

Tracking Virginia's 2023 Health Care Spending & Employment Trends

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About Onpoint Health Data



Onpoint Health Data is an independent, nonprofit health data organization based in Portland, Maine, with more than 40 years' experience developing and delivering independent, innovative, and insightful health data solutions to clients nationwide. Over the past two decades, Onpoint has developed and maintained

more than half of the country's APCDs, expanding their value through the integration of nonclaims data sources such as alternative payment model, social determinants, and clinical data. Our staff is a highly collaborative team of health data professionals, including software engineers and architects, project management professionals, health data analysts, security and compliance experts, and more. We leverage advanced data analytics, machine learning, and secure cloud-based technologies to provide comprehensive solutions that help policymakers, researchers, and the public understand the how healthcare is being delivered – and how it can be improved – based on reliable, trusted data.

Report Highlights

The following report summarizes personal health care (PHC) spending in Virginia in calendar year 2023. This report draws on the latest data from the U.S. Bureau of Economic Analysis (BEA), the U.S. Centers for Medicare & Medicaid Services (CMS), and the Virginia All-Payer Claims Database (APCD). This report covers total health care spending, spending by category and payer, insurance premiums, and workforce trends. Key trends are summarized below.

Virginia Health Sector Spending

- Total annual personal health care (PHC) spending in Virginia increased from an estimated \$83.5 billion in 2022 to \$91.9 billion in 2023 an increase of 10.1%.
- Total health spending as a percentage of Virginia's gross domestic product rose slightly from an estimated 14.9% in the previous year to 15.2% in 2023, remaining well below the national average of 17.5%.
- Year-over-year per capita personal health care spending in Virginia grew from \$10,124 in 2022 to \$10,625 in 2023 (4.9%) in unadjusted dollars.¹ This is very similar to average national per capita PHC spending, which grew from \$11,199 in 2022 to \$11,741 in 2023 (4.8%).²
- On a per capita basis in 2023, Virginians spent an average of \$538 less on hospital services, \$259 less on prescription drugs, and \$296 less on the combined category of nursing home care, home health care, and other health, residential, and personal care than national spending in 2023.
- In 2023, hospitals remained the largest sector of health care spending in Virginia (\$33.4 billion), followed by physicians and clinical services (\$23.9 billion).
- In 2023, home health care and residential and personal care services saw the highest rates of growth since the pre-pandemic period 38.2% and 34.3%, respectively. The hospital care sector and the physician and clinical services sector saw more modest growth rates that were similar to the national average over the same period.

Virginia Health Insurance Trends

- In 2023, the largest payer type for PHC services in Virginia was other payer sources (\$29.1 billion), followed by private health insurance (\$26.9 billion), Medicare (\$20.2 billion) and Medicaid (\$15.7 billion). Since 2019, "other payer sources" a broad category that includes out-of-pocket spending, selected federal and state government spending, workers' compensation spending, and more has ballooned while private health insurance has remained relatively constant.
- Among the three major payer types private insurance, Medicaid, and Medicare per capita spending since 2015 has grown most significantly for Medicare (\$12,459 in 2023 compared to \$9,770 in 2015). Per capita spending also increased for both private health

¹ In this report, "unadjusted" means these dollar amounts have not been adjusted for inflation.

² Personal health care is more limited than total health care expenditures, which include spending categories such as public health, government administration related to health care, and other non-personal expenses.

insurance (\$4,650 in 2023 compared to \$4,100 in 2015) and Medicaid (\$7,741 in 2023 compared to \$7,290 in 2015).

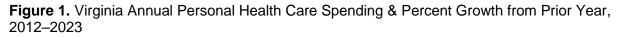
- Average PHC spending per capita was lower in Virginia than the national average. This was most pronounced in private health insurance in 2023 where per capita spending in the Commonwealth was 32.0% lower than the national average (\$4,650 compared to \$6,838 nationally). For Medicare, the average in the Commonwealth was 20.6% lower than the national average (\$12,459 compared to \$15,689 nationally). Medicaid was 17.1% lower than the national average (\$7,741 compared to \$9,336 nationally).
- While 2023 Virginia PHC spending per capita for private health insurance companies was much lower than the national average (32.0%), private insurance coverage costs were comparable to the national average. This gap has been growing for the past five years.
- Between 2008 and 2023, the average price of annual premiums for a single person increased by 93.8% and family premiums increased by 103.2%, while total PHC spending by private insurance enrollees over the same period grew much more slowly (61.1%).
- For individuals with health insurance coverage through a private-sector employer, coverage costs increased by more than 10% since 2022. The average premium for a single person increased by 9.7% (from \$7,422 in 2022 to \$8,144 in 2023) and the average premium for a family increased by 13.3% (from \$21,401 in 2022 to \$24,251 in 2023).
- The combined sum of average premiums and deductibles for a single person increased by 18.3% from 2019 (\$8,558) to 2023 (\$10,124). Similarly, in the family market, the combined sum of average premiums and deductibles increased 20.9% (from \$23,137 in 2019 to \$27,981 in 2023).
- While annual single and family premiums for private health insurance increased by more than 20% between 2019 and 2023 (20.2% and 22.1%, respectively), total PHC spending (including hospital and professional care) increased by only 1.2% over the same period.

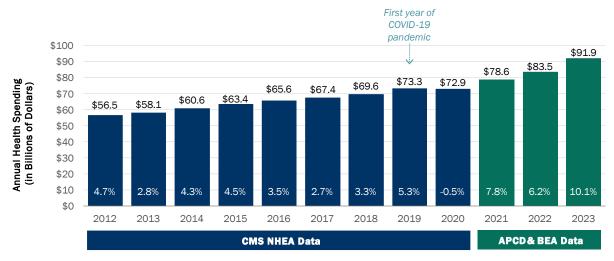
Virginia Health Sector Employment

- In the fourth quarter (Q4) of calendar year 2023, 407,460 individuals were employed by the health care sector in Virginia, accounting for 9.0% of the total private-sector employed population.
- The total number employed in health care in Q4 2023 increased to 4.7% from Q4 2022 (389,000) and was above the pre-pandemic peak of 381,000 workers.
- Employment rose across the major health care sectors between 2022 and 2023: Ambulatory settings gained an estimated 11,000 workers, hospitals gained 3,330 workers, and nursing homes and residential settings gained 4,400 workers.

Overall Virginia Health Sector Spending

Based on data from the Virginia All-Payer Claims Database (APCD) and the U.S. Bureau of Economic Analysis (BEA), Virginia personal health care (PHC) spending in 2023 was \$91.9 billion, increasing 10.1% (\$8.4 billion) from the prior year's spending of \$83.5 billion (**Figure 1**).³ This suggests that the pandemic recovery and an aging population continue to contribute to increased health care spending. Prior to the pandemic, health care costs in Virginia tended to grow by less than 5% per year based on official National Health Expenditure Accounts (NHEA) data from the U.S. Centers for Medicare & Medicaid Services (CMS).





Over time, health care spending generally is driven by utilization, prices, and the use of new and emerging technologies. Nationally, in the last few years, utilization has been driving growth rather than prices. While state-specific, sector-wide health care data were not readily available to decompose Virginia's spending growth into utilization, price, and increased technology use, two visible trends are worth noting: (1) The Commonwealth had low population growth (i.e., less than 1.0% annually)⁴ and (2) the Commonwealth's population is increasingly aged. In 2023, 17.5% of Virginia's 8.7 million residents were 65 years old or older in contrast to 13.0% in 2015, likely putting upward pressure on total health care expenditures.

³ In this report, personal health care (PHC) spending is shown as the amount spent on traditional PHC categories as defined by the U.S. Centers for Medicare & Medicaid Services (CMS). PHC spending includes direct spending on health care products and services (e.g., hospital, physician, and prescription drug spending), while non-PHC spending includes other expenditures such as the administration of public health insurance, the net cost of private insurance, public health spending, and research and development. This report differentiates between the underlying growth trends in PHC vs. non-PHC categories. More details on PHC vs. non-PHC definitions are available from CMS's "National Health Expenditure Accounts: Methodology Paper, 2023" here (link last accessed January 8, 2025): https://www.cms.gov/files/document/definitions-sources-and-methods.pdf

⁴ State health facts: Total number of residents (Virginia, 2008–2023). KFF. Undated. Link (last accessed January 8, 2025): <u>https://www.kff.org/other/state-indicator/total-residents/?activeTab=graph¤tTimeframe=0&startTimeframe=14&selectedRows=%7B%22states%22:%7B% 22virginia%22:%7B%7D%7D%7D&sortModel=%7B%22colld%22:%22Location%22,%22sort%22:%22asc%22%7 D</u>

Figure 2 illustrates how Virginia's total health care spending as a percent of its economy has been consistently less than the national average since 2015. National health spending as a percent of gross domestic product (GDP) peaked in Q4 2020 at 18.4%, while Virginia health spending as a percent of GDP peaked at 15.9% in Q4 2019 (reaching nearly the same rate at 15.8% in Q4 2020). Although both national and Virginia total health care spending as a percent of GDP were falling from those highs through the end of 2022, Virginia's rate had increased again to 15.2% by Q4 2023. This same pattern is evident at the national level, where generally decreasing rates of health care spending again rose to 17.5% by Q4 2023 – increases at least partially attributable to record-high insurance enrollment.

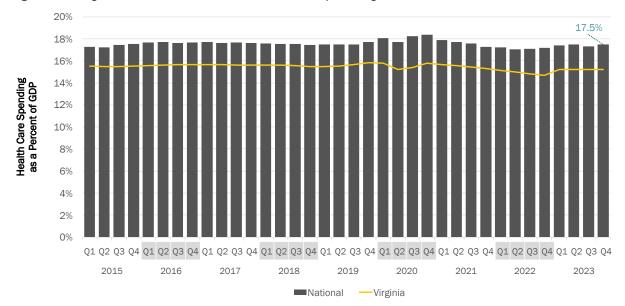


Figure 2. Virginia & National Total Health Care Spending as a Percent of GDP, 2015–2023

Between 2022 and 2023, average health spending per capita increased both nationally (from \$11,199 to \$11,741) and in Virginia (from \$10,124 to \$10,625), with Virginia's average health spending per capita in 2023 remaining well below the national average (**Figure 3**).⁵ In terms of average spending for specific components, Virginia residents spent 12.2% less on hospitalizations (\$3,861 vs. \$4,399) compared to the national average. Additionally, Virginians spent 16.5% less on prescription drugs (\$1,307 vs. \$1,566) and 15.7% less on the combined category of nursing home care, home health care, and other health, residential, and personal care (\$1,588 vs. \$1,884).

Areas such as physician and clinical services, other professional services, dental care, and durable medical products were somewhat comparable between Virginia and the nation. It is worth noting that these differences are unadjusted for inflation or changes in health burden as indicated by factors such as population age, demographics, economic factors, and health

⁵ Note that both national and Virginia total and per capita spending estimates for 2021 have been revised slightly from last year's report due to the incorporation of data revisions from some spending input sources.

status. However, an analysis in Health Affairs Forefront that did adjust for health burden found Virginia to be the fourth lowest spending state in the country in "standardized health spending."⁶

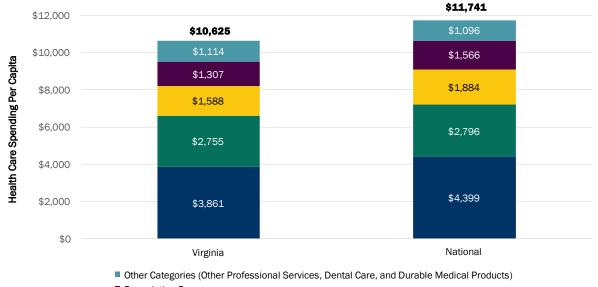


Figure 3. Virginia & National Average Total PHC Spending Per Capita by Category, 2023

Prescription Drugs

Nursing Home Care, Home Health Care, and Other Health, Residential, and Personal Care

Physician & Clinical Services

Hospital Care

As a percentage of total health spending in Virginia, hospital care was the largest major spending category in 2023, accounting for \$33.4 billion (36.3%) of total spending (\$91.9 billion) (**Figure 4**). Physician and clinical services was the next largest category at \$23.9 billion (26.0%), followed by home and residential services at \$13.7 billion (14.9%) and prescription drugs at \$11.3 billion (12.3%). The other category, which includes other professional services, dental care, and durable medical products summed to \$9.6 billion (10.5%). These proportions of total spending are broadly similar to the 2023 national spending averages for hospital care (38.8%), physician and clinical services (25.0%), prescription drugs (11.3%), home and residential services (8.7%).

⁶ Johnson EK, Dieleman JL. Standardizing state health spending. Health Affairs Forefront. December 6, 2022. Link (last accessed January 8, 2025): <u>https://www.healthaffairs.org/do/10.1377/forefront.20221205.489811</u>

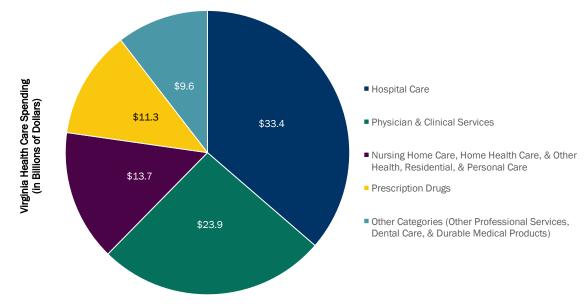


Figure 4. Virginia Health Care Spending by Category (in Billions of Dollars), 2023

Virginia's fastest-growing health care spending categories since the pre-pandemic period (2019) were in the home and community-based sector; these categories include home health care (38.2%), followed by other health, residential, and personal care (34.3%) and nursing home care (31.9%) (**Figure 5**). Physician and clinical services, by comparison, grew 25.3% over the same time period. Although Virginia's spending rate generally grew faster than the national average, there were a few exceptions; these included hospital care, for which Virginia's rate of growth (23.4%) was slightly lower than the national average (24.6%), and prescription drugs and other non-durable medical products, which saw slower growth in Virginia (21.1%) compared to the nation (26.2%).

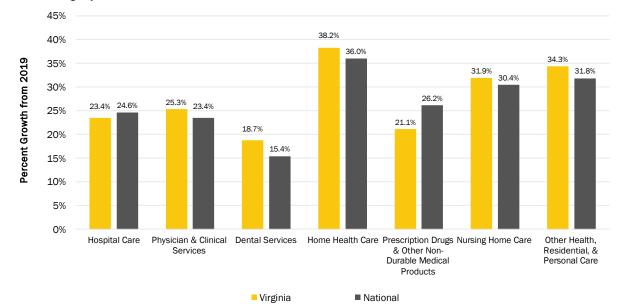
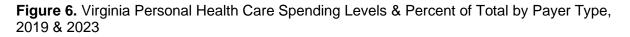
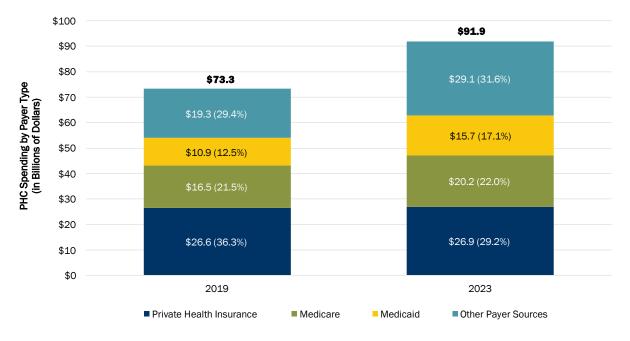


Figure 5. Virginia & National Average Spending Growth Rates (%) by Major Personal Health Care Category, 2019–2023

The payer type with the highest spending for health care services in Virginia in 2023 was the "other payer sources" category, with an estimated \$29.1 billion in PHC spending, followed by private insurance (\$26.9 billion), Medicare (\$20.2 billion), and Medicaid (\$15.7 billion) (Figure 6).⁷ The other payer sources category includes out-of-pocket spending, third-party payer spending, U.S. Department of Defense and U.S. Department of Veterans Affairs spending, school health spending, and workers' compensation.

As a share of total PHC spending, the proportion covered under private insurance fell from 36.3% in 2019 to 29.2% in 2023. Conversely, the percentage of PHC spending increased for both Medicare (from 21.5% in 2019 to 22.0% in 2023) and Medicaid (from 12.5% in 2019 to 17.1% in 2023).





Although the Medicare population has been growing steadily (1.8% on average between 2019 and 2023), Medicare spending has been growing more rapidly at an average of 5.3% per year over the same time period (Figure 7). Medicaid, on the other hand, has been growing more quickly in terms of enrollment (11.0%) than spending (9.5%). Private insurance remained relatively flat, showing year-over-year average growth of only 0.9% in enrollment and 0.3% in spending between 2019 and 2023.



⁷ CMS NHEA estimates of state spending by payer type include only PHC spending. Public health spending, investment, research and development, net cost of insurance, and government administration of public insurance costs that are included in "total health spending" are not included in the "other payer sources" PHC data in this section.

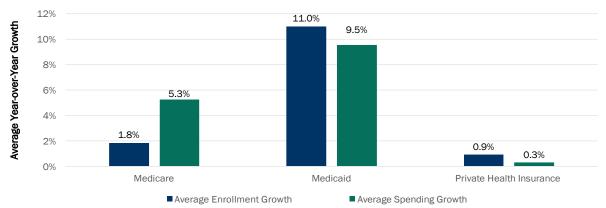


Figure 7. Virginia Personal Health Care Spending & Enrollment Growth by Payer Type, 2019–2023

Looking at year-over-year changes from 2022, spending increased for both Medicare (9.3%) and Medicaid (2.3%) (data not shown). This is a marked change in the growth rate for Medicaid spending, which grew annually by more than 10% per year between 2019 and 2021. This most likely reflects the sunsetting of Medicaid-funded pandemic-related benefits. However, in contrast, year-over-year private health insurance spending decreased slightly in 2023 compared to 2022 (1.2%). This occurred even as post-pandemic Medicaid redetermination started on April 1, 2023. As widely noted in the press, it took many months to review the status of Virginia's approximately 2.1 million Medicaid beneficiaries.⁸ By August 2024, approximately 23% had been disenrolled. **Figure 8** depicts health insurance coverage of the Virginia population from 2015 to the start of 2023. Prior to the start of Medicaid disenrollment, rates for both employer-sponsored and non-group insurance had decreased since 2015 (1.7% and 1.9%, respectively) (**Figure 8**).

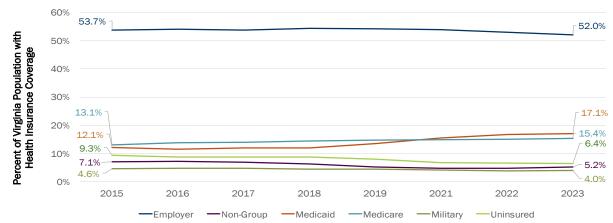


Figure 8. Health Insurance Coverage of the Virginia Population by Payer Type, 2015–2023*

* Data for 2020 are not included. Displayed results are derived from "State Health Facts" data published by KFF based on the U.S. American Community Survey, which did not release estimates for 2020 due to disruptions caused by the COVID-19 pandemic. More information is available here (link last accessed January 8, 2025): <u>https://www.kff.org/statedata/</u>.

⁸ Mejia F. Virginia's Medicaid unwinding winds down: A look at the numbers and next steps to connect people to health coverage. The Commonwealth Institute. August 14, 2024. Link (last accessed January 8, 2025): <u>https://thecommonwealthinstitute.org/tci_research/virginias-medicaid-unwinding-winds-down-numbers-next-steps-to-connect-people-to-health-coverage/</u>

Figure 9 shows changes in Virginia's PHC spending per capita by major payer type in 2015 and 2023, illustrating steady growth in per capita spending by all major payor types, but most notably Medicare, which grew from \$9,770 in 2015 to \$12,459 in 2023. This is an overall growth rate of 27.5% in nominal dollars, reflecting both the aging of the Medicare population and higher utilization. For example, in 2023, the average case mix for Virginia hospitals was 1.71. ("Case mix" is an indicator of the overall clinical complexity of the cases treated and is used in determining Medicare hospital payments.) In 2015, the average case mix for Virginia hospitals was 1.43 – or 19.6% less than 2023.⁹ Medicaid, on the other hand, observed slower per capita growth of 6.2% from 2015 to 2023, with 2023 per capita spending of \$7,741 in 2023. Private insurance grew 13.4%, with per capita payments of \$4,100 in 2015 and \$4,650 in 2023.

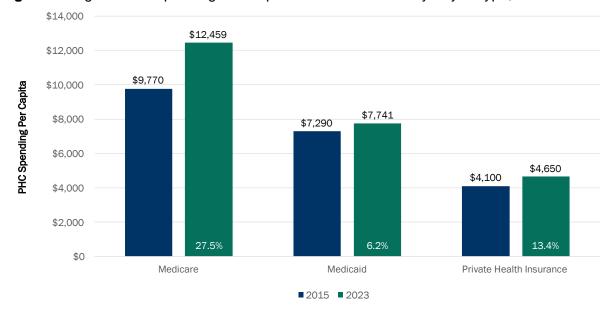


Figure 9. Virginia PHC Spending Per Capita & Percent Growth by Payer Type, 2015 & 2023

⁹ FY2023 Wage index home page. CMS. Undated. Link (last accessed January 8, 2025): <u>https://www.cms.gov/medicare/medicare-fee-service-payment/acuteinpatientpps/wage-index-files/fy2023-wage-index-home-page</u>

In nominal dollars, average PHC spending per capita was lower in Virginia than the national average. This was most pronounced in private health insurance in 2023 where per capita spending in the Commonwealth was 32.0% lower than the national average (\$4,650 compared to \$6,838 nationally). For Medicare, the average in the Commonwealth was 20.6% lower than the national average (\$12,459 compared to \$15,689 nationally). Medicaid was guite similar to Medicare at 17.1% lower than the national average (\$7,741 compared to \$9,336 nationally) (Figure 10).

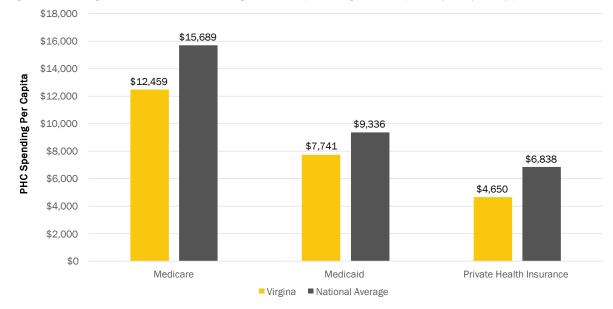
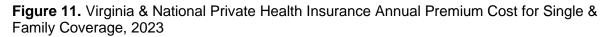


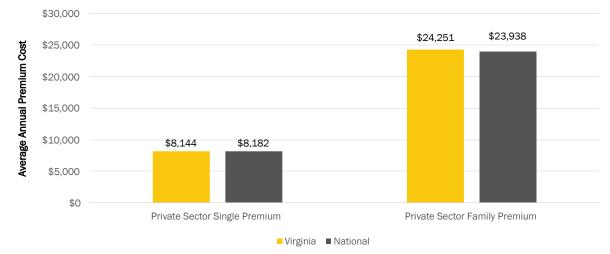
Figure 10. Virginia & National Average PHC Spending Per Capita by Payer Type, 2023



Virginia Private Health Insurance Cost Trends

For individuals with single coverage from a private-sector employer in Virginia, annual average premiums in 2023 were \$8,144 – almost identical to the national average of \$8,182. For those with family plans, annual premiums from a private-sector employer in 2023 were \$24,251 in Virginia – more than \$300 higher than the national average of \$23,938 (**Figure 11**).





Compared to 2019, private insurance premiums for single coverage increased by 20.2% in 2023, while premiums for family coverage increased by 22.1%. When average premiums and deductibles are summed, spending increased by similar – though slightly lower – amounts for both single and family coverage (18.3% and 20.9%, respectively) (**Figure 12**).

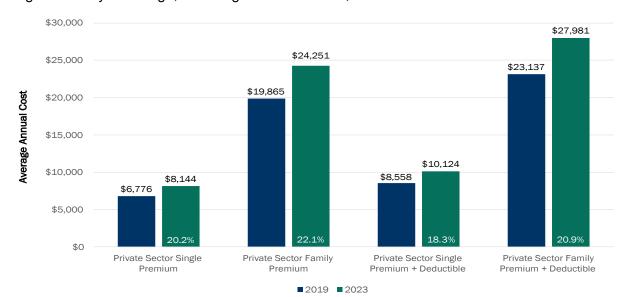
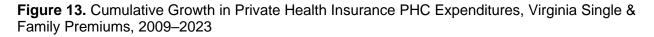
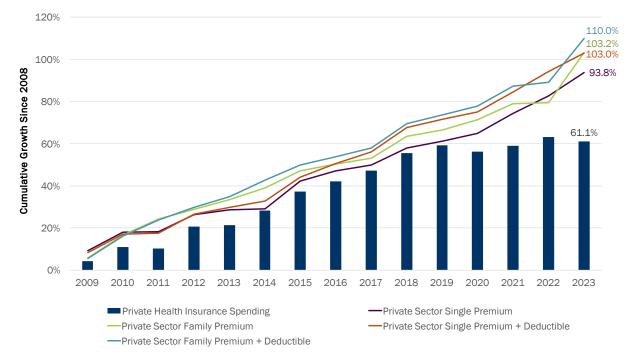


Figure 12. Virginia Private Health Insurance Employee Annual Premiums & Deductibles for Single & Family Coverage, including Percent Growth, 2019 & 2023

Looking at growth rates for insurance premiums over a longer time period, the cumulative growth in both single and family annual premiums in Virginia has outpaced underlying private health insurance spending. Since 2008, total personal health care spending for private insurance enrollees had risen 61.1% by 2023. By comparison, single premiums were 93.8% higher and family premiums were 103.2% higher (**Figure 13**). With annual deductibles added to the premiums, total plan costs in 2023 were 103.0% higher for single coverage and 110.0% higher for family coverage.





Separately, for individual coverage purchased on Virginia's Insurance Marketplace, monthly premiums in Virginia in 2023 were lower than the national average by 18.6% (\$371 versus \$456; data not shown). These individual premiums in Virginia have decreased considerably from the prior year (\$450 in 2022). In fact, average monthly premiums have been steadily decreasing since their high in 2019 of \$555 – a trend likely related to the new <u>Commonwealth Health Reinsurance Program</u> (CHRP) launched in 2023.

As noted in last year's report, some experts, including the head of the KFF (formerly known as the Kaiser Family Foundation), have suggested that health insurance costs for private employers are increasingly unaffordable, particularly for small employers.¹⁰

¹⁰ Altman D. Family health insurance is no longer affordable through small employers. KFF. November 28, 2023. Link (last accessed January 8, 2025): <u>https://www.kff.org/from-drew-altman/family-health-insurance-is-no-longer-affordable-through-small-employers/</u>

Virginia Health Sector Employment

At the end of 2023, the Commonwealth's private sector employed more than 4.4 million Virginians, with 407,460 (about 9.0%) of the privately employed population working in the health sector.¹¹ This is down from 11.5% in 2022. Among those employees, 53.4% (217,730) worked in ambulatory and other services, 27.8% (113,330) worked in hospital settings, and 18.8% (76,400) worked in nursing homes and residential care settings (**Figure 14**).

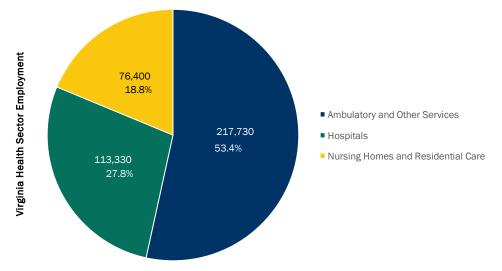


Figure 14. Virginia Health Sector Employment, Q4 2023

By the end of 2023 in Virginia, employment in hospitals exceeded pre-pandemic levels (up by 6.0% from the start of 2019). However, employment in nursing home and residential care facilities was still lower than before the pandemic – down by 1.3% in total employment over the same period (**Figure 15**). These trends were similar to national health care employment, where employment in nursing homes and residential care facilities decreased while employment in both hospitals and ambulatory settings returned to their pre-pandemic levels. Employment in Virginia's hospitals and nursing homes continued to grow in 2023, with year-over-year growth rates of 5.1% and 5.9%, respectively (data not shown). Although ambulatory and other services grew only 3.8% year-over-year between the fourth quarters of 2022 and 2023 (data not shown), this sector saw tremendous cumulative growth since the pandemic (16.2%).

There is evidence from the Virginia Department of Health Professions that the labor market for health care employees remained tight, driving up the cost of providing care. At the end of 2023, for example, overall employment was growing at an annualized rate of 1.6% (data not shown). However, employment in the health care and social assistance sectors were growing at a rate of 4.1% (data not shown).¹²

¹¹ Governor Glenn Youngkin announces March jobs numbers support Virginia's economic momentum. Commonwealth of Virginia. Governor of Virginia. April 19, 2024. Link (last accessed January 8, 2025): <u>https://www.governor.virginia.gov/newsroom/news-releases/2024/april/name-1025868-en.html</u>

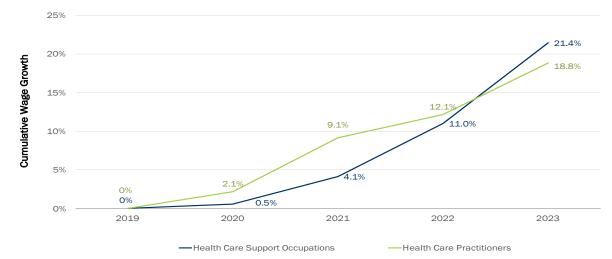
¹² Indicators from the Bureau of Labor Statistics' Current Employment Statistics survey (Series 1: State & national employment). Virginia Healthcare Workforce Briefs. Series 1. Issue 141. December 2023. Link (last accessed January 8, 2025): <u>https://www.dhp.virginia.gov/media/dhpweb/docs/hwdc/briefs/2023/Series1December2023.pdf</u>



Figure 15. Virginia Health Sector Employment Cumulative Growth by Major Category, 2019–2023

Average health care wages in Virginia continued to increase in 2023, particularly for health care support occupations. From 2019 to 2023, wages for this group grew by 21.4%. Cumulative wage growth for health care practitioners was comparable at 18.8% over this same period (**Figure 16**).

Figure 16. Virginia Cumulative Health Sector Wage Growth by Occupation Category, 2019–2023



Conclusion

Annual personal health care spending in Virginia continued to grow in 2023, reaching \$91.9 billion by year's end – 10.1% higher than in 2022 (\$83.5 billion). This continued growth represents a potentially unsustainable trend and will put additional upward pressure on premiums if spending does not begin to stabilize in 2024 and 2025. Factors putting pressure on the health care sector include an aging population in the Commonwealth, higher utilization of services, and the pressures caused by growing costs (e.g., wages and inflation).

Although health care spending grew, the relative size of Virginia's health care sector compared to statewide GDP grew only slightly in 2023 – from 14.9% in the previous year to 15.2% – and was well below the 2023 national average of 17.5% of GDP.¹³ Per capita spending increased from \$10,124 in 2022 to \$10,625 in 2023 – despite high Medicaid enrollment and more young people entering the insurance market.¹⁴ This may change in 2024 as Medicaid redetermination reduces overall enrollment by as much as an estimated 20 percent.¹⁵

In terms of specific spending components, Virginia residents spent less than the national average for many categories, including 12.1% less for hospitalizations (\$3,861 vs. \$4,399); 16.5% less for prescription drugs (\$1,307 vs. \$1,566); and 15.7% less for the combined category of nursing home care, home health care, and other health, residential, and personal care (\$1,588 vs. \$1,884). While average PHC spending per capita and private health insurance spending per enrollee in Virginia were well below the national averages, premiums for private health insurance remained high for the family market. In fact, between 2008 and 2023, cumulative growth in annual premiums for private health insurance in the Commonwealth was much faster than for the underlying spending on PHC – increasing by 61.1% for PHC compared to 93.8% and 103.2% for single and family premiums, respectively.

Trends to watch in the future include reduced out-of-pocket costs as provisions in the U.S. Inflation Reduction Act (IRA) come into effect (including a \$2,000 cap on out-of-pocket prescription-drug spending for Medicare Part D enrollees starting in 2025), continued upward pressure on health care labor costs, employer and employee ability to absorb increases in private insurance premium growth, and increasing use of post-acute and community-based services.^{16,17}

¹³ Martin AB, Hartman M, Washington B, Catlin A. National health expenditures in 2023: Faster growth as insurance coverage and utilization increased. Health Affairs. December 18, 2024. Link (last accessed January 8, 2025): <u>https://doi.org/10.1377/hlthaff.2024.01375</u>

¹⁴ Wright B, Anderson D, Whitaker R, Shrader P, Bettger JP, Wong C, Shafer P. Comparing health care use and costs among new Medicaid enrollees before and during the COVID-19 pandemic. BMC Health Services Research. October 25, 2021. Link (last accessed January 8, 2025): <u>https://doi.org/10.1186/s12913-021-07027-6</u>

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Appendix – Report Methodology

The following methodology was defined by Altarum in their January 2024 report, "<u>Tracking Virginia's 2022 Health Care Spending and Employment Trends</u>," and originally authored by Samuel Obbin, MS; Corwin Rhyan, MPP; and Matt Daly, PhD. The methods described below were leveraged to obtain the 2023 values in this report and were followed when working with the historical data (with the exception of the slightly varied approach to estimate 2023 Medicaid personal health care spending discussed below). This report was funded by the Virginia Hospital and Healthcare Association (VHHA).

Virginia Health Sector Spending

CMS National Health Expenditure Accounts Benchmarking

The state-level analyses in this report use methods that are consistent with and build upon the CMS <u>National Health Expenditure Accounts</u> (NHEA), which are widely used and trusted by health economists and health sector experts. The NHEA contain data at the national level (updated annually) and state level (updated every four or five years), data by payer, data by spending category, and data for specific demographic groupings (e.g., age, sex). Also included in the NHEA are projections of future national health sector expenditures, which are updated annually. Despite their reliability, official NHEA data are released with a significant time lag, particularly at the state level; for example, the most recent data at the time of writing are available only through 2020.

Accordingly, this report directly incorporates and benchmarks to CMS NHEA data whenever available and subsequently builds on those data to generate estimates of quarterly spending for 2023, which were not yet available in the NHEA data. When subsequent releases of NHEA data become available, this approach makes it possible to re-benchmark this report's findings and build estimates for new periods not yet available from CMS. All category definitions, populations, and spending estimates in this report align with the CMS definitions used in the NHEA. Details on the NHEA methodology and how it compares to other health sector spending estimates are available from the <u>NHEA</u>. For Virginia's health spending trends, we benchmark to the state-level NHEA data available from 2008 through 2020 for total spending by health category, spending by payer, and spending per enrollee for each of the three major insurance types (i.e., commercial/private, Medicaid, Medicare). NHEA data on state health spending trends are provided in two variants based on (1) residence and (2) provider location; we use data by residence for this report.

In some cases, annually reported data from CMS need to be portioned into quarterly or monthly estimates to support the estimates of future periods and to ensure consistent reporting over time. In this report, some intra-year trends are estimated using the underlying health spending estimates from U.S. Bureau of Economic Analysis (BEA) <u>National Income and Product</u> <u>Accounts</u> (NIPA) data, which were splined to ensure that national annual totals match the CMS NHEA totals. For state-level analysis, this report follows a similar approach, yet often did not have access to the same historical data in the underlying series to generate intra-year trends. Therefore, this report instead uses a <u>simple cubic spline</u> for intra-year trends of Virginia's total Medicare spending, spending by category, and spending by payer from 2008 through 2020. Averages of quarterly data in the final reporting may differ slightly from the annual data reported by CMS due to the cubic spline methodology.

To estimate future periods of data while also benchmarking to the CMS NHEA state-level data through 2020, we use other data sources to calculate year-over-year growth rates for subsequent periods in categories and series that are comparable to the official NHEA statistics. For example, data from the <u>Virginia APCD</u> and data from <u>state-level gross domestic product</u> (GDP) and <u>NIPA</u> sources are used to calculate year-over-year growth rates, which are then applied directly to the base year (2020) CMS NHEA estimates. This approach is made separately and independently for total state spending, spending by category, spending by payer, and enrollment by payer. This approach ensures that estimates for future periods are consistent with the NHEA data and that there are no discontinuities between the official NHEA data and the more recent periods in this report, which rely instead on BEA and APCD data.

Some estimates of health expenditures that are available at the national level are not available in the CMS state-level data (or differ slightly from the national data). For example, state NHEA data do not include estimates of spending beyond personal health care (PHC) expenditures, nor do they directly contain estimates of total spending or spending per enrollee by less prominent insurance types (e.g., military health systems, Indian Health Service) or for the uninsured. Generally, when CMS spending data are not available, this report does not include estimates of those components. State-level total health spending was estimated by calculating the ratio of national total health spending to national PHC expenditures and then applying that ratio to the state-level estimates of PHC. This statistic then was used to compare total health spending as a percent of national GDP to total health spending as a percent of Virginia's GDP.

The benchmarking approach discussed above also applies to estimates of enrollment by major insurance types in the state, using CMS data through 2020. This report remains as consistent as possible with NHEA population data, including its approach to classifying individuals reported with multiple insurance types. Details on data used to estimate enrollment for 2021–2023 is described below and relies primarily on American Community Survey data from the U.S. Census Bureau.

Population & Health Insurance Enrollment Estimates

Data used to estimate 2023 Virginia enrollment by insurance type incorporate data from the American Community Survey (ACS) and official Medicaid enrollment data. Single-year ACS data on health insurance status were obtained from KFF's State Health Facts ("Health Insurance Coverage of the Total Population"), and 2023 data were used for individuals residing in Virginia using growth rates to estimate changes for those covered by private health insurance and Medicare. Note that while the ACS allows respondents to flag multiple insurance types, this approach does not double-count enrollees since only the growth rate from the ACS is applied to the benchmark CMS enrollment data. Individuals with private insurance include both those that reported receiving insurance directly from their employer and those who purchased insurance directly from an insurance company during the year.

For Medicaid enrollment, this report uses KFF data on enrollment by state ("<u>Total Monthly</u> <u>Medicaid & CHIP Enrollment and Pre-ACA Enrollment</u>"), again applying year-over-year growth rates from this data to the benchmark CMS NHEA Medicaid enrollment counts. This yields a more accurate count of Medicaid enrollment growth, particularly for 2019–2023 when enrollment expanded greatly after Virginia passed Medicaid expansion in 2018.

Personal Health Care (PHC) Spending Estimates

Private Health Insurance

Total health spending and spending per enrollee for those with private health insurance in this report benchmark to CMS NHEA estimates of spending by private health insurers. The primary data source used to build on the CMS NHEA data, which currently ends with 2020, is data on private health insurance spending captured in the medical claims contained within the <u>Virginia</u> <u>All-Payer Claims Database</u>. Importantly, this report uses this data only in combination with the enrollment data described above to estimate spending trends in private health insurance. This is done by estimating trends in the APCD for health spending per private insurance enrollee over time and then multiplying this data on spending per enrollee by the enrollment data from the ACS to estimate total year-over-year growth trends for Virginia's private health insurance spending. Spending per enrollee is calculated using APCD data on a monthly basis based on the sum of health expenditures in the four major claim types (i.e., inpatient, outpatient, prescription drugs, professional) and then dividing the result by the number of enrollees in that month's APCD enrollment data.

This approach incorporates the APCD data into this report's health spending estimates rather than simply using total spending from private insurers directly from the APCD (since the APCD does not capture information for all individuals with private insurance in Virginia). For example, individuals covered by a self-insured employer are potentially missing from this data since those entities are not required to submit their claims to the APCD. The absence of self-funded data is particularly noticeable for periods following March 2016, when the U.S. Supreme Court ruled that such reporting is optional in its *Gobeille v. Liberty Mutual Insurance Co.* decision. Moreover, the number of submitters and enrollees covered by the APCD can vary over time. Therefore, the approach of using monthly computations of total spending and enrollment helps to compensate for changes in enrollment over the year and for the potential loss of submitters over time in a way that does not bias this report's estimates of total spending.

Following the steps described above, the monthly data on per enrollee spending were combined via averaging into quarterly data and annual data and applied to the enrollment counts discussed in the prior section to estimate total spending. Some monthly data series derived from the APCD (e.g., commercial prescription drug spending in later periods) required smoothing to estimate year-over-year spending growth trends; where necessary, this was done using an 18-month trailing average.

Medicaid

An identical approach to the one used for PHC spending in the private insurance data was applied to estimate spending by Medicaid in Virginia for the periods building on the 2020 CMS benchmark data. Although the concerns about total spending computed using APCD data for Medicaid are less significant (since, unlike those with private insurance, nearly all Medicaid enrollees are expected to be covered by APCD submitters), the same approach is used to ensure consistency between the Medicaid and private health insurance reporting.

As noted above, Onpoint Health Data followed the methodology defined in Altarum's January 2024 <u>health care spending report</u> to obtain the 2023 data points in this report. Onpoint also was given a limited data set derived from the Virginia APCD, which excluded any details (e.g., first name, last name, Social Security number, plan ID) that could be used to identify specific members in the APCD for enrollment and claims in 2021–2023. When calculating 2023 Medicaid PHC estimates for professional, inpatient, and outpatient spending in the APCD,

Onpoint observed 20%–50% higher monthly spending, by category, when compared to the overlapping years in Altarum's report for 2021 and 2022. This variance was due to plan-level exclusions that Altarum applied to the medical data due to outlier spending within specific Medicaid plans that had very few enrollees but very high spending (i.e., several months with no spending followed by months with large payments likely due to bulk Medicaid payments). Due to the unavailability of plan IDs in the APCD data provided to Onpoint, this same exclusion methodology could not be followed for the 2023 refresh. To reduce distortion caused by outliers, Onpoint therefore excluded individuals who contributed to the top 1% of Medicaid spending when determining 2023 per member per month (PMPM) rates to approximate Altarum's exclusion of members enrolled in bulk payment Medicaid plans and ensure consistency in reporting.

For Medicaid, an additional step was taken to include available data from CMS on spending trends ("Budget State & Expenditure Reporting for Medicaid and CHIP") collected via CMS-64 forms, which are used by states to report their quarterly Medicaid program benefit costs and administrative expenses to CMS. This data, which measures trends in total spending by the Virginia Medicaid program, also is likely to be strongly predictive of the official CMS-reported health sector spending as a supplement to the data reported to the APCD.

To estimate total Medicaid PHC spending and spending per enrollee, we blend two separate estimates of Virginia Medicaid spending over time – one generated from the APCD approach described above and one directly from estimates in spending growth by the Medicaid program using the CMS-64 data. These data are blended by computing annual growth rates and then using a simple average of the two approaches to estimate Virginia health spending from the NHEA 2020 benchmark year.

Medicare

This report's approach to estimating total PHC expenditures for Medicare differs from the above approaches since comprehensive Medicare claims were not available in the APCD for all necessary time periods at the time of analysis. Medicare estimates, therefore, are based on "Gross Domestic Product by State" data from the U.S. Bureau of Economic Analysis (BEA), which details the size of government transfer payments to state residents for Medicare benefits.

Spending by Personal Health Care Category

Independent of the spending estimates by payer, this report also estimates spending by the major NHEA health expenditure categories for Virginia, including physician and professional services, hospital services, nursing home and residential care services, and prescription drugs. Results by category are generated using the underlying year-over-year growth trends in the data for each payer attributable to each NHEA category and mixed using averages that are weighted by the volume of enrollment in each insurance type. The categories in the underlying data are attributed in varying ways depending on the category and data source. For example, data from the Virginia APCD for private insurance and Medicaid are attributed based on claim type - inpatient claims are attributed to hospital spending, professional claims to physician and clinical spending, and prescription drug claims to prescription drug spending - and data from the Medicaid CMS-64 forms are attributed based on the listed category of spending. The overall Virginia growth rate from these combined data for each category is then applied to the base year (2020) CMS NHEA spending by category to calculate the 2021, 2022, and 2023 spending estimates.



Also incorporated into the health spending category estimates are <u>state-level personal</u> <u>consumption expenditures</u> (PCE) data from the BEA's Regional Economic Accounts for the following settings: Hospitals, nursing and residential, and ambulatory services. A simple average is used to combine the year-over-year growth rate estimate derived from the state-level BEA data and the data directly from the APCD, Medicaid, and Medicare sources. The blended growth rate is then applied to the CMS NHEA data. Details on the differences between the spending category estimates derived from the blended payer data and the growth estimates reported directly from the BEA personal consumption expenditures data are available upon request.

Additionally, to generate estimates of total Virginia PHC expenditures for 2023, data on spending growth for those not covered by the three major insurance types was required. An estimate of this aggregate PHC spending was computed directly from the BEA's Virginia personal consumption expenditures data for health care services and then blended with the data described above for the three major payer types. This "other" category is used to estimate spending both from other sources and on categories not described above.

Virginia Health Sector Employment

Data on health care employment is taken directly from the U.S. Bureau of Labor Statistics (BLS) <u>Current Employment Statistics</u> (CES) data for Virginia. CES data are available directly for all categories used in this report. For this report, monthly data was averaged to generate quarterly and annual data. While state-level data are available only in the "Not Seasonally Adjusted" data series, this has minimal impact on this report's findings since seasonal trends in health care employment typically are very slight.

This year's report includes additional analyses of health employment and wage trends by occupation from the BLS <u>Occupational Employment and Wage Statistics program</u> and findings from the U.S. Census <u>Current Population Survey</u>.

Virginia Private Health Insurance Cost Trends

Data on private employer health insurance premiums are calculated based on the Agency for Health Research and Quality (AHRQ) <u>Medical Expenditure Panel Survey – Insurance</u> <u>Component</u> (MEPS-IC) and KFF <u>Employer Health Benefits</u> annual survey data for 2023. MEPS-IC data track and allow for the comparison of private health insurance premiums and plan characteristics (e.g., deductibles) for individuals with coverage from a private-sector employer across the United States and for specific states. In 2022, data from the MEPS-IC Virginia survey respondents showed abnormally disparate survey response values and data that did not align with national and regional trends. As a result, for 2022 individual and family premiums, data from the KFF Employer Health Benefits annual survey were supplemented with MEPS-IC to estimate 2022 premiums. Data on the "South" region for all insurance plan types (e.g., HMO, PPO, POS) in the KFF report's Figure 1.4 ("Average Monthly and Annual Premiums for Covered Workers, by Plan Type and Region, 2022") were applied to 2021 data to estimate Virginia's 2022 premiums.



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