DEPARTMENT OF HEALTH

Health Care Spending, Prices, and Utilization in Minnesota: 2017 to 2021

DECEMBER 2023

Key Findings

- Per-person health care spending by commercially insured Minnesotans grew by 10.4% from 2017 to 2019, fell 4.3% from 2019 to 2020, then grew 11.9% from 2020 to 2021. Overall, from 2017 to 2021 spending increased by 18.3%.
- The spending decline from 2019 to 2020 was largely due to a decrease in utilization caused by COVID-19 related disruptions to health care service delivery. In contrast, prices continued to grow.
- An influx of high volume and relatively lower cost COVID-19 related services from 2020 to 2021, primarily tests and vaccinations, produced an increase in utilization and a slight decrease in average price.
- Professional service payments to doctors and other providers were the largest component of health care spending.

Background

Spending on medical care and prescription drugs continues to grow in the United States, with total health expenditures reaching $4.3 trillion nationally in 2021. In Minnesota, total health care spending reached $63.4 billion in 2021, or approximately $11,114 per person.[i] Per-person health care spending (spending) is the product of two main factors, the average per-person volume of health care used (utilization) and the average price of each procedure, visit, drug, or other service (prices).[ii]

This issue brief relies upon data from the Minnesota All Payer Claims Database (MN APCD) to examine trends in health care spending, prices, and utilization in Minnesota from 2017 through 2021. The MN APCD is a state repository of de-identified health care enrollment and claims data administered by the Minnesota Department of Health.[iii]

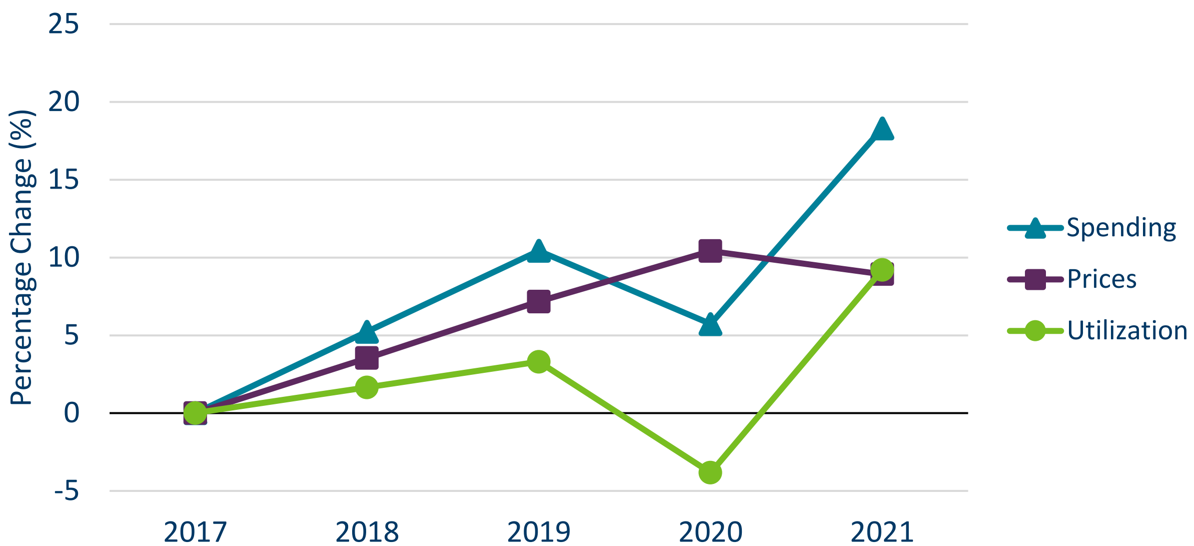
This brief uses research methods developed by the Health Care Cost Institute (HCCI) to produce population-based estimates of spending, prices, and utilization for medical care and retail prescription drugs.[iv] More details on these methods are available from the Health Care Cost Institute.[v,vi] In line with the HCCI approach, this issue brief focuses on health care spending

among Minnesotans, ages 64 and younger, who have commercial health insurance through an employer or purchase health insurance on their own, including through Minnesota's health insurance exchange, MNsure. Focusing on those with commercial coverage is important not only because this group represents a majority of the Minnesota population, but also because health care prices tend to be higher and more variable for commercially insured patients.[vii,viii]

Results

Annual estimated per-person health care spending grew 18.3% from 2017 to 2021 (Figure 1). Spending grew from $5,569 in 2017 to $6,151 in 2019 (an increase of 10.4%). Spending decreased from 2019 to $5,889 in 2020 (-4.3%), then increased to $6,589 in 2021 (11.9%).

Figure 1: Cumulative Growth in Health Care Spending, Prices, and Utilization 2017 to 2021



Source: Health Economics Program analysis of 2017 to 2021 data from the Minnesota All Payer Claims Database, Extract 25.

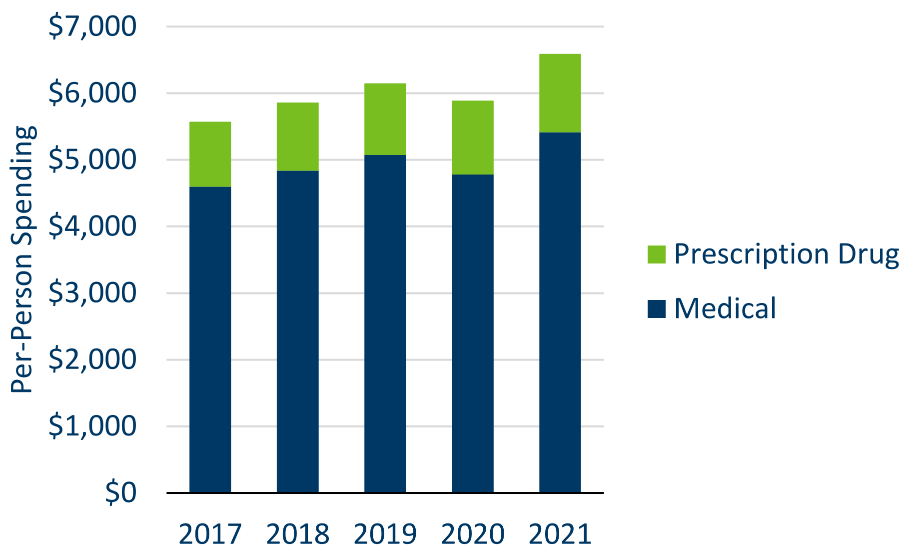
Prices and utilization grew from 2017 to 2019 (7.2% and 3.3%, respectively). From 2019 to 2020, prices continued to increase (by 3.0%), but utilization declined (-7.0%), largely due to COVID-19-related disruptions to health care delivery.[ix] While utilization rebounded from 2020 to 2021, increasing by 13.8%, prices decreased slightly (by 1.0%) (see Supplemental Exhibits S-1 through S-3 for additional detail). An influx of new COVID-19-related services, primarily tests and vaccinations, impacted the mix of services delivered in 2020 and 2021. The high volume and relatively low average price of these services are in part responsible for an increase in

utilization and decrease in prices observed in 2020 and 2021 (See Supplemental Exhibits S-4 and S-5 for additional detail).[x]

In spite of this, rising prices for health care strongly influenced spending across the study period, with growth in health care prices greater than inflation in each year from 2017 to 2020.[xi] Across the full study period of 2017 to 2021, prices grew by 8.9% and utilization grew by 9.2%.

Medical spending represented the majority of per-person annual health care spending in each year from 2017 to 2021, with 82.2% of spending associated with medical care and retail prescription drug spending contributing the remaining 17.8% (Figure 2).[xii] Medical spending varied considerably from year to year, while retail prescription drug spending was more consistent.

Figure 2: Per-Person Spending by Category 2017 to 2021

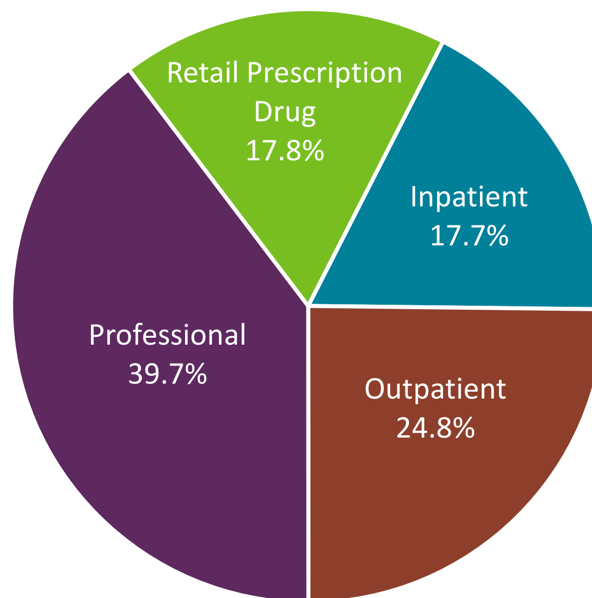


Source: Health Economics Program analysis of 2017 to 2021 data from the Minnesota All Payer Claims Database, Extract 25.

Professional service fees contributed the largest proportion of per-person health care spending during the full five-year analysis period (2017 to 2021), about 39.7% (Figure 3). These types of payments reimburse providers for services such as office visits and consultations, including fees charged by providers who are working in hospitals (e.g., surgeons, anesthesiologists, therapists). The outpatient and inpatient categories both refer to facility fees charged by institutions including hospitals, nursing homes, surgical centers, and specialty care clinics. These

fees are intended to cover administrative and operational expenses.[xiii,xiv] Inpatient facility fees accounted for 17.7% of health care spending and outpatient fees accounted for 24.8% of health care spending. Retail prescription drug spending contributed the remaining 17.8%. These proportions are averages of per-person spending across the full five-year analysis period (2017 to 2021). The proportion of spending contributed by each category varied slightly over the course of the five-year analysis period, with outpatient and professional spending the most variable categories and retail prescription drug spending the least variable (see Supplemental Exhibits S-6 through S-13 for additional detail).

Figure 3: Components of Per-Person Health Care Spending (2017 to 2021, combined)



Source: Health Economics Program analysis of 2017 to 2021 data from the Minnesota All Payer Claims Database, Extract 25.

Conclusion

Annual per-person spending grew by 18.3% from 2017 to 2021. Utilization grew from 2017 to 2019, declined from 2019 to 2020 amidst disruptions to health care delivery caused by the COVID-19 pandemic, and rebounded from 2020 to 2021. Average prices grew from 2017 to 2020, then decreased slightly due to a dramatically increased volume of lower-price services, specifically COVID-19 tests and vaccinations.

Despite disruptions to patterns of prices and utilization from 2019-2021, growth in prices remains the most influential driver of overall commercial health care spending growth.

Analyses like these bolster our understanding of the drivers of health care spending and play an important role in the development of policy solutions that aim to manage health care costs. With this in mind, the 2023 Minnesota Legislature directed MDH to create a health care affordability center to study the drivers of health care spending trends and make policy recommendations on health care costs.[xv] Future issue briefs and analyses will help inform the Center's work.

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Notes and References

[i] Centers for Medicare and Medicaid Services. "National Health Expenditure 2021 Highlights." (https://www.cms.gov/files/document/highlights.pdf). Retrieved March 29, 2023. and Health Economics Program, Minnesota Department of Health. "Minnesota Health Care Spending: 2021 Estimates and Ten-Year Projections", *forthcoming*.

[ii] Population change, illness burden, and changes in medical technology are more specific factors that can affect spending through their effects on utilization, prices, or both. We opted not to examine these specific factors because they are not easily quantified. The mix of health care services provided in a given year can also vary from year to year, potentially impacting measures of spending, prices, and utilization.

[iii] Health Economics Program, Minnesota Department of Health. "Minnesota All Payer Claims Database" (https://www.health.state.mn.us/data/apcd/). Retrieved March 29, 2023.

[iv] Health Care Cost Institute (https://healthcostinstitute.org). Retrieved March 29, 2023.

[v] Health Care Cost Institute. "2019 Health Care Cost and Utilization Report Analytic Methodology 2019 V1.0." (https://healthcostinstitute.org/images/pdfs/HCCI_2019_Methodology_public_v1.pdf). Retrieved March 29, 2023.

[vi] Spending was calculated by adding up all health care spending during the year, then dividing it by the total number of commercially insured non-elderly adults in the MN APCD to measure annual spending per person. Utilization was calculated similarly by counting the number of health care services and dividing by the number of enrollees. Prices are equal to spending divided by utilization.

[vii] Congressional Budget Office (2022). "The Prices That Commercial Health Insurers and Medicare Pay for Hospitals' and Physicians' Services." (https://www.health.state.mn.us/data/economics/hasurvey/index.html). Retrieved March 29, 2023.

[viii] Health Economics Program, Minnesota Department of Health. "Chartbook Section 2: Trends and Variation in Health Insurance Coverage" (https://www.health.state.mn.us/data/economics/chartbook/docs/section2.pdf#page=4). Retrieved March 29, 2023.

[ix] The onset of the COVID-19 pandemic had immediate and wide-ranging impacts on the health care system. Efforts to combat the spread of the virus and ensure the stability of the health care system resulted in policies and practices that temporarily restricted care delivery. Additionally, the risk of contracting COVID-19 may have motivated many individuals to delay care. These and other factors likely contribute to the substantial decrease in health care utilization seen in 2020.

[x] In 2020 and 2021, a substantial proportion of the services captured in the outpatient and professional categories were associated with COVID-19 vaccinations and tests. The higher volume and lower average price of these services had an outsized impact on the spending, price, and utilization measures in their respective categories and overall. See Supplemental Exhibits S-12 and S-13 for additional detail.

[xi] Our study period saw annual health care price increases of 3.5%, 3.5%, 3.0%, and -1.0%. The corresponding annual percentage changes in the consumer price index for urban consumers (CPI-U) over the same period were 2.4%, 1.8%, 1.3%, and 4.7%). CPI values used here are from the Bureau of Labor Statistics (https://data.bls.gov/cgi-bin/surveymost?cu) following guidance produced by the Agency for Healthcare Research and Quality (https://meps.ahrq.gov/about_meps/Price_Index.shtml). Retrieved March 29, 2023.

[xii] Claims for retail prescription drugs include prescriptions written by a provider and filled at a pharmacy. They do not include drugs administered by providers or over the counter medications. The prices of retail prescription drugs are recorded in MN APCD claims data before manufacturer rebates are applied, should any be available.

[xiii] Please note that this issue brief follows the methodology used by HCCI in their Health Care Cost and Utilization reports; in these reports, HCCI differentiates between facility charges and provider charges. Other estimates of health care spending, including those used in other MDH reports ("Minnesota Health Care Spending: 2018 and 2019 Estimates and Ten-Year Projections" [https://www.health.state.mn.us/data/economics/docs/2019spendingrpt.pdf]) and by CMS (National Health Expenditure Accounts [https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData]) are aggregated differently, and therefore are not directly comparable to the estimates presented here. Retrieved March 29, 2023.

[xiv] Example areas of spending often cited include building upkeep, room and board for inpatient settings, medical supplies and machinery, nursing care, electronic medical records systems, and billing.

[xv] 2023 Minnesota Legislative Session: New Duties for the Health Economics Program (https:/www.health.state.mn.us/data/economics/docs/2023legsummary.pdf).