

Health Sector Economic Indicators SM

Insights from Monthly National Health Spending Data through July 2022

SPENDING BRIEF

September 23, 2022

Economywide inflation continues to outpace national health spending growth HIGHLIGHTS

- ▲ National health spending in July 2022 grew by 4.4%, year over year; in the absence of federal government support in 2021 and 2022, it would have grown by 5.1%, reflecting a decline in federal support.
- ▲ Nominal GDP in July 2022 was 9.9% higher than in July 2021 as GDP growth continues to outpace health spending growth.
- ▲ In July 2022, health spending accounted for 17.6% of GDP, the lowest share since September 2019.
- ▲ This health spending share of GDP has declined from a recent high of 18.8% of GDP in December 2021, reflecting recent high economywide inflation and lower federal government support in July 2022.

National Health Spending and GDP*

| | July | July | June | July |
|-------------------------------|-------|-------|-------|-------|
| | 2020 | 2021 | 2022 | 2022 |
| GDP | 20.85 | 22.95 | 25.17 | 25.22 |
| National Health Spending (HS) | 4.05 | 4.26 | 4.48 | 4.45 |
| HS Share of GDP | 19.4% | 18.6% | 17.8% | 17.6% |
| HS Share of PGDP | 18.3% | 18.1% | 17.4% | 17.3% |
| Growth from Prior 12 Months | | | | |
| HS | 7.7% | 5.3% | 5.9% | 4.4% |
| GDP | -2.8% | 10.1% | 9.9% | 9.9% |
| HS minus GDP | 10.6% | -4.8% | -4.0% | -5.5% |
| HS minus PGDP | 4.7% | -0.8% | -4.3% | -5.0% |

Source: Altarum monthly health spending estimates (see Methods box below). Monthly GDP is from IHS Markit. PGDP, defined as what GDP would be at full employment, is from the quarterly Congressional Budget Office estimates, converted to monthly by Altarum.

Altarum is a nonprofit research and consulting organization that creates and implements solutions to advance health among at-risk and disenfranchised populations. Since 2011, Altarum has researched cost growth trends and key drivers of U.S. health spending and formulated policy strategies to help bend the cost growth curve. This work was made possible through generous support from the Robert Wood Johnson Foundation.

The Health Sector Economic IndicatorsSM reports are a monthly publication of Altarum and provide an analysis of health spending, employment, and prices. For more information, contact Ani Turner at ani.turner@altarum.org. George Miller, PhD (principal author), Ani Turner, Corwin Rhyan, and Matt Daly, PhD, contributed to this brief. Media Contact: press@altarum.org. For more information, visit http://altarum.org/solution/health-sector-spending.

^{*} Spending is in trillions of dollars at a seasonally adjusted annual rate (SAAR).



DISCUSSION

In July 2022, national health spending grew by 4.4%, year over year, reaching a seasonally adjusted annual rate of \$4.45 trillion. This growth rate is the lowest in recent months, largely because of a July 2022 reduction in federal government support to public health activities via the Public Health and Social Services (PHSS) Emergency Fund. Excluding this support and a smaller amount of federal support to providers via the Provider Relief Fund from both the July 2022 and July 2021 data, national health spending would have been 5.1% higher in July 2022. This reduction in support to public health, coupled with recent rapid growth in GDP, caused a drop in health spending as a percent of GDP to 17.6% in July, the lowest value since September 2019.

Exhibit 1 shows our current estimate of the trajectory of growth in national health spending since the start of 2020 through July 2022 with and without COVID-related federal government support to providers and public health activities. The exhibit illustrates the extent to which GDP growth since before the pandemic-induced recession has outpaced health spending: as of July 2022, GDP was 15.8% higher than in January 2020, while health spending grew by 10.1% and would have grown by 8.7% in the absence of the federal government support.

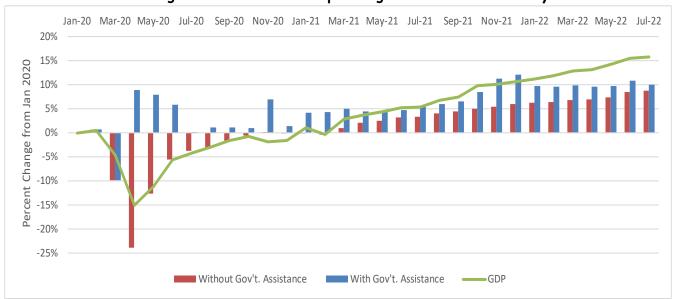


Exhibit 1. Percent Change in National Health Spending and GDP Since January 2020

Exhibit 2 shows how spending growth among major categories has varied since January 2020, both with and without the government spending increase. With the decline in federal government support, the curves tend to converge in more recent months. From January 2020 through July 2022, spending on home health care (including government support) has increased the most among the categories shown, at 8.7%, while spending on dental services grew the least, at 1.5%—the second consecutive month in which spending on dental services exceeded its pre-pandemic level. During the same period, growth in retail spending on prescription drugs, which did not receive significant federal support during the pandemic, exceeded the other major categories, at 15.6% (data not shown).







Exhibit 3 shows the growth in spending by major categories over the past year without the impact of federal government support. The values for growth rates in the absence of government support provide the clearest picture of the growth in the portion of spending actually used to provide clinical services. However, the low levels of government support over the past year has had only a minor impact on these year-over-year growth rates, meaning that including government subsidies in the chart would have little effect. Overall, personal health care spending growth (growth in spending on goods and services) since July 2021 was 5.0% either with or without government support. Without government assistance, spending in the past year on dental services grew the fastest, at 7.9%, while spending on home health care grew the slowest, at 3.6%.





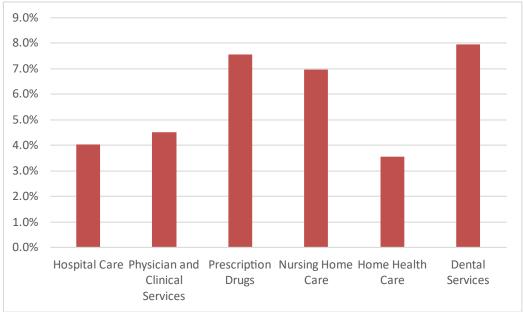
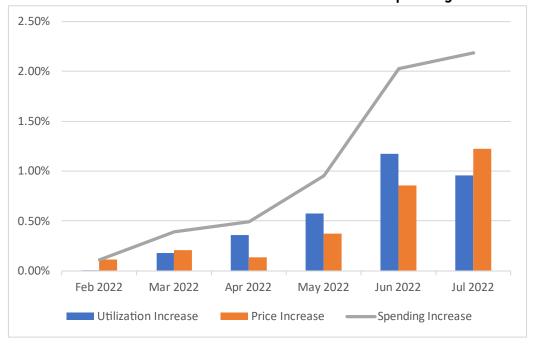


Exhibit 4 illustrates how spending on personal health care (without government subsidies) has grown since the start of 2022 and illustrates the relative contribution of utilization and prices to this growth. (The breakout between utilization growth and price growth is discussed further in our <u>price brief</u>.) It shows that spending growth has been driven by a combination of utilization and price growth. While spending appeared to be accelerating in May and June, it has leveled off somewhat in July.

Exhibit 4. Cumulative Growth in Personal Health Care Spending without Government Assistance





DETAILED HEALTH SPENDING

Exhibit 5. Monthly National Spending Estimates by Detailed Category

| Levels (in billions of dollars) | July | July | July | July |
|--|--------------------|------------|------------|------------|
| | 2019 | 2020 | 2021 | 2022 |
| GDP | \$21,461.8 | \$20,851.5 | \$22,947.8 | \$25,219.6 |
| National Health Spending | \$3,756.0 | \$4,046.1 | \$4,259.4 | \$4,445.3 |
| Personal health care | \$3,259.5 | \$3,434.7 | \$3,632.4 | \$3,814.6 |
| Hospital care | \$1,192.5 | \$1,264.8 | \$1,337.1 | \$1,392.1 |
| Physician and clinical services | \$769.4 | \$776.8 | \$839.9 | \$878.0 |
| Other professional services | \$111.6 | \$114.1 | \$126.6 | \$132.2 |
| Dental services | \$144.0 | \$132.2 | \$165.1 | \$178.3 |
| Other personal health care | \$278.0 | \$358.3 | \$353.8 | \$366.2 |
| Home health care | \$114.5 | \$118.8 | \$120.5 | \$124.8 |
| Nursing home care | \$174.1 | \$176.3 | \$179.2 | \$191.9 |
| Prescription Drugs | \$337.1 | \$347.3 | \$366.6 | \$394.3 |
| Durable medical equipment | \$56.4 | \$57.3 | \$55.9 | \$62.4 |
| Nondurable medical products | \$81.8 | \$88.7 | \$87.6 | \$94.4 |
| Program administration and net cost of private health insurance | \$195.5 | \$206.1 | \$218.5 | \$233.5 |
| Government public health activities | \$105.2 | \$213.9 | \$198.6 | \$172.6 |
| Research | \$56.3 | \$60.3 | \$66.1 | \$70.5 |
| Structures and equipment | \$139.6 | \$131.2 | \$143.9 | \$154.1 |
| HS Share of GDP | 17.5% | 19.4% | 18.6% | 17.6% |
| HS Share of PGDP | 17.5% | 18.3% | 18.1% | 17.3% |
| Source: Altarum monthly national health spending estimates. The monthly GD | P is from IHS Mark | it. | | |

Note: Spending is expressed in billions of dollars at a SAAR.

Exhibit 6. National Health Spending 12-Month Growth Rates by Detailed Category

| Growth Rates | July 2020 | July 2021 | July 2022 |
|---|--------------|--------------|--------------|
| GDP | -2.8% | 10.1% | 9.9% |
| National Health Spending | 7.7% | 5.3% | 4.4% |
| Personal health care | 5.4% | 5.8% | 5.0% |
| Hospital care | 6.1% | 5.7% | 4.1% |
| Physician and clinical services | 1.0% | 8.1% | 4.5% |
| Other professional services | 2.2% | 11.0% | 4.4% |
| Dental services | -8.2% | 24.9% | 7.9% |
| Other personal health care | 28.9% | -1.3% | 3.5% |
| Home health care | 3.7% | 1.4% | 3.6% |
| Nursing home care | 1.2% | 1.7% | 7.1% |
| Prescription Drugs | 3.0% | 5.6% | 7.5% |
| Durable medical equipment | 1.7% | -2.5% | 11.7% |
| Nondurable medical products | 8.4% | -1.3% | 7.8% |
| Program administration and net cost of private health insurance | 5.4% | 6.0% | 6.9% |
| Government public health activities | 103.4% | -7.2% | -13.1% |
| Research | 7.0% | 9.8% | 6.6% |
| Structures and equipment | -6.0% | 9.6% | 7.1% |
| HS Minus GDP | 10.6% | -4.8% | -5.5% |
| HS Minus PGDP | 4.7% | -0.8% | -5.0% |
| Source: Computed from Exhibit 2. | · | | |

Note: This exhibit compares monthly national health spending to that of the same month from the previous year.



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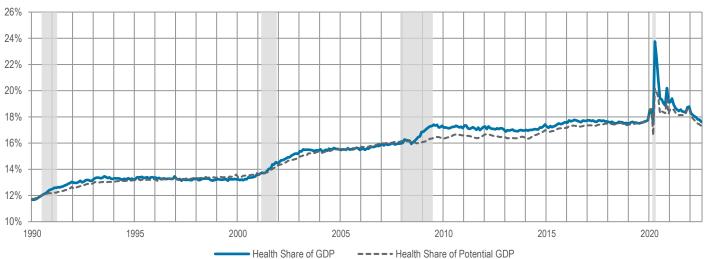
Exhibit 7. Year-over-Year Percentage Change in Spending and GDP



Source: Altarum monthly national health spending estimates. The monthly GDP is from IHS Markit.

Note: Lightly shaded bars denote recession periods.

Exhibit 8. Monthly Health Spending as a Percentage of Monthly GDP



Source: Altarum monthly national health spending estimates. Monthly GDP is from IHS Markit. PGDP is from the U.S. Congressional Budget Office and has been converted to monthly estimates. Note: Lightly shaded bars denote recession periods.

Methods. Altarum's estimates are based on <u>BEA monthly health spending</u> and <u>CMS annual NHE estimates (1990–2020) and projections</u> (2021). BEA spending categories are matched to NHEA components by using information presented in the following: Hartman, M. B., Kornfeld, R. J., & Catlin, A. C. (2010, September). A reconciliation of health care expenditures in the National Health Expenditures Accounts and in gross domestic product. Survey of Current Business, 90(9), 42–52. For all NHEA personal health care categories except "other health, residential, and personal care," monthly estimates are based on BEA spending adjusted to NHEA by using annual ratios. For the remaining categories, national health spending estimates and projections are allocated across months by using a simple trend. Annual ratio adjustments through 2021 are based on NHEA actuals (through 2020) and projections (for 2021) and ensure that monthly estimates sum exactly to NHEA annual amounts. The 2021 ratios are used to adjust BEA spending for months in 2022.



Health Sector Economic Indicators SM

Insights from Monthly National Price Indices through August 2022

PRICE BRIEF

September 23, 2022

Health care price inflation increases for the fourth straight month HIGHLIGHTS

- ▲ The Health Care Price Index (HCPI) increased by 2.9% year over year in August, up slightly from 2.8% growth in July. August's growth is nearly a full percentage point higher than it was four months ago in April.
- A Private payer price growth continues to be a driving factor—private prices for health services increased 3.9% year over year in August, while Medicaid prices increased by 3.7%, and Medicare prices dropped by 0.6%.
- ▲ Economywide price growth slowed this month, as overall CPI inflation fell to 8.3%. Services CPI growth (excluding health care) increased 7.0% year over year, while commodities inflation slipped marginally to 10.5%.
- Among the major health care categories, physician and clinical services prices increased the least in August (0.4%), while dental care (4.7%) and prescription drug prices (3.2%) increased the fastest.
- ▲ Growth in our implicit measure of utilization for July was slower than the month prior, down to 2.2% from 2.4% year-over-year growth in June, continuing a period since January of below average utilization growth.

| | Aug 2020 | Aug 2021 | Jul 2022 | Aug 2022 |
|---|-------------|-------------|-------------|-------------|
| Health Care Price Index (HCPI) | 3.0% | 1.9% | 2.8% | 2.9% |
| GDP Deflator (GDPD) | 1.1% | 4.6% | 7.4% | ** |
| HCPI - GDPD | 1.8% | -2.7% | -4.6% | ** |
| Addendum | | | | |
| Personal health care spending | 6.0% | 5.2% | 5.0% | ** |
| Health care utilization | 3.0% | 3.3% | 2.2% | ** |
| Medical Consumer Price Index (MCPI) | 4.5% | 0.4% | 4.8% | 5.4% |
| Consumer Price Index – all items (CPI) | 1.3% | 5.3% | 8.5% | 8.3% |
| Producer Price Index - Final Demand (PPI) | -0.3% | 8.7% | 9.8% | 8.7% |

Source: Altarum analysis of U.S. Bureau of Labor Statistics (BLS) data. HCPI is a composite price index designed to measure overall price changes for personal health care spending and is patterned after the price index developed by the Centers for Medicare & Medicaid Services (CMS). Details are provided below. Numbers may not subtract properly due to rounding. **Data not available

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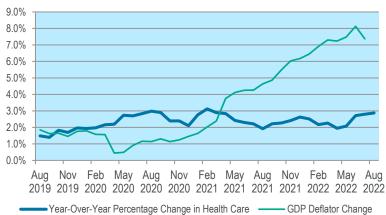
The Health Sector Economic IndicatorsSM reports are a monthly publication of Altarum and provide an analysis of health spending, employment, and prices. For more information, contact Ani Turner at ani.turner@altarum.org. Corwin Rhyan (principal author), Ani Turner, George Miller, PhD, and Matt Daly, PhD, contributed to this brief. Media Contact: press@altarum.org. For more information, visit http://altarum.org/solution/health-sector-spending.



DISCUSSION

The overall health care price index (HCPI) increased by 2.9% year over year in August, up from a slightly revised value of 2.8% growth in July. With the updates to July data and new August information, our health inflation data show we are now in the fourth straight month of moderately rising health care price growth. These new data confirm many of our expectations from earlier in the year that health care prices would rise as a result of greater input costs for health care providers (like labor and supplies). However, through August, the pace of price growth increases has been somewhat more moderate than expected.

Exhibit 1. Year-over-Year Growth in HCPI & GDPD



Source: Altarum analysis of monthly BLS price data and monthly GDPD data published by Macroeconomic Advisers.

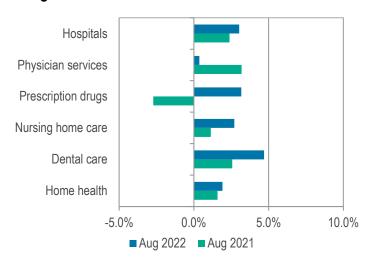
Economywide price growth has slowed somewhat in

the last two months and the gap between HCPI and economywide CPI price growth shrank in August, down another 0.3 percentage points to 5.4% (Highlights Table). While this is still well above historical norms, it is the smallest gap seen since February. Growth in the underlying components of economywide inflation has shifted noticeably in 2022: commodities inflation is slowing, but economywide services inflation is increasing (Exhibit 4). While health care prices have also increased, we see that overall health care price growth has lagged significantly behind other economywide services. This likely means health care prices will continue to have additional room to increase in the near future as labor and supply cost pressures persist and health care prices set in prior provider negotiations take effect.

One of the reasons health care price growth has lagged behind economywide services price growth has been very low and even falling Medicare prices in 2022. Year-over-year Medicare prices for health services fell again in August, down 0.6 percent, the same the month prior (Exhibit 6). This contrasts with the trend seen among private payer prices, which were at their second-highest growth rate on record in August, at 3.9% year over year. We expect private price growth to remain high and likely increase even faster in the rest of 2022 and 2023.

In August, the greatest increases in health care prices occurred for dental care, prescription drugs, and hospital settings (rising 4.7, 3.2%, and 3.0%, respectively) (Exhibit 2). Conversely, physician and clinical services prices increased

Exhibit 2. Year-over-Year Price Growth for Selected Categories



at the slowest rate among major sectors—at only 0.4% growth—marking the seventh straight month of below 1.0% price growth for physicians. Price growth for other health care products (durable and other non-durable goods) were above the average rate in August, increasing by 3.5% and 6.1% respectively (Exhibit 3).

Our implicit measure of overall health care utilization for July 2022 shows that utilization increased by only 2.2% year over year (Exhibit 8) in July. Hospital utilization growth was particularly slow at 0.8% year over year, while prescription drugs and nursing home care utilization growth were the fastest among the major categories at 4.8% and 5.0%. Overall utilization increases have slowed in recent months, contributing to the relatively moderate health care spending growth.

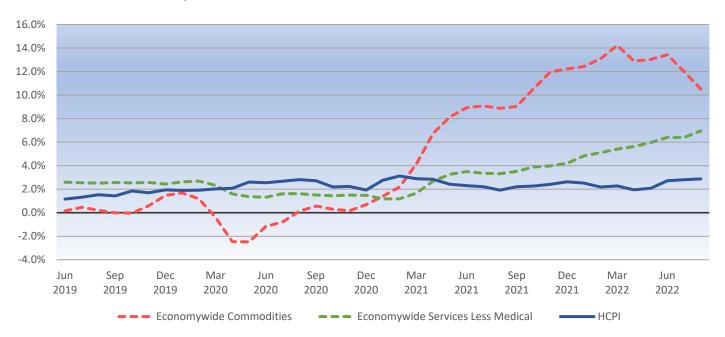


PRICE GROWTH BY DETAILED CATEGORIES

Exhibit 3. Annualized % Change in Prices for Major Components of National Health Expenditures

| 5 , 1 | | | • |
|---|-----------------------|-----------------------|-----------------------|
| | Ending August 2020 | Ending August 2021 | Ending August 2022 |
| Health Care Price Index (HCPI) | 3.0% | 1.9% | 2.9% |
| Hospital care | 4.1% | 2.4% | 3.0% |
| Physician and clinical services | 1.1% | 3.2% | 0.4% |
| Prescription drugs | 1.4% | -2.7% | 3.2% |
| Nursing home care | 4.6% | 1.1% | 2.7% |
| Dental Services | 2.9% | 2.6% | 4.7% |
| Home health care | 3.7% | 1.6% | 1.9% |
| Other professional services | 1.1% | 2.2% | 4.4% |
| Other personal health care | 3.6% | 5.0% | 4.7% |
| Other nondurable medical products | -1.7% | -1.6% | 6.1% |
| Durable medical equipment | -0.3% | -1.7% | 3.5% |
| Source: Altarum analysis of monthly BLS data. | | | |

Exhibit 4. Year-over-Year Percentage Change in Health Prices Compared with Economywide Commodities vs. Economywide Services

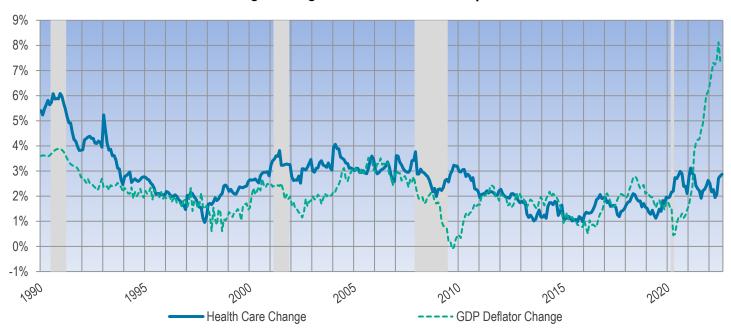


Methods. Altarum's estimates for the monthly HCPI, a price index for personal health care spending within the National Health Expenditure Accounts, are essentially monthly versions of the annual index developed by the CMS National Health Statistics Group (NHSG). The advantages of this measure over the medical care component of the CPI are well documented. Information on the CMS index is presented in the following source: U.S. Department of Health and Human Services. (2019). National Health Expenditure Accounts: Methodology Paper, 2018—Definitions, Sources, and Methods. Washington, DC: Centers for Medicare & Medicaid Services. Retrieved from http://www.cms.gov/files/document/definitions-sources-and-methods.pdf. The HCPI is calculated by using BLS data on PPIs for hospital, physician, nursing home, and home health components and CPIs for prescription drugs and other remaining items. Following NHSG, we use the GDPD rather than the CPI as our measure of economy-wide inflation. While this brief focuses on prices, it also incorporates data from our spending brief and shows the power of looking at prices and spending together. In particular, it reveals the striking role of utilization in health spending growth trends.



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Exhibit 5. Year-over-Year Percentage Change in Health Prices Compared with the GDP Deflator



Source: Altarum monthly national health spending and price index estimates.

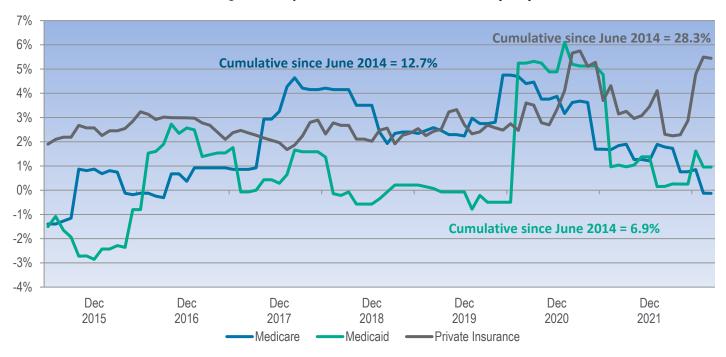
Note: Lightly shaded bars denote recession periods. (The 2020 recession timing was announced by NBER on July 19th, 2021)

Exhibit 6. Year-over-Year Change in Health Care Services Price Growth, by Payer





Exhibit 7. Year-over-Year Change in Hospital Services Price Growth, by Payer



Source: Altarum analysis of monthly BLS data.

Exhibit 8. Implicit Health Care Utilization Growth by Major Components of NHE, Year-over-year

| | July 2022 | 3-Month Moving Average | 12-Month Moving Average |
|-----------------------------------|--------------|------------------------------|-------------------------------|
| Total health care | 2.2% | 2.3% | 2.5% |
| Hospital care | 0.8% | 0.9% | 3.0% |
| Physician and clinical services | 4.2% | 4.4% | 3.4% |
| Prescription drugs | 4.8% | 5.1% | 6.0% |
| Nursing home care | 5.0% | 4.8% | 3.6% |
| Dental Services | 3.8% | 3.9% | 5.3% |
| Home health care | 1.7% | 1.6% | -0.2% |
| Other professional services | 0.0% | -0.6% | 2.4% |
| Other personal health care | -1.3% | -1.3% | -4.7% |
| Other nondurable medical products | 2.5% | 2.3% | 2.4% |
| Durable medical equipment | 7.4% | 5.8% | 1.3% |

Source: Altarum analysis of monthly BLS data combined with Altarum HSEI spending data.

Note: Beginning in March 2021, we slightly updated the computation of estimated implicit utilization shown in Exhibit 8 to be more consistent with our spending data. Previous iterations calculated implicit utilization growth (U) as spending growth (S) net of price growth (P) and population growth (Pop): U = S - P - Pop. New data (from March 2021 onward) now include population growth in utilization, with the new measure calculated as: U = S - P. This approach is an approximation, ignoring the interaction term between spending and prices growth (S*P); however, as long as the two growth rates are small, this term is insignificant.



Health Sector Economic Indicators SM

Insights from Monthly National Health Employment Data through August 2022

LABOR BRIEF

September 23, 2022

Health care job growth continues across all major settings of care

HIGHLIGHTS

- ▲ Health care employment grew by 48,200 jobs in August 2022. Gains were seen in all major settings of care, with ambulatory care settings adding 21,900 jobs, hospitals adding 14,700 jobs, and nursing and residential care facilities adding 11,600 jobs.
- ▲ Health care employment remains just under the pre-pandemic peak, down 36,000 jobs, or 0.2% below the level of February 2020. If job growth in September is consistent with the growth seen the past five months, health care employment should return to the pre-pandemic level next month, with a redistribution of more than 300,000 jobs from nursing and residential care to ambulatory care settings.
- ▲ Employment in ambulatory settings is 341,000 jobs (4.3%) above where it was in February 2020, while hospital employment remains 27,000 jobs (0.5%) below February 2020 and nursing and residential care employment is down by 351,000 jobs (10.4% decline).
- ▲ The economy added 315,000 jobs in August and the unemployment rate ticked up to 3.7%.
- ▲ Wages in health care continue to grow faster than overall private sector wages. In July 2022, average hourly earnings in health care grew 7.4% year over year, while earnings across all private sector jobs grew 5.2%. By setting of care, average earnings in residential care settings grew by 10.2%, compared to 7.8% in hospitals and 5.4% in ambulatory care settings.

Cyclical Employment Big Picture

| Seasonally Adjusted | February 2020 (peak) | Aug 2021 | Jul 2022 | Aug 2022 |
|----------------------------------|-------------------------|-------------|-------------|-------------|
| Total Employment (000) | 152,504 | 146,904 | 152,429 | 152,744 |
| Non-Health Employment (000) | 136,014 | 130,862 | 136,023 | 136,290 |
| Health Employment (000) | 16,491 | 16,042 | 16,406 | 16,454 |
| Health Share of Total Employment | 10.81% | 10.92% | 10.76% | 10.77% |
| Unemployment Rate | 3.5% | 5.2% | 3.5% | 3.7% |

 $Source: Altarum\ analysis\ of\ Bureau\ of\ Labor\ Statistics\ (BLS)\ data.\ Health\ care\ employment\ is\ private\ only.$

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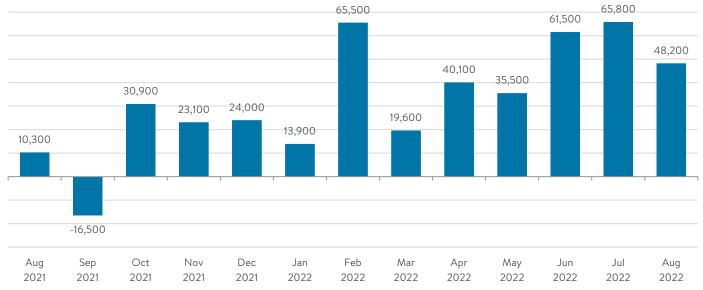
The Health Sector Economic Indicators (HSEI) reports are a monthly publication of Altarum providing analyses of health spending, employment, and prices. For more information, contact Ani Turner at ani.turner@altarum.org. Ani Turner (principal author), Corwin Rhyan, George Miller, PhD, and Matt Daly, PhD, contributed to this brief. Media Contact: press@altarum.org. For more information, visit http://altarum.org/solution/health-sector-spending.



DISCUSSION

Health care employment grew by 48,200 jobs in August, consistent with the 2022 average of 43,800 jobs per month. There were minimal revisions to June and July. Health has added 350,000 jobs so far in 2022 (Exhibit 1).

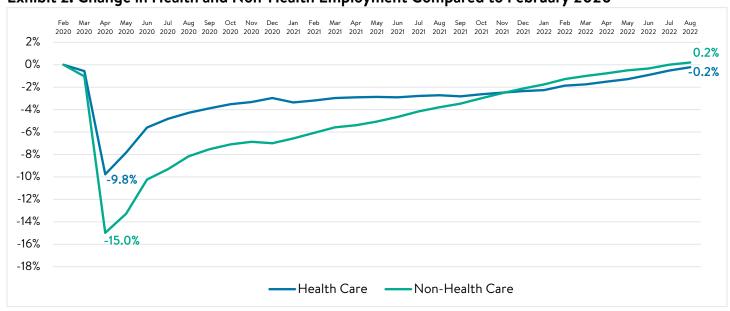
Exhibit 1. Month-over-month Change in Health Care Employment, Seasonally Adjusted



Source: Altarum analysis of monthly BLS Current Employment Statistics data.

The economy reached a milestone in July 2022 by returning to the pre-pandemic level of employment. With the 315,000 jobs added in August, the economy has added 3.5 million jobs so far in 2022, averaging 438,000 new jobs per month. While the number of non-health jobs is slightly higher than the pre-pandemic peak, health care jobs remain very slightly below (0.2%, or 36,000 jobs) the February 2020 level (Exhibit 2). If growth remains consistent with the past five months, health care jobs should reach the pre-pandemic level next month.

Exhibit 2. Change in Health and Non-Health Employment Compared to February 2020



Source: Altarum analysis of monthly BLS Current Employment Statistics data.



While all three major settings of care have been adding jobs for at least the past five months, there are differences in the pattern of job growth and recovery from pandemic drops (Exhibit 3). Employment in ambulatory care settings has grown steadily since falling sharply early in the pandemic and is now 327,000 jobs (4.3%) above the level of February 2020. Hospital employment remains 27,300 jobs (0.5%) below the level of February 2020 and is on track to return to pre-pandemic level of employment before the end of the year. Nursing and residential care employment appears to have bottomed out and has begun to grow modestly, currently standing at 351,000 jobs (10.4%) below the level of February 2020.

Jul Aug Sep Oct Nov Dec Jan Feb Mar 2020 2020 2020 2020 2020 2020 2020 2020 2020 2020 2020 2020 2020 2020 2020 2020 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2022 2022 2022 2022 2022 2022 2022 2022 2022 4.3% 4% 2% 0% -0.5% 2.5% -2% -4% 4.0%-6% -8% -10% -10.4% -12% -14% -16% -17.1% -18% -Hospitals **Ambulatory Care** ·Nursing/Residential

Exhibit 3. Change in Health Employment Compared to February 2020 by Major Setting of Care

Source: Altarum analysis of monthly BLS Current Employment Statistics data.

Wage growth in health care remains above the national average. Average earnings in health care rose 7.4% over the year, compared to 5.2% for all private sector jobs.

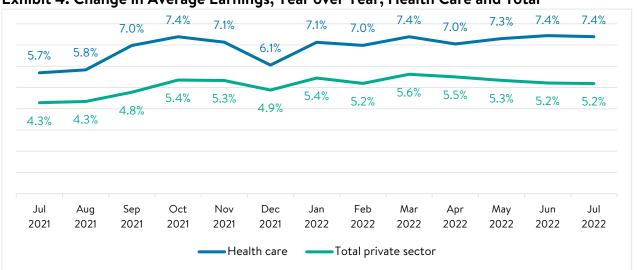
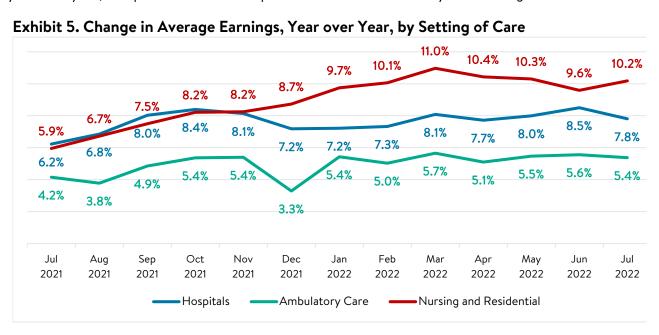


Exhibit 4. Change in Average Earnings, Year over Year, Health Care and Total



Health care wage growth by setting of care is consistent with the story of the pattern of recovery from 2020 (Exhibit 5). Average earnings in hospitals and especially in nursing and residential care have been growing faster than in ambulatory care settings, suggesting that difficulty filling jobs is at least partly contributing to the slower recovery in employment in these settings. In July 2022, average earnings in residential care settings grew 10.2% year over year, compared to 7.8% in hospitals and 5.4% in ambulatory care settings.





DETAILED HEALTH CARE EMPLOYMENT

Exhibit 6. Employment Data by Sector, Seasonally Adjusted

| • | , , | | | | |
|--|----------------|--------------|----------------|----------------|------------------|
| Employment (in thousands) | August 2022 | July 2022 | August 2021 | August 2020 | February 2020 |
| Non-Health Care | 136,290 | 136,023 | 130,862 | 124,928 | 136,014 |
| Health Care | 16,454 | 16,406 | 16,042 | 15,785 | 16,491 |
| Ambulatory Health Care Services | 8,219 | 8,197 | 7,898 | 7,536 | 7,878 |
| Offices of Physicians | 2,851 | 2,835 | 2,750 | 2,636 | 2,728 |
| Offices of Dentists | 1,042 | 1,041 | 999 | 946 | 994 |
| Offices of Other Health Care Practitioners | 1,093 | 1,092 | 1,020 | 920 | 1,004 |
| Outpatient Care Centers | 1,033 | 1,028 | 1,002 | 967 | 997 |
| Medical and Diagnostic Labs | 317 | 315 | 309 | 284 | 287 |
| Home Health Care Services | 1,566 | 1,568 | 1,507 | 1,483 | 1,549 |
| Other Ambulatory | 319 | 317 | 311 | 301 | 319 |
| Hospitals | 5,208 | 5,194 | 5,130 | 5,102 | 5,236 |
| Nursing and Residential Care Facilities | 3,027 | 3,015 | 3,015 | 3,147 | 3,377 |
| Nursing Care Facilities | 1,360 | 1,358 | 1,368 | 1,463 | 1,585 |
| Other Nursing and Residential | 1,666 | 1,657 | 1,647 | 1,684 | 1,792 |
| Health Share of Employment | 10.77% | 10.76% | 10.92% | 11.22% | 10.81% |

Source: Altarum analysis of BLS Current Employment Statistics data. February 2020 displayed as month of pre-pandemic peak employment.

Exhibit 7. Change in Employment Data by Sector, Seasonally Adjusted

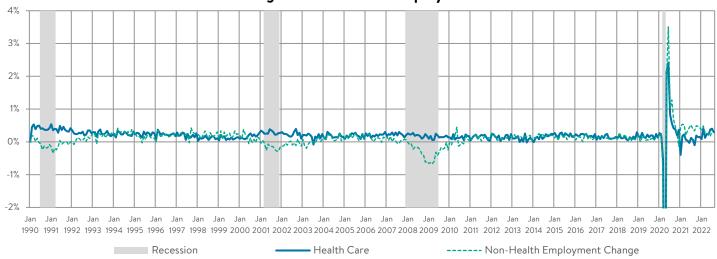
| One Month | 12 Months | 24 Months | Since Feb 2020 |
|--|---|---|---|
| 266.8 | 5,428.4 | 11,362.3 | 276.6 |
| 48.2 | 411.6 | 668.7 | -36.6 |
| 21.9 | 321.4 | 683.1 | 341.4 |
| 15.2 | 100.8 | 215.0 | 122.9 |
| 0.1 | 42.6 | 95.8 | 47.3 |
| 1.0 | 72.7 | 173.2 | 88.9 |
| 4.6 | 30.9 | 65.7 | 35.4 |
| 1.2 | 7.3 | 32.7 | 29.2 |
| -1.8 | 59.6 | 83.0 | 17.8 |
| 1.6 | 7.6 | 17.6 | 0.0 |
| 14.7 | 78.7 | 106.3 | -27.3 |
| 11.6 | 11.5 | -120.7 | -350.7 |
| 2.3 | -7.6 | -103.2 | -224.7 |
| 9.3 | 19.1 | -17.5 | -126.0 |
| One Month | 12 Months | 24 Months | Since Feb 2020 |
| | | | |
| 2.4% | 4.1% | 4.4% | 0.1% |
| 2.4% 3.6% | 4.1% 2.6% | 4.4% 2.1% | 0.1% -0.1% |
| | | | |
| 3.6% | 2.6% | 2.1% | -0.1% |
| 3.6% 3.3% | 2.6% 4.1% | 2.1% 4.4% | -0.1% 1.7% |
| 3.6% 3.3% 6.6% | 2.6% 4.1% 3.7% | 2.1% 4.4% 4.0% | -0.1% 1.7% 1.8% |
| 3.6% 3.3% 6.6% 0.1% | 2.6% 4.1% 3.7% 4.3% | 2.1% 4.4% 4.0% 4.9% | -0.1% 1.7% 1.8% 1.9% |
| 3.6% 3.3% 6.6% 0.1% 1.1% | 2.6% 4.1% 3.7% 4.3% 7.1% | 2.1% 4.4% 4.0% 4.9% 9.0% | -0.1% 1.7% 1.8% 1.9% 3.5% |
| 3.6% 3.3% 6.6% 0.1% 1.1% 5.5% | 2.6% 4.1% 3.7% 4.3% 7.1% 3.1% | 2.1% 4.4% 4.0% 4.9% 9.0% 3.3% | -0.1% 1.7% 1.8% 1.9% 3.5% 1.4% |
| 3.6% 3.3% 6.6% 0.1% 1.1% 5.5% 4.7% | 2.6% 4.1% 3.7% 4.3% 7.1% 3.1% 2.4% | 2.1% 4.4% 4.0% 4.9% 9.0% 3.3% 5.6% | -0.1% 1.7% 1.8% 1.9% 3.5% 1.4% 3.9% |
| 3.6% 3.3% 6.6% 0.1% 1.1% 5.5% 4.7% -1.4% | 2.6% 4.1% 3.7% 4.3% 7.1% 3.1% 2.4% 4.0% | 2.1% 4.4% 4.0% 4.9% 9.0% 3.3% 5.6% 2.8% | -0.1% 1.7% 1.8% 1.9% 3.5% 1.4% 3.9% 0.5% |
| 3.6% 3.3% 6.6% 0.1% 1.1% 5.5% 4.7% -1.4% 6.2% | 2.6% 4.1% 3.7% 4.3% 7.1% 3.1% 2.4% 4.0% | 2.1% 4.4% 4.0% 4.9% 9.0% 3.3% 5.6% 2.8% 2.9% | -0.1% 1.7% 1.8% 1.9% 3.5% 1.4% 3.9% 0.5% 0.0% |
| 3.6% 3.3% 6.6% 0.1% 1.1% 5.5% 4.7% -1.4% 6.2% 3.4% | 2.6% 4.1% 3.7% 4.3% 7.1% 3.1% 2.4% 4.0% 2.4% 1.5% | 2.1% 4.4% 4.0% 4.9% 9.0% 3.3% 5.6% 2.8% 2.9% 1.0% | -0.1% 1.7% 1.8% 1.9% 3.5% 1.4% 3.9% 0.5% 0.0% -0.2% |
| | 266.8 48.2 21.9 15.2 0.1 1.0 4.6 1.2 -1.8 1.6 14.7 11.6 2.3 9.3 One Month | 266.8 5,428.4 48.2 411.6 21.9 321.4 15.2 100.8 0.1 42.6 1.0 72.7 4.6 30.9 1.2 7.3 -1.8 59.6 1.6 7.6 14.7 78.7 11.6 11.5 2.3 -7.6 9.3 19.1 One Month 12 Months | 266.8 5,428.4 11,362.3 48.2 411.6 668.7 21.9 321.4 683.1 15.2 100.8 215.0 0.1 42.6 95.8 1.0 72.7 173.2 4.6 30.9 65.7 1.2 7.3 32.7 -1.8 59.6 83.0 1.6 7.6 17.6 14.7 78.7 106.3 11.6 11.5 -120.7 2.3 -7.6 -103.2 9.3 19.1 -17.5 |

Source: Altarum analysis of BLS Current Employment Statistics data. Change since February 2020 represents comparison to pre-pandemic peak employment.



TIME SERIES TRACKER

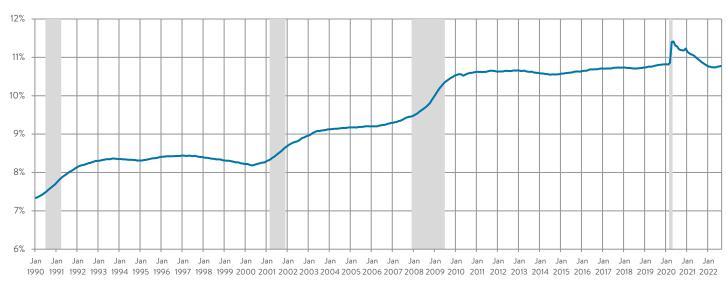
Exhibit 8. Twelve-month Percent Change in Health Care Employment



Source: Altarum analysis of BLS data.

Note: Lightly shaded bars denote recession periods. Full drop in employment in April 2020 (non-health -14.0% and health -8.2%) not shown on graph.

Exhibit 9. Health Care Share of Total Employment



Source: Altarum analysis of BLS data.

Note: Lightly shaded bars denote recession periods.