2020 make trending impossible.

Primary Care Patient-Reported Experiences for Adults, 2018, 2020 and 2021

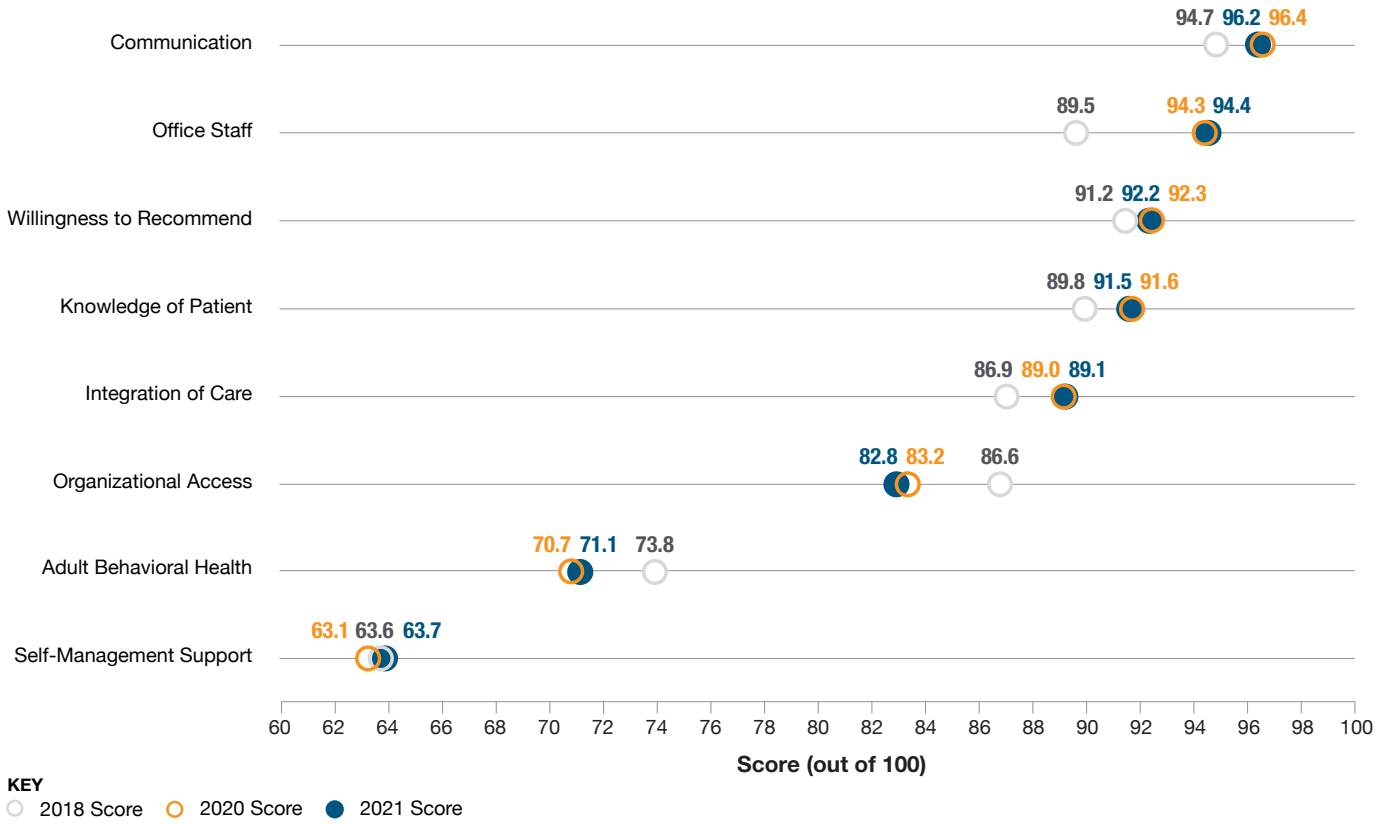
Statewide, adult patients rated their experiences during Massachusetts primary care visits higher in 2020 and 2021 than in 2018 for the majority of survey domains.

Patient-reported experience ratings of primary care Office Staff improved 4.8 points in 2020 compared to 2018 (from 89.5 to 94.3), and remained at 94.4 in 2021. This improvement is the largest rating change observed during the 2018-2021 time period.

The 2021 scores remained higher than 2018 scores for all measures except two: Organizational Access and Adult Behavioral Health. For Adult Behavioral Health, the 2021 rating is 2.2 points lower than the 2018 rating (71.1 and 73.8, respectively). The rating for Organizational Access decreased 3.8 points in 2021 compared to 2018 (from 86.6 to 82.8).

As in previous years, Adult Behavioral Health and Self-Management Support were the lowest-scoring measures in 2021 (71.1 and 63.7, respectively, out of 100).

The lower scores may be related to decreased access to in-person care during the COVID-19 pandemic in 2020 and 2021.



The patient-reported rating of experiences with office staff improved 4.8 points from 2018 to 2020, and remained high in 2021—the largest point change during the time 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. There are no results for 2019 because MHQP did not field a survey in 2020 (reflective of 2019 visits) in response to the COVID-19 pandemic. The adult behavioral health composite refers to how patients answered questions about provider engagement with patients to talk about their behavioral health needs. The adult self-management support composite refers to how patients answered questions about provider engagement with patients to talk about their goals for their health and things that make it hard to take care of their health. See technical appendix for specific survey questions.

Primary Care Patient-Reported Experiences for Pediatrics, 2018, 2020 and 2021

Similar to adult patient-reported experiences with primary care providers, Communication was the highest scoring measure for pediatric patients in 2018, 2020, and 2021 (97.4, 98.6, and 98.4 out of 100, respectively).

Although all scores decreased from 2020 to 2021, most remained similar to prior years' scores. The largest change between 2020 and 2021 was a 2.5-point drop for the Organizational Access measure, from 92.3 to 89.7 out of 100 points. However, compared to 2018 ratings, the 2021 score for Child Development declined 5 points (from 80.0 to 75.0) and the rating for Pediatric Preventive Care declined 9.6 points (from 75.8 to 66.2).

The scores for the Communication, Willingness to Recommend, Office Staff, and Knowledge of Patient measures increased between 2018 and 2020 before decreasing slightly in 2021.

As in previous years, the Child Development, Pediatric Preventive Care, and Self-Management Support measures had the three lowest scores in 2021.

Although all scores decreased in 2021, most remained similar to prior years' scores. Pediatric Preventive Care and Child Development ratings declined notably from 2018 to 2021.

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

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

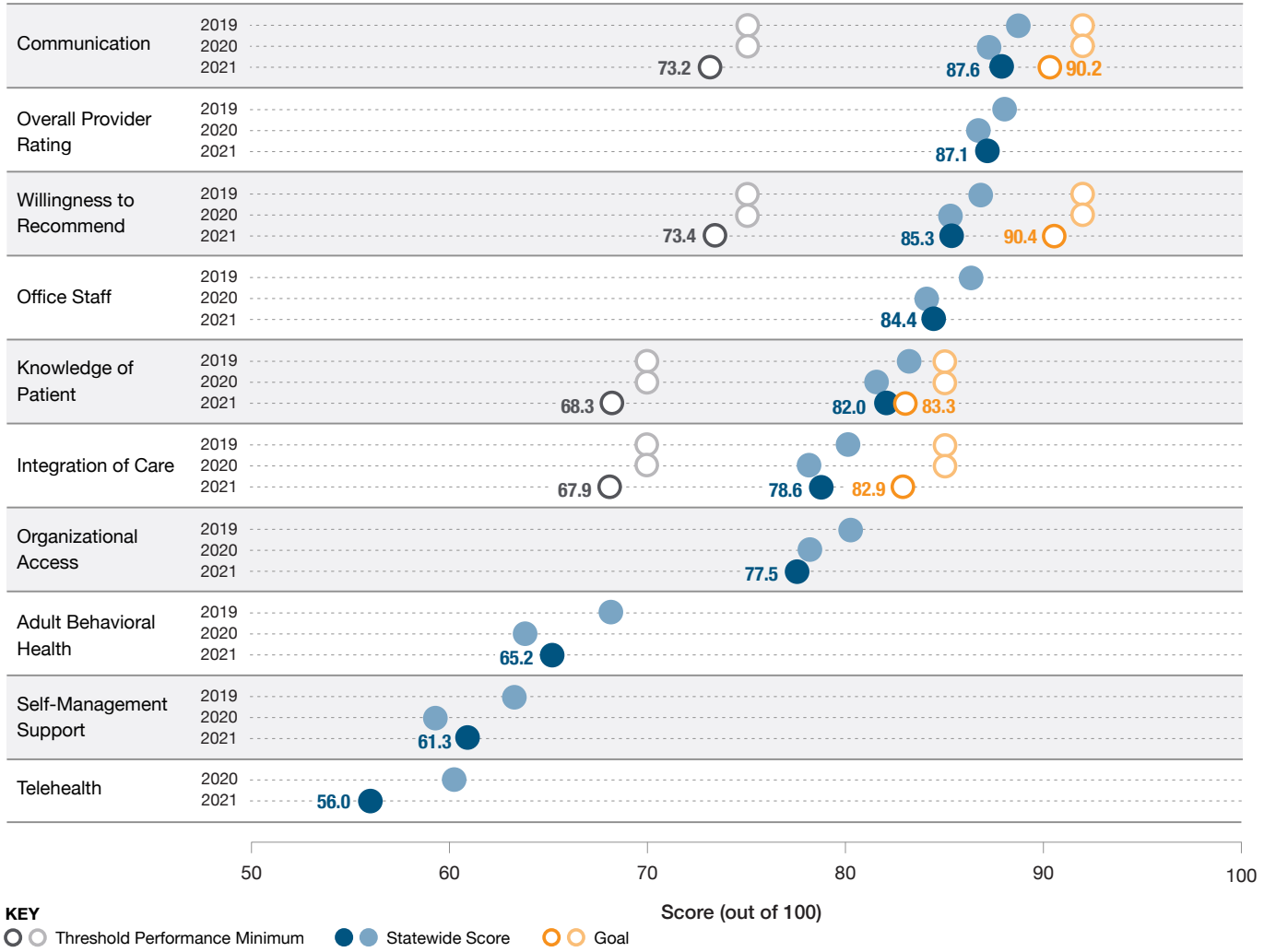
MassHealth Member Primary Care Patient-Reported Experiences for Adults, 2019-2021

Annually, MassHealth issues primary care Patient Experience Surveys to a sample of ACO members that had a primary care visit in the previous calendar year. The scores shown here include statewide rates, and MassHealth also identified a threshold minimum and target goal for a subset of measures for ACO performance. Threshold and goal scores were adjusted for 2021 as part of the response to account for the COVID-19 pandemic. Telehealth is a newly added domain as of 2020.

Overall, adult patients expressed positive experiences with their primary care providers in both 2020 and 2021. MassHealth ACO scores are similar to, but slightly lower than, comparable surveys of commercial health plans in 2020 and 2021 (surveys were not conducted in the commercial population for 2019 visits).

Apart from Organizational Access and Telehealth, 2021 ratings were higher than 2020 ratings. Additionally, MassHealth ACO primary care providers surpassed the threshold on all applicable measures and are making progress toward achieving the goal targets. The Telehealth domain reported the largest rating decline (-4.4 points) between 2020 and 2021, indicating less satisfaction with Telehealth services in 2021. Telehealth utilization was brought to the forefront in 2020 due to the COVID-19 pandemic, and is a domain that is evolving as we learn more about how both patients and providers experience telehealth.[1]

Despite these improvements, 2021 scores were still lower than 2019 scores for all applicable measures, with differences ranging from 0.9 to 2.8 points.



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 February-May of their respective years. MassHealth results may have been impacted by member concerns during the COVID-19 pandemic. The adult behavioral health composite refers to how patients answered questions about provider engagement with patients to talk about their behavioral health needs. The adult self-management support composite refers to how patients answered questions about provider engagement with patients to talk about their goals for their health and things that make it hard to take care of their health. See technical appendix for specific survey questions.

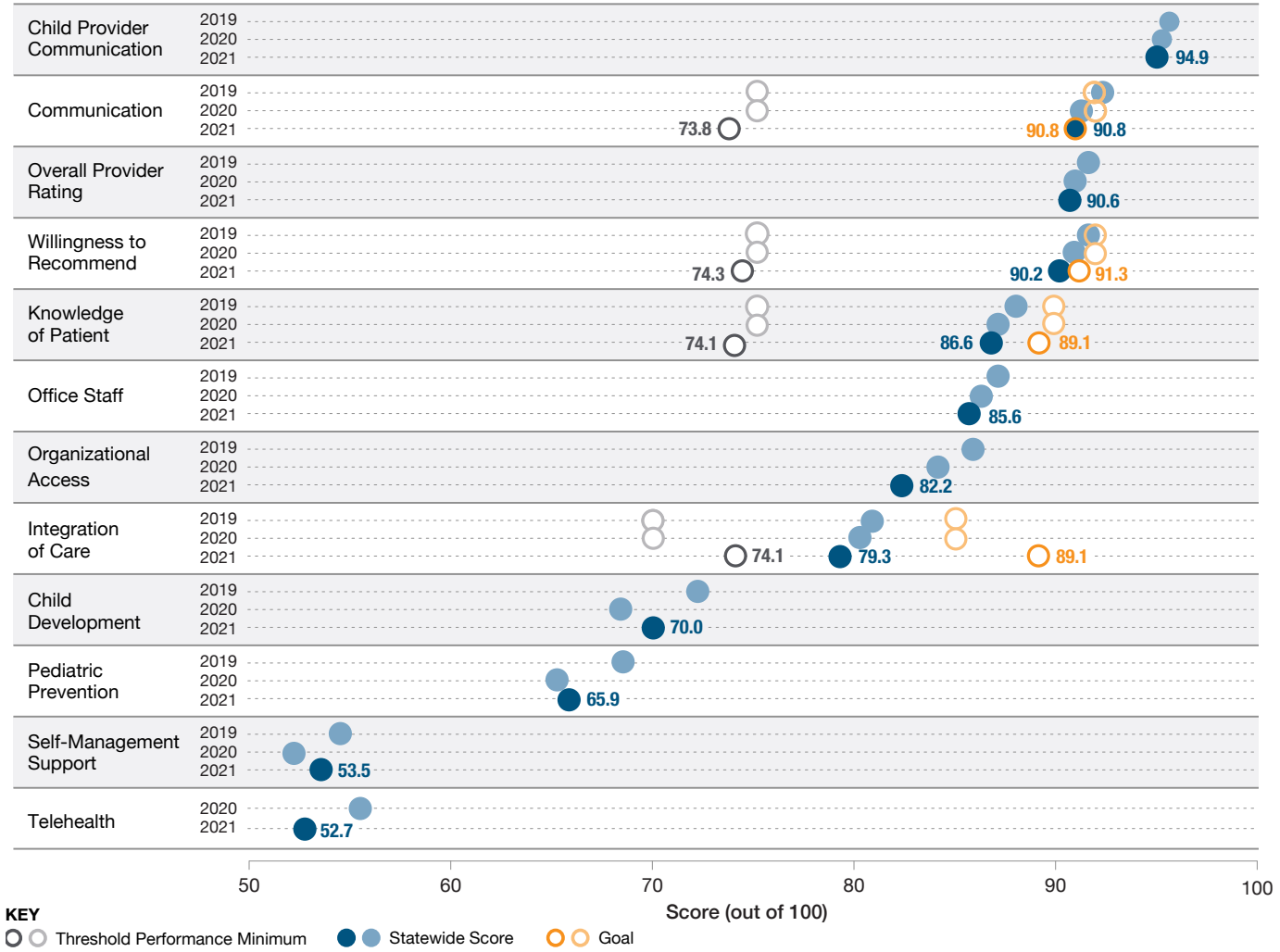
MassHealth Member Primary Care Patient-Reported Experiences for Pediatrics, 2019-2021

Similar to adult patient-reported experiences with MassHealth ACO primary care providers, pediatric visits scored highest in the Communication measures, and lowest in the self-management support and telehealth domains. Telehealth is a newly added domain as of 2020.

Pediatric patient-reported experience ratings for nine of the twelve domains were lower in 2021 than in 2020. Compared to 2019, 2021 ratings were lower for all eleven domains with data for both years. The largest rating change between 2020 and 2021 scores was a -2.8 point decline for Telehealth.

Where applicable, MassHealth ACO primary care providers surpassed the threshold on all measures by at least ten points in 2020. This was also true for three of the four applicable measures in 2021, though both the thresholds and scores were lower compared to 2020.

Integration of Care was the only measure for which the 2021 goal was higher than the 2020 goal (89.1 and 85.0, respectively), but the statewide score was lower in 2021 compared to 2020 (79.3 and 80.2, respectively).



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

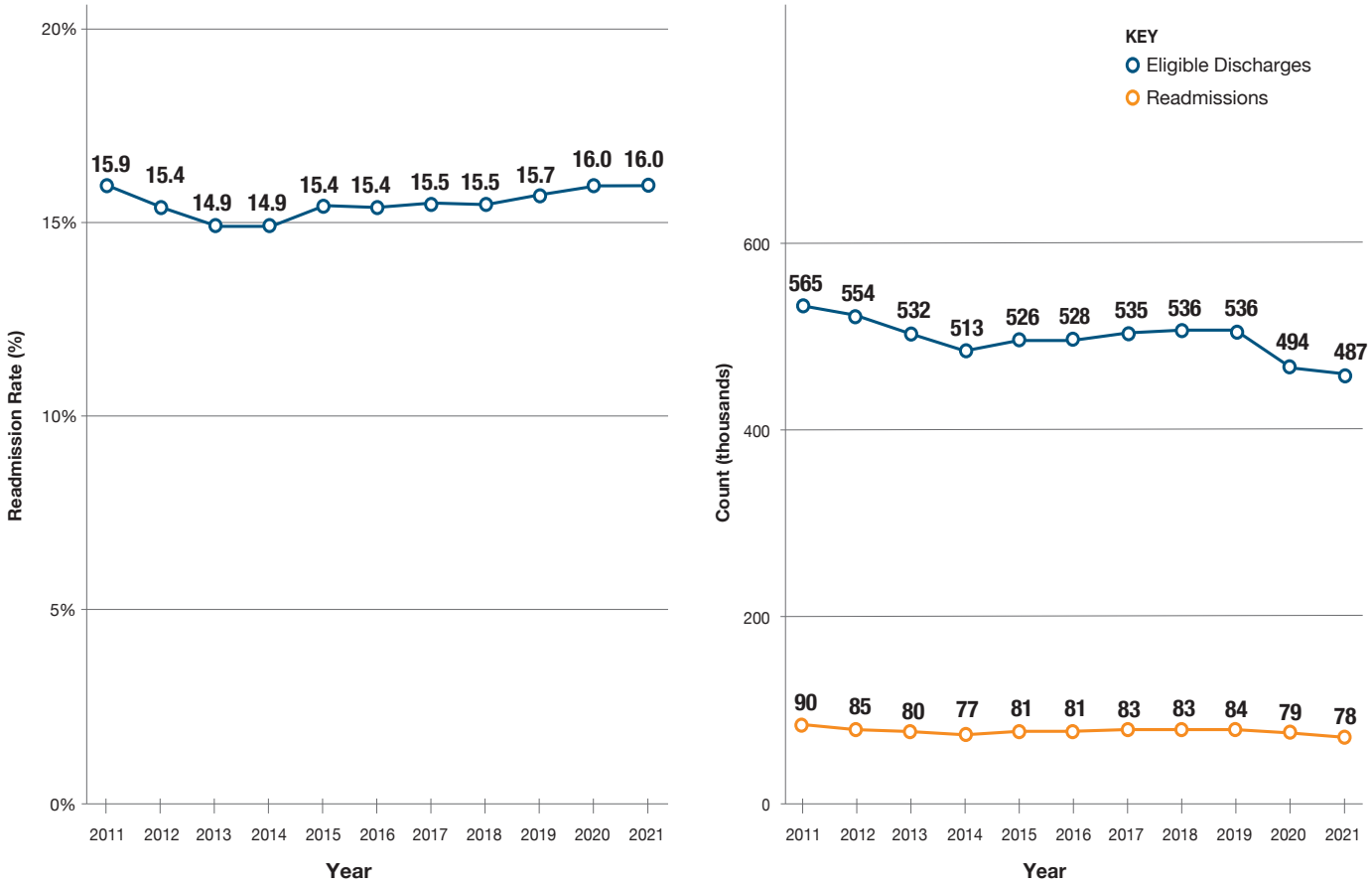
Notes: Pediatric patients' ages 0-17; parent or caregiver was surveyed on patient's behalf. Survey conducted on a sample of MassHealth ACO plan members and was in the field February-May of their respective years. MassHealth results may have been impacted by member concerns during the COVID-19 pandemic.The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

Trends in Statewide All-Payer Adult Acute Hospital Readmission Rate, Discharges, and Readmissions, SFY 2011-2021

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, the vast majority of readmissions are unplanned. Unplanned hospital readmissions can be used as an indicator of health system performance, and have been a key measure of health system quality and value since the Affordable Care Act was passed in 2010.

After an initial period of decline from 2011-2014, all-payer readmission rates have increased since 2014. In 2020 and 2021, the readmission rate was 16.0%.

The statewide number of eligible discharges has declined over time, especially since the start of the COVID-19 pandemic.



After a decline from 2011-2014, all-payer readmission rates have increased since 2014.

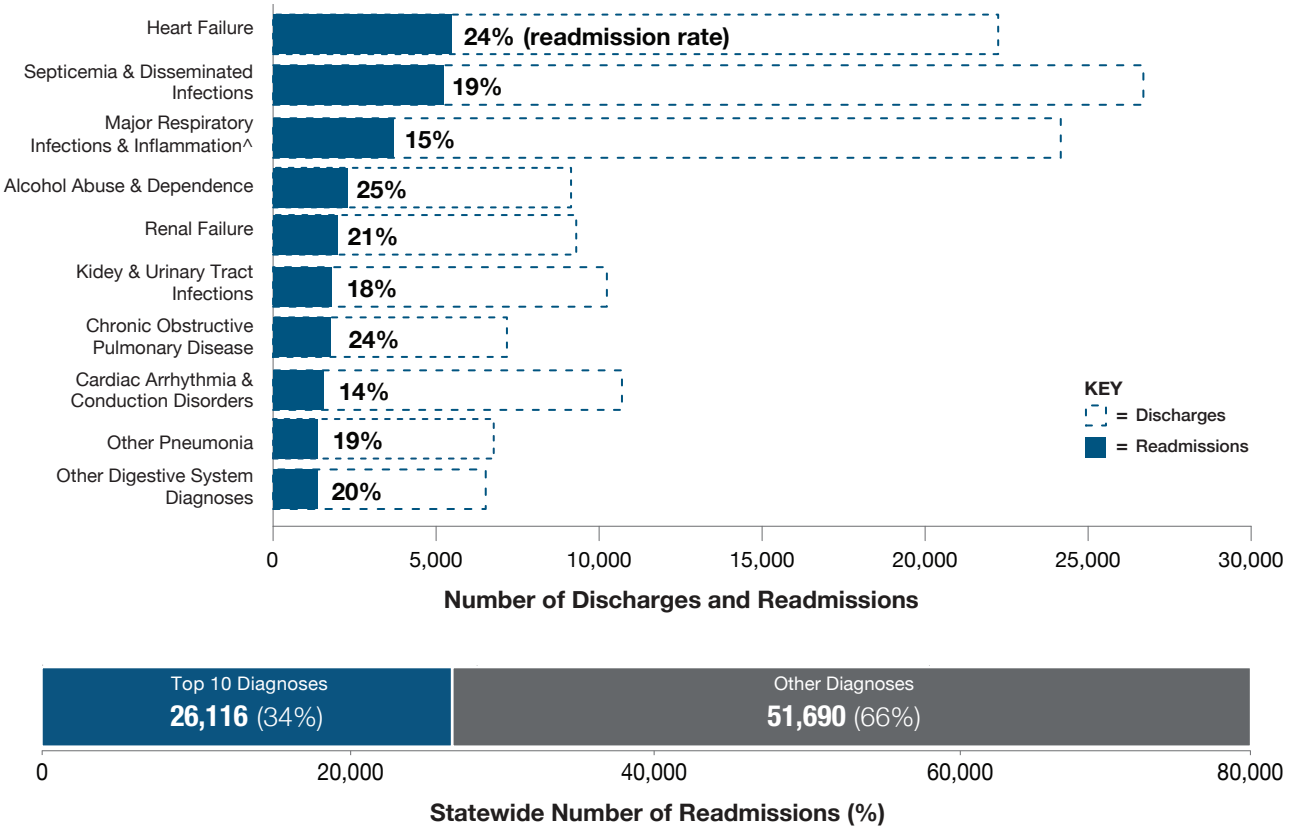
Source: Massachusetts Hospital Inpatient Discharge Database, July 2010 to June 2021.

Notes: Due to technical changes, readmission rates may not match those from earlier reports. Analyses include eligible discharges for adults with any payer, excluding discharges for obstetric or primary psychiatric care. See technical appendix for more information.

Discharge Diagnoses with the Highest Number of Readmissions, 2021

Certain discharge diagnoses are associated with a higher number of readmissions. The top three discharge diagnoses with the highest number of readmissions in 2021 were heart failure, sepsis, and major respiratory infections, followed by alcohol-use related conditions.*

These top 10 discharge diagnoses cumulatively accounted for approximately one-third (34%) of all readmissions. While it may be important to focus readmission reduction efforts on these high volume conditions, exclusively focusing on the top 10 diagnoses would miss a substantial portion of all readmissions.



The top 10 discharge diagnoses with the highest numbers of readmissions accounted for nearly one-third of all readmissions in 2021.

Source: Massachusetts Hospital Inpatient Discharge Database, July 2020 to June 2021.

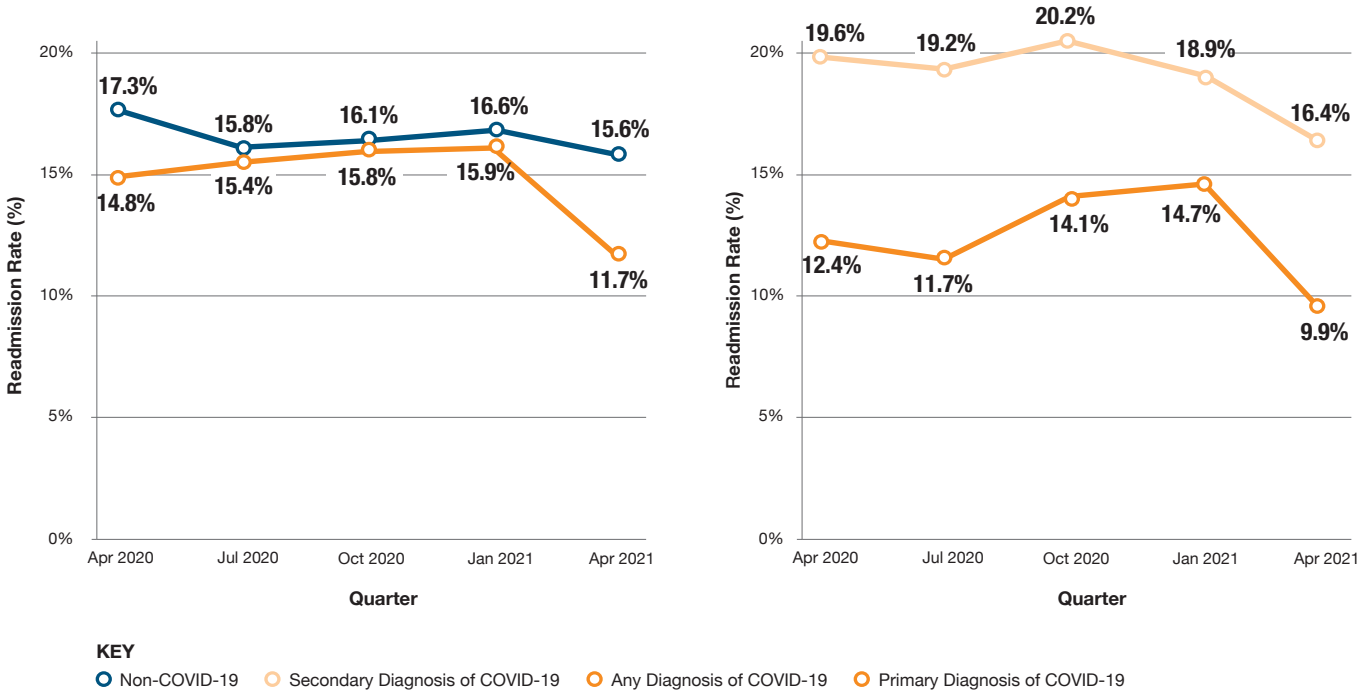
Notes: The discharge diagnosis is based on APR DRG version 30.0. Analyses include eligible discharges for adults with any payer, excluding discharges for obstetric or primary psychiatric care. See technical appendix for more information.

*Refers to APR DRG version 30.0 category "Alcohol Abuse & Dependence."
^Contains COVID-19 discharges.

Quarterly Trends in All-Payer Discharges, Readmissions, and Readmission Rate by COVID-19 Status, April 2020-June 2021

In April 2020, 14% of total discharges and 12% of total readmissions were associated with a COVID-19 diagnosis. Readmission rates for non-COVID-19 discharges were higher than those for COVID-19 discharges.

The readmission rate for discharges with any COVID diagnosis has declined over time, to 11.7% in the last quarter of SFY 2021, driven by the large decrease in the number of readmissions. Most COVID-19 discharges had a primary diagnosis of COVID-19. Readmission rates for discharges with a secondary diagnosis of COVID-19 were higher than those with a primary diagnosis of COVID-19.



Readmission rates for patients hospitalized with any diagnosis of COVID-19 were consistently lower than for patients hospitalized for reasons other than COVID-19, 11.7% vs. 15.6%, respectively, as observed in the last quarter of SFY 2021.

Source: Massachusetts Hospital Inpatient Discharge Database, April 2020 to June 2021.

Notes: Analyses include eligible discharges for adults with any payer, excluding discharges for obstetric or primary psychiatric care. A discharge was classified as being associated with COVID-19 if it had a primary or secondary ICD-10-CM diagnosis indicating confirmed COVID-19. Each data point represents one quarter of the calendar year (three months of data); the month listed is the first month of each quarter.

Rates of Maternity-Related Procedures Relative to Performance Targets, by Hospital, 2021

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

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

In 2021, 10 of the 34 reporting hospitals achieved all three standards, and 33 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. Finally, Leapfrog identifies 5% or below as the target for the share of childbirths in which episiotomies are performed. Hospitals performed well on this measure—30 of the 34 reporting hospitals achieved this standard.

	C Section	Early Elective Deliveries	Episiotomy
Leapfrog Standard	**≤ 23.6%**	**≤ 5.0%**	**≤ 5.0%**
Achieved Three Standards (10 Hospitals)			
Berkshire Medical Center	21.3%	0.0%	0.0%
Beth Israel Deaconess Medical Center	23.0%	0.0%	2.2%
Beverly Hospital	23.0%	0.0%	2.3%
Cape Cod Hospital	20.6%	0.0%	2.4%
Lawrence General Hospital	22.5%	2.3%	3.3%
Lowell General Hospital - Main Campus	19.7%	0.7%	1.4%
Mercy Medical Center of Springfield	22.7%	0.0%	3.0%
Mount Auburn Hospital	20.2%	0.0%	2.3%
Signature Healthcare Brockton Hospital	14.5%	0.0%	1.9%
Winchester Hospital	23.1%	2.9%	2.8%
Achieved Two Standards (20 Hospitals)			
Anna Jaques Hospital	34.1%	0.0%	3.1%
Baystate Medical Center	23.9%	3.1%	1.9%
Beth Israel Deaconess Hospital Plymouth	25.0%	0.0%	2.5%
Boston Medical Center	27.8%	1.9%	2.2%
Brigham And Women's Hospital	24.0%	2.7%	4.8%
CHA Cambridge Hospital	27.5%	0.0%	1.4%
Charlton Memorial Hospital	24.6%	0.0%	4.3%
Cooley Dickinson Hospital	27.8%	0.0%	3.9%
Emerson Hospital	25.0%	0.0%	2.5%
Fairview Hospital	30.8%	0.0%	0.0%
Heywood Hospital	17.4%	3.6%	7.1%
Massachusetts General Hospital	26.3%	0.0%	2.3%
Melrose-Wakefield Hospital	25.6%	0.0%	4.3%
Milford Regional Medical Center	24.4%	0.0%	4.6%
Newton-Wellesley Hospital	29.7%	0.0%	3.8%
South Shore Hospital	30.6%	0.7%	4.8%
St. Elizabeth's Medical Center	25.9%	1.3%	4.7%
St. Luke's Hospital	33.3%	0.0%	3.6%
Steward Good Samaritan Medical Center, Inc.	37.5%	0.0%	3.5%
Tufts Medical Center	27.7%	0.0%	2.2%

	C Section	Early Elective Deliveries	Episiotomy
Leapfrog Standard	**≤ 23.6%**	**≤ 5.0%**	**≤ 5.0%**
Achieved Two Standards (3 Hospitals)			
Baystate Franklin Medical Center	25.2%	12.5%	2.1%
Holy Family Hospital - Methuen	33.6%	2.3%	5.2%
Sturdy Memorial Hospital	33.2%	0.0%	5.5%
Achieved One Standard (1 Hospital)			
North Shore Medical Center Salem Hospital	24.6%	6.3%	7.3%

KEY

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

In 2021, 10 of 34 reporting Massachusetts acute care hospitals achieved all three Leapfrog standards for reducing unnecessary maternity care.

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

Notes: All payers, all ages. See technical appendix for information on Leapfrog's standards and scoring methodologies. Only the most recent year of data is shown because COVID-19 related modifications to the Leapfrog Group hospital survey reporting requirements in 2020 make trending impossible.

Hospital Adherence to the Leapfrog Standard for Safe Practices and Hand Hygiene, 2021

There are many aspects of a hospital's operations that contribute to overall quality and safety of care. The National Quality Forum (NQF)-endorsed safe practices cover a range of practices that, if utilized, would reduce the risk of harm in certain processes, systems, or environments of care.[2]

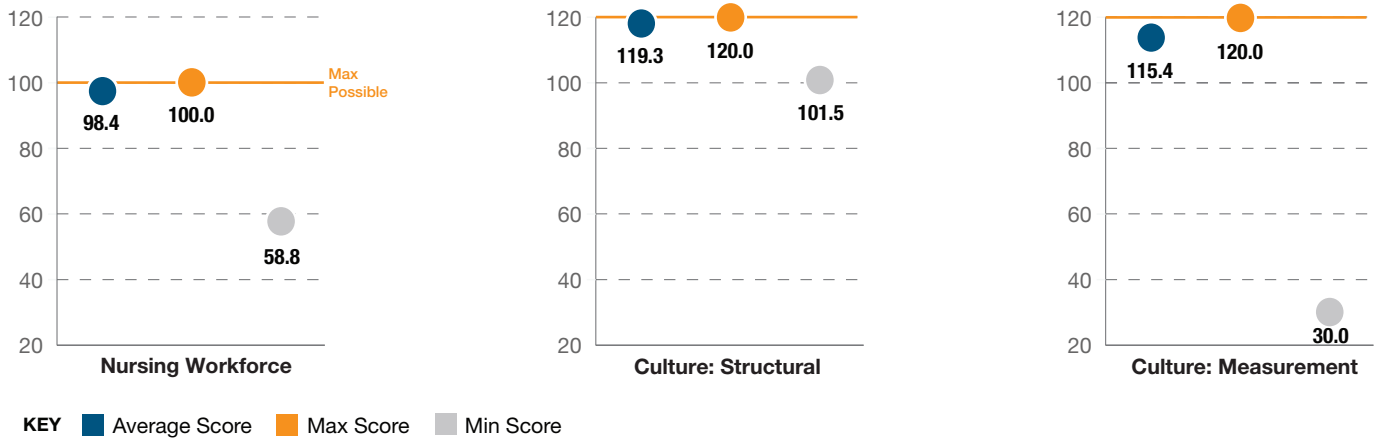
The Leapfrog Hospital Survey asked hospitals to report on three NQF Safe Practices, and on a Hand Hygiene measure. The NQF Safe Practices are as follows (1) Nursing Workforce (100 points possible); (2) Culture of Safety Leadership Structures and Systems (120 points possible); and (3) Culture Measurement, Feedback, and Intervention (120 points possible). The Hand Hygiene score is based on performance on five domains of hand hygiene: monitoring, feedback, training and education, infrastructure, and culture.

The Nursing Workforce measure refers to a hospital's attainment of ANCC Magnet or ANCC 2020 Pathway to Excellence designations, or on progress in implementing NQF recommended practices in domains of awareness, accountability, ability, and action.[3]

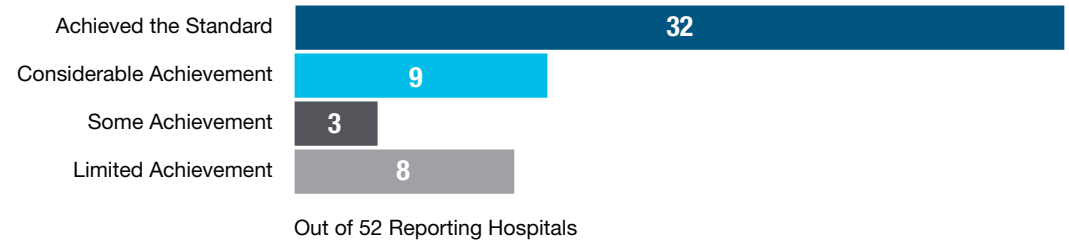
Detailed descriptions of each safe practice and information about Leapfrog scoring can be found in the technical appendix of this report.

Overall, the high average scores indicate that Massachusetts hospitals adhered to Leapfrog's NQF safe practices standard in 2021. However, some low scores in each domain indicate there remain opportunities for improvement. Hospital-specific results are available in the databook.

Leapfrog Safe Practices Scores on Individual NQF Safe Practices



Leapfrog Hand Hygiene Score



In 2021, 32 out of 52 reporting hospitals achieved the Leapfrog standard for Hand Hygiene practices.

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

Notes: For more information about the Leapfrog survey and scoring algorithm, see technical appendix. Only the most recent year of data is shown because COVID-19-related modifications to the Leapfrog Group hospital survey reporting requirements in 2020 make trending impossible.

Quality of Care in the Commonwealth 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: NQF Safe Practices (Boston, April 2021), https://ratings.leapfroggroup.org/sites/default/files/inline-files/2022%20NQF%20Safe%20Practices%20Factsheet_2.pdf.
3. American Nurses Credentialing Center. Organizational Programs (Silver Spring, n.d.), https://www.nursingworld.org/organizational-programs/.

Total Medical Expenses & Alternative Payment Methods

KEY FINDINGS

HSA TME for most commercial payers rebounded in 2021 following slower growth or declines in 2020 due to the pandemic's disruptions to the health care system.

In 2021, all MassHealth MCO/ ACO-A payers were below the benchmark, with three payers reporting decreases in HSA TME, despite increases in overall MCO/ ACO-A enrollment.

Aggregate HSA scores increased in 2021 for all commercial payers as health care system utilization rebounded, after scores declined in 2020.

APM adoption remained relatively consistent among commercial and MassHealth MCO/ACO-A payers, but declined for Medicare Advantage.

Total Medical Expenses & 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 per member per month (PMPM) basis for Massachusetts residents. TME includes the amounts paid by the payer as well as member cost-sharing and covers all categories of medical expenses and all non-claims-related payments to providers, including provider performance payments. 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 (called commercial full-claim in this report).

TME data is examined and reported on a health status adjusted (HSA) basis for each payer's member population. HSA TME adjusts for differences in member illness burden and expected medical costs associated with members' recorded diagnoses. The tools used for adjusting TME for health status of a payer's covered members vary among payers, which removes the ability to compare HSA TME across payers; therefore, CHIA also reports the data on an unadjusted basis by payer and physician group in order to show differences in TME growth. This year, CHIA additionally reports data on aggregate HSA scores by payer to examine the COVID-19 pandemic's impact on

HSA score calculation. CHIA will continue to monitor TME data in the context of the pandemic in the coming years in order to better understand the consequences of the pandemic on HSA scores and medical spending trends.

Given the significant impacts of the COVID-19 pandemic on health care utilization and spending in 2020 and 2021, this chapter includes data on annualized trends from 2019 to 2021. Annualized trends reflect the compound annual growth rate from 2019 to 2021. Additionally, as in previous reports, percent changes are presented in comparison to the previous calendar year.

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) method. Chapter 224 of the Acts of 2012 set goals to increase the adoption of alternative payment methods (APMs) which are methods of payment in which some of the financial risk associated with the delivery of medical care as well as the management of health conditions is shifted from payers to providers. Generally, APMs are intended to give providers new incentives to control overall costs (e.g., reduce unnecessary services and provide services in the most appropriate setting) while maintaining or improving quality.

This chapter reports on 2021 TME and APMs using the following metrics:

TME:
Total medical 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), as well as for members who are attributed to a PCP as part of a contract between the payer and provider.

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

CHIA 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. HSA TME is reported on a per member per month (PMPM) basis.

Annualized HSA TME growth from 2019 to 2021 on a PMPM basis varied across payers, with trends ranging from -3.2% (Cigna) to 7.2% (United and Health New England).

From 2020 to 2021, as health care system utilization and spending rebounded, nine of the 11 commercial payers, accounting for 92.8% of the commercial full-claim population, reported HSA TME growth above the 3.1% benchmark.

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 57.6% of commercial full-claims member months in 2021. HSA TME for all three payers exceeded the cost growth benchmark from 2020 to 2021. Additionally, national payers United and Cigna exceeded the cost growth benchmark in 2021. Health New England (HNE) reported the fastest growth at 14.6% from 2020 to 2021.

AllWays and BMC HealthNet Plan (BMCHP) were the only payers to report growth below the benchmark, with BMCHP reporting a decline in HSA TME.

Change in Commercial HSA TME by Payer, 2019-2021

	Member Months	Annualized HSA TME Trend 2019-2021	2019-2020	2020-2021
BCBSMA	10.5 M	3.5%	3.0%	4.1%
HPHC	2.6 M	3.2%	1.9%	4.6%
THP	2.3 M	4.2%	4.3%	4.0%
THPP	2.1 M	5.3%	4.8%	5.8%
United	1.7 M	7.2%	6.1%	8.4%
Cigna	1.5 M	-3.2%	-10.4%	4.5%
HNE	1.3 M	7.2%	0.2%	14.6%
AllWays	1.0 M	1.6%	2.2%	0.9%
BMCHP	0.9 M	-1.2%	1.5%	-3.9%
HPI	0.9 M	1.9%	-5.0%	9.4%
Fallon	0.7 M	5.2%	0.6%	9.9%

KEY

Above 3.1% Benchmark

Below 3.1% Benchmark

HSA TME spending PMPM for many payers rebounded from 2020 to 2021 following slower or declining PMPM spending growth from 2019 to 2020.

Source: Payer-reported TME data to CHIA.

Notes: The tools used for adjusting TME for health status of a payer's covered members vary among payers, and therefore adjustments are not directly comparable across payers. See the databook for a list of health status adjustment tools used for the data presented in this report. These trends are based on expenditures that reflect payments to providers, and are gross of prescription drug rebates received by health plans after the point of sale. This analysis includes commercial full-claims data only. Commercial full-claims data represents members for whom the payer has access to and is able to report all claims expense, and represented 64.1% of of total commercial member months in 2021. HPHC, Tufts, THPP, and Health Plans, Inc. (HPI) merged in 2021 but continued to report data as separate entities. Health status adjusted data from Aetna was excluded due to data quality concerns. Annualized trend for 2019 to 2021 was calculated as (2021 Value/2019 Value)^(1/2)-1.

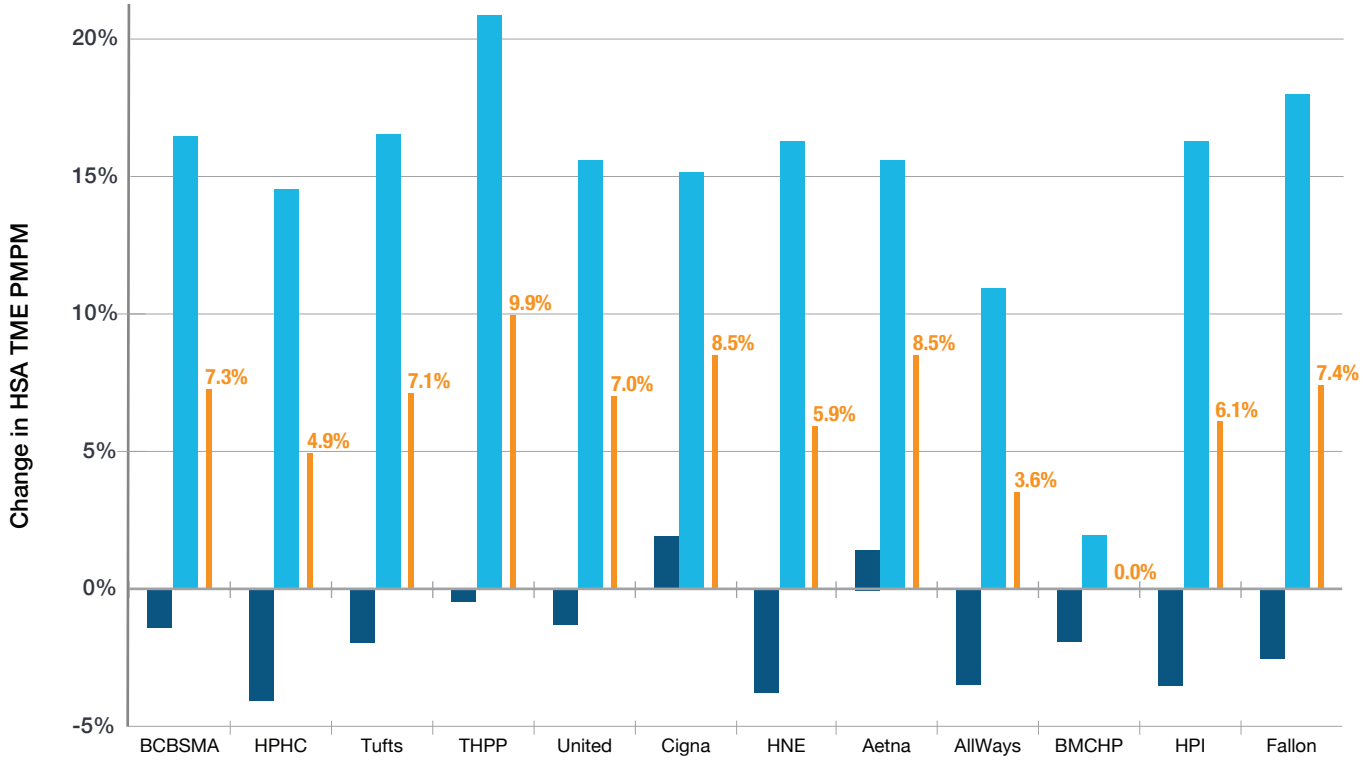
Change in Commercial Unadjusted TME by Payer, 2019-2021

In addition to examining TME by payer on a HSA basis, CHIA analyzed the data without health status adjustment, which reflects actual payments made to providers without adjusting for differences in health status of a payer's population.

From 2019 to 2021, annualized unadjusted TME PMPM trends ranged from 0.0% (BMCHP) to 9.9% (THPP). The three largest payers, BCBSMA, HPHC, and Tufts reported annualized unadjusted TME growth rates of 7.3%, 4.9%, and 7.1%, respectively.

From 2019 to 2020, 10 of 12 commercial payers reported decreases in unadjusted TME PMPM due to pandemic-related disruptions to the health care system. From 2020 to 2021, spending rebounded, with all payers reporting unadjusted TME PMPM growth above 10% except BMCHP, which reported TME PMPM growth at 2.0%. Slower TME growth for this payer was driven by declines in membership as well as declines in pharmacy spending as a result of lower pharmacy rates being negotiated by a new pharmacy benefit manager.

The three largest Massachusetts-based commercial payers (BSBSMA, HPHC, and Tufts) all reported unadjusted TME PMPM spending growth greater than 14% from 2020 to 2021, following declines for all three payers from 2019 to 2020. THPP reported the largest increase of any payer, with unadjusted TME PMPM growing 21.3% from 2020 to 2021, after declining 0.4% the previous year.



Payers are presented in order based on number of member months.

KEY 2019-2020 2020-2021 Annualized Trend 2019-2021

Unadjusted TME PMPM increased for all payers from 2020-2021, following declines for most payers the previous year.

Source: Payer-reported TME data to CHIA.

Notes: This analysis includes commercial full-claims data only. Commercial full-claims data represents members for whom the payer has access to and is able to report all claims expense, and represented 64.1% of of total commercial member months in 2021. HPHC, Tufts, THPP, and Health Plans, Inc. (HPI) merged in 2021 but continued to report data as separate entities. Annualized trend for 2019 to 2021 was calculated as (2021 Value/2019 Value)^(1/2)-1.

Change in MassHealth MCO and ACO-A HSA TME by Payer, 2019-2021

Fallon, HNE, and AllWays enroll members in MassHealth ACO-A plans, while BMCHP and Tufts Health Public Plans (THPP) offer MCO plans to MassHealth members. Consistent with previous years, the majority of MassHealth MCO/ACO-A members (89.1%) were enrolled with THPP, BMCHP, and Fallon.

From 2019 to 2021, annualized trends for MassHealth MCO and ACO-A payers ranged from -1.1% for AllWays to 3.2% for HNE.

From 2020 to 2021, all MCO/ACO-A payers reported spending trends that were below the 3.1% cost growth benchmark. Three payers reported declines in HSA TME from 2020 to 2021, including the two largest MassHealth MCO and ACO-A payers.

MassHealth MCO/ACO-A spending growth from 2020 to 2021 was slower than commercial payers partially due to a decrease in MCO/ACO-A hospital inpatient spending in 2021. Payers reported that this decline in inpatient spending was partially due to updated enrollment policies for newborn members which shifted financial responsibility for newborns from MCOs and ACOs to MassHealth fee-for-service coverage.[1] Additionally, some medical and surgical cases moved to outpatient settings.

MassHealth MCO/ACO-A membership continued to grow in 2021 at 11.6%, faster than the 5.5% growth the prior year, amid the continued suspension of eligibility redeterminations during the federal public health emergency.

	Member Months	Annualized HSA TME Trend 2019-2021	2019-2020	2020-2021
THPP	3.7 M	3.0%	6.7%	-0.6%
BMCHP	3.0 M	2.0%	5.4%	-1.3%
Fallon	1.4 M	0.2%	-1.2%	1.5%
AllWays	0.5 M	-1.1%	0.7%	-2.8%
HNE	0.5 M	3.2%	3.6%	2.7%

KEY

Above 3.1% Benchmark

Below 3.1% Benchmark

In 2021, all MassHealth MCO/ACO-A payers reported HSA TME below the benchmark, with three payers reporting decreases.

Source: Payer-reported TME data to CHIA.

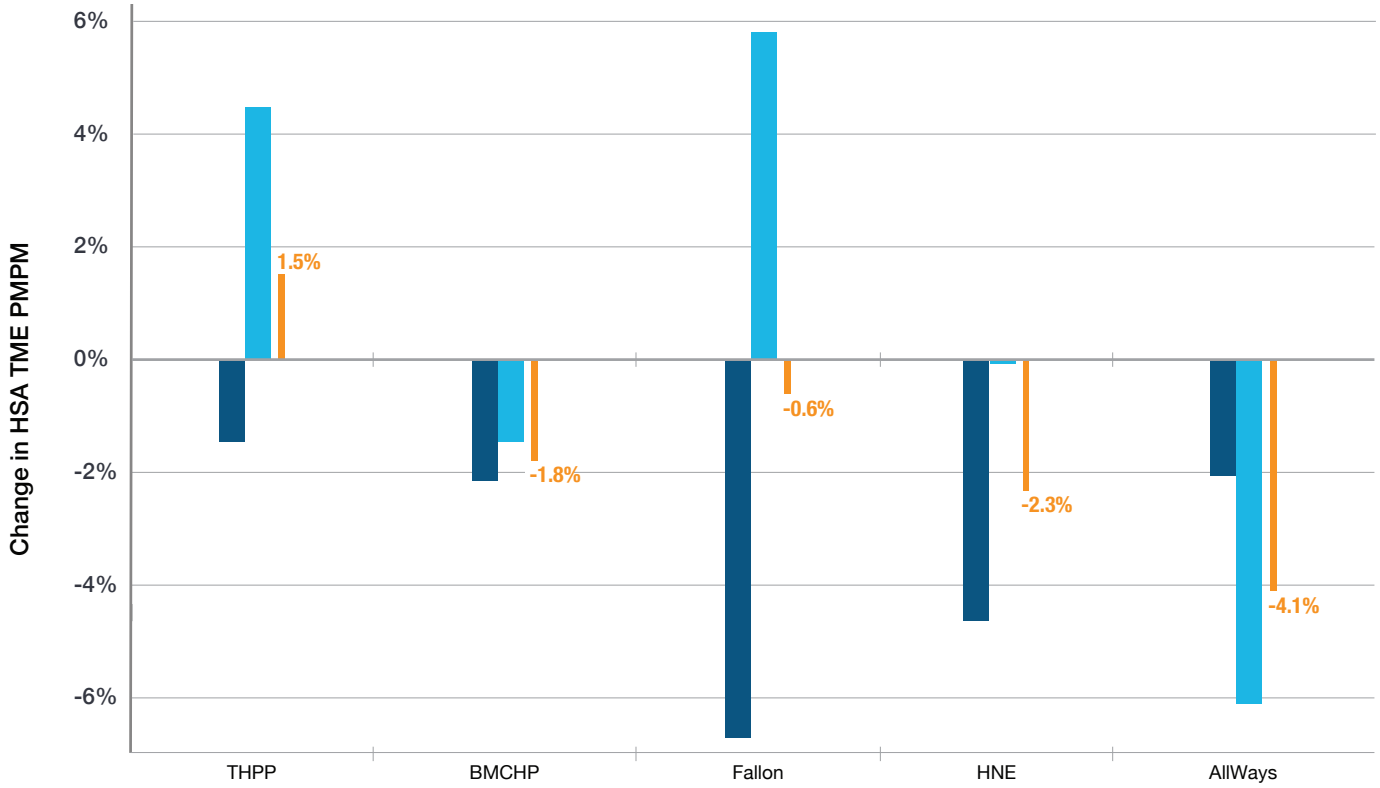
Notes: The tools used for adjusting TME for health status of a payer's covered members vary among payers, and therefore adjustments are not uniform or directly comparable across payers. See the databook for a list of health status adjustment tools used for the data presented in this report. These trends 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. Payers report data to CHIA using consistent risk tools across the three-year reporting period. Annualized trend for 2019 to 2021 was calculated as (2021 Value/2019 Value)^(1/2)-1.

Annualized trends in unadjusted TME PMPM spending for MassHealth MCO and ACO-A payers ranged from 1.5% to -4.1%, with four of the five payers demonstrating declines in annualized spending PMPM from 2019 to 2021.

From 2020 to 2021, Fallon and THPP reported unadjusted TME PMPM growth, while the three remaining payers reported declines. While HSA TME PMPM spending trends from 2020 to 2021 showed relatively slow growth or declines, unadjusted TME trends reflect faster growth for THPP (4.5%) and Fallon (5.8%) and steeper declines for AllWays (-6.1%). AllWays reported a 16.4% increase in MassHealth ACO-A enrollment, the fastest growth of any MCO and ACO-A payer.

For more information on MassHealth enrollment trends, see page 23.

Change in MassHealth MCO and ACO-A Unadjusted TME by Payer, 2019-2021



Payers are presented in order based on number of member months.

KEY 2019-2020 2020-2021 Annualized Trend 2019-2021

Four of the five MassHealth MCO and ACO-A payers demonstrated declines in annualized spending PMPM from 2019 to 2021.

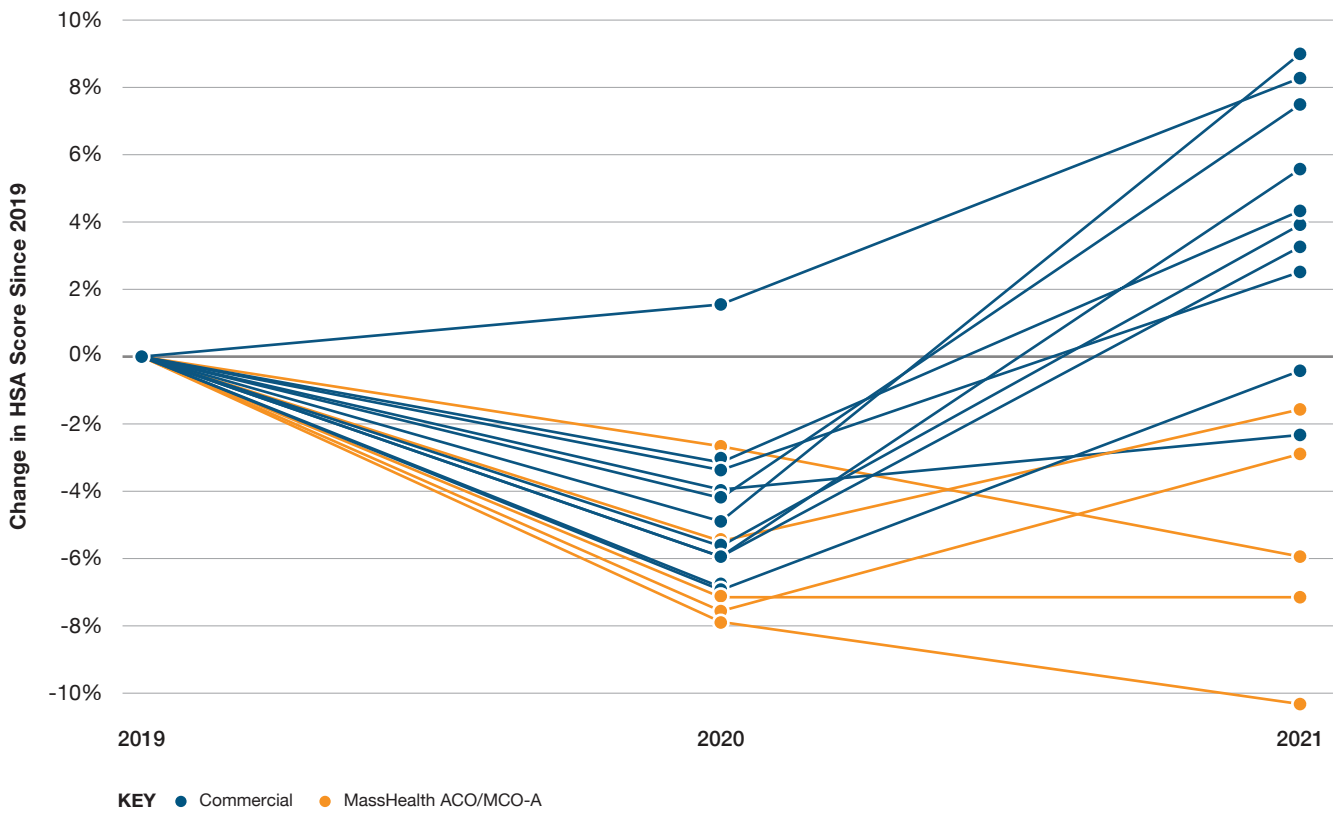
Source: Payer-reported TME data to CHIA.

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. Annualized trend for 2019 to 2021 was calculated as (2021 Value/2019 Value)^(1/2)-1.

Change in Aggregate HSA Scores by Commercial and MassHealth MCO/ACO-A by Payer, 2019-2021

Payers use HSA scores to contextualize spending to account for the health of a population. CHIA aggregates payer-reported HSA scores to calculate HSA TME spending growth, the metric used to determine payer and provider spending growth in relation to the 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 socioeconomic factors and barriers to care which decrease health care utilization.[2]

In 2020, most commercial and MassHealth MCO/ACO-A payers reported declines in aggregate HSA scores due to decreased utilization. In 2021, aggregate HSA scores for all commercial payers increased, with the majority rising above pre-pandemic levels, due to a rise in utilization and captured diagnosis codes. MassHealth MCO/ACO-A payers, however, reported that HSA scores in 2021 remained lower than pre-pandemic scores, as the continued suspension of redeterminations in 2021 impacted the average measured risk of the MassHealth MCO/ACO-A population.[3]



In 2021, commercial payers reported rebounding aggregate HSA scores, while aggregate HSA scores for MassHealth MCO/ACO-A payers remained below pre-pandemic values.

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. One payer was excluded due to data quality concerns. An additional payer reported outlier HSA scores of 13.7% from 2019 to 2020 and 10.5% from 2020 to 2021 and is excluded from the display above. Commercial trends shown here reflect commercial full-claims data only. Some, but not all, of the payers' HSA tools accounted for COVID-19 diagnosis codes in the calculation of risk.

Change in Managing Physician Group Commercial HSA TME, 2019-2021

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

The 10 largest physician groups within the networks of the three largest payers (BCBSMA, HPHC, and Tufts) represented 53.3% of commercial full-claims managed member months in 2021.[4]

On a HSA basis, all of the top 10 physician groups experienced positive annualized growth in all three payers' networks from 2019 to 2021, with annualized trends ranging from 1.3% for Reliant in HPHC's network to 13.1% for Baycare in Tufts' network.

All 10 physician groups experienced decreases in commercial managed member months from 2020 to 2021. However, all of the top 10 physician groups had HSA TME growth above the 3.1% benchmark in at least one of the payer's network, with five of 10 above the benchmark in all three largest payer networks.

Two physician groups showed declines in HSA TME in one payer's network, with Steward decreasing 3.0% in Tufts' network in 2021, driven by changes in membership as well as a decrease in non-claims payments. HSA TME decreased 0.2% for Atrius in HPHC's network in 2021.

	Annualized HSA TME Trend 2019-2021	HSA Year-over-Year Trends 2020	HSA Year-over-Year Trends 2021	BCBSMA, HPHC, and Tufts Share of Group's Managed Member Months	Total Managed Member Months 2021
MGB	BCBSMA 3.5% HPHC 2.4% Tufts 5.1%	BCBSMA 3.1% HPHC 0.2% Tufts 5.2%	BCBSMA 3.9% HPHC 4.6% Tufts 5.1%	95.2%	2.7 M
Steward	BCBSMA 3.8% HPHC 3.4% Tufts 2.6%	BCBSMA 2.3% HPHC 1.0% Tufts 8.5%	BCBSMA 5.3% HPHC 5.8% Tufts -3.0%	72.3%	1.5 M
Atrius	BCBSMA 2.2% HPHC 3.3% Tufts 5.0%	BCBSMA 2.4% HPHC 6.9% Tufts 1.2%	BCBSMA 2.1% HPHC -0.2% Tufts 9.0%	95.8%	1.4 M
NEQCA	BCBSMA 2.9% HPHC 2.1% Tufts 5.0%	BCBSMA 0.2% HPHC -1.9% Tufts -0.2%	BCBSMA 5.7% HPHC 6.2% Tufts 10.6%	96.1%	0.9 M
BIDCO	BCBSMA 5.8% HPHC 1.7% Tufts 4.6%	BCBSMA 6.2% HPHC 2.8% Tufts 5.6%	BCBSMA 5.3% HPHC 0.7% Tufts 3.5%	61.5%	0.8 M
UMass	BCBSMA 6.5% HPHC 5.4% Tufts 5.0%	BCBSMA 6.4% HPHC 0.0% Tufts 3.9%	BCBSMA 6.5% HPHC 11.0% Tufts 6.2%	78.7%	0.8 M
Reliant	BCBSMA 2.1% HPHC 1.3% Tufts 2.2%	BCBSMA -3.3% HPHC 1.7% Tufts 2.1%	BCBSMA 7.8% HPHC 0.9% Tufts 2.3%	70.2%	0.6 M
Baycare	BCBSMA 7.8% HPHC 4.1% Tufts 13.1%	BCBSMA 6.2% HPHC 2.2% Tufts 14.9%	BCBSMA 9.4% HPHC 6.1% Tufts 11.2%	49.7%	0.6 M
Lahey	BCBSMA 3.5% HPHC 6.0% Tufts 5.5%	BCBSMA 3.6% HPHC 4.3% Tufts 5.0%	BCBSMA 3.4% HPHC 7.8% Tufts 5.9%	68.7%	0.5 M
BMC	BCBSMA 2.7% HPHC 6.8%	BCBSMA 0.3% HPHC 9.6% Tufts	BCBSMA 5.2% HPHC 4.1% Tufts 2.3%	65.7%	0.3 M

KEY

Above 3.1% Benchmark Below 3.1% Benchmark

From 2019 to 2021, payments to provider groups increased at annual rates ranging from 1.3% to 13.1%.

Source: Payer-reported TME data to CHIA.

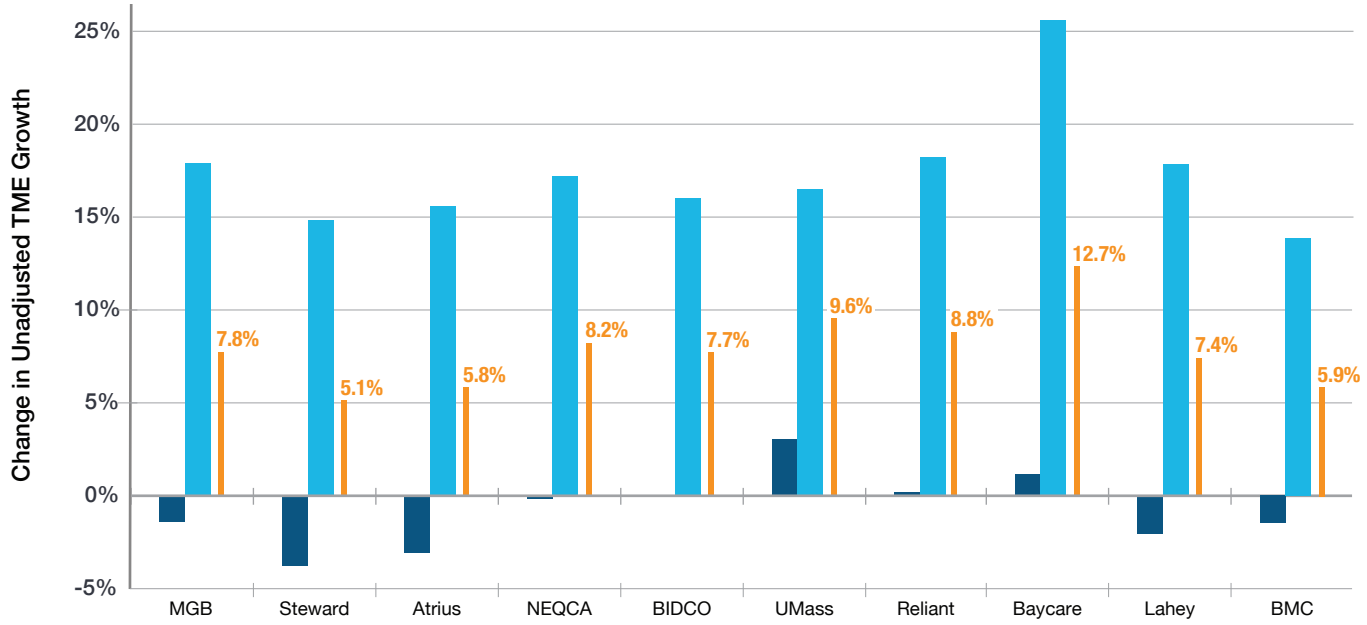
Notes: Data reported here is based on final 2020-2021 commercial full-claim TME data, both for members whose plan requires the selection of a PCP, as well as for members who were attributed to a PCP pursuant to a contract between the payer and the physician group, such as a PPO APM. The tools used for 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. Health New England represented the largest share of member months for Baycare, and demonstrated a 10.8% increase in commercial HSA TME for Baycare. Annualized trend for 2019 to 2021 was calculated as (2021 Value/2019 Value)^(1/2)-1.

CHIA also examined data for the 10 largest physician groups at the unadjusted level, combining spending across the networks of the three largest Massachusetts-based payers (BCBSMA, Tufts, and HPHC).

As seen in health status adjusted data, all of the top 10 physician groups experienced positive annualized unadjusted TME growth PMPM from 2019 to 2021. However, unadjusted annualized increases from 2019 to 2021 were generally greater than the corresponding health status adjusted trends, ranging from 5.1% for Steward to 12.7% for Baycare.

On an unadjusted basis, PMPM spending from 2020 to 2021 grew more than 10% for all of the top 10 physician groups.

Change in Managing Physician Group Commercial Unadjusted TME for BCBSMA, HPHC, and THP Networks Combined, 2019-2021



Payers are presented in order based on number of member months.

KEY 2020 2021 Annualized Trend 2019-2021

	MGB	Steward	Atrius	NEQCA	BIDCO	UMass	Reliant	Baycare	Lahey	BMC
Total Managed Member Months in 2021	2.7M	1.5M	1.4M	0.9M	0.8M	0.8M	0.6M	0.6M	0.5M	0.3M
BCBSMA, HPHC and Tufts Share of Group's Managed Member Months	95.2%	72.3%	95.8%	96.1%	61.5%	78.7%	70.2%	49.7%	68.7%	65.7%

On an unadjusted basis, all of the top 10 physician groups within the networks of the three largest payers experienced annualized spending increases greater than 5% from 2019 to 2021.

Source: Payer-reported TME data to CHIA.

Notes: Data reported here is based on final 2020-2021 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. Health New England represented the largest share of member months for Baycare, and demonstrated 6.0% annualized growth for Baycare from 2019 to 2021. For BMC, only payments from BCBSMA and HPHC are included in 2019-2020 calculations. Annualized trend for 2019 to 2021 was calculated as (2021 Value/2019 Value)^(1/2)-1.

Adoption of Alternative Payment Methods by Insurance Category, 2019-2021

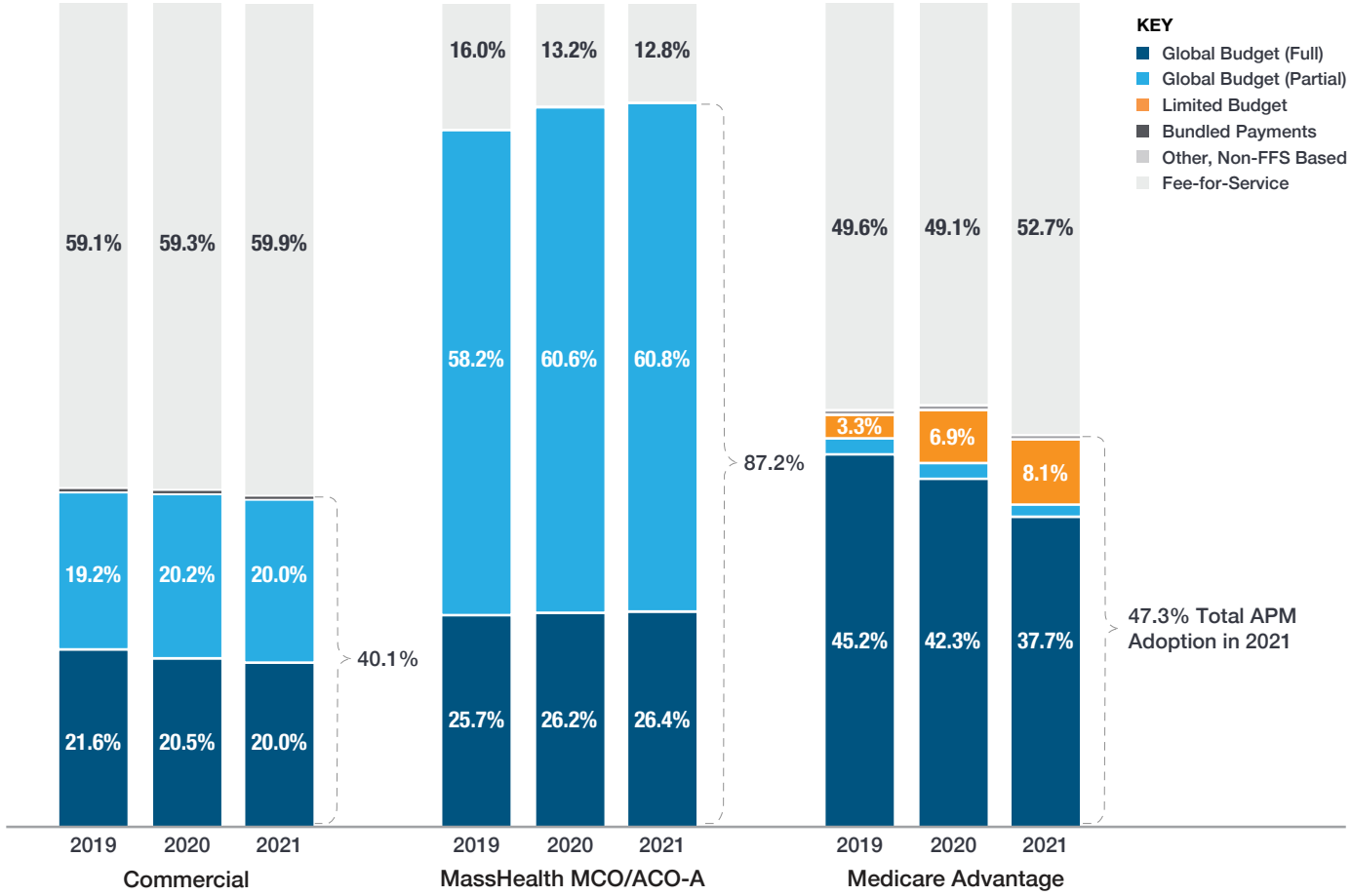
Payers and providers use APMs to promote coordinated care and create incentives to control costs while maintaining or improving quality.

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

Since implementation of the MassHealth ACO program in 2018, MassHealth MCO and ACO-A APM adoption has continued to grow, though APM growth in 2021 was slower than previous years. AllWays, Fallon, and HNE, which solely manage ACO-A plans, reported 100% of members under an APM arrangement from 2019 to 2021.

Overall Medicare Advantage APM use decreased 3.6 percentage points in 2021, driven by a decrease in global full budget APM arrangements in a continuation of trends seen since 2016. However, the use of limited budget plans continued to grow to 8.1% in 2021.

Global payment arrangements accounted for nearly all commercial and MassHealth MCO and ACO-A APM arrangements and 82.9% of Medicare Advantage APM arrangements in 2021. In 2021, 86.6% of global budget arrangements were categorized as having upside and downside risk and 8.2% were shared savings only.



APM adoption remained relatively stable for commercial payers and MassHealth MCOs and ACO-As, while adoption in Medicare Advantage decreased.

Source: Payer-reported APM data to CHIA.

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

Total Medical Expenses & Alternative Payment Methods Notes

1. "Policies and Procedure for Newborn Members: Eligibility, Enrollment and Payment." MassHealth All Provider Bulletin 305, December 2020. https://www.mass.gov/doc/all-provider-bulletin-305-policies-and-procedure-for-newborn-members-eligibility-enrollment-0/download.
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. "MassHealth: The Basics: Facts and Trends." Blue Cross Blue Shield of Massachusetts Foundation prepared by Commonwealth Medicine University of Massachusetts Chan Medical School, October 2022. https://www.bluecrossmafoundation.org/sites/g/files/csphws2101/files/2022-10/MassHealthBasics2022_FINAL_1.pdf.
4. Beth Israel Deaconess Care Organization (BIDCO) and Lahey merged as a system in 2019, however, they are reported separately here because payers reported contracts with each individual entity. For 2021, BCBSMA reported 9.4% of commercial full membership in a new organization, Beth Israel Lahey Health (BILH), shifting membership away from BIDCO and Lahey groups; this data is not included in this analysis.

Private Commercial Contract Enrollment

KEY FINDINGS

In 2021, employer-sponsored insurance enrollment decreased across most market sectors, with the fastest decline in small group membership (employers with <50 employees).

Following two years of enrollment growth, individual purchaser enrollment declined significantly in 2021 driven by decreases in ConnectorCare membership.

Seven of 11 commercial payers reported decreases in membership, including the three largest Massachusetts-based payers.

Enrollment in high deductible health plans (HDHPs) continued recent growth trends, increasing from 37.3% of private commercial members to 42.7% from 2019 to 2021.

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 2019 through 2021 reflects approximately 4.0 million contract lives.[1] CHIA analyzes enrollment by market sector, product type (HMO, PPO, POS), funding type, and benefit design type (HDHP, tiered network, limited network). Unless otherwise noted, the remaining chapters of this report highlight membership and cost trends for members covered under private commercial contracts established in Massachusetts (which may include non-Massachusetts residents).[2]

While the vast majority of private commercial members are covered under employer-sponsored insurance (ESI), some individuals purchase plans for themselves and their families via the Health Connector, through intermediaries, or directly from insurers. Within the report, these members are referred to as "individual purchasers."

Depending on income and other eligibility factors, qualifying Massachusetts residents may purchase ConnectorCare plans that include state cost-sharing reduction (CSR) subsidies and premium subsidies and federal tax credits. Additionally, subsidies are available for members that do not qualify for ConnectorCare plans but meet the income and other eligibility guidelines to qualify for Advance Premium Tax Credits, identified as "APTC-only" throughout this chapter. The American Rescue Plan Act of 2021 (ARPA) expanded eligibility for premium subsidies to those over

For additional insight into:
- MassHealth enrollment, see "MassHealth Enrollment" on page 23.
- Employer-sponsored insurance plans, see CHIA's 2021 *Massachusetts Employer Survey*.
- To see the impact of COVID-19 on insurance coverage in the Commonwealth, see CHIA's Monthly Enrollment Summaries and most recent Enrollment Trends report.

400% of FPL and increased the financial assistance to those who already qualified for subsidies. Of the payers included in this report, AllWays, BMCHP, Fallon, HNE, and THPP offered ConnectorCare plans, and BCBSMA, BMCHP, Fallon, HPHC, and THPP enrolled APTC-only members.[3]

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

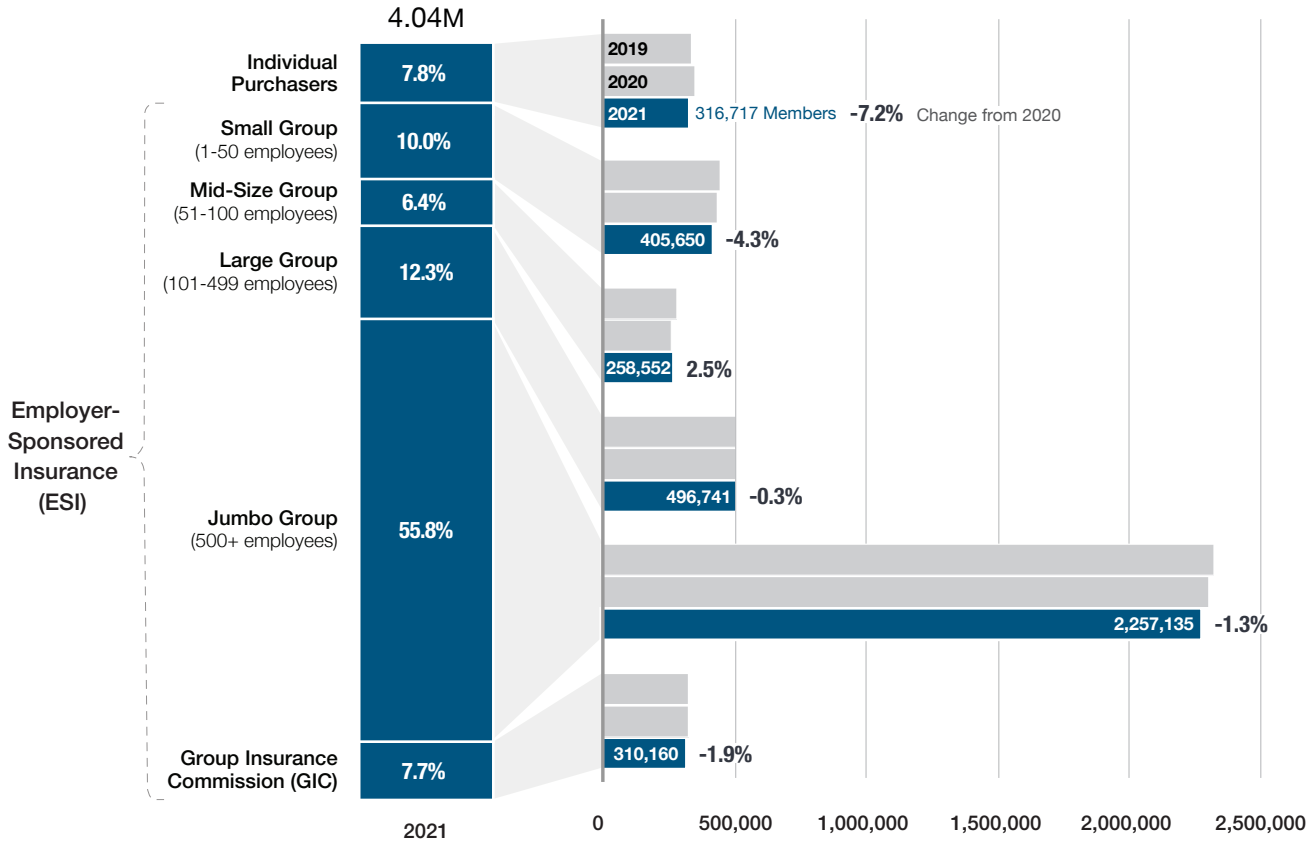
In 2021, enrollment in private commercial insurance continued to decline, decreasing 1.8% from 2020 after declining 1.3% the previous year. Individual plans experienced the biggest decrease in membership at -7.2% in 2021 after increasing 2.4% in 2020. Employer Sponsored Insurance (ESI) enrollment also declined, with all but one market sector experiencing decreases in 2021.

Among individual purchasers, membership in subsidized ConnectorCare plans decreased 12.5% to nearly 187,000 members. Unsubsidized individual enrollment grew 1.6% to approximately 130,000 members, and APTC-only membership increased 50.2% in 2021. The implementation of the American Rescue Plan (ARPA) in March 2021 expanded eligibility for purchasers to receive APTCs and increased the amounts of credits received.

In 2021, 3.7 million members were enrolled in ESI coverage, a 1.3% decrease from 2020. Plans offered by jumbo group employers, which represent 55.8% of the market, declined by 1.3% to 2.3 million contract lives. During the same period, enrollment in small group health plans decreased by 4.3% after declining 4.1% the previous year, while enrollment in mid-size group plans increased 2.5%. Large group health plan enrollment remained relatively steady from 2020 to 2021 (-0.3%).

Overall enrollment trends were impacted by the requirement that MassHealth maintain continuous coverage during the public health emergency; in 2021 MassHealth enrollment grew 10.9%. For more information on health insurance enrollment in Massachusetts, including Medicare and MassHealth coverage, see CHIA's *Enrollment Trends* reporting.[4]

Enrollment by Market Sector, 2019-2021



After two years of enrollment growth, individual purchaser enrollment declined significantly in 2021; employer plan enrollment 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. Cigna enrollment data was excluded due to data quality concerns. Annual enrollment is reported as average membership within each year, derived by dividing payer-submitted member months by 12. See technical appendix.

Private Commercial Contract Enrollment

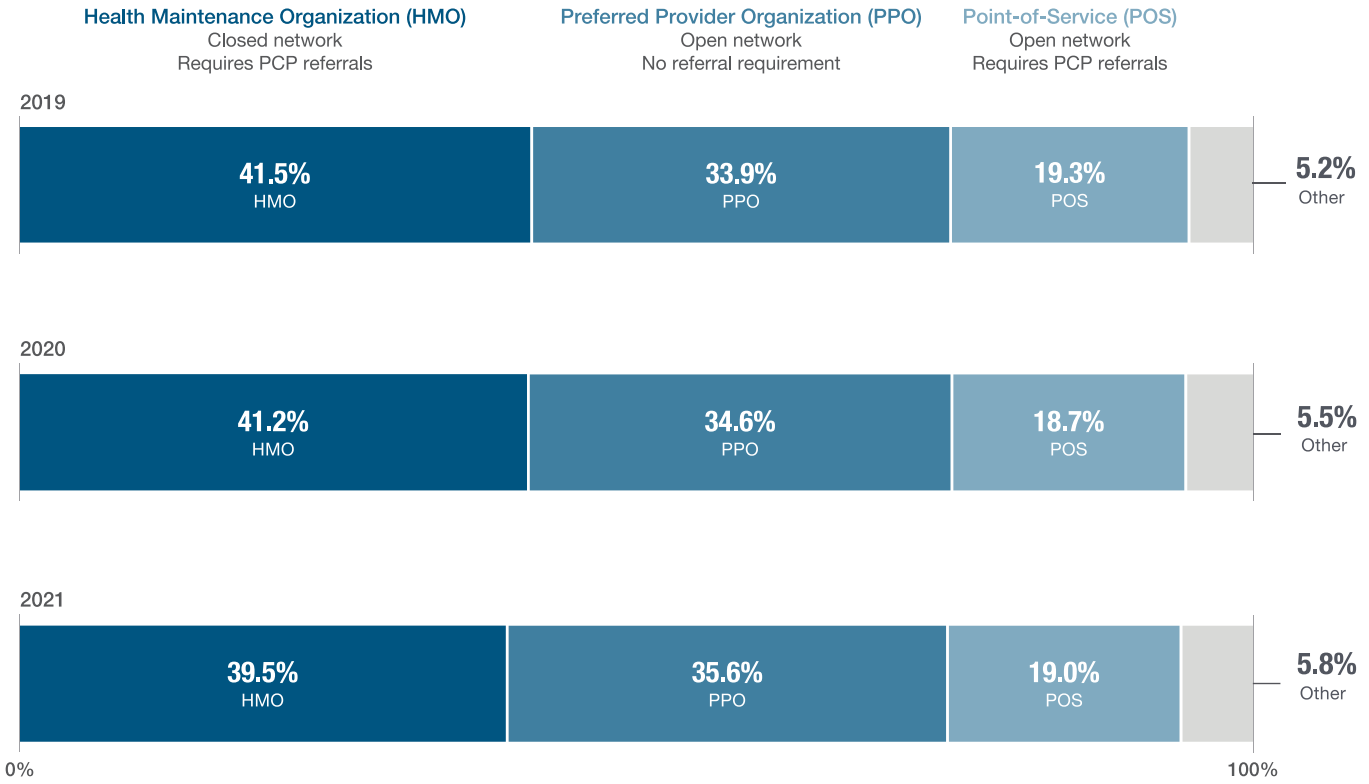
Insurance product types play a role in determining the breadth of provider networks for members as well as primary care provider (PCP) referral requirements.

The proportion of members enrolled in HMO products decreased by 1.7 percentage points from 2020 to 2021. This followed a period of relative stability between 2019 and 2020. During the same period, the proportion of members in PPO products increased 1.0 percentage points.

The proportion of members in POS plans, which offer members the flexibility to receive out-of-network care with referral from a PCP, increased slightly from 18.7% in 2020 to 19.0% in 2021.

An additional 5.8% of private commercial contract members were enrolled in "Other" product types, which include Exclusive Provider Organizations (EPOs) and Indemnity plans.

Enrollment by Product Type, 2019-2021



While the proportion of enrollment in HMO decreased in 2021, the proportion of members in PPO products continued to increase from 2019 to 2021.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Cigna enrollment data was excluded due to data quality concerns. Percentages may not sum to 100% due to rounding. See technical appendix.

Private Commercial Contract Enrollment

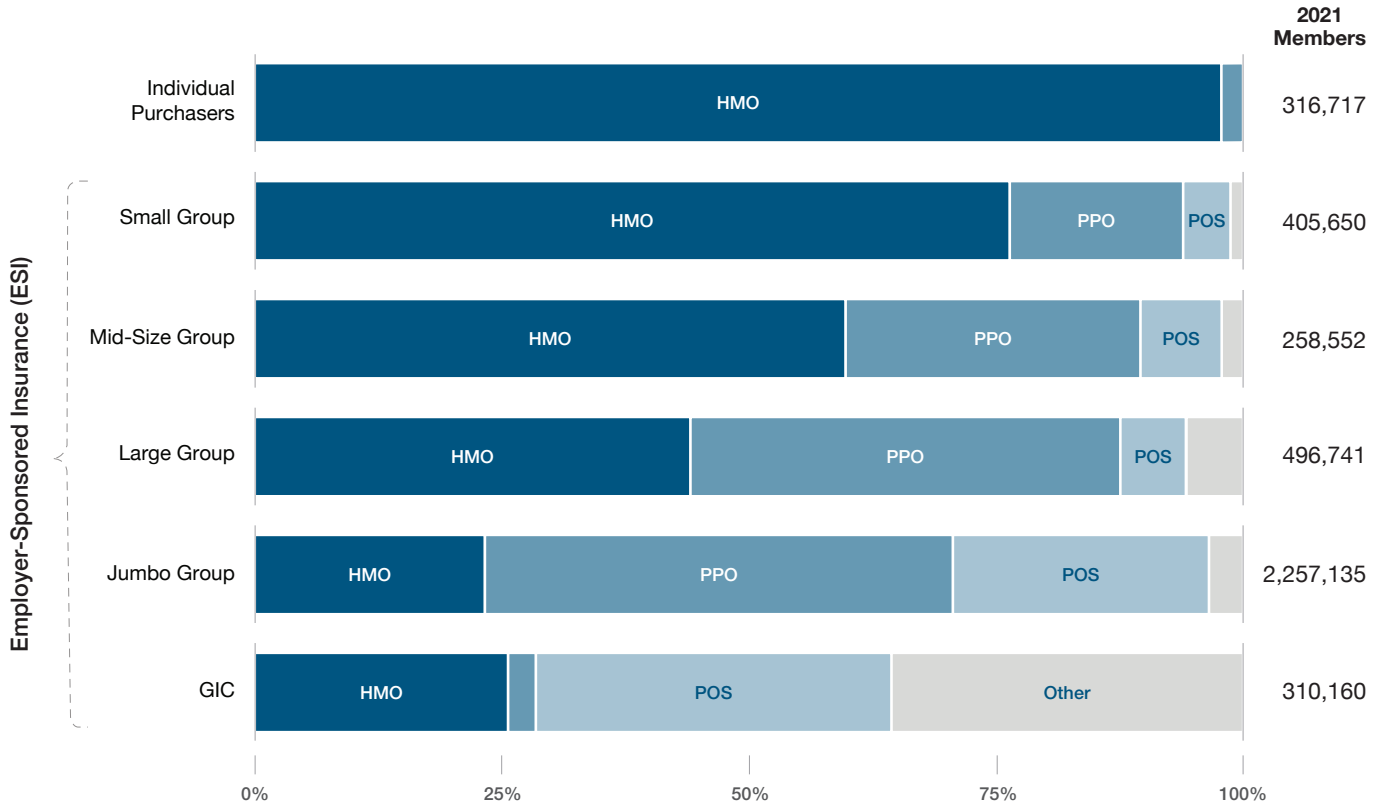
Membership by product type varies across market sectors and, for ESI plans, reflects a combination of choices by employers and health plan enrollees. In general, HMO plan prevalence is higher among smaller employers, while larger employers favor PPO and POS plans with looser network requirements.

In 2021, nearly all (97.6%) individual purchasers were enrolled in HMO plans, compared to over one-fifth (23.4%) of jumbo group members.

POS plans were common among jumbo group (25.9%) and GIC (36.0%) members, with an increasing prevalence in small, mid-size, and large group market sectors. The GIC had the highest percentage of members enrolled in "Other" plans (35.8%), 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.[5] Larger employers with employees in multiple states may also be more likely to offer open network plans like PPOs.

Enrollment by Market Sector and Product Type, 2021



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

Source: Payer-reported data to CHIA.

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

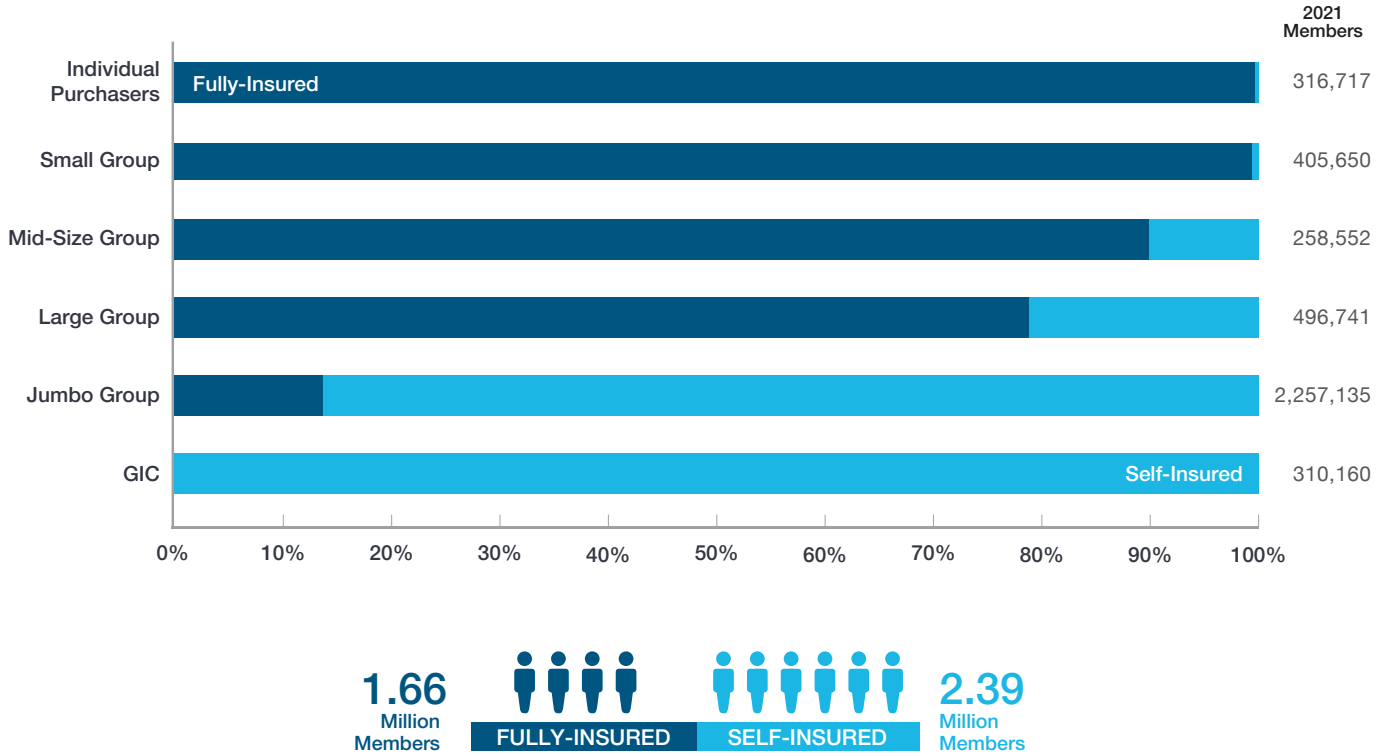
Private Commercial Contract Enrollment

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 2021, self-insured membership represented 59.0% of the Massachusetts private commercial market (2.39 million members), a consistent proportion compared to previous years. Across the market, self-insured enrollment decreased by 1.1% (-25,500 members) between 2020 and 2021, while fully-insured enrollment declined by 2.9% (-49,500 members), similar to trends seen the prior year.

Self-insurance was most common among members receiving coverage through jumbo group employers with at least 500 employees (86.2% of members self-insured) and the GIC (100% self-insured).

Enrollment by Funding Type, 2021



In 2021, 59.0% 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. Cigna enrollment data was excluded due to data quality concerns. See technical appendix.

Largest Payers by Market Sector, 2021

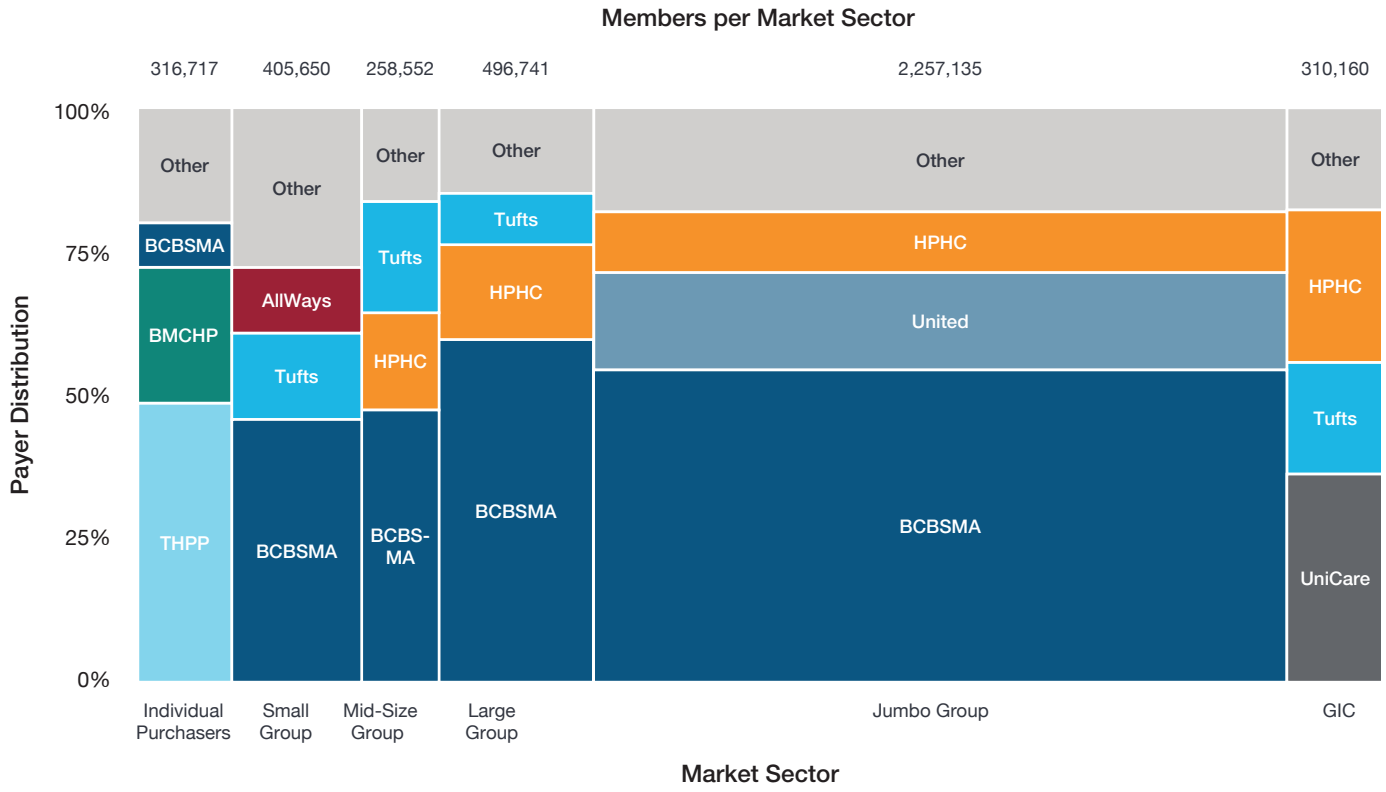
In 2021, BCBSMA remained the largest private payer, with 45.5% of the Commonwealth's commercial contract membership. However, payer market share varied across market sectors.

Other than the GIC, BCBSMA maintained the largest market share in every ESI market sector. HPHC, Tufts, and United also held significant portions of the ESI market.

More than one in three GIC members (35.8%) enrolled in plans offered by UniCare, a subsidiary of Anthem.

BMCHP and THPP, which historically served MassHealth members, together enrolled nearly three-fourths of individual purchasers in 2021, which include ConnectorCare members.

HPHC and Tufts (including THPP) merged at the start of 2021 to form Point32Health.[6] In 2021, these entities combined represented the second largest membership of any payer, with 24.9% of the commercial market. In the mid-size group market, 36.5% of members were enrolled in plans offered by Point32Health entities.



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. Cigna enrollment data was excluded due to data quality concerns. THPP is reported separately from its parent company, Tufts. See technical appendix.

Private Commercial Contract Enrollment

The three largest local payers (BCBSMA, HPHC, and Tufts) all reported declining enrollment in 2021.

HPHC experienced decreases in jumbo group, large group, and GIC membership in 2021. BCBSMA reported declines in small group and mid-size group membership, but enrollment remained steady in jumbo and large group sectors. For Tufts, despite significant enrollment increases in mid-size group membership (31.7%), overall enrollment declined due to decreases in all other ESI sectors.

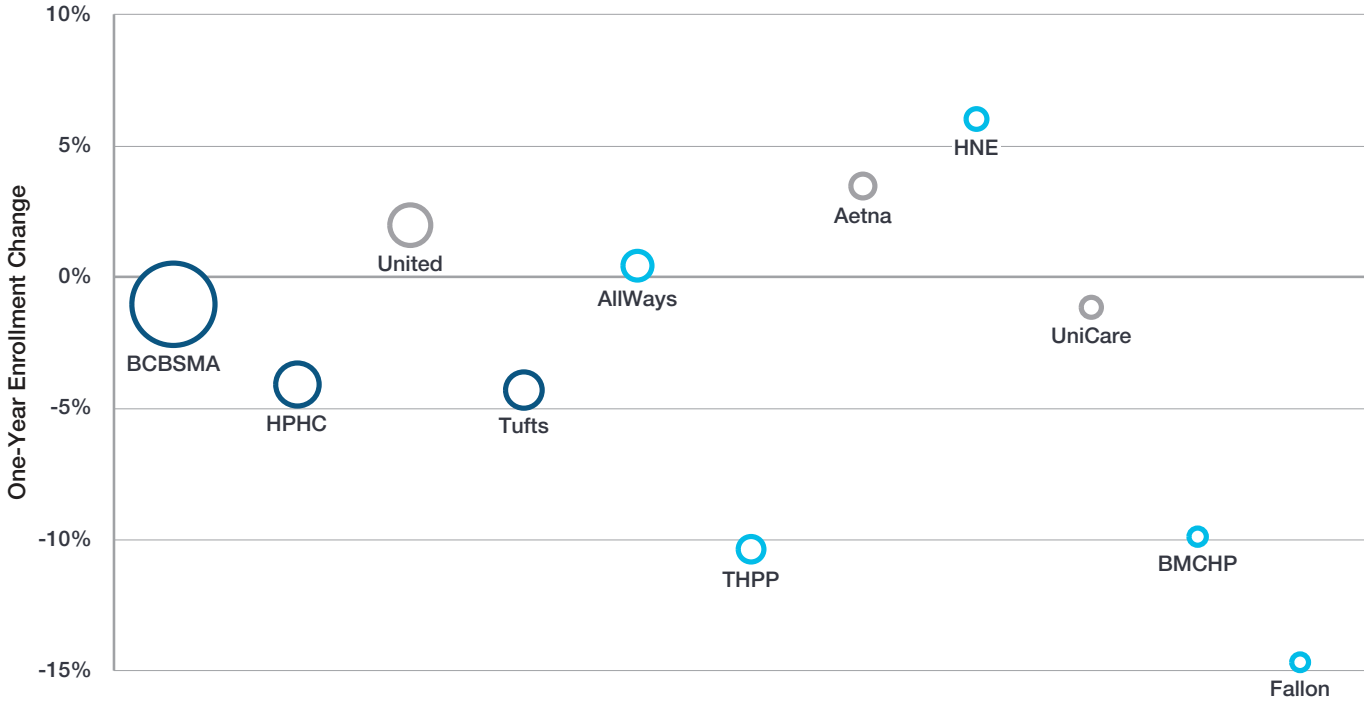
After previous years of reporting the fastest enrollment growth, THPP membership declined 10.3% in 2021, due to decreases in ConnectorCare and unsubsidized individual enrollment.

BMCHP also reported a 9.8% decline in overall commercial membership in 2021, due to a 10.1% decrease in ConnectorCare enrollment.

HNE and AllWays reported increases in overall commercial membership in 2021. AllWays experienced declining individual enrollment, which was offset by membership increases in most ESI market sectors. Two national payers, United and Aetna, also experienced increases in enrollment.

The smallest reported payer, Fallon, reported a 14.6% decrease in commercial membership in 2021. Fallon announced that it would stop offering most of its commercial plans effective 2022.[7]

Enrollment Changes by Payer, 2020-2021



	BCBSMA	HPHC	United	Tufts	AllWays	THPP	Aetna	HNE	UniCare	BMCHP	Fallon
2021 Members	1,841,853	475,767	453,881	355,742	215,036	177,191	150,994	116,499	110,909	75,675	71,406

Circles are scaled to reflect membership.

KEY: Top 3 MA Payer; MA Payer; National Payer

The three largest local payers in Massachusetts experienced membership decline in 2021.

Source: Payer-reported data to CHIA.

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

Private Commercial Contract Enrollment

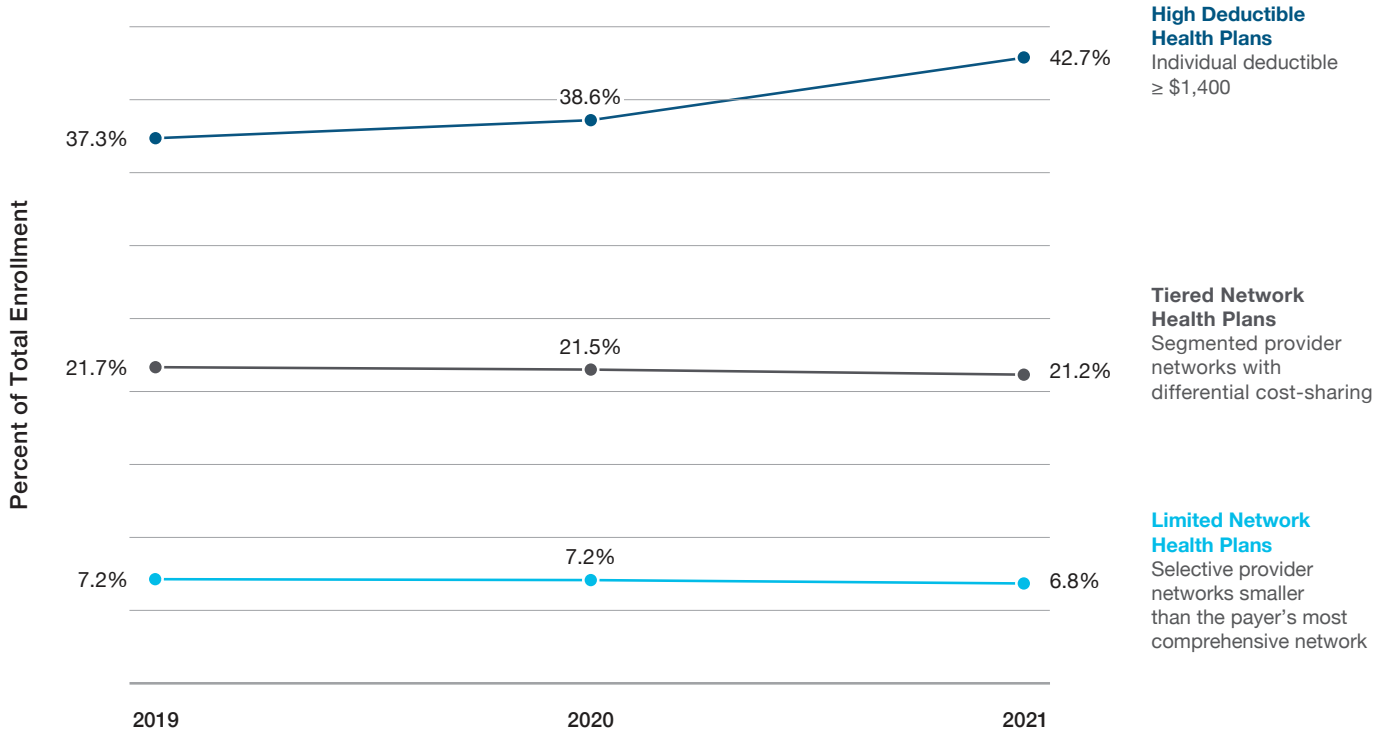
One strategy for lowering medical claims and premium costs is to structure benefits so that members have incentives to seek high-value care. Three benefit design types offered in Massachusetts are high deductible health plans (HDHPs), tiered networks, and limited networks.[8]

From 2020 to 2021, HDHP enrollment increased from 38.6% to 42.7% of the private commercial market, increasing faster than the previous year and continuing a long-term growth trend, from 14.0% in 2013.

Enrollment in tiered networks (21.2% of members in 2021) and limited network enrollment (6.8% of members) remained relatively steady.[9]

The GIC has led payer development and adoption of tiered networks in the Commonwealth, with 95.1% of members enrolled in this benefit design. Apart from the GIC, only 15% of members were enrolled in tiered networks.

Enrollment by Benefit Design, 2019-2021



Consistent with prior years, enrollment in high deductible health plans continued to grow, while tiered and limited network enrollment remained stable.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. HDHPs defined by IRS individual plan deductible threshold which was $1,350 in 2019 and $1,400 in 2020 and 2021. Benefit design types are not mutually exclusive. Cigna HDHP, limited, and tiered network enrollment data was excluded due to quality concerns. See technical appendix.

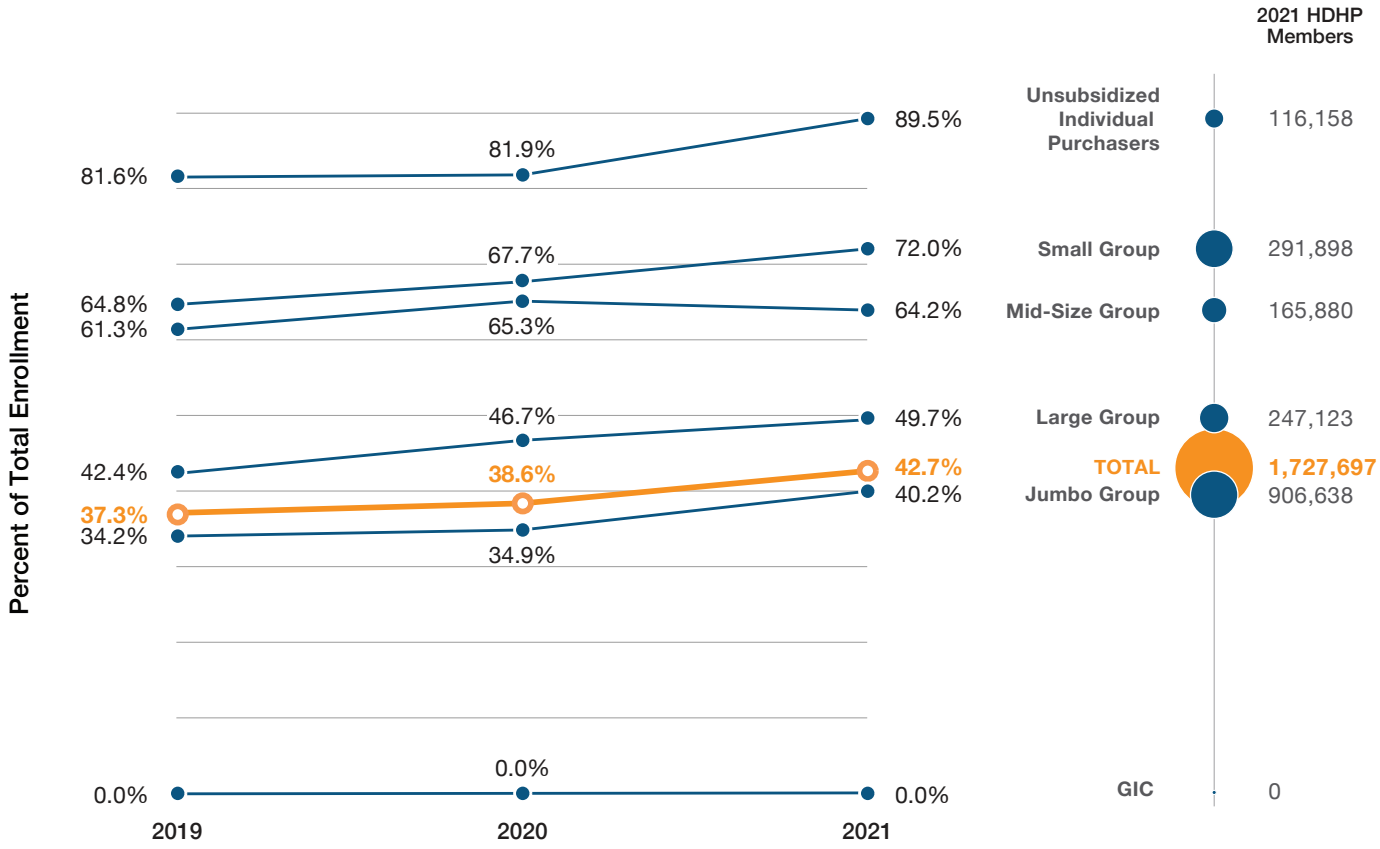
Private Commercial Contract Enrollment

High Deductible Health Plan (HDHP) Enrollment by Market Sector, 2019-2021

In 2021, over 1.7 million Massachusetts contract members (42.7%) were enrolled in HDHPs with individual deductible levels of at least $1,400. This represented an annual membership increase of 8.8% (+139,267 members), a faster growth rate than the previous year (+2.0%; +32,321 members). HDHP plans increased in almost every market sector, except for mid-size group (-1.1 percentage points).

Although the majority of HDHP members in 2021 received coverage through larger employers, the proportion of members enrolled in HDHPs tended to decrease as group size increased, with 89.5% of unsubsidized individual purchasers and over 65% of members covered through small and mid-size employers enrolled in an HDHP. HDHPs were not offered to GIC or ConnectorCare members.

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



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

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Total may not sum due to rounding. HDHPs defined by IRS individual plan deductible threshold which was $1,350 in 2019 and $1,400 in 2020 and 2021. Cigna enrollment data was excluded due to data quality concerns. ConnectorCare trend not shown as members are not offered HDHPs. Unsubsidized individual purchasers includes APTC-only members. See technical appendix.

Private Commercial Contract Enrollment Notes

1 Chapter results based on commercial contract member data provided by Aetna, AllWays Health Partners (AllWays), Blue Cross Blue Shield of Massachusetts (BCBSMA), Boston Medical Center HealthNet Plan (BMCHP), Fallon Health, Harvard Pilgrim Health Care (HPHC— includes Health Plans, Inc.), Health New England (HNE), Tufts Health Plan (Tufts), Tufts Health Public Plans (THPP), UniCare, and United Healthcare. Payers with fewer than 50,000 Massachusetts primary, medical enrollees were not required to submit data. Cigna data was excluded due to data quality concerns.

2 Massachusetts contract members may reside inside or outside Massachusetts; out-of-state contract members are most often covered through a Massachusetts-based employer.

3 Full ConnectorCare eligibility criteria are available from the Massachusetts Health Connector at https://www.mahealthconnector.org/.

4 Center for Health Information and Analysis, Enrollment in Health Insurance at https://www.chiamass.gov/enrollment-in-health-insurance/.

5 Center for Health Information and Analysis, 2021 Massachusetts Employer Survey Summary of Results (Boston, June 2022), http://www.chiamass.gov/massachusetts-employer-survey/.

6 McCluskey, Priyanka Dayal. "The state's second-biggest health insurer has a buzzy new name." Boston Globe, June 16, 2021. https://www.bostonglobe.com/2021/06/16/business/states-second-biggest-health-insurer-has-new-name/.

7 McCluskey, Priyanka Dayal. "Fallon Health to leave commercial insurance market." Boston Globe, March 31, 2021. https://www.bostonglobe.com/2021/03/31/business/fallon-health-leave-commercial-insurance-market/.

8 These categories are not mutually exclusive. For instance, a plan offering access to a tiered provider network could also be considered an HDHP based on its deductible level.

9 THPP classified all its members as enrolled in limited network plans, to better reflect the scope of THPP's network in comparison to its parent company, Tufts. This was a change from how THPP's members were classified in CHIA reports published before 2019.

10 Center for Health Information and Analysis, Offering and Enrollment in High Deductible Health Plans at Massachusetts Firms: Which Workers Can Offset Cost through a Savings Option? (Boston, November 2020). https://www.chiamass.gov/assets/docs/r/pubs/2020/High-Deductable-Health-Plans-CHIA-Research-Brief.pdf.

Private Commercial Premiums

KEY FINDINGS

Between 2019 and 2021, fully-insured premiums increased by an annualized rate of 4.4% to $563 PMPM.

All payers reported annualized increases in average premiums from 2019 to 2021.

Eighty-eight percent of ConnectorCare members were covered by THPP and BMCHP, the two payers that offered the lowest average premiums in 2021.

Private Commercial Premiums

CHIA collects and analyzes data on the cost of coverage for Massachusetts private commercial health insurance. Payers submit financial data by market sector, product type (HMO, PPO, POS), funding type, and benefit design type (HDHP, tiered network, limited network). This chapter covers the period from 2019 to 2021.[1]

Private commercial insurance is administered on a fully- 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 will assume 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.[2] Reported premiums reflect a range of enrollment decisions by members and employers, including changing plans during open enrollment to mitigate anticipated premium increases.

This chapter includes data on annualized trends from 2019 to 2021. Annualized trends reflect the compound annual

growth rate from 2019 to 2021. Additionally, as in previous reports, percent changes are presented in comparison to the previous calendar year.

Chapter results do not include data for self-insured coverage or 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. •

Private Commercial Premiums and COVID-19

Health insurance premiums are set prospectively based on historical data and projected growth in claims and administrative costs. This means that premium rates for plans issued in 2020 were developed without knowledge of the impact that the COVID-19 pandemic would have on health care utilization and spending. The premium rates for 2021 were generally developed in 2020 using data from 2019, at a time when there was still limited knowledge of how the COVID-19 pandemic would impact health care utilization.

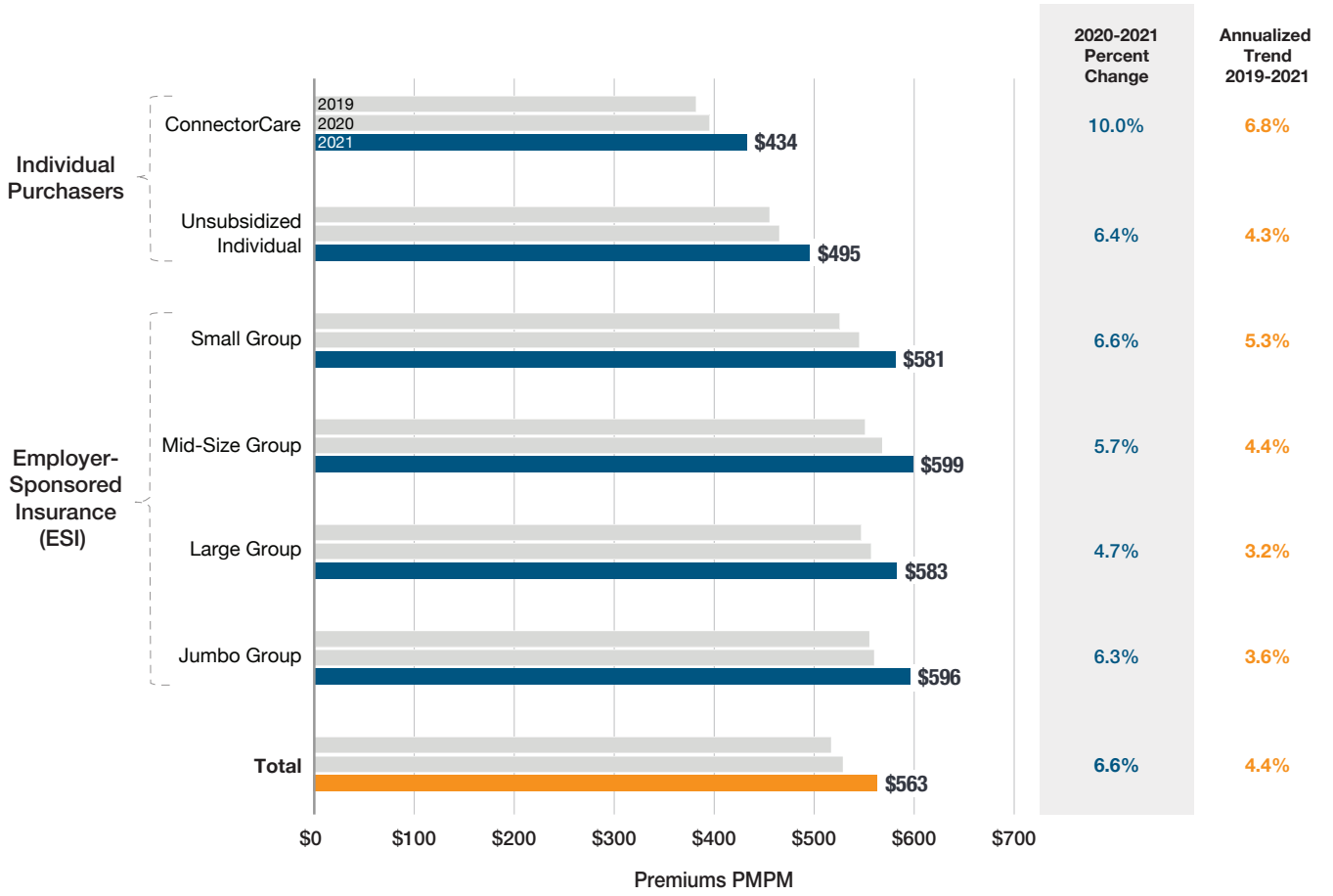
Additionally, as the pandemic progressed and it became evident that health care utilization would be lower than projected, some payers issued premium refunds or credits to employers and/or individual purchasers.[3] For the data used in this chapter, CHIA instructed payers to adjust reported premium dollars to account for any refunds or credits that they issued in 2020.

Fully-Insured Premiums by Market Sector, 2019-2021

Between 2019 and 2021, fully-insured premiums increased by an annualized rate of 4.4%. The single-year increase in 2021 was 6.6%, following a 2.3% increase the prior year. The 2020 premiums reported reflect premium credits that some insurers provided due to the low utilization of health care services, which contributed to faster premium growth in 2021.

Among all market sectors, premiums for ConnectorCare members, before any subsidies are applied, had the fastest annualized growth at 6.8% between 2019 and 2021, growing 10.0% in 2021. With the application of state and federal subsidies, members' premium contributions remained stable and were substantially lower during this period. Individual ConnectorCare member contributions are set based on income, region, and payer.[4] Premiums for unsubsidized individual purchasers increased at an annualized rate of 4.3% between 2019 and 2021, with a 6.4% single-year increase in 2021.

The large and jumbo group sectors reported the slowest annualized growth rates at 3.2% and 3.6%, respectively. Although the small group sector reported the highest annualized growth (+5.3%) and highest single-year growth in 2021 (+6.6%) among ESI plans, it had the lowest average premium at $581 PMPM in 2021. These lower premiums align with the higher deductibles that members covered by small employers generally have. Furthermore, employees of smaller firms are responsible for paying a larger proportion of their total monthly premiums, on average, than employees of larger firms.[5]



Fully-insured premiums increased by an annualized rate of 4.4% from 2019 to 2021.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Reported premiums are net of MLR rebates. Premiums have not been scaled to account for benefit carve-outs, which may vary by plan. 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). Annualized trends for 2019 to 2021 were calculated as (2021 Value/2019 Value)^(1/2)-1 and reflect compound annual growth. The GIC did not offer fully-insured coverage. Premium data for Cigna was excluded due to data quality concerns. See technical appendix.

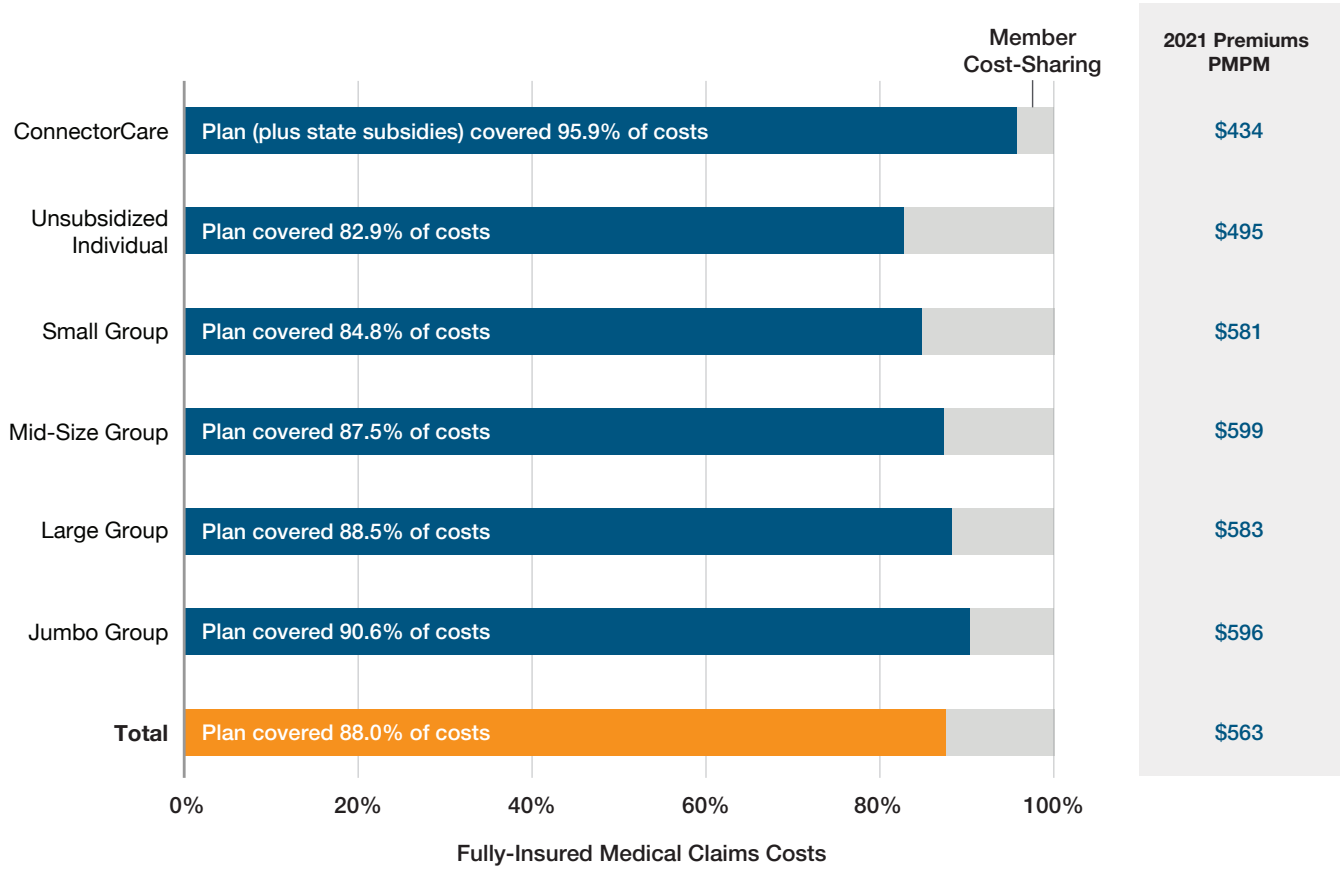
Fully-Insured Benefit Levels by Market Sector, 2021

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

In 2021, Massachusetts fully-insured contract members enrolled in plans covering 88.0% of medical costs on average. Benefit levels (measured as the percentage of medical costs covered by the health plan) varied across market sectors. In general, members enrolled through larger employer groups had more of their medical costs covered by their health plans.

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

The fully-insured benefit level for each market sector decreased slightly between 2020 and 2021. Although these trends followed increases in benefit levels from 2019 to 2020, the calculated benefit levels in 2021 remained higher than the levels in 2019. Since CHIA's benefit level measure reflects actual claims spending, these results were likely influenced by changing utilization patterns throughout the pandemic. While the Division of Insurance mandated that payers continue to waive out-of-pocket costs for COVID-19-related services for fully-insured members through 2021, some payers reinstated cost-sharing for other services that were previously voluntarily waived.[6, 7]



Members covered through larger employer groups had more of their health care costs paid for by the insurer.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Reported premiums are net of MLR rebates. Premiums have not been scaled to account for benefit carve-outs, which may vary by plan. 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. Claims amounts were adjusted for pharmacy rebates reported by payers. Benefit level data for Cigna was excluded due to data quality concerns. Unsubsidized individual purchasers include some members receiving APTCs. See technical appendix.

Private Commercial Premiums

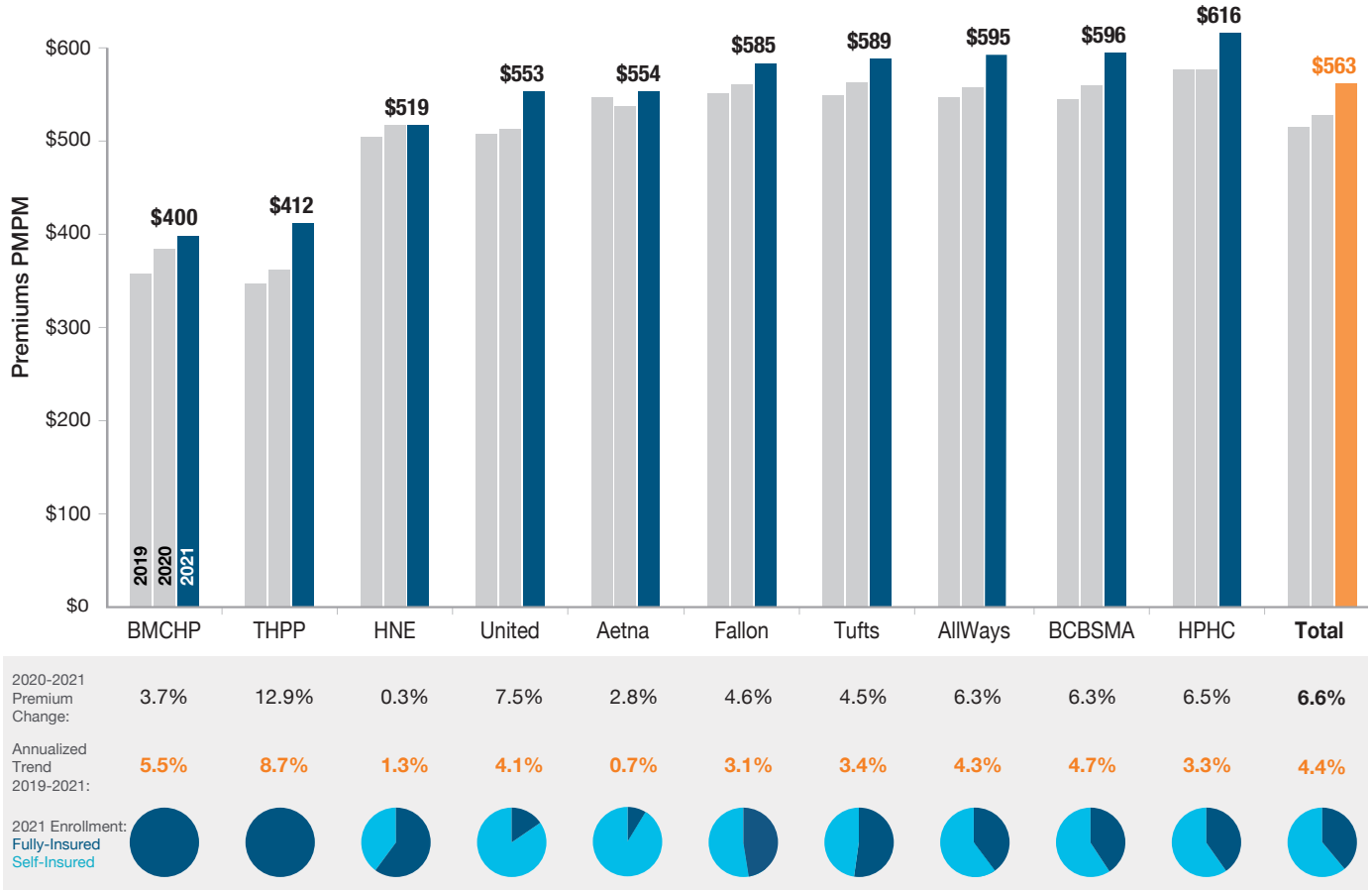
Average premiums varied across payers, reflecting underlying differences in market sector participation, provider contracting, benefit design, and other factors.

Over the three-year period of 2019 to 2021, THPP reported the highest annualized premium growth at 8.7%, and the highest single-year growth in 2021 at 12.9%. United reported the second highest average premium increase from 2020 to 2021 at 7.5%.

Between 2020 and 2021, AllWays, BCBSMA, and HPHC were the payers with the three highest average premiums, all reporting increases greater than 6.0%.

As seen in prior years, BMCHP and THPP—both of which specialize in low cost plans with smaller networks—had the lowest average premiums in 2021 ($400 PMPM and $412 PMPM, respectively). These payers consistently reported the lowest premiums in all segments of the merged market (ConnectorCare, unsubsidized individual purchasers, and small group).

Fully-Insured Premiums by Payer, 2019-2021



Across payers, annualized premium trends ranged from 0.7% to 8.7% from 2019 to 2021.

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. Annualized trends for 2019 to 2021 were calculated as (2021 Value/2019 Value)^(1/2)-1 and reflect compound annual growth. Premiums have not been scaled to account for benefit carve-outs, which may vary by plan. Premium data for Cigna was excluded due to data quality concerns. See technical appendix.

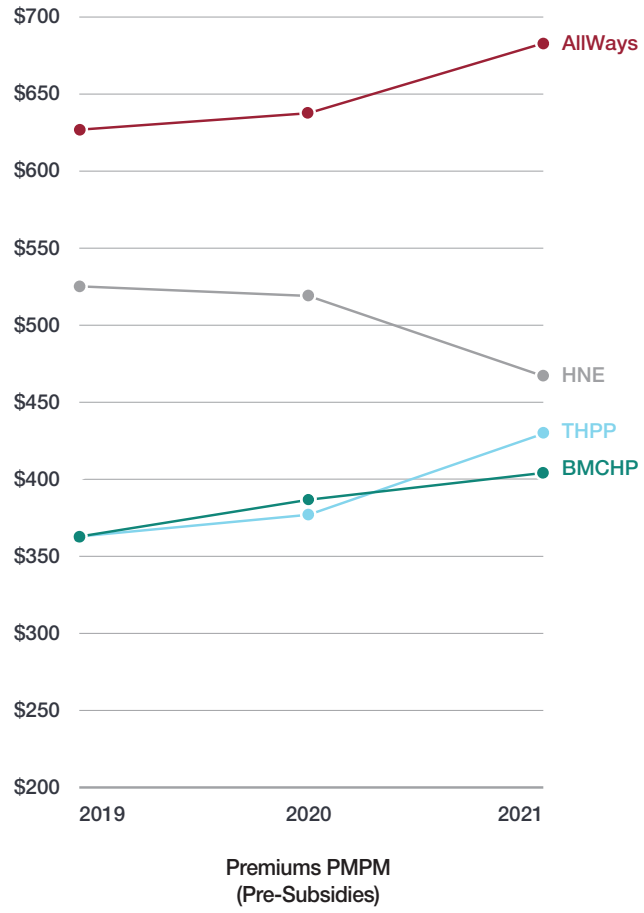
ConnectorCare Premiums and Market Share, 2019-2021

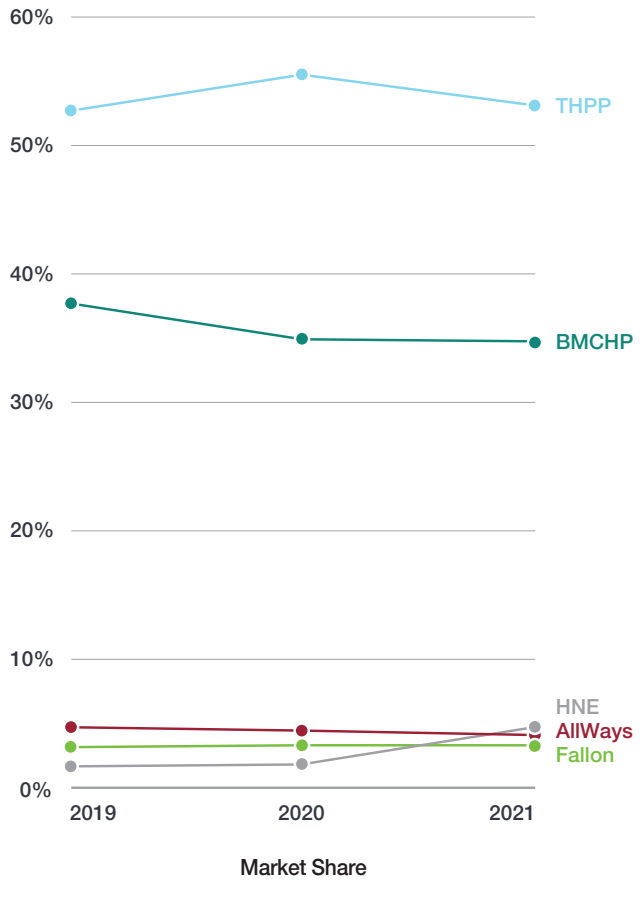
While ConnectorCare plans share a consistent benefit structure, members consider monthly premiums, geographic availability, and provider networks when selecting a plan.

Across all ConnectorCare plans, the growth in base premiums before subsidies accelerated from a 3.7% increase in 2020 to a 10.0% increase in 2021. However, after accounting for state and federal premium subsidies, ConnectorCare members' contributions remained relatively stable and were substantially lower than the full premium amounts reported.

As in prior years, the two lowest cost payers (BMCHP at $404 PMPM and THPP at $430 PMPM) enrolled the majority (88.0%) of members in 2021. However, both lost market share as HNE captured additional members amid a 10.0% decrease in 2021 premiums.

As AllWays's average ConnectorCare premiums rose by 6.9% to $681 PMPM in 2021, it continued a slow but steady decline in market share.





Eighty-eight percent of ConnectorCare members were covered by THPP or BMCHP, the two payers that offered the lowest average premiums in 2021.

Source: Payer-reported data to CHIA.

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

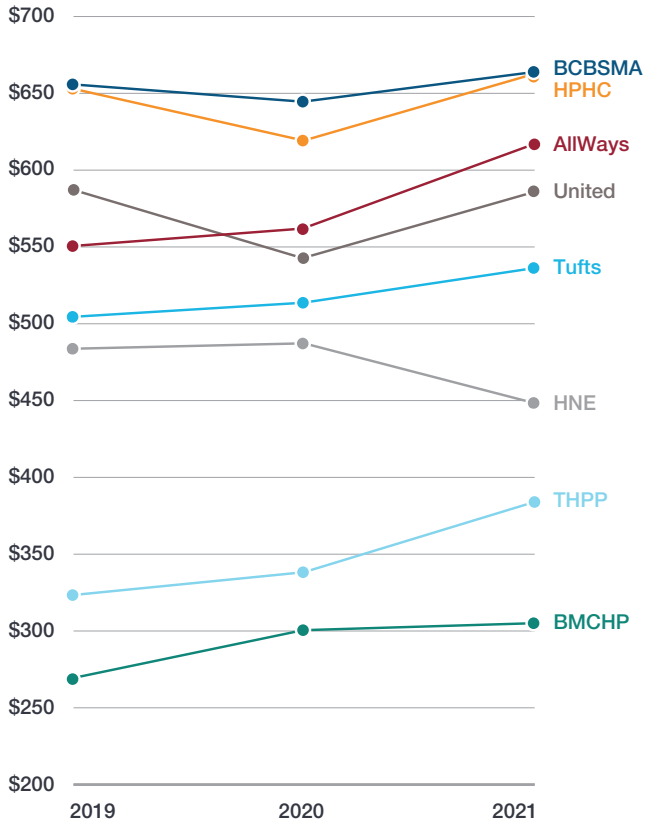
Unsubsidized Individual Premiums and Market Share, 2019-2021

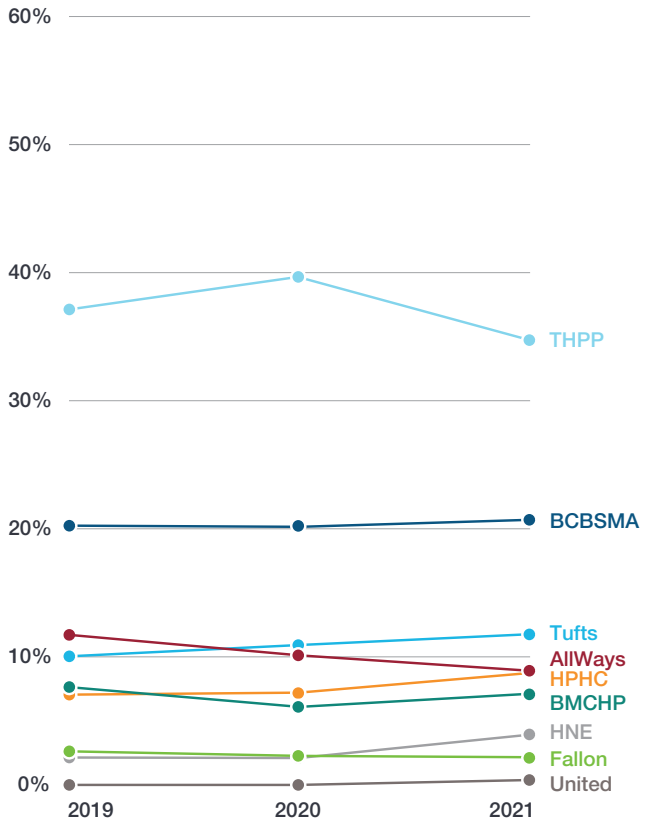
Compared to ConnectorCare members, unsubsidized individual purchasers navigated a broader range of coverage options.

Average unsubsidized individual premiums increased at an annualized rate of 4.7% from 2019 to 2021. Apart from HNE, all payers reported increases in unsubsidized individual premiums during this period. The annualized rates for these payers ranged widely from 0.1% to 8.7% growth.

HNE reported a 7.7% decrease in premiums in 2021 while increasing its market share by 1.8 percentage points. In contrast, THPP's unsubsidized plans reported the largest annualized premium increase over the three-year period (+8.7%), along with a 4.9 percentage point decrease in enrollment. Despite this decrease, THPP retained the highest market share among unsubsidized individual purchasers.

As in previous years, the average BCBSMA member paid over two times more in premiums ($664 PMPM) than the average BMCHP member ($305 PMPM) in 2021.





In 2021, 34.4% of unsubsidized individual purchasers were enrolled through THPP, which offered the second-lowest average premiums.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Reported premiums are net of MLR rebates. Premiums have not been scaled to account for benefit carve-outs, which may vary by plan. 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. Annualized trends for 2019 to 2021 were calculated as (2021 Value/2019 Value)^(1/2)-1 and reflect compound annual growth. THPP is reported separately from its parent company, Tufts. Premium data for Fallon was excluded from the graph due to data quality concerns. See technical appendix.

Private Commercial Premiums Notes

1 Chapter results based on commercial contract member data provided by Aetna, AllWays Health Partners (AllWays), Blue Cross Blue Shield of Massachusetts (BCBSMA), Boston Medical Center HealthNet Plan (BMCHP), Fallon Health, Harvard Pilgrim Health Care (HPHC— includes Health Plans, Inc.), Health New England (HNE), Tufts Health Plan (Tufts), Tufts Health Public Plans (THPP), UniCare, and United Healthcare. Payers with fewer than 50,000 Massachusetts primary, medical enrollees were not required to submit data. Cigna data was excluded due to data quality concerns.

2 Center for Health Information and Analysis, 2021 Massachusetts Employer Survey Summary of Results (Boston, June 2022), http://www.chiamass.gov/massachusetts-employer-survey/.

3 Although CHIA did not ask payers to report whether they provided premium refunds or credits in 2020, it was publicly reported that BCBSMA, HPHC, and United all took these actions. Haefner, Morgan, "15 health insurers sending premium credits to members," Becker's Payer Issues, October 15, 2020. https://www.beckershospitalreview.com/payer-issues/14-healthinsurers-sending-premium-credits-to-members.html.

4 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.

5 Center for Health Information and Analysis, 2021 Massachusetts Employer Survey Summary of Results (Boston, June 2022), http://www.chiamass.gov/massachusetts-employer-survey/.

6 Division of Insurance, "Bulletin 2021-08," (Boston, August 2021), https://www.mass.gov/doc/bulletin-2021-08-responding-to-covid-19-risks-following-end-of-state-of-emergency-issued-august-31-2021/download.

7 America's Health Insurance Plans, "Health Insurance Providers Respond to Coronavirus (COVID-19)" accessed February 11, 2022, https://www.ahip.org/news/articles/health-insurance-providers-respond-to-coronavirus-covid-19.

Private Commercial Payer Use of Funds

KEY FINDINGS

In 2021, payers directed 9.6% of premium revenue to non-medical expenses and surplus, compared to 15.9% in 2020, due to increased medical claims spending resulting from rebounded utilization of services.

After paying fully-insured members' medical claims, $54 PMPM remained from premiums in 2021 to cover non-medical expenses and surplus, a 36.0% decrease from 2020. Additionally, this remainder fell below pre-pandemic values.

In 2021, payers reported an aggregate loss of $12 PMPM, in contrast to the gains reported (+$19 PMPM) in 2020.

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 2019 to 2021.[1]

For fully-insured lines of business, which make up 41.0% of private commercial enrollment, CHIA reports data on the proportion of premium dollars not spent on member medical claims, by market segment (employer size). Payers use these funds to cover administrative expenses, broker commissions, taxes, and fees. Premiums in this chapter are reported net of any required Medical Loss Ratio (MLR) rebates.

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

The Payer Use of Funds chapter uses federal MLR data which payers report to CMS. Although data is sourced from federal MLR filings, the purpose and calculation of reported non-medical expense components and surplus differ significantly from those of the federal MLR metric. The federal MLR reports an insurer's rebate position using a three-year average of financial data and making allowable adjustments, without consideration of rebates

paid in prior years. CHIA calculates an annual financial loss ratio, which was developed using actuarial methods and principles. Data reported within this chapter is not sufficient to determine whether payers met federal MLR thresholds. See page 126 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 24. •

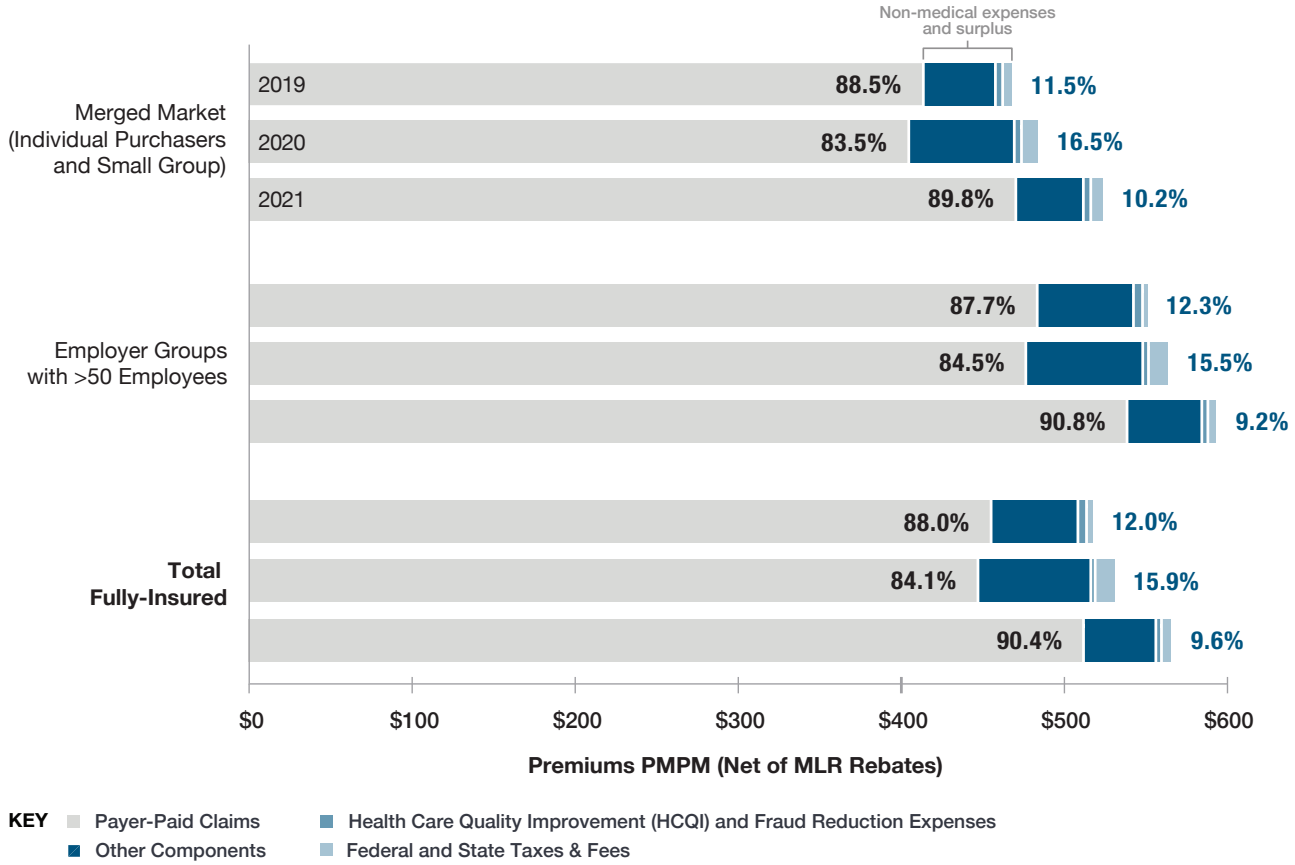
Private Commercial Payer Use of Funds

In 2021, 90.4% of premiums were used to pay for fully-insured members' medical care.* Payers used the remaining 9.6% to pay for plan administration and other expenses, with residual funds representing surplus. The proportion of premium revenue represented by non-medical expenses and surplus was 6.3 percentage points lower in 2021 than in 2020 (15.9%). This decrease was driven by increased claims spending as health care service utilization rebounded in 2021, following unexpectedly low utilization and deferred care in 2020.

The proportion of premium funds that remained after medical claims were paid in 2021 was 10.2% in the Massachusetts merged market and 9.2% for plans sold to larger employers. These proportions are substantially lower than the previous year as increased claims spending drove up the proportion spent on payer-paid claims. CHIA's THCE analysis found that, from 2020-2021, spending increased across all service categories for which claims were incurred, including hospital, pharmacy, and physician spending (see page 28).

*Note: The payer-paid claims percentages reported on this page are distinct from federal MLR. The federal MLR formula treats Health Care Quality Improvement (HCQI) and fraud reduction expenses, as well as taxes and fees, differently than CHIA's annual financial loss ratio does. See page 20.

Fully-Insured Payer Use of Premiums by Market Segment, 2019-2021



Non-medical expenses and payer surplus fell from 15.9% of premium revenue in 2020 to 9.6% 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. See technical appendix.

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

What is the federal Medical Loss Ratio (MLR)?

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

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

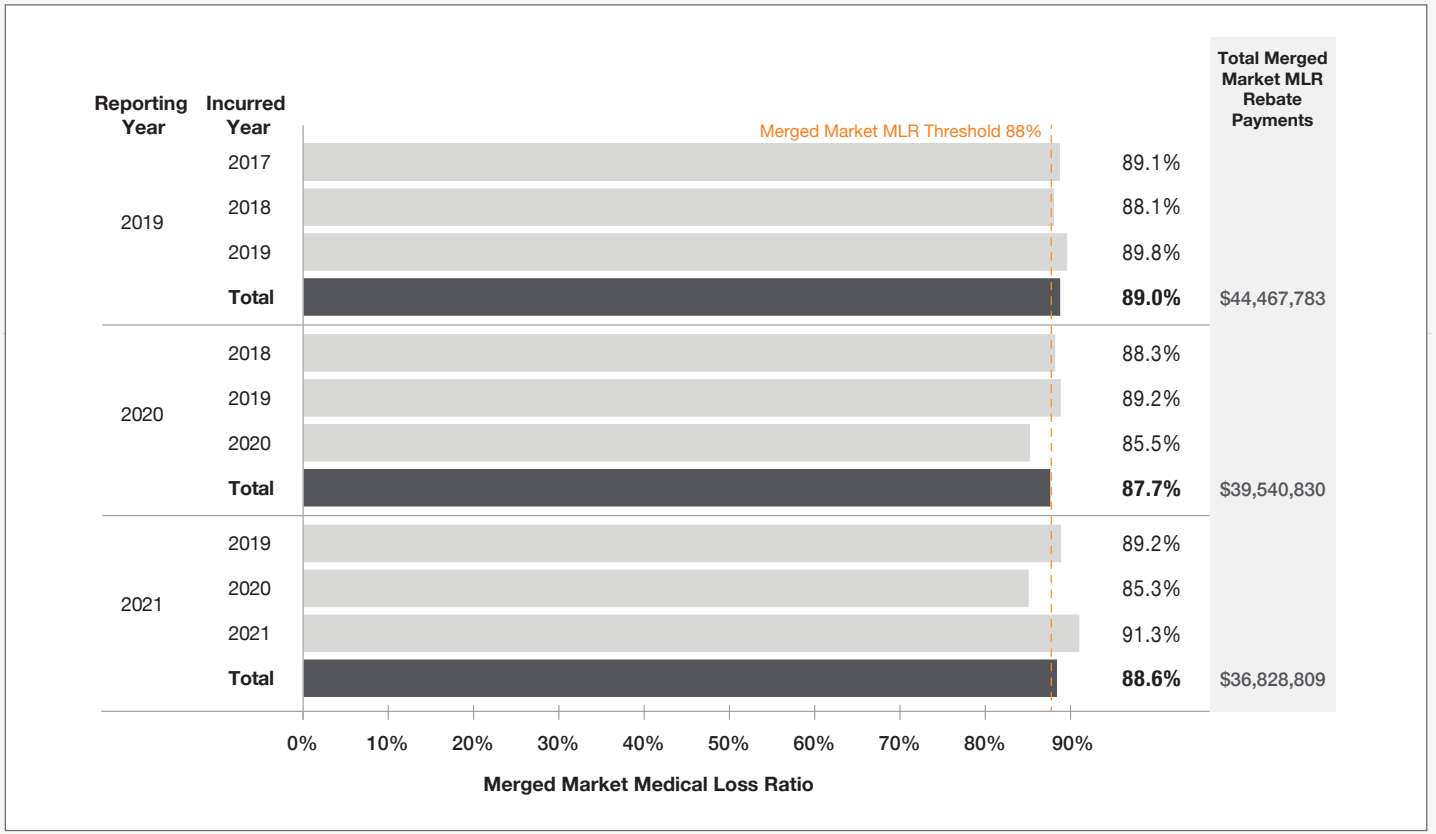
Payer-paid claims percentages in this chapter are based on CHIA's annual financial loss ratio formula, which was developed in accordance with actuarial methods and principles. While the federal MLR and CHIA's annual financial loss ratio use the same source data, the calculation and intended purpose of the two ratios are distinct. CHIA's annual financial loss ratio was designed to measure how much of an insurer's premium revenue goes toward 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 of these reasons, ***payer-paid claims percentages reported in this chapter cannot be used to determine whether MLR thresholds were met.***

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

	Federal Medical Loss Ratio	CHIA's Annual Financial Loss Ratio
Purpose	Determine compliance with MLR thresholds and calculate MLR rebate amounts, if applicable	Measure percent of premiums spent on members' medical costs and percent retained for other expenses
Population	By licensed payer By fully-insured market segment	Across payers By and across fully-insured market segments
Time Period	Average over three calendar years	One calendar year
HCQI and Fraud Reduction Expenses	Added to incurred claims*	Not considered
MLR Rebates	Not considered	Subtracted from earned premiums
Taxes & Fees	Subtracted from earned premiums	Not considered
Simplified Formula	$\frac{1}{3}\sum_{i=2019}^{2021}\left(\frac{\text{Incurred Claims*} + \text{HCQI} + \text{Fraud Reduction Expenses}}{\text{Earned Premiums} - \text{Taxes \& Fees}}\right)_i$ Note: the federal MLR formula considers other financial amounts and adjustment factors not shown here.	$\frac{\text{Incurred Claims*}}{\text{Earned Premiums} - \text{MLR Rebates}}$

*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. On average, MLR thresholds were met and exceeded in the 2019 and 2021 reporting years, across the merged market. For the 2020 reporting year, the average merged market MLR of 87.7% fell just below the 88% threshold, driven largely by the 2020 incurred year claims experience.

While the percentages above represent the entire merged market, federal MLR is calculated and regulated at the licensed insurer level. Any licensed insurer that did not meet the MLR threshold for a given reporting year paid rebates to consumers. The annual totals of the MLR rebates paid by all insurers in the merged market are shown above.

Private Commercial Payer Use of Funds

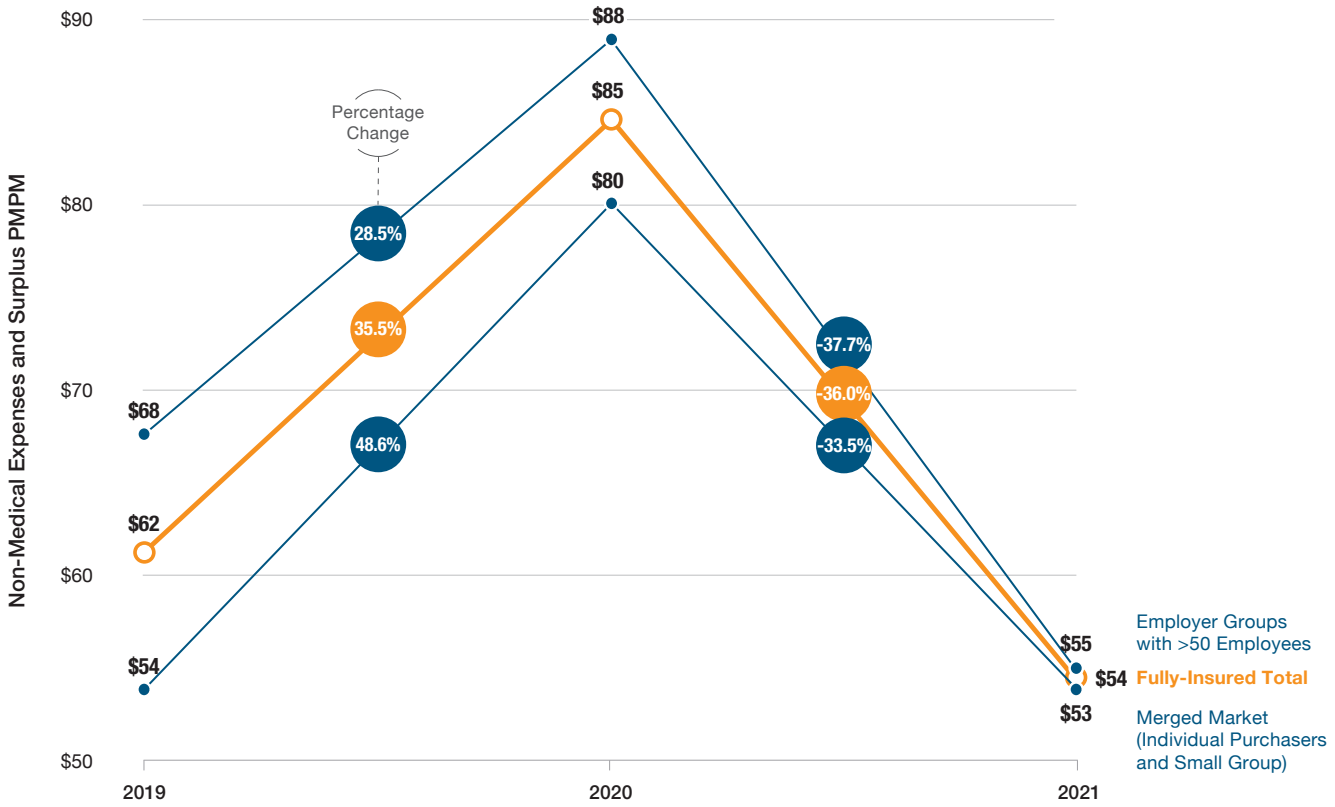
Fully-Insured Non-Medical Expenses and Surplus by Market Segment, 2019-2021

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 made more drastic by 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.

As a result of unexpectedly low claims spending in 2020, $85 PMPM in aggregate remained from fully-insured premiums after paying for members' medical claims, representing a 35.5% increase from the prior year. In 2021, as claims spending increased, total non-medical expenses and surplus PMPM fell 36.0% to $54, which is below the $62 PMPM value reported in 2019.

In 2021, non-medical expenses and surplus fell by 33.5% to $53 PMPM in the merged market and fell 37.7% to $55 PMPM for larger group plans. In both cases, 2021 PMPM values fell below those seen pre-pandemic in 2019.

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 24.)



After paying fully-insured members' medical claims, $54 PMPM remained from premiums in 2021, a 36.0% decrease from 2020. Additionally, this remainder fell below the pre-pandemic value of $62 PMPM.

Source: Payer-reported MLR data submitted to CMS.

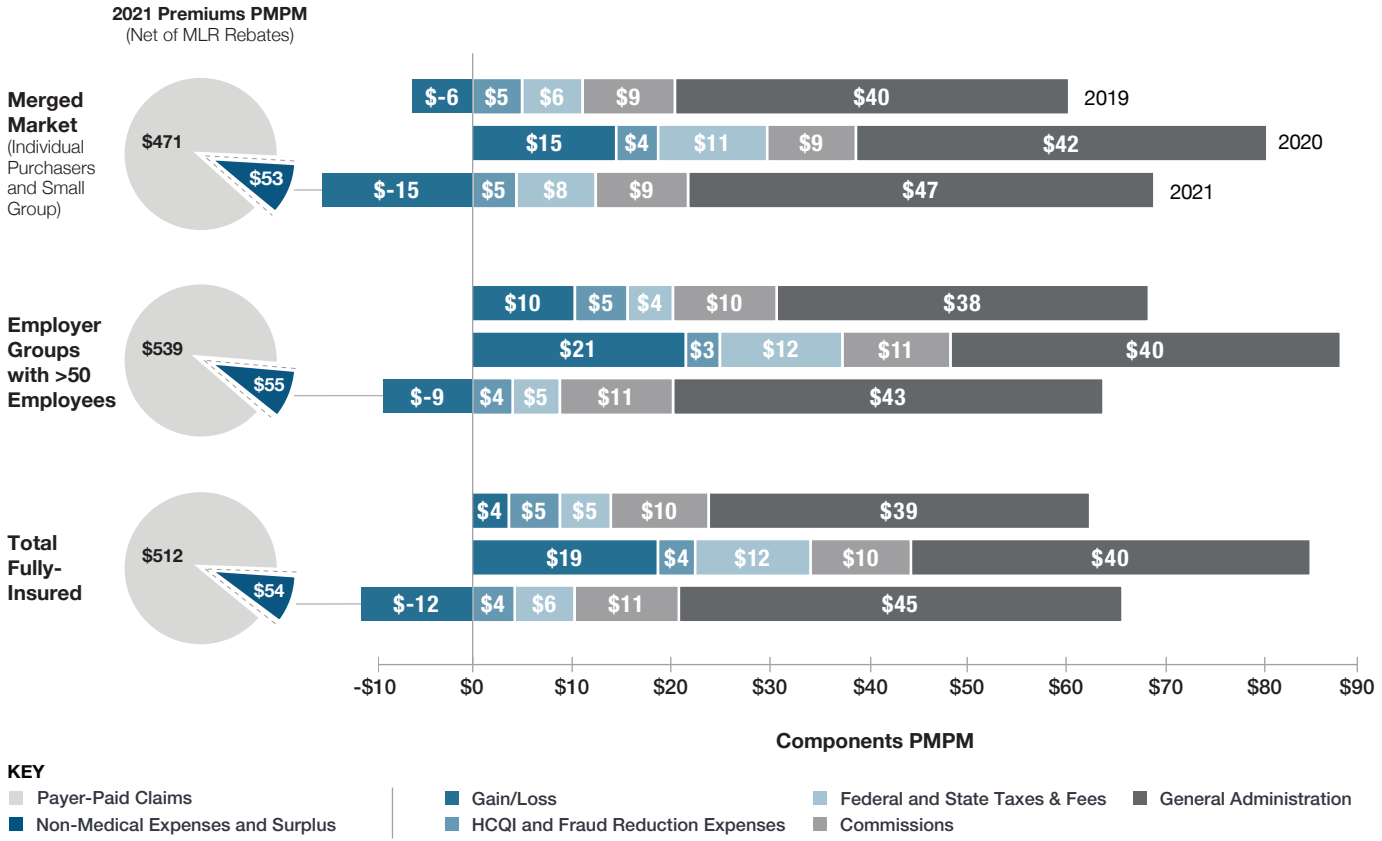
Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Reported premiums are net of MLR rebates. Percent changes are calculated based on non-rounded amounts. See technical appendix.

Fully-Insured Non-Medical Expense Components and Surplus by Market Segment, 2019-2021

Consistent with prior years, the largest component of non-medical expenses and surplus in 2021 was general administration ($45 PMPM), which included costs for plan design, claims administration, and customer service. Administrative costs were slightly higher in the merged market ($47 PMPM) compared to larger employer plans ($43 PMPM). These differences may reflect efficiencies gained from administering larger accounts.

After covering other expenses, payers reported losses of $12 PMPM in aggregate across the fully-insured market, after reporting gains of $19 PMPM in 2020. In the merged market, these losses totaled $15 PMPM, following gains of $15 PMPM in 2020. For plans sold to employers with more than 50 employees, payers reported losses of $9 PMPM in 2021, after reporting gains of $21 PMPM in 2020.

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.



In 2021, payers reported an aggregate loss of $12 PMPM, in contrast to the gains reported (+$19 PMPM) in 2020.

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 2019, 2020, and 2021 reporting years. The following payers were included in analysis: Aetna, AllWays Health Partners (AllWays), Blue Cross Blue Shield of Massachusetts (BCBSMA), Boston Medical Center HealthNet Plan (BMCHP), Cigna, 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-affordablecare-act-hhs-notice-of-benefit-and-payment-parameters-for-2018.

Private Commercial Member Cost-Sharing

KEY FINDINGS

Between 2019 and 2021, private commercial member cost-sharing declined at an annualized rate of 0.7%, as 2021 totals remained slightly below 2019.

Between 2019 and 2021, premiums increased at a faster rate than both wages and salaries and regional inflation.

Over the three-year period, cost-sharing for HDHP members increased at an annualized rate of 0.2%, while cost-sharing for members with lower deductibles decreased by 5.7%.

From 2019 to 2021, claims paid by payers and self-insured employers had an annualized increase of 5.8%, while member cost-sharing experienced a 0.7% annualized decline.

Private Commercial Member Cost-Sharing

CHIA collects and analyzes data on Massachusetts member cost-sharing. Payers submit financial data by market sector, product type (HMO, PPO, POS), funding type, and benefit design type (HDHP, tiered network, limited network). This chapter covers the period from 2019 to 2021.[1]

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

This chapter includes data on annualized trends from 2019 to 2021. Annualized trends reflect the compound annual growth rate from 2019 to 2021. Additionally, as in previous reports, percent changes are presented in comparison to the previous calendar year.

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

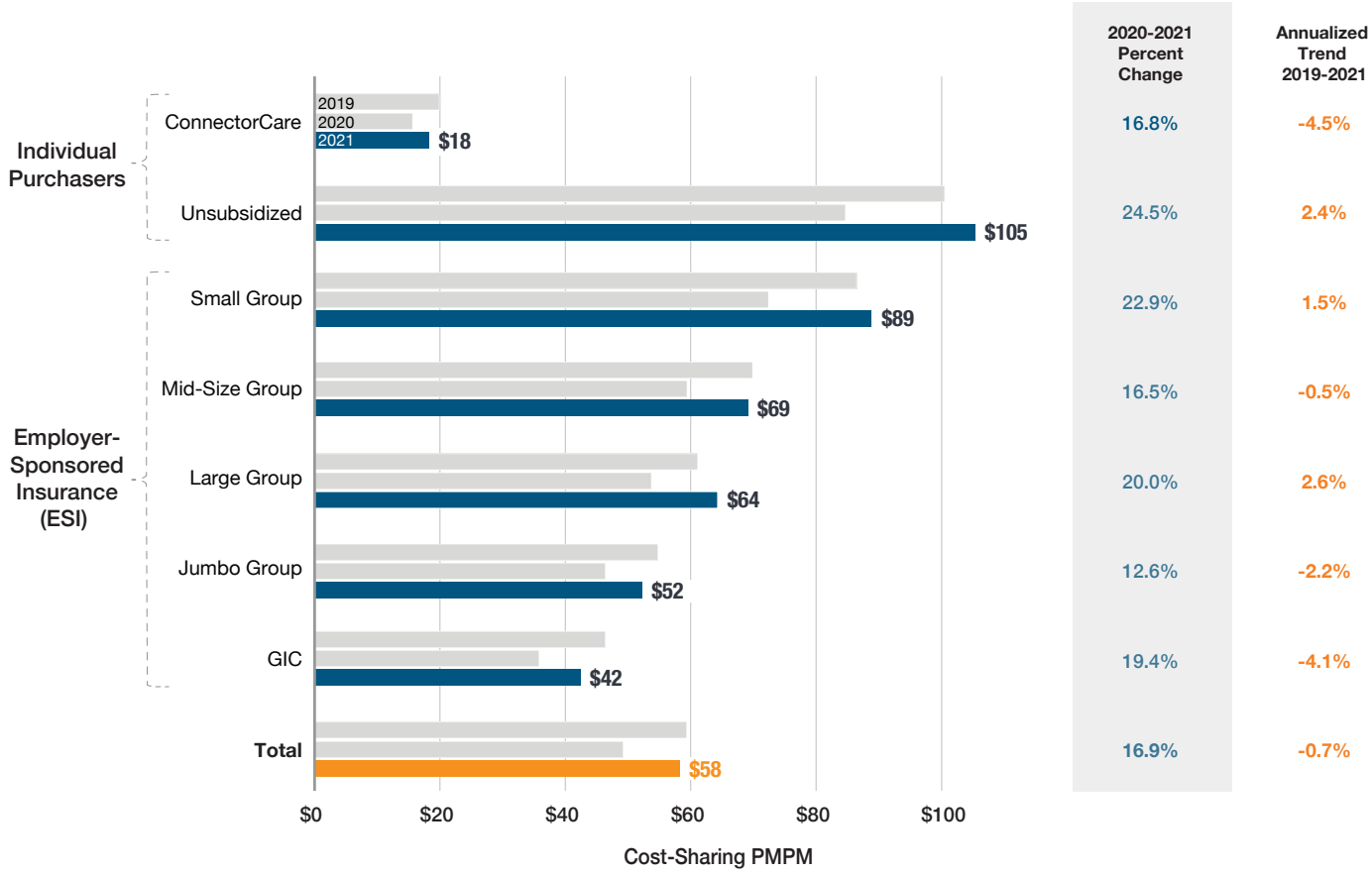
Cost-Sharing by Market Sector, 2019-2021

Between 2019 to 2021, total member cost-sharing decreased at an annualized rate of 0.7% as 2021 cost-sharing amounts ($58 PMPM) rebounded to just below pre-pandemic levels ($59 PMPM), driven by fluctuations in utilization. From 2020 to 2021, Massachusetts commercial member cost-sharing increased 16.9% PMPM, following a 15.7% decline from 2019 to 2020.

Large group, unsubsidized individual, and small group market sectors had annualized increases of 2.6%, 2.4%, and 1.5%, respectively, as reported PMPM cost-sharing values in 2021 exceeded 2019 levels. These market sectors also reported the largest single-year growth, with cost-sharing increasing more than 20% from 2020 to 2021.

Conversely, ConnectorCare, GIC, jumbo, and mid-size groups had annualized decreases in member cost-sharing. Unsubsidized individual purchasers reported the highest member cost-sharing amounts in 2021 at $105 PMPM. The GIC reported $42 PMPM of member cost-sharing in 2021, the lowest of any ESI group and consistent with prior years.

In 2020, the Massachusetts Division of Insurance mandated that COVID-19 services were to be covered without out-of-pocket costs for fully insured members, and some payers voluntarily waived copayments for additional services.[2] In 2021, mandated waivers on out-of-pocket costs for COVID-19 vaccines, testing, and treatment remained in effect; however, some payers reinstated member cost-sharing for previously voluntarily waived services such as non-COVID telehealth visits.[3]



From 2019 to 2021, total member cost-sharing levels and trends fluctuated, driven in part by COVID-19-related policies that suspended cost-sharing for certain services.

Source: Payer-reported data to CHIA.

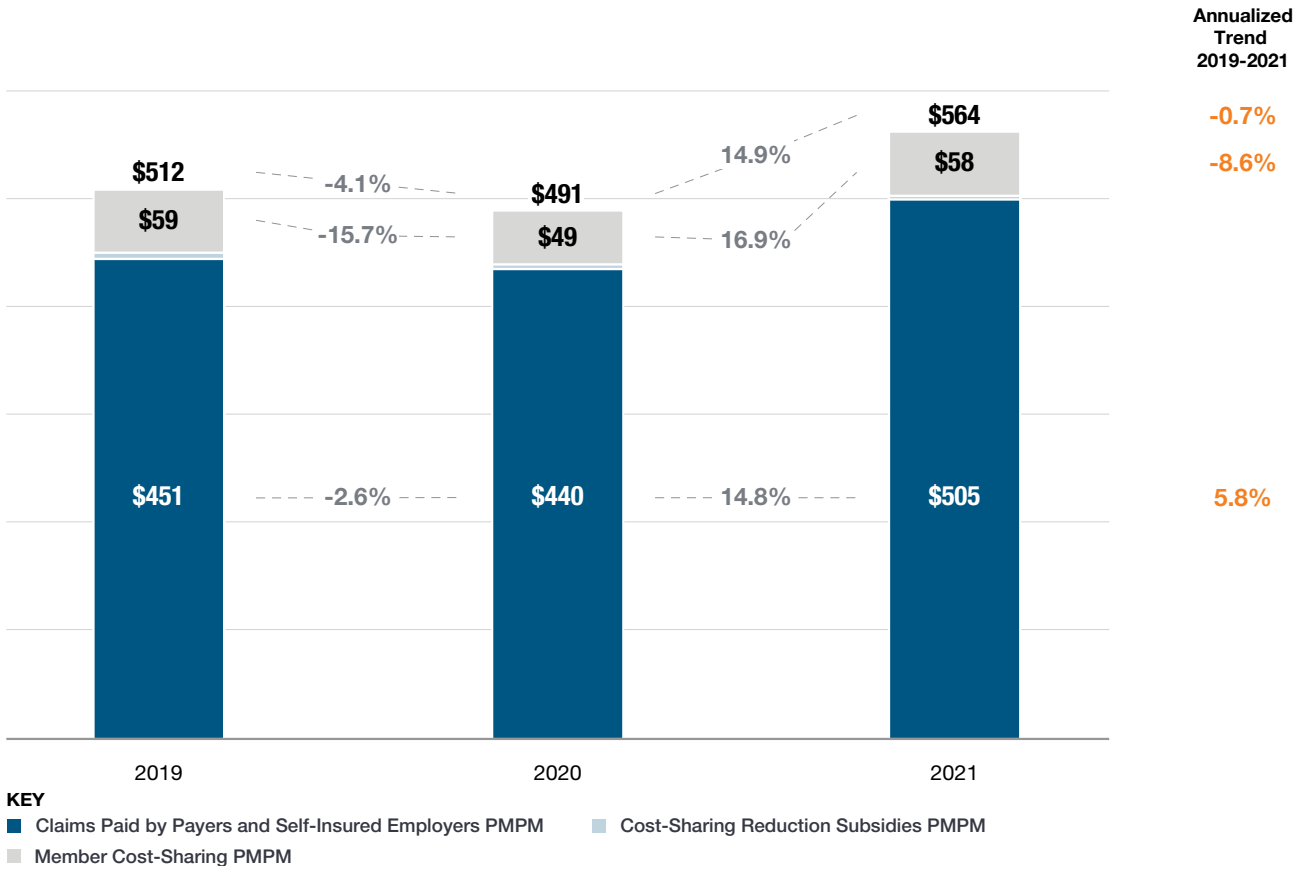
Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Cost-sharing amounts have not been scaled to account for benefit carve-outs, which may vary by plan. Financial data for Cigna was excluded due to data quality concerns. Unsubsidized individual purchasers include some members receiving APTCs. Annualized trend for 2019 to 2021 was calculated as (2021 Value/2019 Value)^(1/2)-1 and reflects compound annual growth. See technical appendix.

Cost-Sharing in Context, 2019-2021

Over the three-year period between 2019 and 2021, PMPM claims amounts paid by payers and self-insured employers increased at an annualized rate of 5.8%, with single year trends of a 2.6% decrease from 2019 to 2020 and a 14.8% increase from 2020 to 2021. Between 2019 to 2021, member cost-sharing PMPM decreased at an annualized rate of 0.7%, declining 15.7% from 2019 to 2020 and increasing 16.9% between 2020 and 2021.

For private commercial contract members, total spending increased between 2019 and 2021 at an annualized rate of 4.9%. PMPM increased 14.9% in 2021 after declining 4.1% in 2020, reflecting COVID-19's impact on health care utilization and spending.

In 2021, member cost-sharing represented 10.2% of overall claims costs, compared to 10.1% in 2020 and 11.4% in 2019. This is due to 2021 incurred claims rising above 2019 levels, while member cost-sharing remained slightly below 2019 levels.



From 2019 to 2021, claims paid by payers and self-insured employers experienced an annualized increase of 5.8%, while member cost-sharing experienced a 0.7% annualized decline.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Claims amounts were adjusted for pharmacy rebates reported by payers. When averaged across the entire private commercial market, CSR subsidy amounts (which apply only to ConnectorCare plans) totaled $2-3 PMPM. Financial data for Cigna was excluded due to data quality concerns. Annualized trend for 2019 to 2021 was calculated as (2021 Value/2019 Value)^(1/2)-1 and reflects compound annual growth. See technical appendix.

Private Commercial Member Cost-Sharing

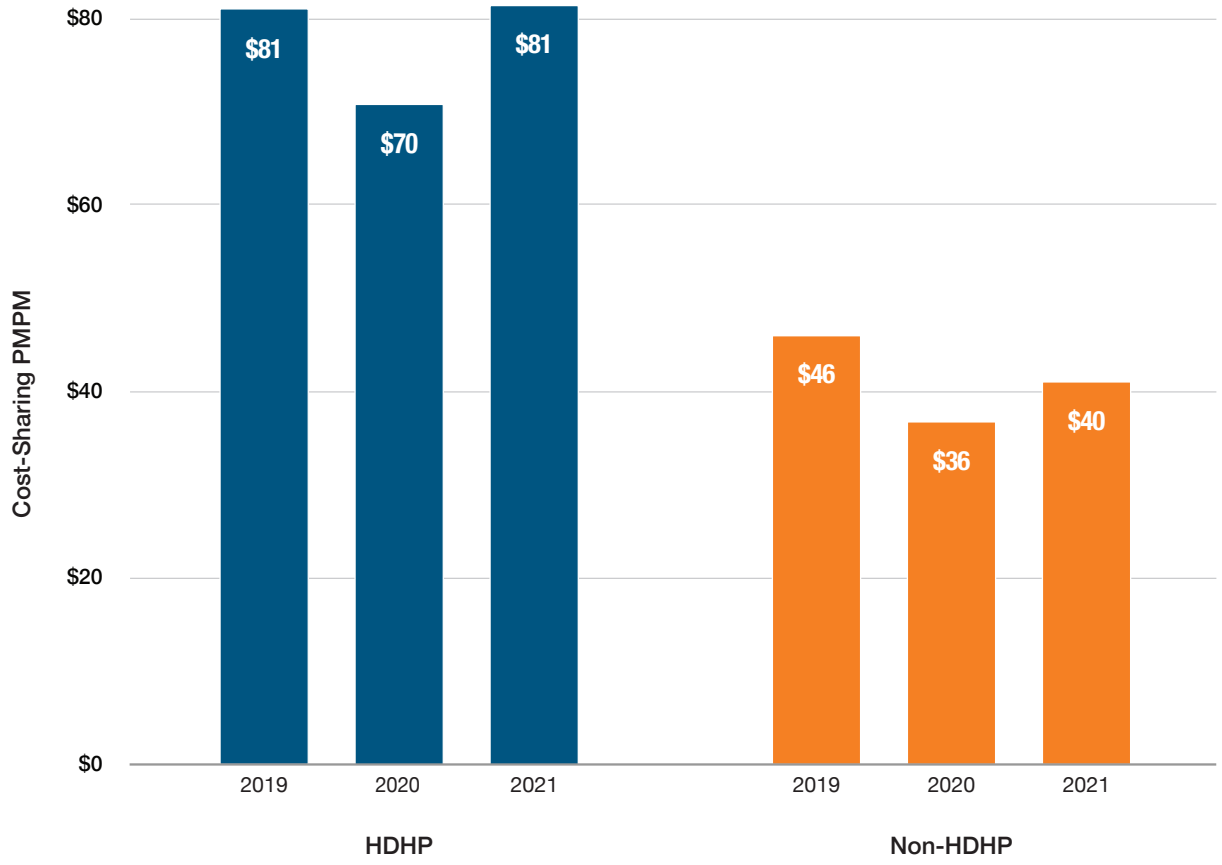
Member cost-sharing for members in both high deductible health plans (HDHPs) and non-HDHPs increased in 2021 after declines in 2020, reflecting the impacts from the COVID-19 pandemic on health care utilization and spending.

Between 2019 to 2021, member cost-sharing for HDHP members increased at an annualized rate of 0.2%. From 2019 to 2020, cost-sharing for HDHP members declined 12.7% to $70 PMPM, followed by a 14.9% increase to $81 PMPM in 2021.

Member cost-sharing for members in lower deductible non-HDHP plans decreased at an annualized rate of 5.7% over the three-year period. From 2019 to 2020, average cost-sharing decreased 20.4% to $36 PMPM, followed by an 11.8% increase between 2020 to 2021 to $40 PMPM. In 2021, cost-sharing for members in HDHPs returned to the same average reported amounts as seen in 2019, while cost-sharing for members in non-HDHPs remained below 2019 levels.

Consistent with prior years, cost-sharing amounts PMPM in 2021 for members in HDHP plans were approximately twice what members enrolled in lower deductible plans paid.

Cost-Sharing by Deductible Level, 2019-2021



Between 2019 and 2021, member cost-sharing increased at an annualized rate of 0.2% for members enrolled in HDHPs compared to an annualized decrease of 5.7% for non-HDHP members.

Source: Payer-reported data to CHIA.

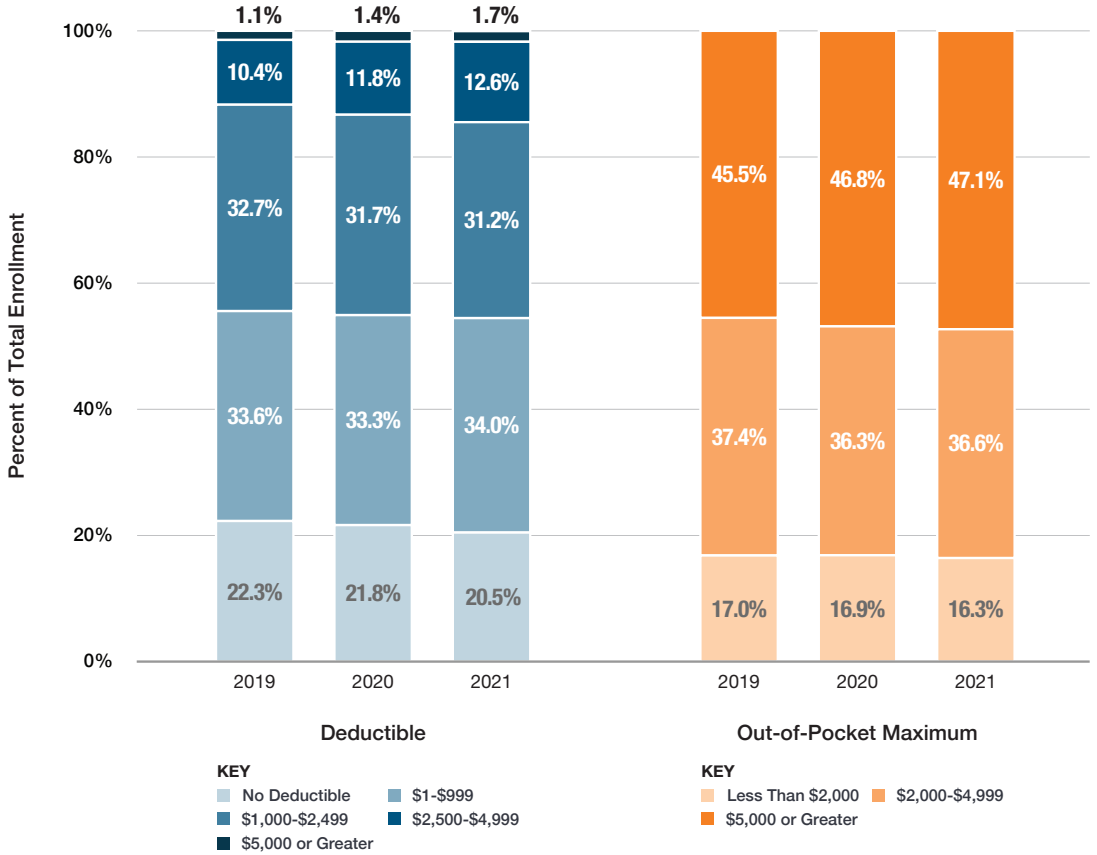
Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. HDHPs are defined by the IRS single (individual) policy deductible threshold, which was $1,400 in 2020 and 2021. Cost-sharing amounts have not been scaled to account for benefit carve-outs, which may vary by plan. Financial data for Cigna was excluded due to data quality concerns. See technical appendix.

Enrollment by Deductible and Maximum Out-of-Pocket Level, 2019-2021

Approximately four out of five Massachusetts 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 deductibles over $2,500 continued to increase in 2021, having grown 1.0 percentage points since 2020 and 2.8 percentage points since 2019. The percentage of members with no deductible continued to decline, decreasing 1.2 percentage points from 2020 to 2021, a faster rate than the prior year which had a 0.5 percentage point decline from 2019 to 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 2021, slower than the 1.2 percentage point increase the previous year. The percentage of members with out-of-pocket maximums between $2,000-$4,999 increased slightly, and the percentage of members with out-of-pocket maximums below $2,000 continued to decline.



In 2021, 45.5% of private commercial members had an annual deductible of at least $1,000.

Source: Payer-reported data to CHIA.

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

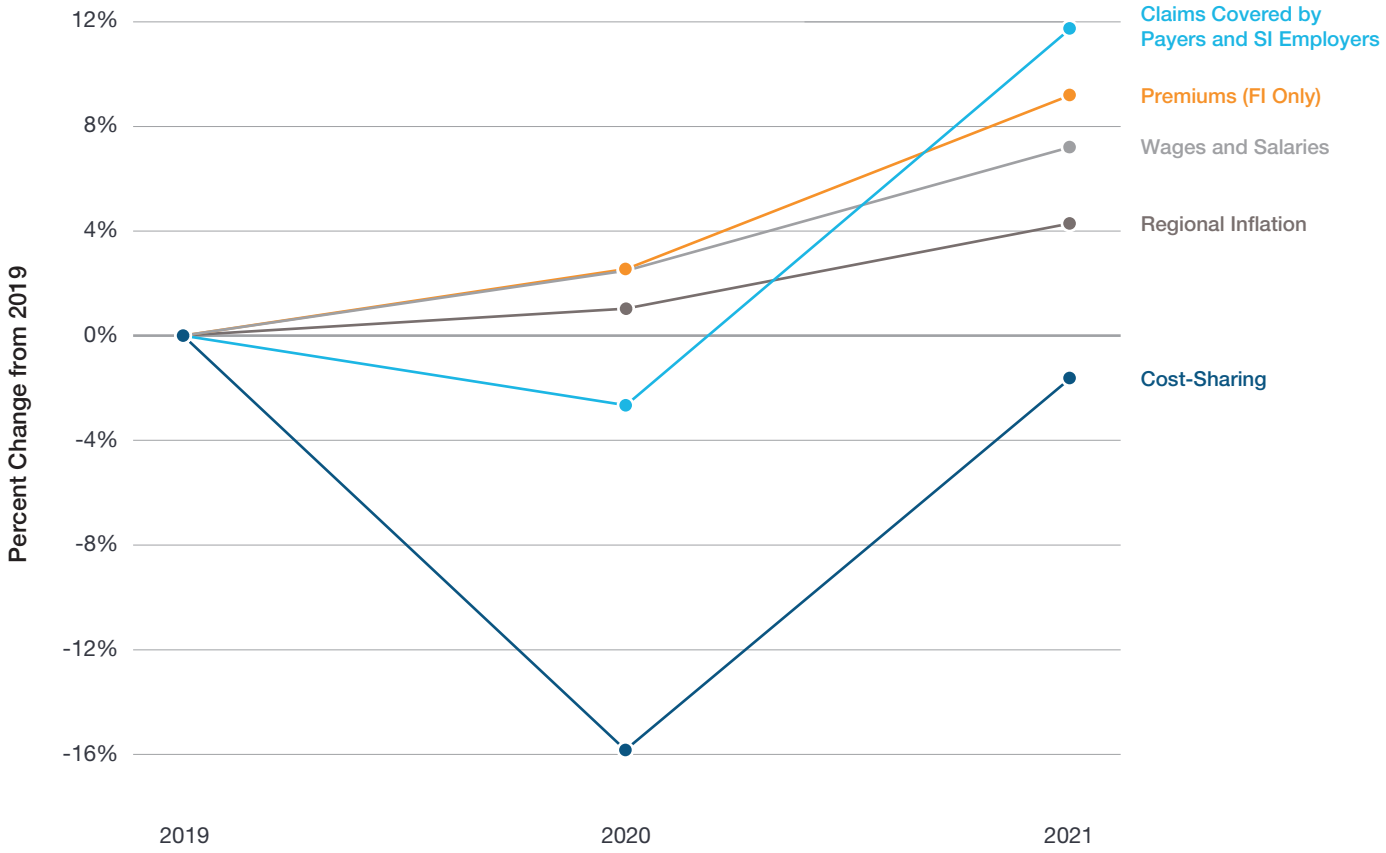
Private Commercial Member Cost-Sharing

Between 2019 and 2020, fully-insured premiums, wages and salaries, and regional inflation increased modestly while member cost-sharing and the portion of claims covered by payers and self-insured employers dropped in the initial months of the COVID-19 pandemic. As health care utilization rebounded in 2021, both claims costs and member cost-sharing increased relative to 2020 levels, although member cost-sharing remained slightly below its 2019 starting point. The graph reflects cumulative trends from a 2019 base.

Over this three-year period, premiums as well as claims covered by payers and employers increased at annualized rates of 4.7% and 5.7%, respectively, surpassing wages and salaries (3.6%) and regional inflation (2.2%). Cost-sharing decreased at annualized rate of 0.7% between 2019 and 2021. Rates reflect compound annual growth for the three-year period (not shown).

These metrics represent some, but not all, financial impacts of the COVID-19 pandemic on Massachusetts members and employers through the end of 2021. As policymakers and other stakeholders chart the path forward amid a changed health care landscape, health plan affordability will remain an important consideration.

Private Commercial Insurance Affordability, 2019-2021



Between 2019 and 2021, premiums increased at a faster annual rate than both wages and salaries and regional inflation. At the same time, claims covered by insurers and self-insured employers grew faster than premiums.

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. Cost-sharing and claims data for Cigna were excluded due to data quality concerns. Graph represents cumulative trends from 2019 to 2021, with 2021 values calculated as (2021 Value/2019 Value)^(1/2)-1 with 2019 serving as the base year reflecting compound annual growth. See technical appendix.

Private Commercial Member Cost-Sharing Notes

1 Chapter results based on commercial contract member data provided by Aetna, AllWays Health Partners (AllWays), Blue Cross Blue Shield of Massachusetts (BCBSMA), Boston Medical Center HealthNet Plan (BMCHP), Fallon Health, Harvard Pilgrim Health Care (HPHC—includes Health Plans, Inc.), Health New England (HNE), Tufts Health Plan (Tufts), Tufts Health Public Plans (THPP), UniCare, and United Healthcare. Payers with fewer than 50,000 Massachusetts primary, medical enrollees were not required to submit data. Data for Cigna was excluded due to quality concerns.

2 Division of Insurance, "Bulletin 2020-31," (Boston, December 2020), https://www.mass.gov/news/bulletin-2020-31-continued-efforts-to-restrict-the-spread-of-covid-19-issued-12292020.

3 "Plan Updates", Blue Cross Blue Shield Massachusetts, 2023. https://www.bluecrossma.org/disclaimer/plan-updates.

Index of Acronyms

ACA	Affordable Care Act
ACO	Accountable Care Organization
ADL	Activities of Daily Living
AMC	Academic Medical Center
APM	Alternative Payment Method
APTC	Advance Premium Tax Credit
ASO	Administrative Services Only
BCBSMA	Blue Cross Blue Shield of Massachusetts
BH	Behavioral Health
BIDCO	Beth Israel Deaconess Care Organization
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
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.

Index of Acronyms (continued)

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
MGL	Massachusetts General Law
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
NQF	National Quality Forum
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
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

Glossary of Terms

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

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

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

Alternative Payment Methods (APMs): Payment methods used by a payer to reimburse 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.

Annualized Trend: Calculates a smooth spending trend across multiple years, also known as compound annual trend. CHIA uses the annualized trend to examine 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.

Glossary of Terms (continued)

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 exceeding $1,350 for 2018 and 2019 and $1,400 for 2020.

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

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

Glossary of Terms (continued)

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

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

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

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

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

Percent of Benefits Not Carved Out: The estimated percentage of a comprehensive package of benefits (e.g., pharmacy, behavioral health) that are accounted for within a payer's reported claims.

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

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

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

Glossary of Terms (continued)

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

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

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

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

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

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

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

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

Glossary of Terms (continued)

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.

For more information, please contact:

CENTER FOR HEALTH INFORMATION AND ANALYSIS

501 Boylston Street
Boston, MA 02116
(617) 701-8100

www.chiamass.gov
@Mass_CHIA

Publication Number 23-072-CHIA-01