



HEALTH CARE  
COST INSTITUTE

# 2022 HEALTH CARE COST AND UTILIZATION REPORT





# 2022 Health Care Cost and Utilization Report

On behalf of the Health Care Cost Institute (HCCI), I am pleased to present the 2022 Health Care Cost and Utilization Report.

From 2018 to 2022, per-person health care spending among people with employer sponsored insurance (ESI) grew by nearly 19%. This period includes 2020, when we saw the first decline in per person health care spending in our organization's history. It also includes the dramatic rebound in spending that followed in 2021. Despite those fluctuations, the five-year spending trend in the 2022 report continues upward. In 2022, per person spending among people with ESI exceeded \$6,700, and average out-of-pocket spending was more than \$850.

To understand what is leading to higher costs over time, this report identifies changes in the use of services and average prices by categories of health care services. In the five-year period covered by this report, use went up by 4% while average prices increased by 14%. Although the ups and downs of utilization over the period have a clear effect on total spending, average prices continued to go up each year. This trend underscores the fact that the growth in health care prices remains a challenge to accessibility and affordability.

Health care costs generally and prices, specifically, affect families, businesses, and taxpayers across the country. Already high and growing health care costs force everyone to make difficult choices. And, for many people, costs add to the emotional strain and stress that can come from interacting with the health care system. Recently, rapidly increasing health care costs have led state and federal policymakers to emphasize the value of transparency and the importance of lowering health care costs. We hope this report and HCCI's other work can help inform these efforts.

HCCI's mission is to use data and analytics to drive improvements in the US health care system. By highlighting five-year and annual changes in health care spending, use, and prices, we hope this 2022 Health Care Cost and Utilization Report sparks discussion about the causes of and solutions to the challenges facing US health care.

As in previous years, all data underlying the figures and analysis presented in this report are available for download on our website. We acknowledge that the 2022 HCCUR focuses only on people who get health insurance through work. While nearly half of the US population is covered by employer-sponsored insurance, the experiences of people who lack insurance or are insured through such programs, as Medicaid, Medicare, and the individual market, may be different and also should be studied carefully.

I would like to thank the HCCI team – especially Kelsey Burke, Jessica Chang, and John Hargraves – for the tireless work that goes into preparing this report. We are grateful for our partners, CVSHealth/Aetna, Humana, Kaiser Permanente, and Blue Health Intelligence and for additional technical advice and input from Mike Chernew, Stacie Dusetzina, Rebecca Owen, and Kosali Simon.

Katie Martin  
President and CEO, HCCI

## About HCCI

The Health Care Cost Institute was launched in 2011 to promote independent, nonpartisan research and analysis on the causes of the rise in U.S. health spending. HCCI holds one of the largest databases for the commercially insured population, and in 2014 became the first national Qualified Entity (QE) entitled to hold Medicare data. For more information, visit [healthcostinstitute.org](https://healthcostinstitute.org) or email us at [info@healthcostinstitute.org](mailto:info@healthcostinstitute.org).



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If you are interested in exploring the data that powers this report or our methodology visit:

<https://healthcostinstitute.org/health-care-cost-and-utilization-report/annual-reports>



# Executive Summary

The 2022 Health Care Cost and Utilization Report presents data on health care spending, utilization, and average prices from 2018 through 2022 for individuals under the age of 65 who receive health insurance coverage through an employer. The report relies on de-identified commercial health insurance claims contributed by CVS Health/Aetna, Humana, and Blue Health Intelligence during this period. The key findings are:



Health care spending per person exceeded \$6,700 in 2022. Average out-of-pocket spending was more than \$850 per person in 2022.



From 2018–2022, per-person health care spending increased by \$1,055, nearly 19% or \$264 per year on average.



Overall health care prices grew 14% from 2018 to 2022. Average prices increased across all service categories over the five-year period.



Overall utilization grew by 4% from 2018 to 2022. Utilization of services increased in the outpatient, physician, and prescription drugs categories, but inpatient admissions decreased by 11% over the five-year period.



The annual change in per-person health care spending leveled off in 2022 following larger fluctuations in 2020 and 2021.

This report examines trends across inpatient admissions; outpatient services; professional (i.e., physician and other clinician) services; and prescription drugs, though prescription drug spending does not reflect manufacturer rebates. We also look at granular trends within each category. All data were weighted to reflect the age, gender, and geographic mix of the employer-sponsored insurance (ESI) population by year. We do not adjust for changes in the composition of services provided over time in our main report. We believe the racial and ethnic distribution of the population in HCCI's data is similar to the national ESI population. Nationally, however, Black, American Indian and Alaska Native, and Hispanic populations are under-represented in ESI, so health care costs and use among these groups are likely under-represented in this report's findings.

## Definitions of Reported Measures

**Spending per person:** Total expenditures per person on medical and prescription drug claims (defined as the sum of payer paid and patient out-of-pocket amounts) weighted by age, sex, and geographic mix of the ESI population. The prescription drug component reflects point-of-sale expenditures and does not include manufacturer rebates provided through separate transactions because these data are not readily available at the transaction level.

**Out-of-pocket spending per person:** Total payments per person paid by patients for health care services (defined as the sum of deductibles, co-payments, and co-insurance amounts) weighted by age, sex, and geographic mix of the ESI population.

**Utilization:** The count of inpatient admissions, outpatient facility procedures, professional services, and days covered by a filled prescription. In the results presented in this report, utilization does not account for changes in the mix of services over time.

**Average Price:** Spending per service (admissions, visits, procedures, or days supplied depending on the service category). Spending and utilization were aggregated across all services in a category. The average price per service in a category was then calculated by dividing total spending by total utilization. The year-over-year change in average prices reflects both inflation and service price growth above inflation as well as any changes in the mix of services provided.

**Average Out-of-Pocket Price:** The average amount for which individuals receiving a service were liable. Calculated as the sum of out-of-pocket amounts due in a service category divided by the number of people who received a service in that category. In contrast to spending per person and out-of-pocket spending per person, the denominator varies by service category.



# Health Care Spending: Changes Between 2018 and 2022

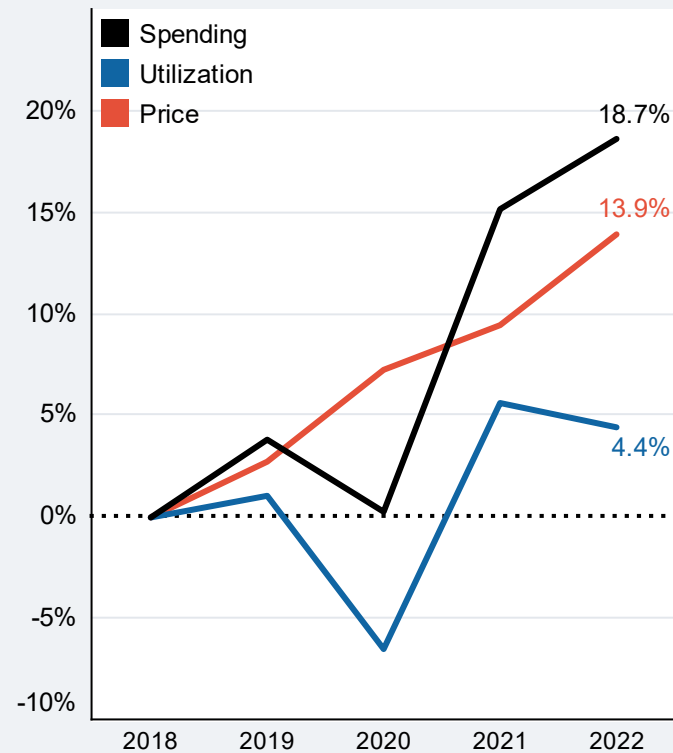
In 2022, per person spending among people with employer-sponsored insurance (ESI) exceeded \$6,700.

From 2018 to 2022, **spending** per person increased by \$1,055 from \$5,656 to \$6,711 (nearly 19%). As shown in Figure 1, the increase in spending was driven by rising average **prices**, which grew by 14%. During this period, there was also a cumulative 4% increase in **use**.

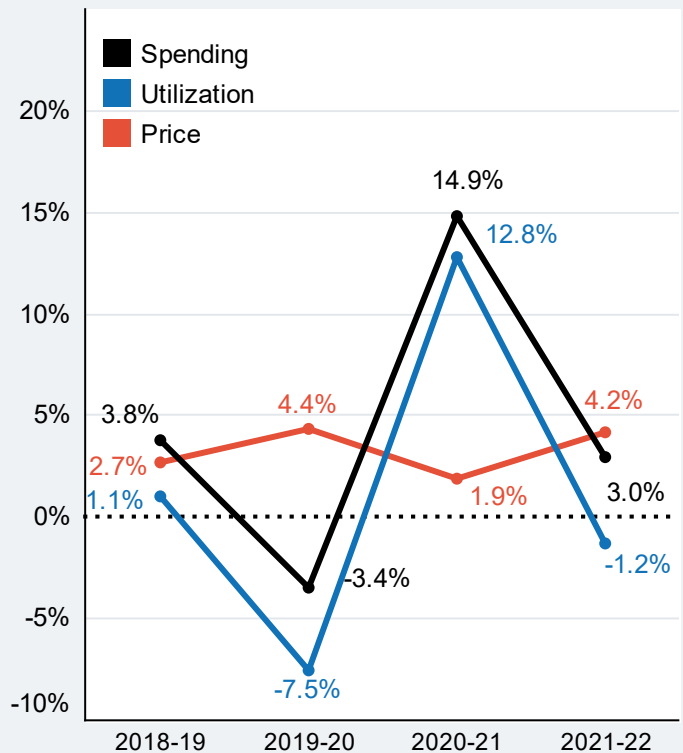
Annual **spending** per person increased each year from 2018 to 2022 except for 2019 to 2020, which was affected by COVID-19 pandemic. Figure 2 shows that the largest annual increase in spending per person during this time was from 2020–21 (14.9%), reflecting the lower per-person spending in 2020. Annual changes in **utilization** fluctuated over the five-year window, decreasing from 2019–20 (-7.5%) and again in 2021–22 (-1.2%) following a dramatic increase in use from 2020–21 (12.8%). Average **prices** grew each year from 2018 to 2022 with annual growth ranging from almost 2% (2020–21) to more than 4% (2019–20 and 2021–22).

We adjusted spending, utilization, and enrollment using ESI weights based on age, sex, and geography to develop estimates that were representative of the national ESI population younger than 65.

**Figure 1:** Cumulative Percent Change in Spending per Person, Utilization, and Price



**Figure 2:** Annual Percent Change in Spending per Person, Utilization, and Price



**Note:** Unless otherwise stated, prices are not adjusted for inflation or service mix; therefore, any references to changes in prices in this report include the effect of inflation and service price growth above inflation as well as effects of changes in the mix of services provided. Changes in utilization include the effects of age and sex composition changes in the ESI population and changes in the quantity of services used. Further, spending per person measures include non-utilizers, who account for one quarter of the population in the setting of medical use and one third of the population in the context of prescription drug use.



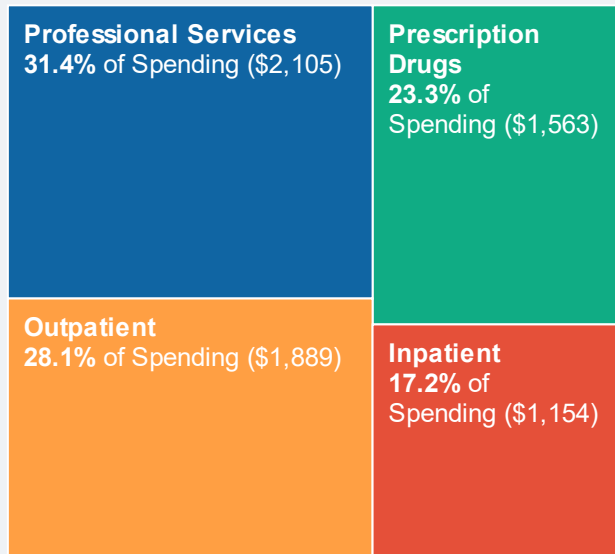
# Health Care Spending by Service Category

Annual spending per person grew to \$6,711 in 2022, an increase of nearly 19% from 2018. As shown in Figure 3, **professional services** made up the largest share of per person spending. This was followed by **outpatient** visits and procedures, **prescription drugs**, and **inpatient** admissions. The proportion of per person spending by these four categories has remained relatively consistent over time. Note that spending on prescription drugs does not account for manufacturer rebates.

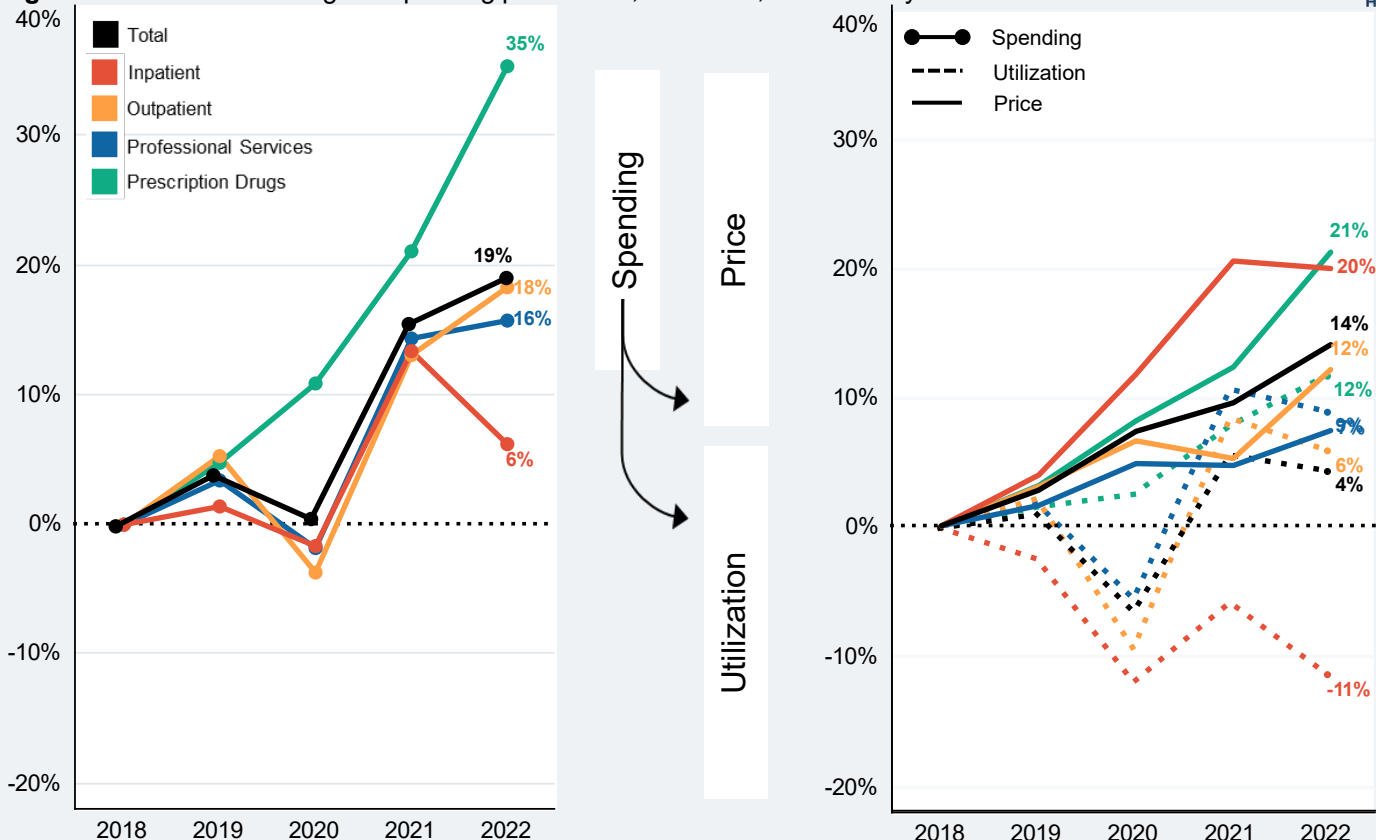
Figure 4 shows how average prices and utilization contribute to per-person spending growth by category. Spending increases were largely driven by rising prices. Between 2018 and 2022, average prices increased (14%) overall. Among medical services, average prices for **inpatient** and **outpatient care** increased by double digits over the five-year period while prices for **professional services** increased from 2018–22 by 7%. Average point-of-sale prices for **prescription drugs** grew by just over 20%; rebates likely offset a meaningful amount of this growth..

Across the service categories, utilization increased by 4% over the five-year period. **Inpatient** services experienced the only cumulative decrease in use (-11%). In contrast, use of **prescription drugs** (12%), **professional services** (8%), and **outpatient services** (6%) all increased from 2018 to 2022.

**Figure 3:** Share of Spending per Person in 2022



**Figure 4:** Cumulative Change in Spending per Person, Utilization, and Price by Service from 2018 to 2022



# Changes in Spending by Service Category

Except for a decline from 2019 to 2020, total per-person spending increased each year from 2018 through 2022, as shown in Figure 5. Spending increased \$1,055 per person over the five-year period, an average of \$264 per year.

**Per person spending in 2022 was higher than in 2018 across all service categories.**

Figure 6 highlights the growth in each service category. Gross spending on **prescription drugs** increased \$409 per person over five years. This is the largest increase over the five-year period, but the total does not reflect manufacturer rebates, which would offset some of this growth.

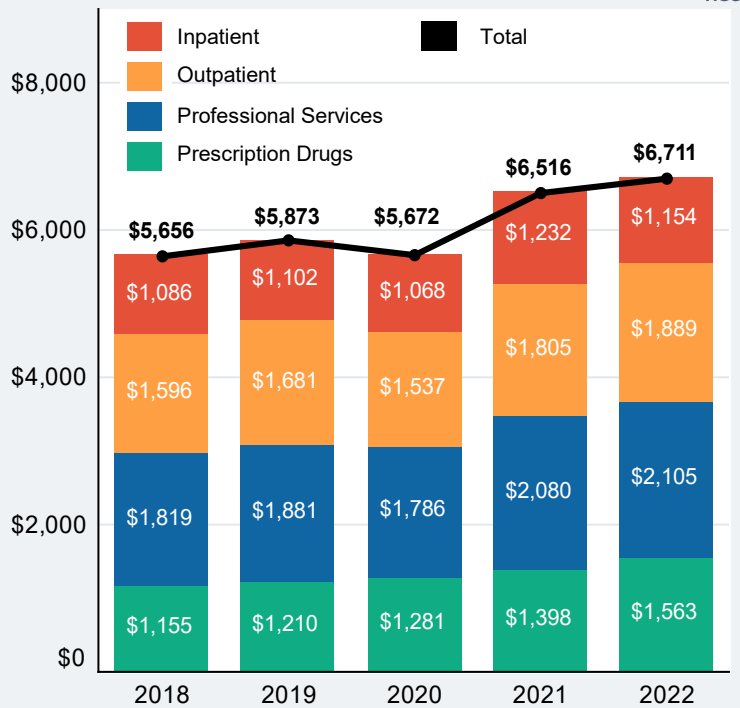
Per person spending on facility payments for **outpatient** services was the category with the second highest increase over the five years. Per person outpatient spending increased \$292 per person from 2018 to 2022.

Per person spending on **professional services** increased \$286 per person over five years, reaching more than \$2,100 in 2022.

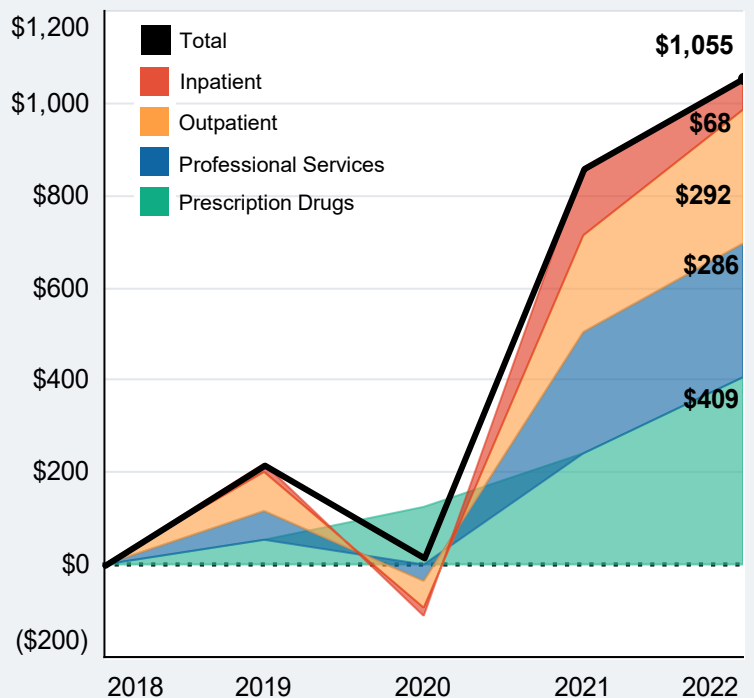
Spending on facility payments for **inpatient** admissions increased \$68 per person over five years, the smallest increase of the four major categories.

Figure 6 shows that per-person spending was increasing from 2018 to 2019, decreased dramatically from 2019 to 2020, and has increased since.

**Figure 5: Annual Spending per Person by Service**



**Figure 6: Cumulative Change in Spending per Person**





# Annual Changes in Spending, Utilization, and Price

**Figure 7: Annual Percent Change in Spending per Person, Utilization, and Average Price**



Year-to-year changes in spending reflect shifts in utilization and prices. Figure 7 shows that, from 2018 to 2022, spending tracked closely with utilization. For example, across all services, utilization decreased by 7.5% from 2019–20 and then rebounded, increasing 12.9% from 2020–21, which reflects changes associated with the COVID-19 pandemic. Similarly, overall spending decreased by 3.4% from 2019–20 and then increased 14.9% from 2020–21. This pattern held true in all service categories except for prescription drugs.

Between 2021 and 2022, across all services, per person spending grew by 3%, a slower rate than it had grown from 2020–21 (14.9%). The 2021–22 spending growth reflects a decrease in utilization of approximately 1% from 2021 to 2022 offset by a 4% increase in average prices.

From 2021 to 2022, utilization decreased in all service categories, except prescription drugs.

- **Inpatient admissions** decreased by nearly 6% from 2021–22.
- **Outpatient** visits and procedures decreased by almost 2% from 2021–22.
- Utilization of **professional services** decreased by a little more than 1% from 2021–22.
- **Prescription drug** use increased by more than 3% from 2021–22.

Average price growth increased in all service categories except inpatient admissions from 2021 to 2022. In the last year of the five-year period, the average price of:

- **Inpatient admissions** decreased by 0.5%.
- **Outpatient** services rose by more than 6%.
- **Professional services** increased by more than 2%.
- **Prescription drugs** (average point-of-sale price) went up by nearly 8%.



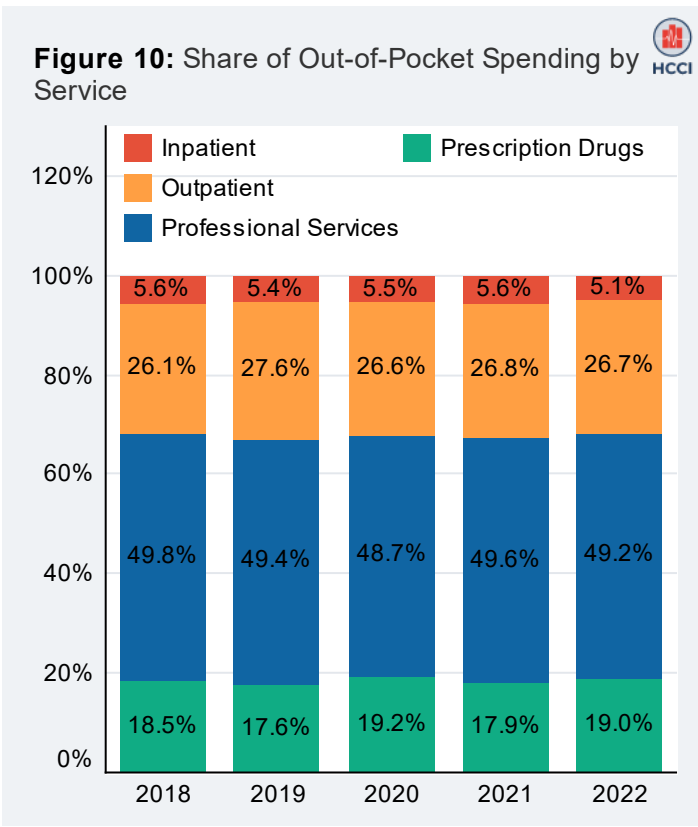
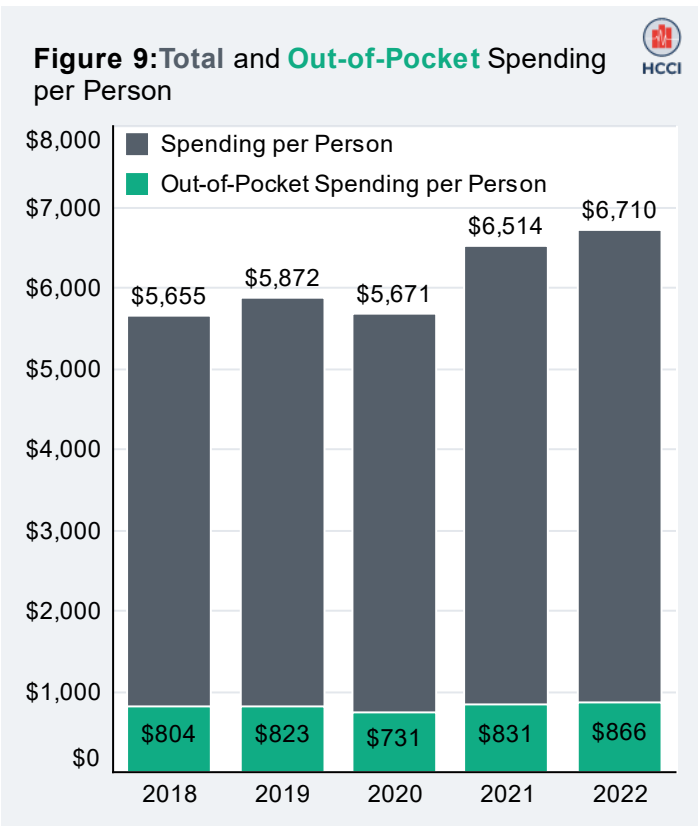
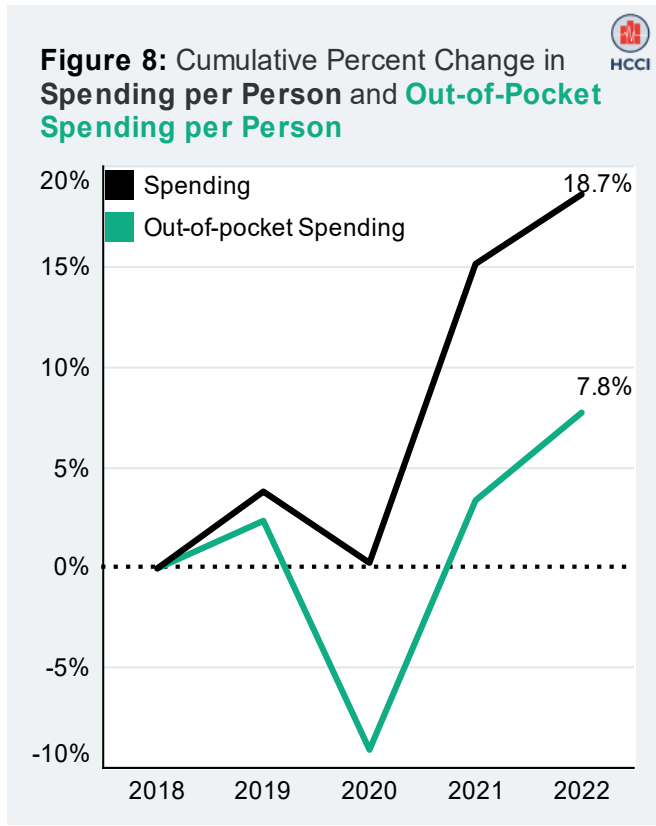


# Out-of-Pocket Spending Trends

Out-of-pocket (OOP) spending includes payments made by patients for health care services and prescription drugs covered by insurance but does not include the cost of insurance or premiums. OOP spending includes deductibles, co-payments, and co-insurance, so estimates are a function of plan benefit design offerings by employers. In addition, some individuals may use flexible spending accounts (FSAs), health savings accounts (HSAs), and health reimbursement accounts (HRAs) to pay for these costs. Although these types of accounts still reflect out-of-pocket costs to employees, they also confer tax savings that we cannot factor into our analysis.

Figure 8 shows that, from 2018 to 2022, total OOP spending per person (among all individuals, including non-utilizers) increased by 7.8%. The growth in OOP spending was lower than the growth in total spending (18.7%) over the five-year period.

Out-of-pocket spending per person (Figure 9) was \$866 in 2022. As shown in Figure 10, the share of OOP spending attributable to each service category remained relatively constant over the five years, with the highest percentage of OOP spending—close to half—on professional services.



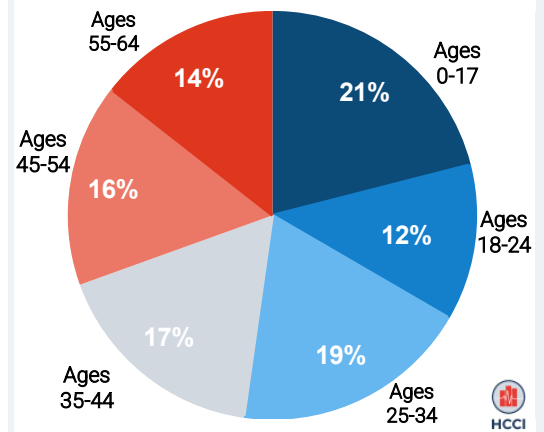


# Annual Spending by Age and Sex

The ESI population includes those people who receive health insurance coverage from their employer, as well as their dependents, such as spouses and eligible children. Figure 11 shows the share of people in each age group in 2022. The share of people of each sex was evenly divided between females and males in 2022.

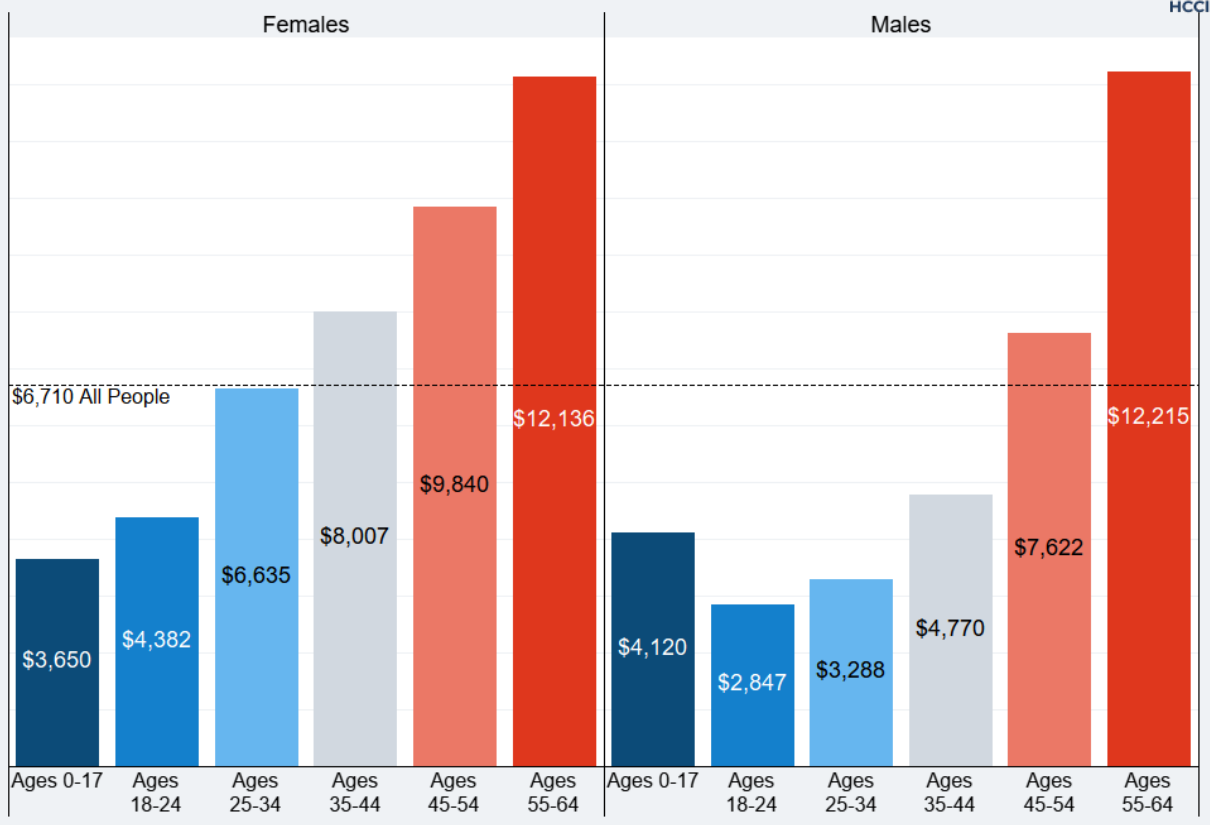
Per-person spending in the HCCI data was highest for those between 55 and 64 years old. In general, per-person spending increased with age, as shown in figure 12. One exception was males under 18, who had higher spending (\$4,120) than males ages 18 to 24 (\$2,847) and males ages 25 to 34 (\$3,288).

**Figure 11: 2022 ESI Age Distribution**



The comparison of spending across men and women varied with age. Average spending among females was consistently higher than that of males between the ages of 18 and 54. Spending was slightly higher for males (\$12,215) than females (\$12,136) among those in the 55–64 age range and in the 0-17 age range (\$4,120 for males and \$3,650 for females). Over the five-year period, the distribution of age group and gender stayed relatively consistent. We adjusted spending, utilization, and enrollment using ESI weights based on age, sex, and geography to develop estimates that were representative of the national ESI population younger than 65.

**Figure 12: Spending per Person by Age and Sex in 2022**



# Drivers of Health Care Spending, 2018-2022

To better understand what drove the changes in health care spending per person over the five-year period from 2018 to 2022, we looked at:

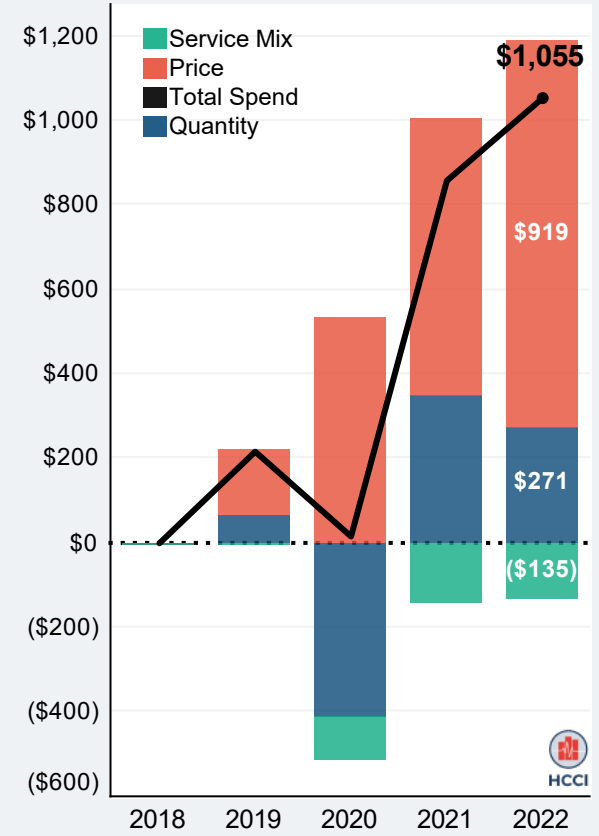
- Service prices
- The mix of services provided, and
- Quantity of services

In all years, **prices** contributed positively to the change in spending per person, as shown in Figure 13. From 2018 to 2022, rising **prices** accounted for \$919 of the change in spending. This price effect is distinct from average price changes due to changes in service mix.

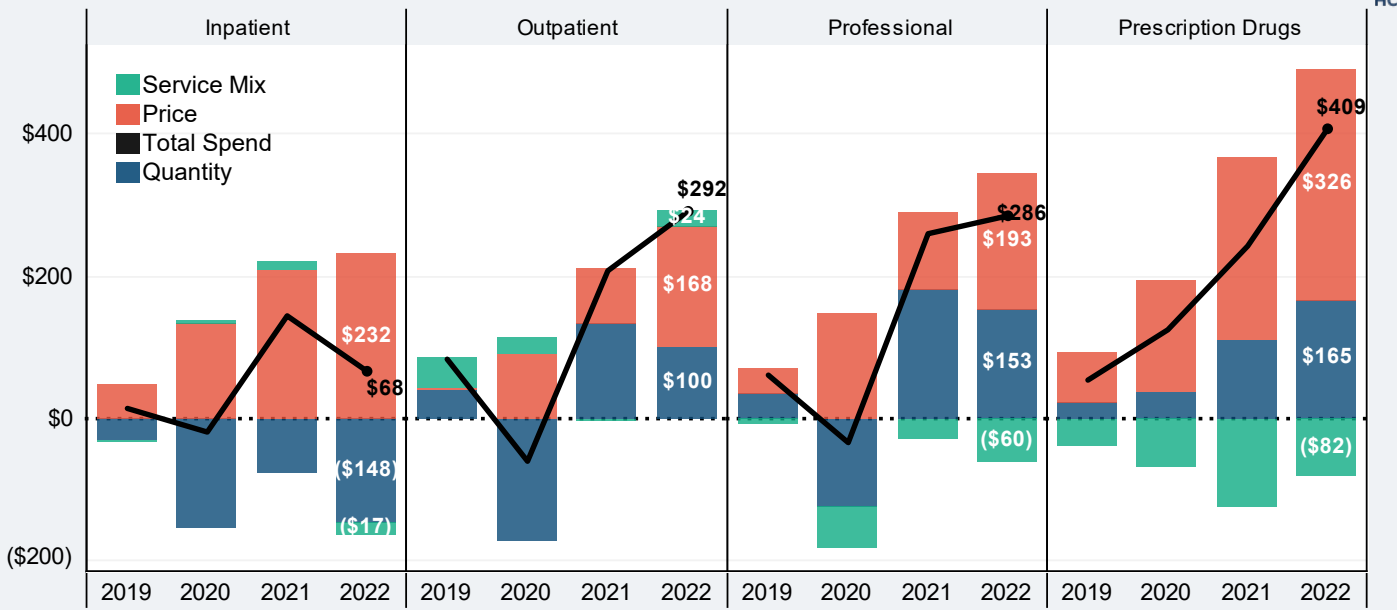
From 2018 to 2022, the **quantity** of services also contributed positively—though less than prices—to the growth in total spending. The quantity of services dropped in 2020 but rebounded in 2021. Over the 2018 to 2022 period, the quantity of services accounted for \$271 of the total spending change. Since 2019, the change in the **mix of services** (within service category) has offset some of the growth in spending. This occurs as the mix of services used by the ESI population becomes less expensive.

Figure 14 shows how the relative drivers of spending changes varied across service categories. Other than for inpatient care, quantity contributed positively to the change in spending from 2018 to 2022. Prices contributed positively to the change in spending in all categories from 2018 to 2022.

**Figure 13:** Cumulative Change in Total Spending per Person and Contributing Factors Since 2018



**Figure 14:** Cumulative Change in Total Spending Per Person and Contributing Factors by Service Since 2018



# Spending and Price Growth, 2018 and 2022

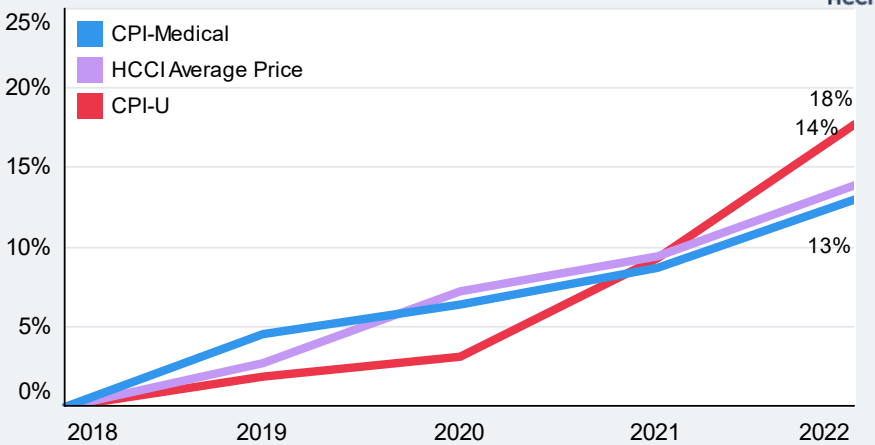
The spending and price estimates presented in this report are not adjusted for inflation, but external factors, like economy-wide inflation, can affect the reported trends. As shown in Figure 15, the Consumer Price Index for All Urban Consumers (CPI-U),<sup>1</sup> one of the most widely used measures of inflation, increased 18% from 2018 to 2022.

Typically, commercial health care prices and medical inflation outpace general inflation (CPI-U), as observed in the years 2018 through 2020 in Figure 15. In 2021 and 2022, however, the US experienced particularly rapid growth in consumer prices for most goods and services.<sup>2</sup> In those years, CPI-U growth outpaced increases in medical inflation (Medical CPI-U)<sup>3</sup> and the growth in average commercial health care service prices presented in this report. From 2018 to 2022, Medical CPI-U grew 13% and commercial health care prices increased 14%.

Understanding the impact of inflation on commercial health care price trends can be complicated because prices for most health care services are negotiated in advance and set for a contract period. Accordingly, prices are set before services are used, which means input costs that are increasing because of general inflation are not immediately reflected in the price growth for health care.

Health care service prices are also included in measures of economy-wide inflation, so health care prices can affect inflation while at the same time being affected by economy-wide inflation.

**Figure 15:** Cumulative Change in Inflation, Medical Inflation, and HCCI Average Price



[1] <https://data.bls.gov/pdq/SurveyOutputServlet>

[2] [https://data.bls.gov/timeseries/CUUR0000SA0?years\\_option=all\\_years](https://data.bls.gov/timeseries/CUUR0000SA0?years_option=all_years)

[3] [https://beta.bls.gov/dataQuery/find?fq=survey:\[cu\]&s=popularity:D&q=medical](https://beta.bls.gov/dataQuery/find?fq=survey:[cu]&s=popularity:D&q=medical)



# Rebates and Their Effect on Prices

## What are rebates?

Prescription drug rebates are discounts negotiated between drug manufacturers, pharmacy benefit managers (PBMs), and/or health insurance plans. Pharmaceutical manufacturers offer rebates to incentivize formulary placement and retain or increase market share of their drugs over potential substitutes in the class. Generally, rebates are not tied to a specific patient or prescription but are based on the overall utilization and spending of an employer or health plan's members on a drug during the year. At the end of the year or contract period, drug manufacturers return a share of the amount spent on rebated drugs to PBMs. The rebate is then shared with the insurance plan and employer, who eventually pass along the rebate to patients in the form of lower premiums. Rebates differ by plan, formulary, contract period, and drug. Frequently used and high-priced brand name prescription drugs are more likely to have rebates, and their rebate amounts tend to be larger.

Prescription drug costs in this report reflect the negotiated amounts paid when a prescription is filled and can be considered gross spending and point-of-sale (POS) price. Spending and price trends are not adjusted for manufacturer rebates or coupons. On net, rebates result in lower average prices and lower spending on prescription drugs than is observed in pharmacy claims. Accordingly, if rebates increase as a share of spending over time, unadjusted pharmacy claims would overestimate growth in total spending and average prices.

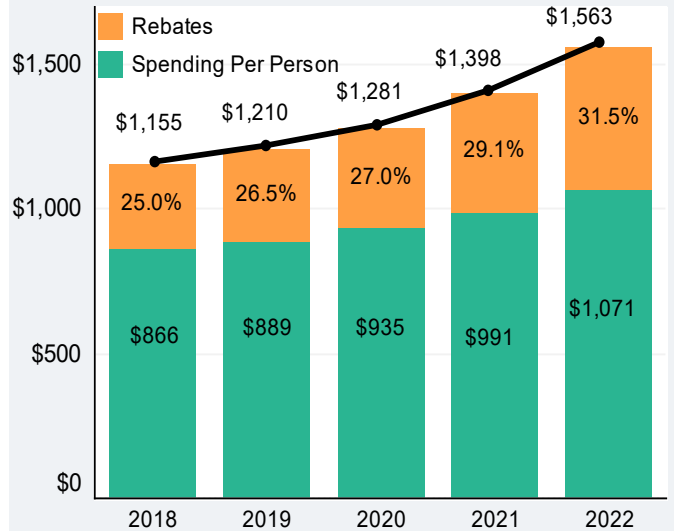
Publicly available data on commercial drug rebates are limited. The only public information for all years of this report tracks drug manufacturer and pharmacy rebates in Medicare's prescription drug benefit. To illustrate the effect of rebates on spending and price trends, we use the available Medicare rebate estimates<sup>1</sup> to adjust average POS prices.<sup>2</sup> According to estimates in the 2023 Medicare Trustees report, rebates<sup>2</sup> represented 25% of prescription drug costs in 2018, increasing to 31.5% in 2022, as shown in Figure 16.

In 2018, the average POS price for all prescription drugs in HCCI's data was \$113. By 2022, it grew more than 20% to \$136. If commercial rebates were the same share of drug costs as Medicare rebates, the average net price for prescription drugs would have been closer to \$84 (25% lower). In 2022, the net average price would have been approximately \$93 (32% lower).

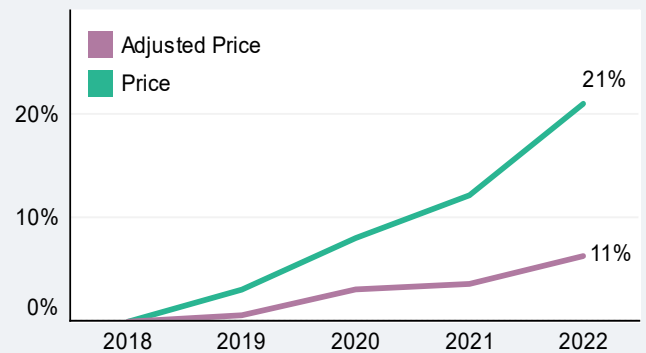
[1] <https://www.cms.gov/oact/tr/2023>

[2] Medicare Part D Direct and Indirect Remuneration (DIR)

**Figure 16:** Estimated Percentage of Prescription Drug Spending Per Person on Rebates



**Figure 17:** Prescription Drug Point-of-Sale Prices vs. Estimated Prices Adjusted for Rebates



Commercial drug rebates may differ than rebates in Medicare for many drugs and differences in the mix of drugs in ESI compared to Medicare will also affect actual net prices in ESI.

Adjusting for rebates in this way, per person drug spending in 2022 would have been \$1,071. Moreover, average prescription drug prices would have grown at a slower rate over the five-year period, illustrated by Figure 17. Average POS prices of prescription drugs increased 21% from 2018 to 2022, whereas rebate adjusted prices would have increased 11% from 2018 to 2022.

This suggests that the increase in prescription drug manufacturer rebates could have accounted for approximately half of the observed price growth in POS prescription drug prices for the ESI population from 2018 to 2022.



# Service Category and Subcategory Trends

The health care claims in the underlying data were categorized into four service categories: inpatient facility, outpatient facility, professional services, and prescription drugs. This classification reflects the way claims were processed and paid, and not necessarily how patients interacted with health care providers. In many cases, a single episode of care may have had claims in multiple categories. It is also possible that the classification of claims for similar types of episodes varied by provider, or groups of providers, depending on how claims were submitted. Such variation can also occur across years within the same provider.

Physician services that occur in physician offices as well as those that occur in facilities (e.g., hospitals) are captured in the professional services category. See the [HCCI methodology document](#) for further detail.

Year-to-year changes in spending, use, and average price in each service category may reflect changes in the site of service for certain procedures. For example, if mammograms that were previously performed in a physician's office, and therefore classified as a professional service, shift to an outpatient facility, the trends in spending, use, and price for the radiology subcategory in outpatient facility and professional services categories will be affected. These service category-level shifts were not examined, but their possibility should be noted when interpreting the findings presented in this report.

Broadly, spending on drugs may include spending on administered drugs (e.g., injections or infusions) which are generally paid under the medical benefit, and prescription drugs covered by the pharmacy benefit. In this report, administered drug spending, use, and prices are captured in the professional and outpatient facility categories. Prescription drug spending includes the amount paid for pharmacy claims. These point-of-sale prices reflect discounts from the wholesale or list prices of prescription drugs, but do not account for manufacturer rebates that occur in separate transactions.

## Inpatient



## Outpatient



## Professional Services



## Prescription Drugs

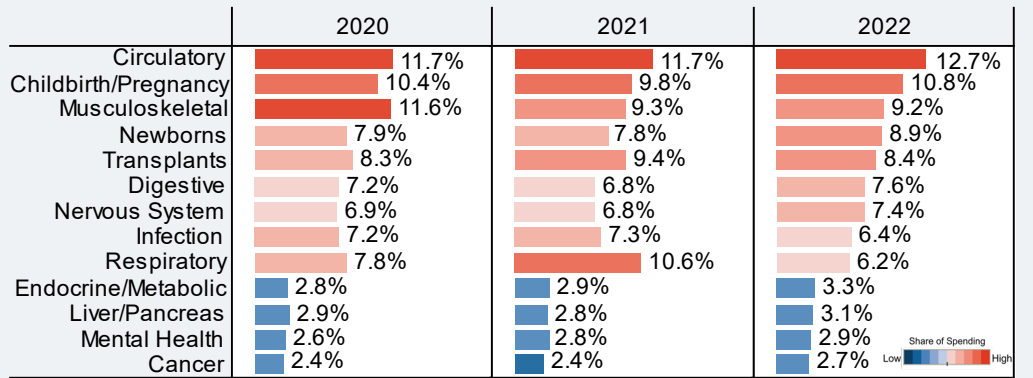


# Inpatient Spending Trends

Inpatient spending includes payments to facilities (e.g., hospitals) for services delivered during an admission or other overnight stay.

In many cases, this spending does not include payments to the physician or other clinicians, which are captured in the professional services category.

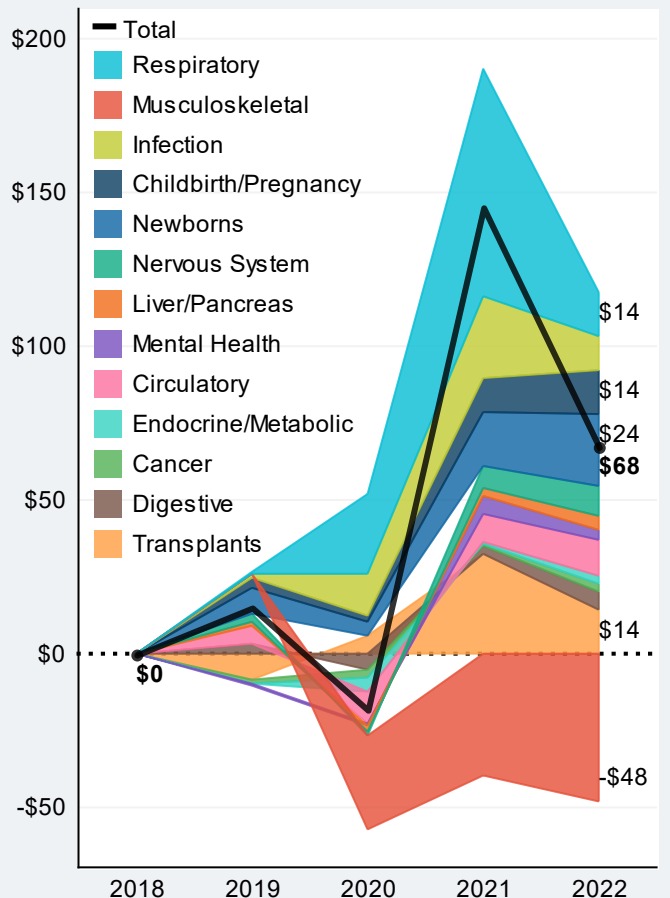
**Figure 18: Share of Inpatient Facility Spending**



In 2022, per person inpatient spending was \$1,154. As shown in Figure 18, **circulatory**, **childbirth/pregnancy**, **newborns**, **musculoskeletal**, and **transplant** admissions accounted for approximately 50% of inpatient spending in 2022. Respiratory admissions made up slightly more than 6% of inpatient spending in 2022, down from nearly 11% in 2021.

Per-person spending on inpatient admissions has increased by \$68 (6%) between 2018 and 2022, shown in Figure 19. Spending per person has increased the most for **newborns** (\$24) followed by respiratory, childbirth/pregnancy, and transplant admissions (\$14 each). Meanwhile, per-person spending on **musculoskeletal** admissions decreased by \$48 per person over the five-year period.

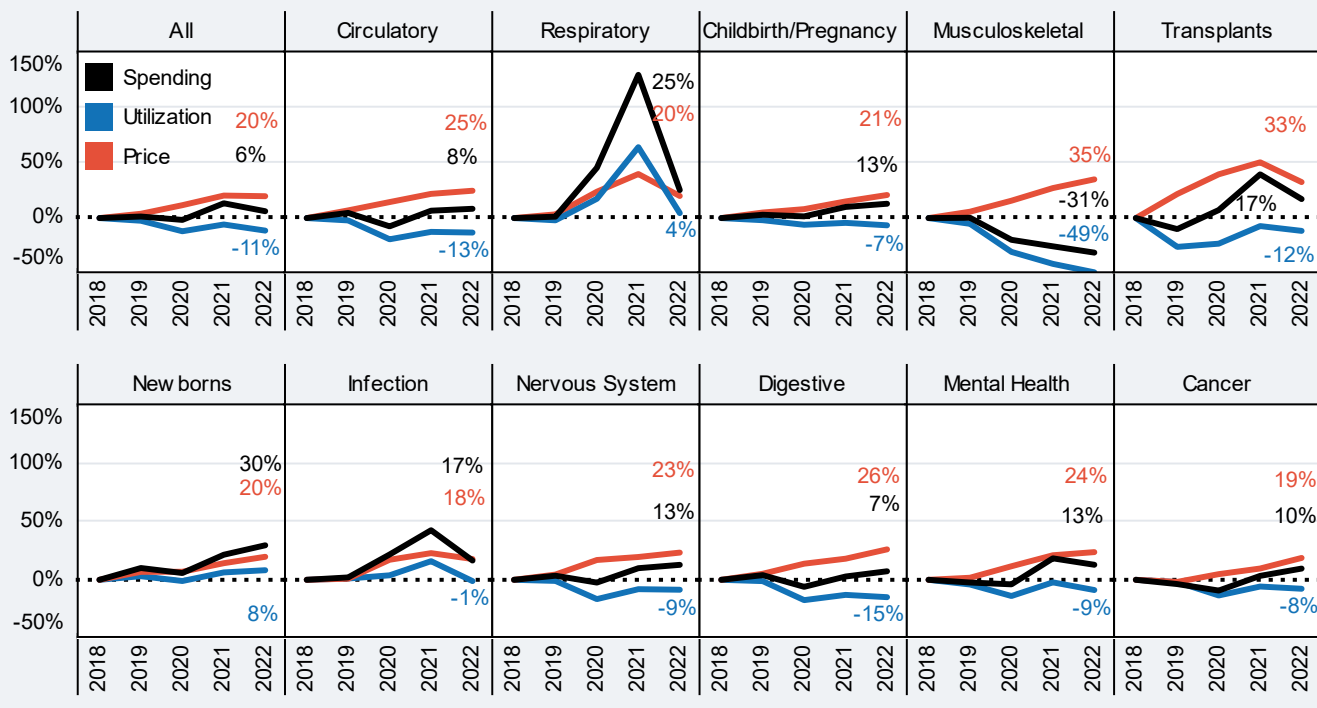
**Figure 19: Cumulative Change in Inpatient Facility Spending per Person**





# Trends in Inpatient Spending, Utilization, and Price

**Figure 20: Cumulative Percent Change in Inpatient Facility Spending per Person Utilization, and Price for Select Services**



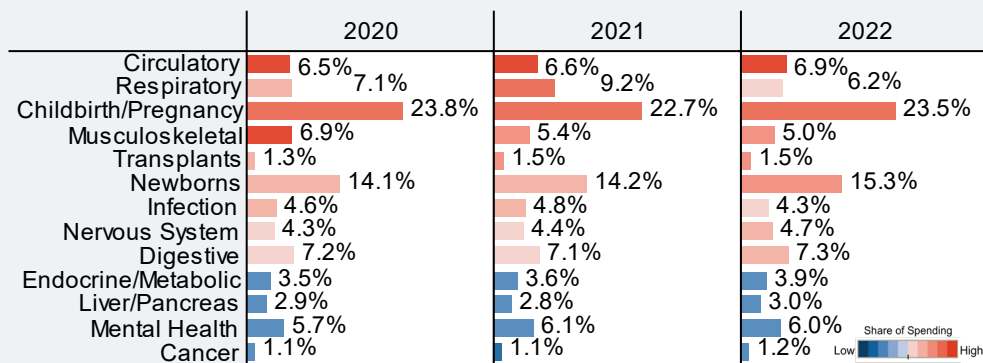
Per person **spending** on inpatient admissions grew by 6% from 2018 to 2022. This growth reflects increases in the average price offset by declines in the number of admissions over the five-year period. As shown in Figure 20, among the top categories of inpatient spending, spending per person increased the most from 2018 to 2022 for newborn (30%) and respiratory (25%) admissions. Spending on musculoskeletal admissions was 31% lower over the five-year period.

**Utilization** declined 11% overall and in most of the top categories of inpatient services. From 2018 to 2022, the musculoskeletal admissions decreased most dramatically (-49%). Digestive and circulatory admissions saw the second and third largest reductions over the period, decreasing by 15% and 13%, respectively.

Between 2018 and 2022, the average **price** of an inpatient admission increased by 20%. The average price grew in each sub-category of inpatient admissions over this period.

Figure 21 shows that, in 2022, childbirth/pregnancy and newborns made up the largest share of inpatient admissions, almost 40% combined. Digestive (7%), circulatory (7%), and respiratory (6%) admissions are the next most common reasons for an inpatient hospital stay.

**Figure 21: Share of Inpatient Admissions Utilization**



**Note:** All numbers presented in charts are available as downloadable data tables. Data in charts do not total to 100% since selected categories are shown. Data for all detailed subcategories of inpatient services are available to download and explore.

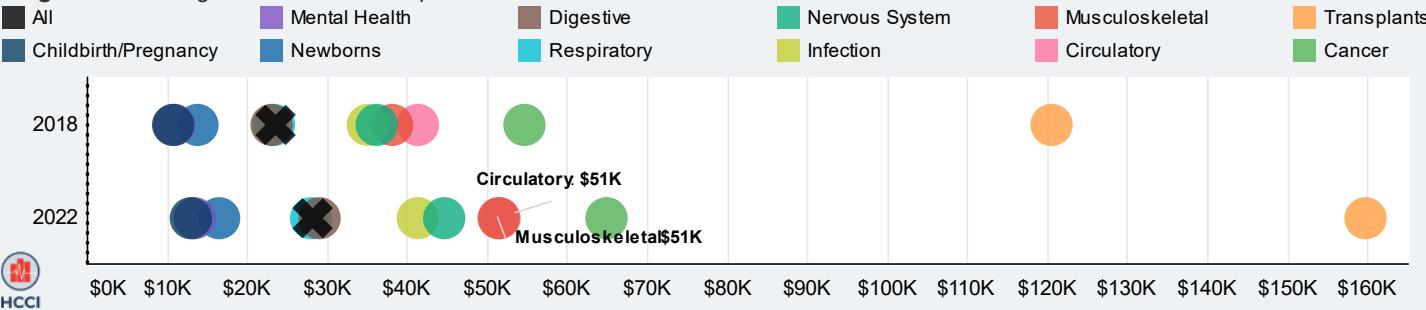


# Inpatient Admission Prices and Out-of-Pocket Payments

## Average prices increased across all subcategories of inpatient admissions between 2018 and 2022.

- The overall average price (denoted by **X**) for an inpatient admission was \$28,038 in 2022, up from \$23,401 in 2018.
- Average prices were highest and increased most (33%) from 2018–2022, for **transplants** (\$159,590 in 2022, up from \$120,362 in 2018).
- The price of **circulatory** admissions, which made up the largest share of inpatient spending in 2022, grew (25%) from \$41,189 to \$51,393 between 2018 and 2022.
- The average price of **childbirth/pregnancy** admissions grew (21%) from \$10,600 in 2018 to \$12,816 in 2022. **Newborn** admissions averages prices were \$16,346 in 2022 compared to \$13,644 in 2018 (20%).

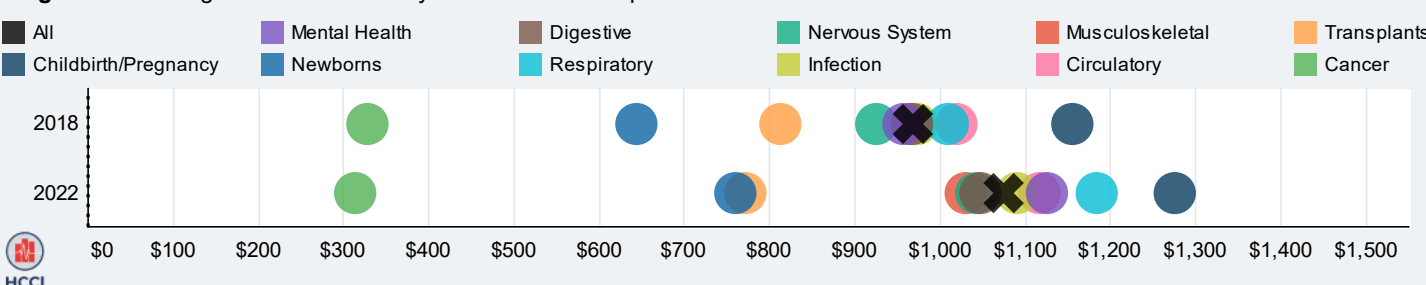
**Figure 22: Average Prices of Select Inpatient Admissions in 2018 and 2022**



## Average out-of-pocket payments increased for most subcategories of inpatient admissions between 2018 and 2022. These amounts capture only the out-of-pocket payment for facility costs; payments associated with professional services received during an inpatient stay are included in the professional services spending category.

- Overall, the average out-of-pocket payment for the facility component of an inpatient admission rose 11% from \$967 in 2018 to \$1,074 in 2022 (denoted by **X**).
- **Childbirth/pregnancy** admissions accounted for the plurality of admissions and had among the highest average out-of-pocket payment at \$1,275 in 2022, a \$120 increase for this type of admission since 2018.
- The biggest increase in average out-of-pocket payments for an inpatient admission was for **respiratory** admissions (\$1,183 in 2022, up from \$1,008 in 2018).
- Out-of-pocket payments for a **musculoskeletal** admission averaged \$1,029 in 2022, up from \$965 in 2018. For a **circulatory** admission, the average out-of-pocket payment in 2022 was \$1,116, up from \$1,018 in 2018.

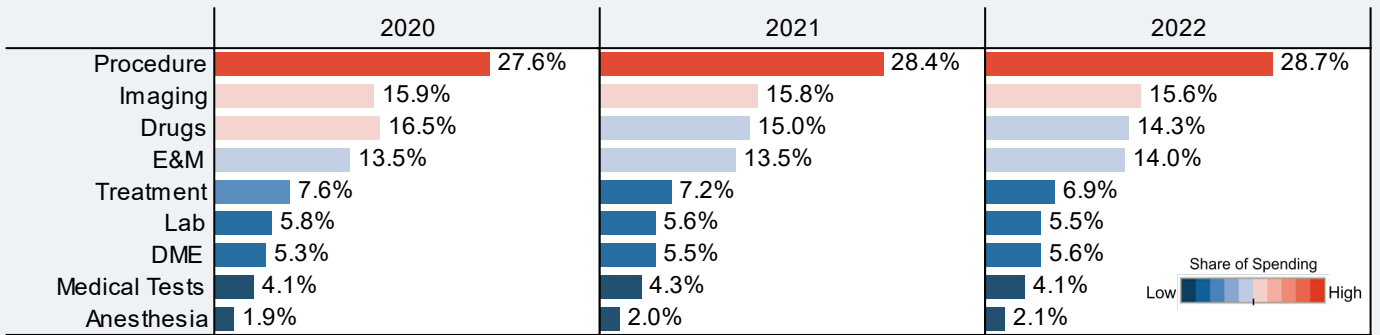
**Figure 23: Average Out-of-Pocket Payments for Select Inpatient Admissions in 2018 and 2022**



**Note:** All numbers presented in charts are available as downloadable data tables. Data for all detailed subcategories of inpatient services are available to download and explore. Inpatient subcategories with highest spending shown.

# Outpatient Spending Trends

**Figure 24: Share of Outpatient Facility Spending**



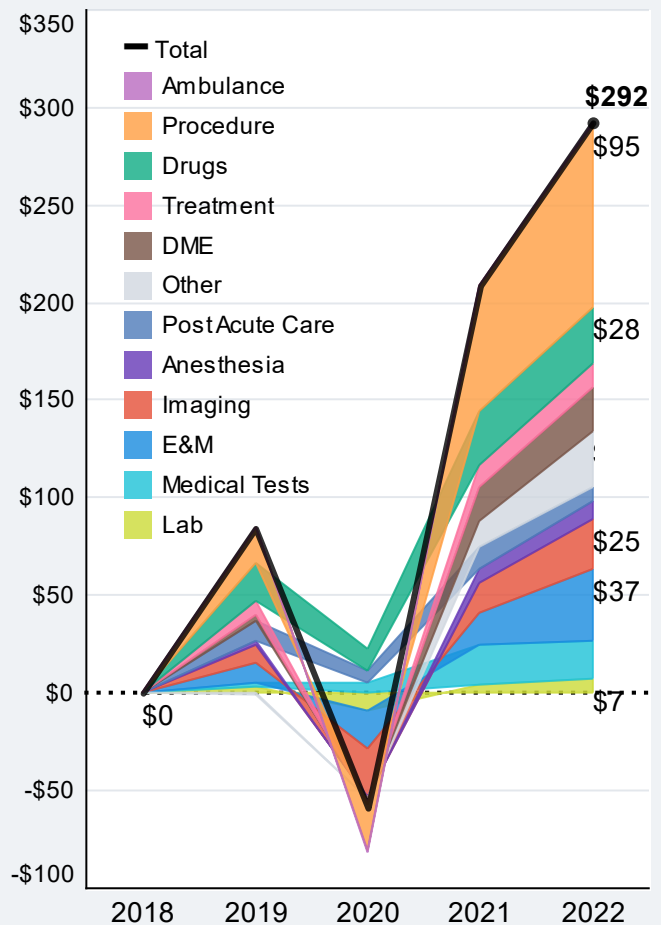
From 2018 to 2022, spending on outpatient services grew by about 18% (\$292).

Close to 45% of outpatient spending fell into two subcategories: **Procedures** (29%) and **imaging** (16%) as shown in Figure 24. Figure 25 shows that outpatient **procedures** also experienced the largest growth since 2018 (\$95). Cumulative spending on **imaging** services increased by \$25 per person from 2018 to 2022.

**Drugs** is the next largest subcategory of outpatient spending, accounting for about 14% of spending in 2022. This subcategory saw the third-largest growth in spending between 2018 and 2022 (\$28). Evaluation and Management (**E&M**) visits (including in the emergency room), accounted for 14% of spending in 2022. The second highest growth in cumulative spending over the five years was for **E&M** visits (\$37).

The remaining subcategories, including treatments, laboratory procedures, durable medical equipment (DME), tests, and anesthesia services, accounted for about one-quarter of outpatient facility spending.

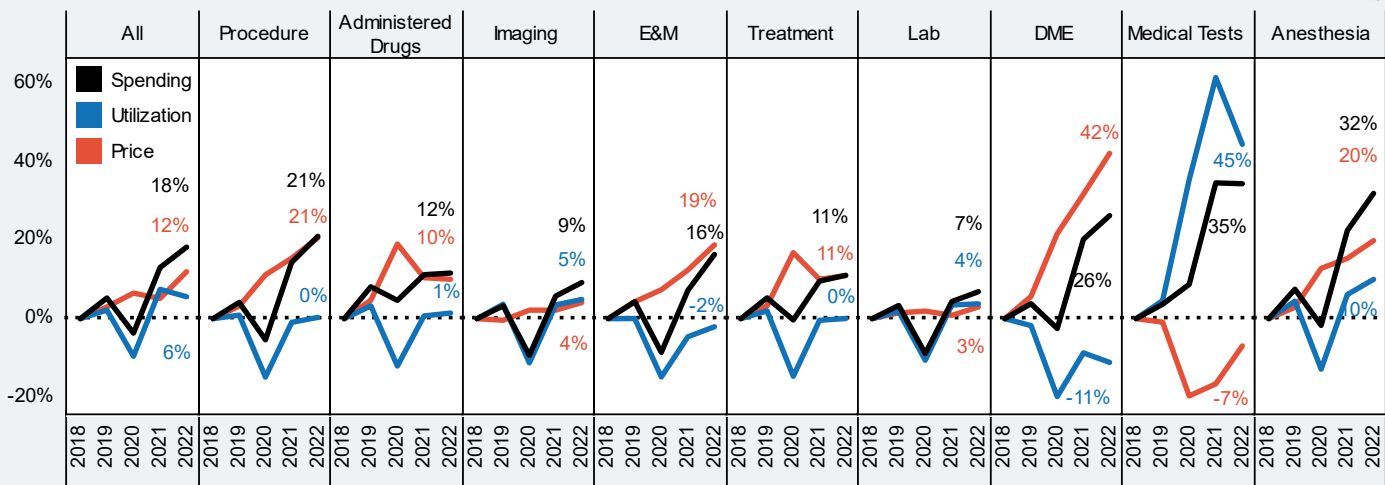
**Figure 25: Cumulative Change in Outpatient Facility Spending per Person**





# Trends in Outpatient Spending, Utilization, and Price

**Figure 26:** Cumulative Percent Change in Outpatient Facility **Spending per Person Utilization**, and **Price** for Select Services



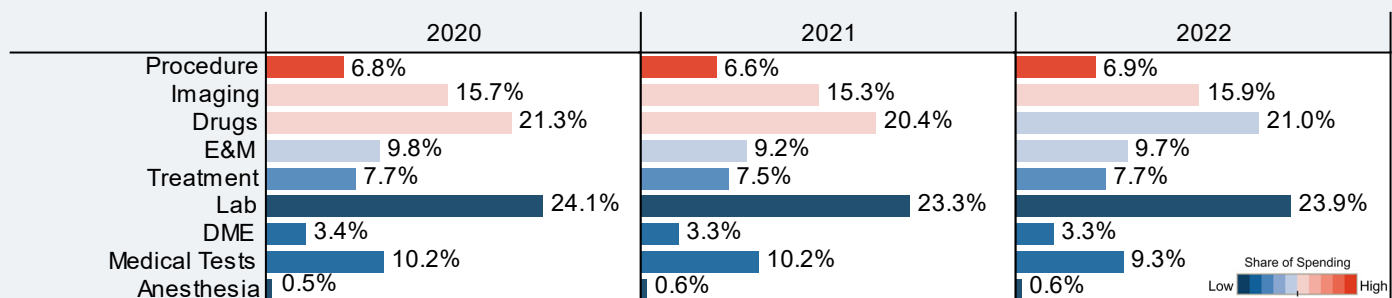
Per person spending increased across all subcategories of outpatient services from 2018 to 2022. Overall, there was an 18% cumulative increase in spending between 2018 and 2022, driven by a 12% increase in price and a 6% increase in utilization. As shown in Figure 26, the cumulative rise in spending was highest for medical tests (35%), anesthesia (32%), DME (26%), and procedures (21%).

The cumulative change in **utilization** varied among subcategories. Many categories experienced a decline in utilization from 2019 to 2020, an increase from 2020 to 2021 and then generally leveled off from 2021 to 2022. Medical tests experienced the largest increase in utilization over the five-year period driven by the increased demand for COVID tests from 2019 through 2021 but tempered by the decreased demand in 2022.

Average **prices** rose between 2018 and 2022 for all outpatient services except medical tests. The highest average price growth over that period was among DME (42%), procedures (21%), anesthesia (20%), and E&M (19%) outpatient services.

Figure 27 shows that, in 2022, labs were the most commonly used outpatient service making up nearly 2 of 5 outpatient services. Administered drugs (17%) and imaging services (13%) were the second and third most frequently used services. The distribution of outpatient services by subcategory generally has been consistent over time.

**Figure 27:** Share of Outpatient Facility Services Utilization

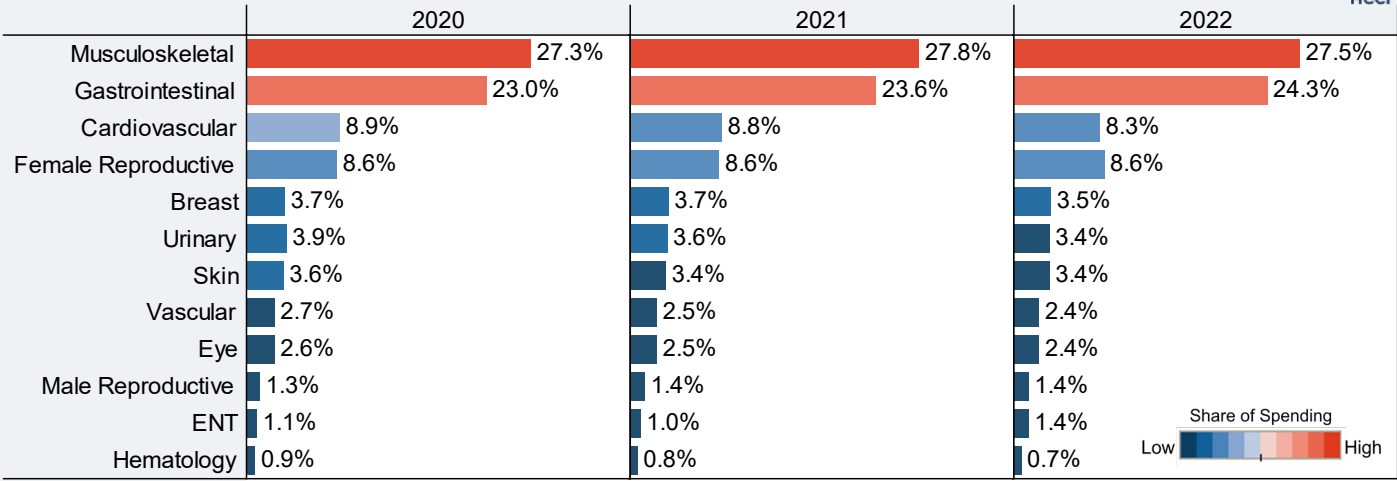


Share of Spending  
Low High



# A Closer Look: Outpatient Procedures

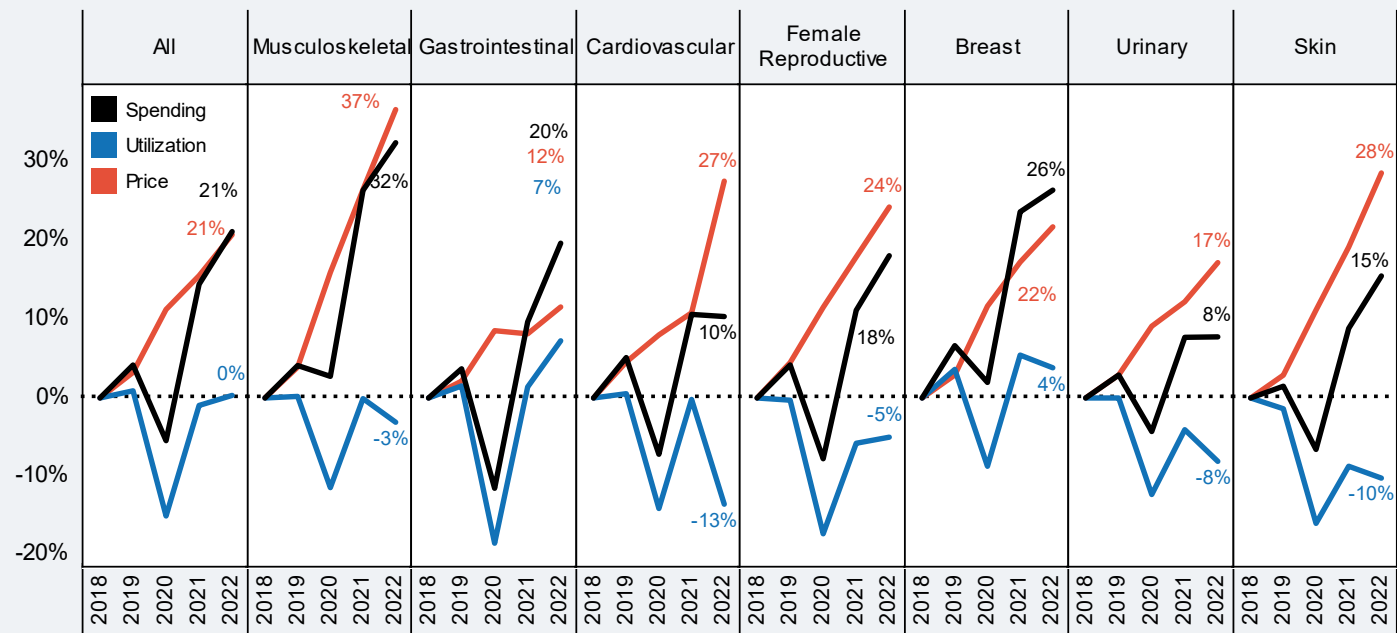
**Figure 28:** Share of Outpatient Procedures Facility Spending



Procedures accounted for over one-quarter of (facility) spending on outpatient services. Within the procedures category, musculoskeletal procedures represent the largest share of spending (28%), closely followed by gastrointestinal (GI) procedures (24%). As shown in Figure 28, these two categories made up over half of all facility spending on outpatient procedures in 2020, 2021, and 2022.

Most subcategories of procedures saw substantial spending growth from 2018 to 2022, largely driven by price increases, illustrated by Figure 29. Average prices have grown consistently over the five-year period while utilization has stayed the same or declined. Musculoskeletal procedures had the largest price growth, a 37% increase in average price from 2018 to 2022 while use declined by 3%. Skin procedures had the second highest price growth (29%) with use decreasing by 10%. Within the procedures category, average price growth over the five-year period was slowest for GI procedures, though it still increased by 12%.

**Figure 29:** Cumulative Percent Change in Outpatient Procedures Facility Spending Per Person, Utilization, and Price for Select Services



**Note:** All numbers presented in charts are available as downloadable data tables. Data for all detailed subcategories of outpatient services are available to download and explore.

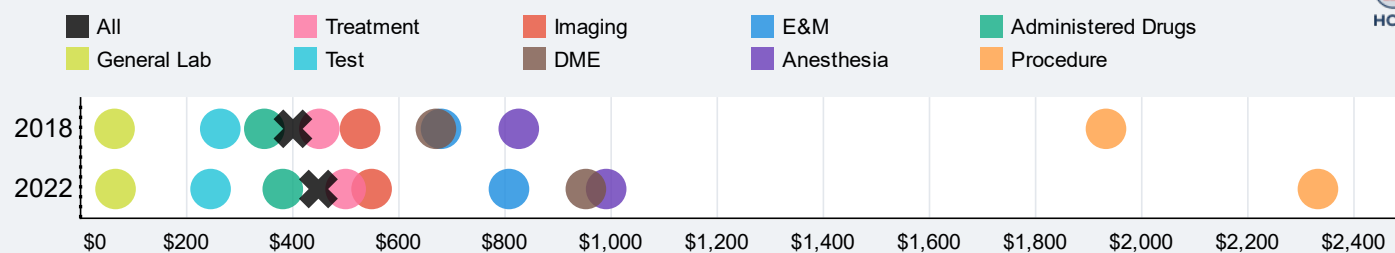


# Outpatient Visit Prices and Out-of-Pocket Payments

## Average prices increased across all major subcategories of outpatient visits between 2018 and 2022.

- Overall, the average price for an outpatient service (denoted by **X**) was \$446 in 2022. That is \$48 (12%) higher than in 2018.
- Average prices were highest for outpatient **procedures** (\$2,330) and **anesthesia** (\$989). These are an increase from \$1,931 (21%) for **procedures** and \$824 (20%) for **anesthesia** in 2018.
- DME** was the third highest outpatient service category with a 42% average price increase from \$668 in 2018 to \$951 in 2022.
- The average price of **E&M** outpatient services, one of the most commonly used categories, increased from \$678 to \$806 (19%) over the five-year period.

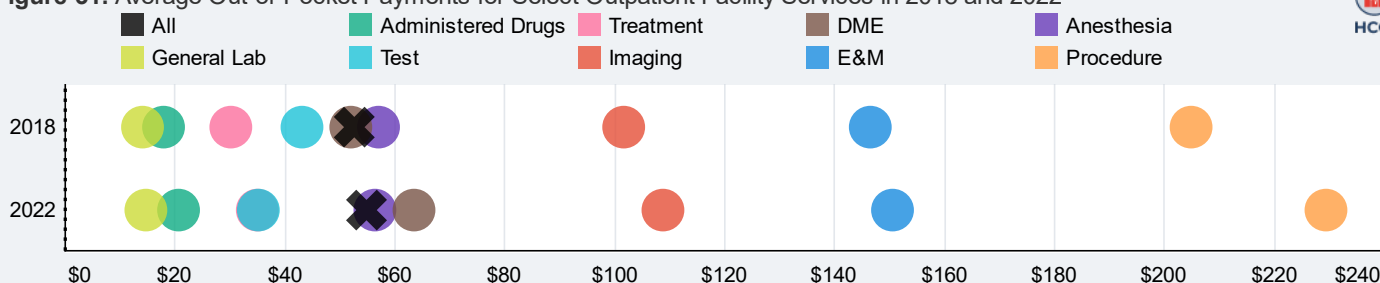
Figure 30: Average Prices of Select Outpatient Facility Services in 2018 & 2022



## Average out-of-pocket payments increased slightly for most subcategories of outpatient services.

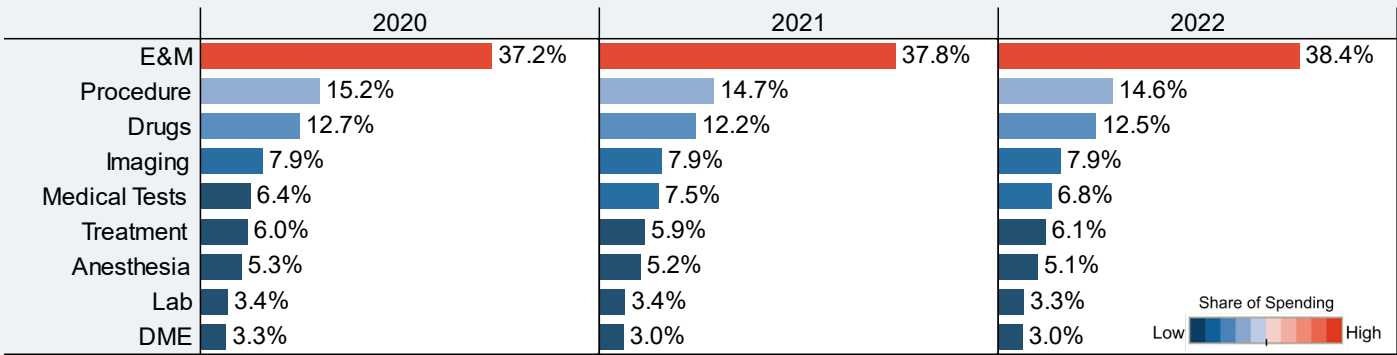
- Out-of-pocket payments (denoted by **X**) averaged \$55 for an outpatient service in 2022 compared to \$52 in 2018 (4%).
- Average out-of-pocket payments varied substantially across outpatient services from \$15 for **labs** to \$229 for outpatient **procedures**.
- Procedures** and **DME** have experienced the largest increase in out-of-pocket payments from 2018 to 2022.
- Average out-of-pocket payments for **procedures** increased to \$229 in 2022 compared to \$205 in 2018 (12%). Among outpatient procedures, the highest out-of-pocket payments in 2022 were for male reproductive (\$519); ear, nose, and throat (ENT) (\$456); breast (\$419); and eye (\$403) procedures.
- DME** average out-of-pocket payments increased from \$52 to \$63 (22%) over the five-year period. Among DME, out-of-pocket payments for orthotic devices increased by \$64 (68%) from 2018 to 2022.

Figure 31: Average Out-of-Pocket Payments for Select Outpatient Facility Services in 2018 and 2022



Note: All numbers presented in charts are available as downloadable data tables. Outpatient subcategories with highest spending shown. Data for all detailed subcategories of outpatient services are available to download and explore.

**Figure 32: Share of Professional Services Spending**



Professional services spending includes payments to physicians and other members of a clinical care team. This spending also includes payments for drugs, labs, and other healthcare components that the clinical team may provide. Often, professional services occur in a doctor’s office. However, this category also includes services provided by physicians in hospitals during an inpatient admission, as well as in the emergency room and other outpatient settings.

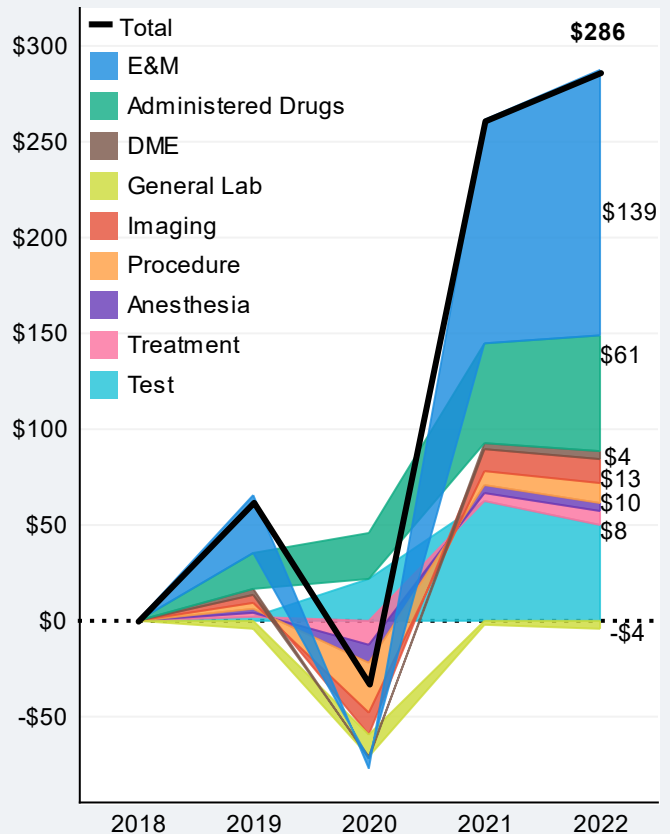
Spending per person on professional services rose steadily between 2018 and 2022 with a decline in 2020, and rebound in 2021, resulting in a cumulative 16% increase (\$286) over the five-year period. Spending per person growth was driven by increases in spending on **E&M** visits, **administered drugs**, and **medical tests**.

**E&M** visits accounted for the largest share of spending per person among professional services (38%) in 2022 and the largest growth in spending per person (\$139) from 2018 to 2022. E&M visits include those that occur in a physician’s office as well as those that occur via telehealth.

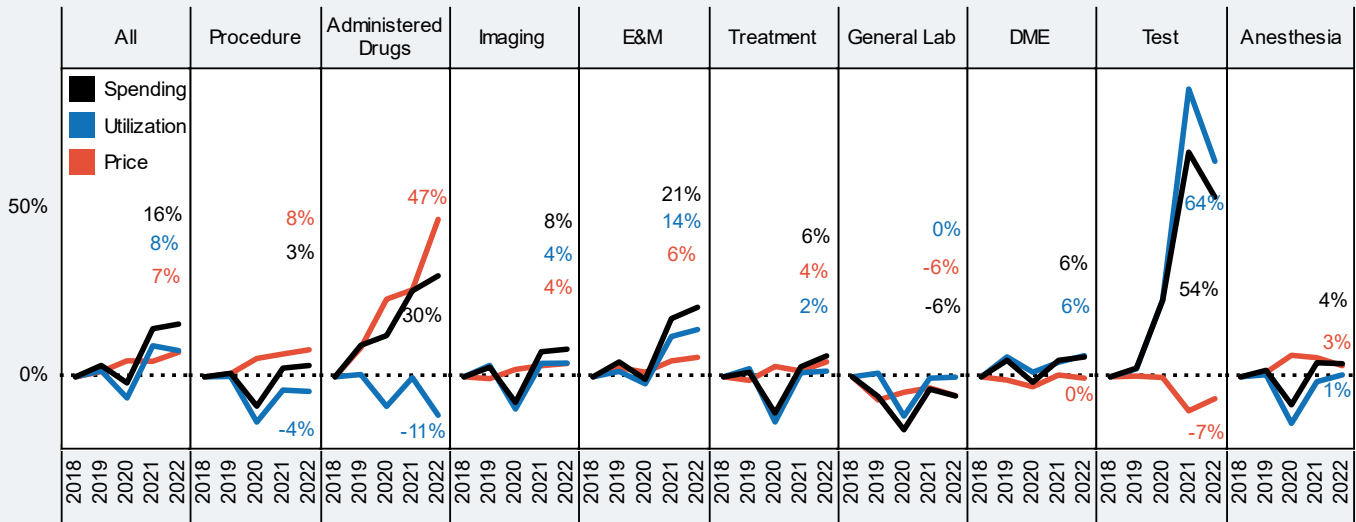
The second largest growth in spending per person occurred among **administered drugs**, which increased a cumulative \$61 over the period. Administered drugs make up the third largest share of professional services spending per person.

In 2022, spending per person on the professional services accompanying **procedures** accounted for approximately 15% of professional spending. Spending on these services increased 3% cumulatively over the five-year period.

**Figure 33: Cumulative Change in Professional Services Spending per Person**



**Figure 34:** Cumulative Percent Change in Professional Services **Spending per Person**, **Utilization**, and **Price** for Select Services



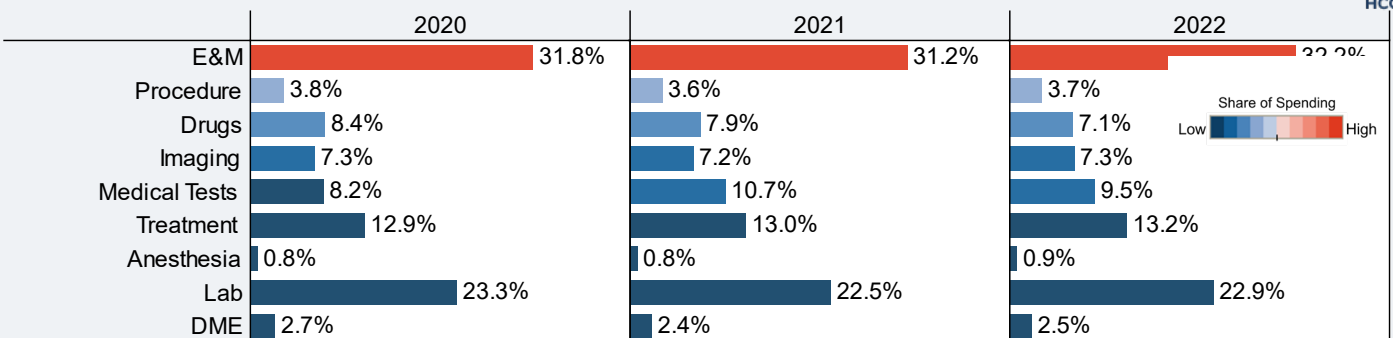
Overall, per person **spending** on professional services increased by 16% from 2018 through 2022 reflecting an increased utilization of 8% and average price of 7% over the period. Spending per person increased the most among medical tests, administered drugs, and evaluation and management services.

**Utilization** of professional services increased 8% from 2018 to 2022, though there were downturns in use in 2020 and 2022. Use of almost all professional services increased over the five-year period with use of medical tests increasing the most (65%). In contrast, use of administered drugs and procedures decreased from 2018 to 2022 (11% and 4%, respectively).

The cumulative growth in the average **price** of professional services was 7% between 2018 and 2022. Average prices of physician-administered drugs grew the most over the five-year period. Average price grew consistently each year leading to a cumulative increase of 47%. This subcategory includes vaccines for COVID-19 although the increase in average prices began before 2020. The average price of procedures has also steadily increased over time leading to a cumulative increase of 8% over five years.

In 2022, E&M visits made up the largest portion of professional service use (32%). Labs (23%) and treatment (13%) made up the second and third largest share of utilization.

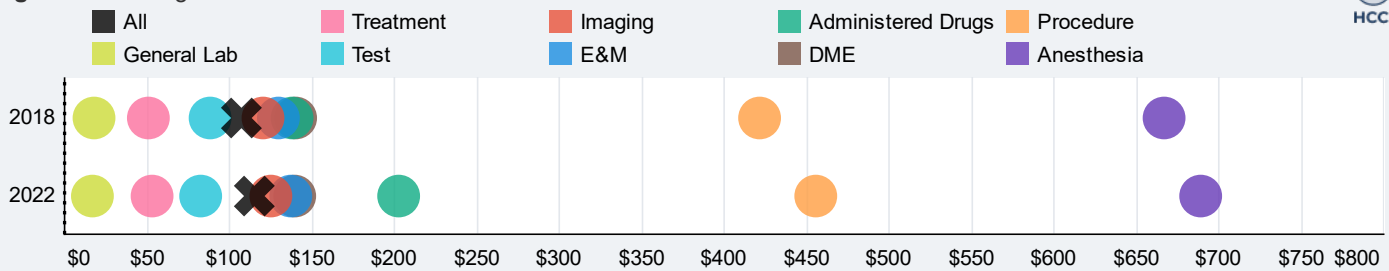
**Figure 35:** Share of Professional Services Utilization



Average prices increased across nearly all subcategories of professional services between 2018 and 2022, with the largest increases for anesthesia, procedures, and administered drugs.

- Overall, the average price for a professional service (denoted by **X**) was \$115 in 2022, up from \$107 in 2018.
- Anesthesia** was the highest priced subcategory in both 2018 and 2022, with an average price of \$666 in 2018 and \$689 in 2022.
- Professional services associated with **procedures** were the second highest priced subcategory in 2018 and 2022 with an average prices of \$421 and \$455, respectively.
- Administered drugs** were the third highest priced professional service, with an average price of \$202 in 2022, and experienced the largest price increase (\$65) between 2018 and 2022.

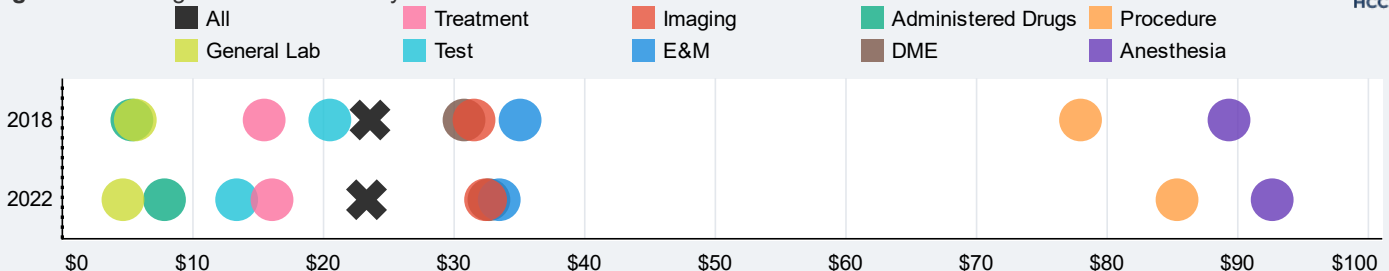
**Figure 36:** Average Prices of Select Professional Services in 2018 & 2022



Changes in average out-of-pocket payments between 2018 and 2022 were small for most subcategories of professional services.

- Overall, the average out-of-pocket payment for a professional service (denoted by **X**) stayed the same from 2018 to 2022 (\$23). The average out-of-pocket payment ranged from \$5 for **labs** to \$93 for **anesthesia** procedures in 2022. These costs may include payments to physicians who bill separately for services provided during an outpatient (e.g., ER) visit and are in addition to any outpatient facility payments or inpatient admissions.
- The highest average out-of-pocket payments in 2022 were for **anesthesia** (\$93) and **procedures** (\$85).
- Procedures** (\$7) and **anesthesia** (\$3) had the largest increases in average out-of-pocket payments from 2018 to 2022. The largest decrease in out-of-pocket payments occurred for **tests** which decreased \$7 from 2018 (\$20) to 2022 (\$13).

**Figure 37:** Average Out-of-Pocket Payments for Select Professional Services in 2018 & 2022



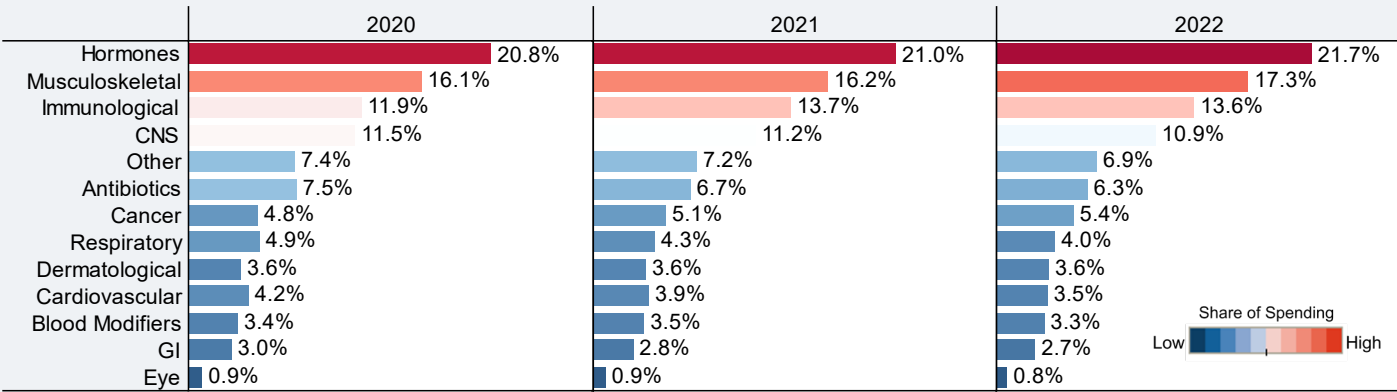




# Prescription Drug Spending Trends



**Figure 38:** Share of Gross Prescription Drug Spending



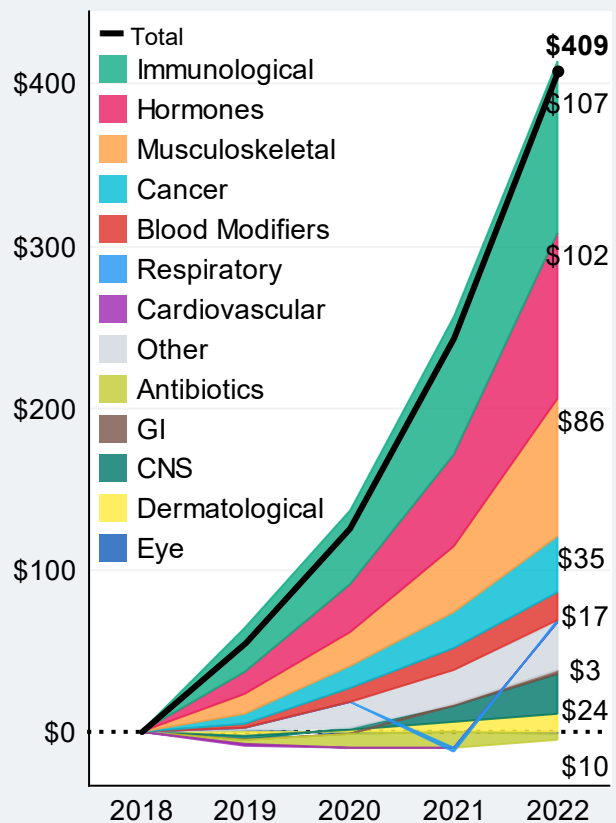
Prescription drug per person spending includes gross payments made for drugs dispensed by retail and mail-order pharmacies. This does not include certain drugs administered by physicians or other health care providers during inpatient admissions, in outpatient facilities, or in doctors' offices. Per-person spending on prescription drugs, based on point-of-sale payments, totaled \$1,563 in 2022, an increase of \$409 (35%) from 2018. This change reflects increases in expenditures for the same drugs, increases in expenditures for newly approved medications, and decreases due to generic entry. The total spending per person does not reflect rebates which would likely offset a meaningful share of growth in gross spending.

**Hormones** (22%), **musculoskeletal** drugs (17%), and **immunological** drugs (14%) made up the largest share of gross drug spending per person in 2022. Since 2018, spending per person in these categories, as well as most other categories of drugs, increased. Gross per person spending on **immunological** drugs, which includes drugs used to treat rheumatoid arthritis and other autoimmune diseases, increased the most from 2018–2022 (\$107). Gross per person spending on **hormones**, which include insulin, contraceptives, and drugs used to treat thyroid conditions and **musculoskeletal** drugs, which includes anti-inflammatories and muscle relaxants, followed. Gross per person spending on those categories increased by \$102 and \$86, respectively, during the five-year period.

**Methods Note:**

These estimates do not reflect manufacturer rebates, coupons, or other discount programs, because those data are not widely available. They do, however, include negotiated discounts from the wholesale or "list" price, and are the amounts that appear on the pharmacy claim. Thus, the term, "point-of-sale" price is used to describe the spending per filled day. Any additional manufacturer rebates occur through separate transactions. The degree to which rebates offset point-of-sale spending varies across types of drugs, as well as across specific products, depending on details of the negotiations between manufacturers and pharmacy benefit managers (PBM). Further, how the value of the rebates is distributed across PBMs, insurers, and consumers also varies. Information on these aspects of manufacturer rebates is not available in pharmacy claims data. The change in point-of-sale prices estimated in this report reflects a combination of higher point-of-sale prices for the same drugs and shifts in use to more expensive products, including those introduced during the period.

**Figure 39:** Cumulative Change in Gross Prescription Drug Spending per Person



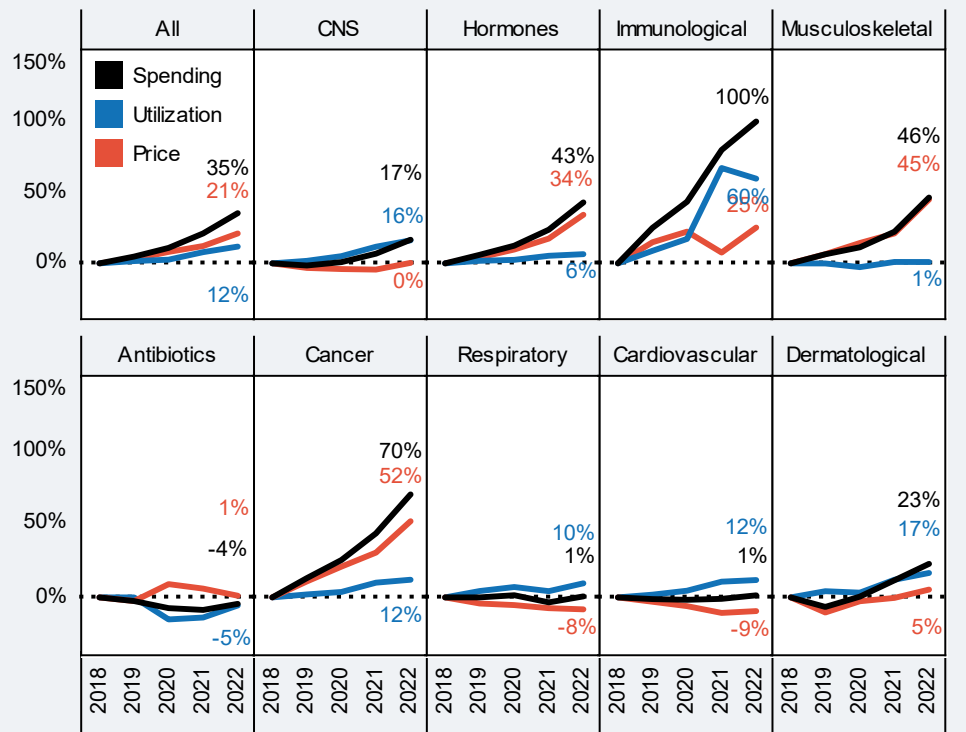
# Trends in Prescription Drug Spending, Utilization, and Price

Gross per person **spending** on prescription drugs grew steadily between 2018 and 2022 for a cumulative growth of 35%, driven by increasing utilization and point-of-sale prices as shown in Figure 40.

Spending per person grew most for immunological drugs (100%), cancer drugs (70%), musculoskeletal drugs (46%), and hormones (43%). There were minor changes in cumulative spending per person over the 2018–2022 period for antibiotics (-4%), respiratory (1%), and cardiovascular drugs (1%).

**Utilization**, measured as the number of filled days per person, increased 12% between 2018 and 2022.

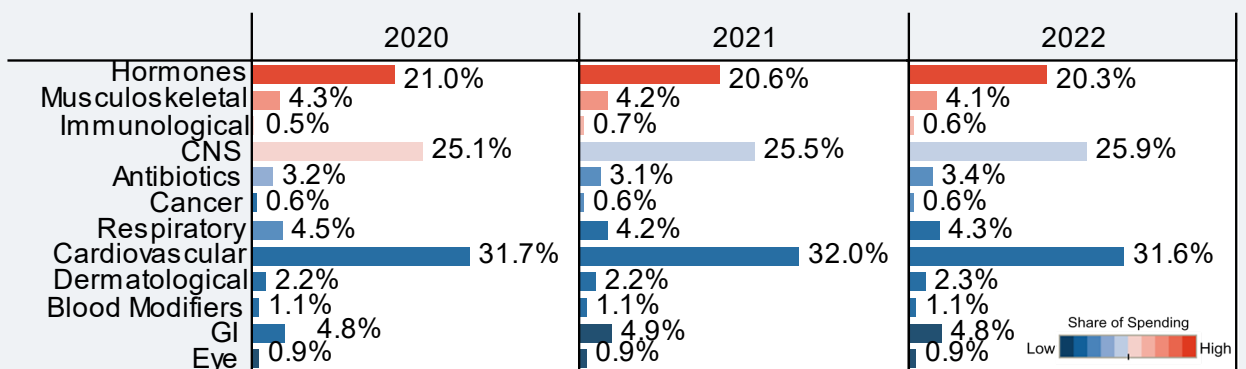
**Figure 40:** Cumulative Percent Change in Gross Prescription Drug **Spending** per Person, **Utilization**, and **Price** for Select Drug Categories



Over the five-year period, most subcategories experienced moderate growth in utilization. The use of immunological medications increased 60%. Use of cancer-related medications rose 12%, and use of cardiovascular drugs rose 12%. The average point-of-sale price for prescription drugs was 21% higher in 2022 than in 2018. Over the five-year period, the point-of-sale price, which can be offset by rebates, increased for all categories of drugs other than cardiovascular drugs (-9%) and respiratory drugs (-8%). The average point-of-sale price of Central Nervous System (CNS) drugs remained flat from 2018–2022.

Cardiovascular drugs made up the largest share of total days supplied of prescription drugs in 2022, nearly one-third. Figure 41 illustrates that CNS drugs, which include most drugs for mental health conditions (e.g., antidepressants), account for 26% of days supplied. Hormones made up another 20% of days supplied in 2022.

**Figure 41:** Share of Prescription Drug Days Supplied



**Note:** All numbers presented in charts are available as downloadable data tables. Data in charts do not total to 100% since selected categories are shown. Data for all detailed subcategories of prescription drugs are available to download and explore.



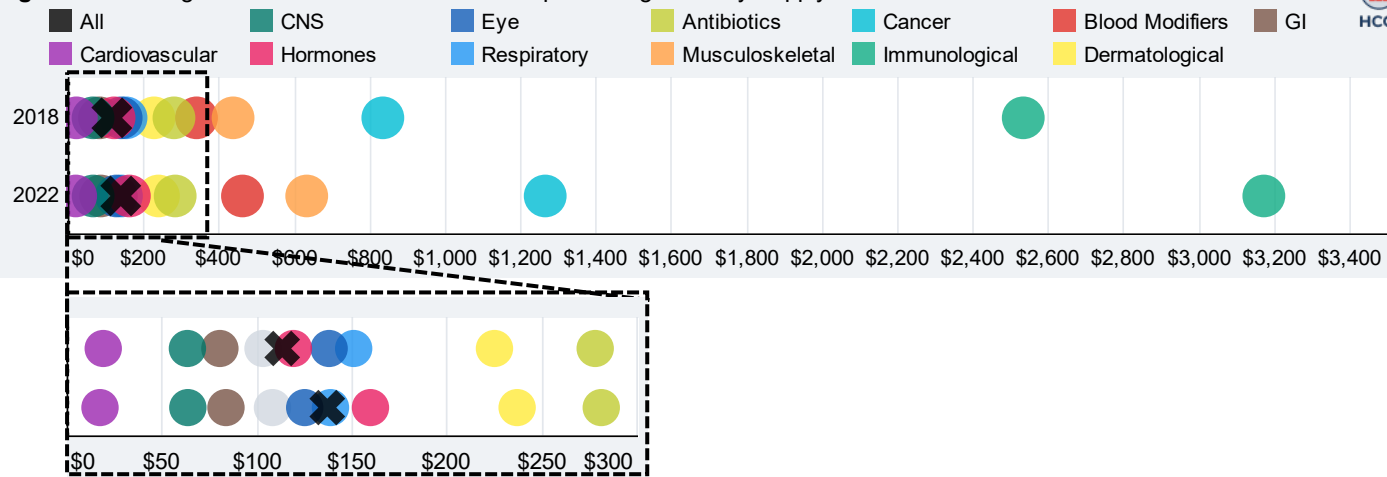
# Prescription Drug Prices and Out-of-Pocket Payments

## Changes in point-of-sale prescription drug prices between 2018 and 2022 varied by type of drug.

These estimates do not reflect manufacturer rebates, coupons, or other discount programs. Rebates differ by category and can impact price changes differently. Please see page 10 for additional details on how rebates affect prices.

- **Immunological** drugs had the highest average point-of-sale price by far in both 2018 (\$2,531) and 2022 (\$3,169).
- **Cancer** drugs had the second highest average point-of-sale price in both years and experienced the greatest percentage increase in price between 2018 and 2022, rising more than 50%.
- The average point-of-sale price for a 30-day supply decreased for **eye** (9%), **cardiovascular** (9%), and **respiratory drugs** (8%), between 2018 and 2022.

**Figure 42: Average Point-of-Sale Prices for Prescription Drugs 30-Day Supply in 2018 & 2022**

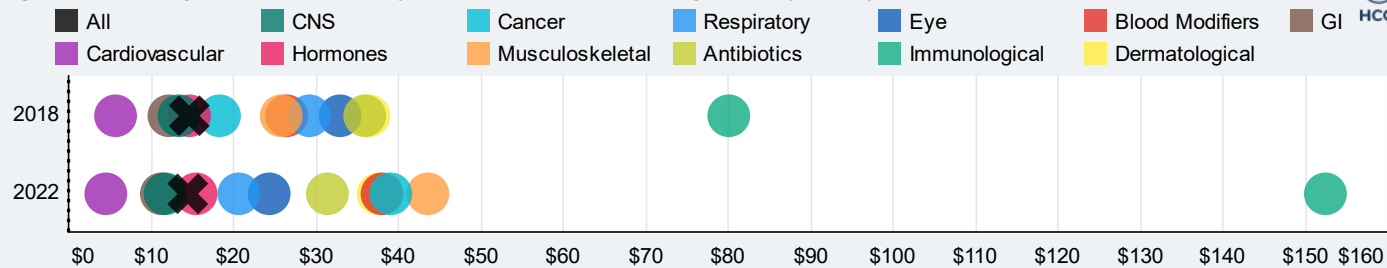


On average, out-of-pocket spending on a 30-day supply across all drugs in our data (as denoted by X) stayed about the same (\$14) from 2018 to 2022.

Manufacturer rebates do not affect out-of-pocket payments for prescription drugs. These out-of-pocket payments are not adjusted for coupons, but their impact on average out-of-pocket payments are minimal.

- The average out-of-pocket payment ranged from \$4 for **cardiovascular** drugs to \$152 for **immunological** drugs in 2022. **Immunological** drugs have been an outlier each year from 2018–2022 with average out-of-pocket payments in 2022 that were 3.5 times higher than the next highest category.
- Over the five-year period, average out-of-pocket payments have increased for half of the categories. The largest percentage increase was for **cancer** drugs, which increased by 114% from (\$18 to \$39).

**Figure 43: Average Out-of-Pocket Payments for Prescription Drugs 30-Day Supply in 2018 and 2022**





**Figure 44:** Share of Prescription Drug Utilization, Gross Spending, and Out-of-Pocket Spending on Brand and Generic Drugs in 2022

	Share of Utilization (days supply)		Share of Gross Spending		Share of Out-of-Pocket Spending	
	Generic	Brand	Generic	Brand	Generic	Brand
Prescription Drugs	86%	14%	14%	86%	40%	60%
Hormones	56%	44%	93%	7%	23%	77%
Musculoskeletal	91%	9%	97%	3%	15%	85%
Immunological	45%	55%	94%	6%	95%	5%
CNS	93%	7%	29%	71%	56%	44%
Antibiotics	91%	9%	19%	81%	55%	45%
Cancer	90%	10%	9%	91%	16%	84%
Respiratory	71%	29%	16%	84%	39%	61%
Cardiovascular	99%	1%	59%	41%	85%	15%
Dermatological	88%	12%	23%	77%	42%	58%
Blood Modifiers	47%	53%	97%	3%	8%	92%
GI	95%	5%	30%	70%	57%	43%
Eye	81%	19%	26%	74%	50%	50%

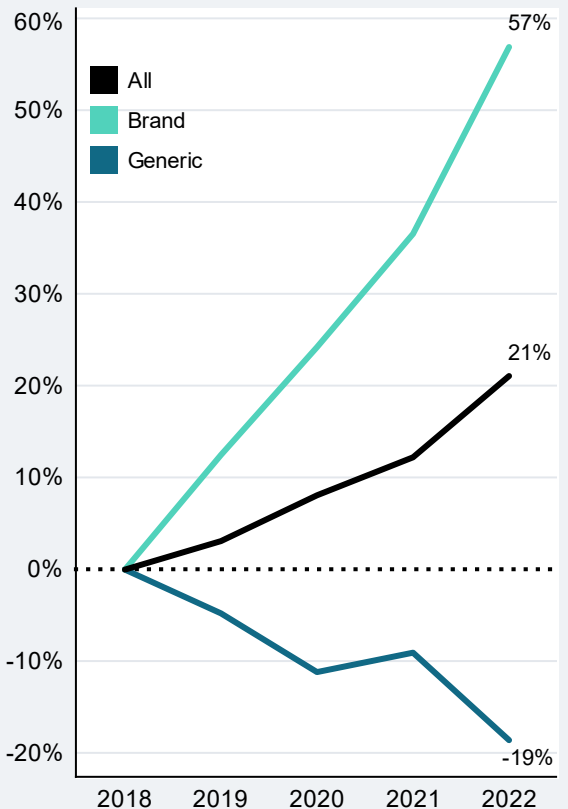
In 2022, **brand** name prescription drugs accounted for 14% of the utilization of prescription drugs (in terms of days supplied) but 86% of gross prescription drug spending per person as shown in Figure 44. In contrast, **generic** prescription drugs represented 86% of prescription drug utilization in 2022 and 14% of gross spending per person.

Cardiovascular, gastrointestinal, and CNS drugs had the highest shares of generic utilization. **Generic** use was 90% or higher as a share of utilization among musculoskeletal drugs, antibiotics, and drugs related to treating cancer. Blood modifiers, hormones, and immunological drugs had the lowest shares of generic use.

**Brand** prescriptions represented 60% of out-of-pocket spending per person. Prescription drug coverage benefits and formularies often use copayments as the main form of cost-sharing rather than coinsurance or deductibles, which helps protect people from the prices of more expensive brand name drugs. This measure of out-of-pocket spending per person does not capture use of coupons or other forms of patient assistance, which may lower the final out-of-pocket amount that patients spend on brand name drugs.

Figure 45 shows that, from 2018 to 2022, the point-of-sale price of a 30-day supply of **brand** name prescription drugs increased 57%, while the point-of-sale price for **generic** drugs decreased 19%.

**Figure 45:** Cumulative Percent Change in Brand and Generic Prescription Drug Point-of-Sale Prices





# About HCCI

The Health Care Cost Institute is a mission-driven, independent, non-profit organization at the nexus of data, analytics, and action.

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### Conduct Original Research

HCCI has access to unique data that allows us to provide insights into the US healthcare system, especially concerning individuals covered by employer-sponsored insurance.



### Publish Price Transparency Tools

HealthPrices.org is our flagship transparency tool which uses average price data to help people better understand the cost of care in their area. HCCI also operates Florida's All-Payer Claims Database and FloridaHealthPriceFinder.gov.



### Analyze Government Data

As a national Qualified Entity, we have access to Medicaid and Medicare data that CMS makes available to product innovators. Using these resources, we can examine trends across payers for insights on spending and use within government data.

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**Leverage our expertise.** The team at HCCI has a unique blend of data, analytics, and policy experience. We combine strategic thinking with evidence and information to help you answer critical questions, put data into context, formulate policy, and understand the impacts of various policy options. Our researchers and analysts can also assess, test, or peer-review your organization's own analysis and results. We invite you to work with our team to dive deep into an important healthcare issue.

**Help strengthen our mission.** HCCI is a small non-profit organization that values strategic partnerships and collaboration. By contributing to funding our efforts or engaging us for new research endeavors, you are investing in the future of care and safeguarding concise analytics and data-based research that informs our decisions as consumers and stakeholders in the healthcare system. For more information about how to partner with HCCI, please visit us at [www.healthcostinstitute.org](http://www.healthcostinstitute.org)

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