Altarum

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Tracking Virginia's 2022 Health Care Spending and Employment Trends

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Report Highlights

Virginia Health Sector Spending

- Total annual personal health care (PHC) spending in Virginia increased from a revised estimate of $78.6 billion in 2021 to $83.5 billion in 2022 (an increase of 6.3%). This is a continuation of the growth in 2021 after the decline in 2020.
- Total health spending as a percent of the state Gross Domestic Product for Virginia fell to an estimated 14.9% in 2022, the smallest share since 2011. The percentage of the economy going to health care in Virginia is well below the national average of 17.1%.
- PHC spending increased in Virginia by an average year-over-year rate of 6.3% in 2022, slightly below last year's growth rate of 7.6%. Average national PHC spending increased by 6.0% in 2022, slower than Virginia's rate.
- If Virginia had spent the same portion of its GDP on health care as the U.S. average (17.1%), spending would have been $14.9 billion dollars more in 2022.
- Health spending per capita in Virginia in 2022 was about $1,800 lower than the national average, with all major spending categories lower than their national comparators. This $1,800 per capita health care spending gap between Virginia and the U.S. has increased from 2021, when it was $1,600 per person.
- Virginians in 2022, on average, spent $570 less per capita on hospital services, $260 less per capita on professional services, $340 less on prescription drugs, $130 less on nursing home and home health care, and $510 less on other types of care.
- The largest payer for PHC products and services in Virginia is private health insurance, spending an estimated $27.3 billion on personal health care in 2022, followed by Medicare at $18.5 billion, and Medicaid $15.3 billion, although Medicaid has been the fastest-growing payer in spending and enrollment since 2015.

Virginia Private Health Insurance Trends

- For individuals with health insurance coverage through a private-sector employer, the average single premium in 2022 was $7,400 and the average family premium was $21,400.
- Including average deductibles, the sum of average premiums and deductibles was $9,400 for single coverage and $25,200 for family coverage. Virginia's average single premium plus deductible was nearly the same as the national average ($9,600), while the average family premium plus deductible was slightly lower than the national average ($25,700).
- These annual single and family premiums have increased 24.2% and 21.8%, respectively, between 2015 and 2022, while combined premium and deductible totals have increased even faster (31.2% for single coverage and 26.2% for family coverage).
- Since 2008, per-enrollee private insurance personal health care spending has increased by 51.6%, while single annual premiums have increased by 76.6%, and family premiums have increased 79.3%. Growth in the combination of premiums and deductibles has been even faster over this period, rising 89.1%.

Virginia Health Sector Government Assistance

- Federal government financial assistance for the health care sector in Virginia declined substantially in 2022. After receiving $800 million in assistance in 2021, this support fell to $235 million in 2022.
- The Provider Relief Funds Virginia received decreased by 19.8% in 2022 from a year prior, while the Paycheck Protection Program ended nationwide. The combined pandemic-related federal government assistance received decreased significantly (68%) in 2022.

Virginia Health Sector Employment

- In the fourth quarter (Q4) of 2022, 389,000 individuals were employed by the health care sector in Virginia, about 11.5% of the total private sector employed population. This is up 5.2% from Q4 2021 and is now above the pre-pandemic peak of 381,000 workers.
- Employment rose across the major health care sectors; ambulatory settings gained an estimated 10,000 workers between 2021 and 2022, hospitals gained 5,000 workers, and nursing homes and residential settings gained 4,000 workers.
- As of Q4 2022, total health sector employment in Virginia was 4.7% above the beginning of 2019, with hospital employment up 3.0% and ambulatory employment up 10.4%. Nursing and residential employment remained below 2019 levels, down 6.6%.
- A tight labor market for health care workers continued in 2022 in Virginia, driving up the costs for providers. Average annual wages for healthcare practitioners (e.g., physicians, nurses, and technicians) were up 2.8% year over year in 2022, while annual wages for health care support roles (aides and assistants) were up 6.6%. Since 2019, these annual wages were up 12.1% and 11.0%, respectively.
- The overall unemployment rate for health care jobs remained very low in Virginia in 2022, at 2.7% across health care industry roles and 2.1% among health care occupations.

Data Source Updates and Revisions

This document follows and updates previous reports that have been published (2019, 2020, 2021). Those works provided a comprehensive look at health sector trends for the Commonwealth of Virginia, including measures of health care spending, employment, and insurance costs from 2015 to 2021, using data from the Center for Medicare & Medicaid Services (CMS) National and State Health Expenditure Accounts (NHEA), data from the Commonwealth's All-Payer Claims Database (APCD), and a variety of other government sources.

Similar to last year, this report incorporates data on NHEA personal health care spending by state of residence that was released in the fall of 2022 by CMS. Those state-specific data include estimates of health spending, by category and by payer, from 1991 through 2020. We continue to benchmark all state data sources to the CMS state health spending levels for all years through 2020 and apply other state data sources to estimate growth in spending between the final benchmark year (2020) and 2022. National health spending data from CMS are available through 2022 and are included as comparisons to Virginia's trends in this report.

These reports differentiate between spending trends in PHC categories, non-PHC categories, and total health care spending in Virginia. PHC spending is the subset of health care expenditures that includes the direct use of health care goods and services, including hospital care, physician and clinical services, nursing home and home health care, prescription drugs, and durable medical equipment. Non-PHC health expenditures are components of health spending not directly tied to health care utilization, such as the administration costs of Medicare and Medicaid, the net cost of private health insurance, research and development, public health expenditures, and other expenses on infrastructure and equipment.

While prior reports have primarily assessed trends in total health spending, the varying impacts of the COVID-19 pandemic have caused some of the underlying PHC and non-PHC spending trends to diverge, such that greater clarity in this report is required. As such some data and charts previously reporting "total health spending," may now report PHC spending or vice versa.

We continue our methodology from last year's report by using the Bureau of Economic Analysis (BEA) personal consumption expenditure (PCE) data by health sector components, allowing us to update BEA estimates of the Virginia health sector that previously relied only on personal income, a subset of PCE. Due to updates to 2021 BEA data and other sources, total Virginia PHC spending for 2021 was revised downward slightly from $78.5 billion to $77.2 billion.

Similar to last year, the CMS Geographic Variation File for 2022 was not available at the time of analysis. Instead, this year we again used BEA data on state gross domestic product (GDP) government transfer components, which detail the value of Medicare benefits provided to Virginia residents as the approach to estimate the most recent year of Medicare spending trends.

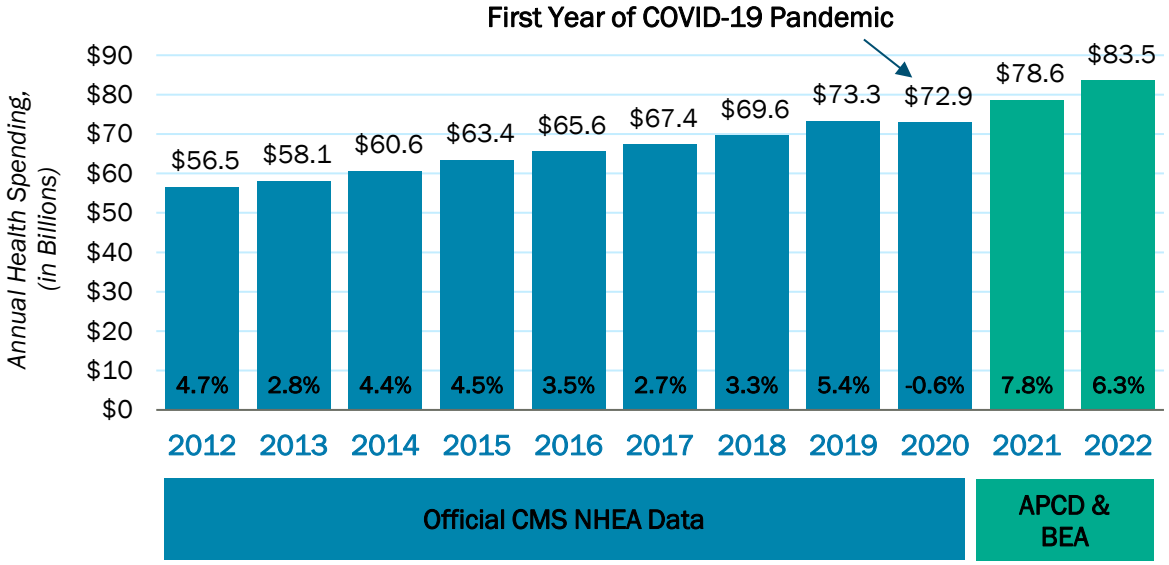
It is essential to note the 2020–2022 estimates of PHC spending in Virginia takes the estimates of total CMS state health expenditure data and subtracts one-time federal government financial assistance to providers—Paycheck Protection Program (PPP) and Provider Relief Funds (PRF)—to estimate the true health spending used on the receipt of care in all years. We then separately assessed trends in government assistance between 2020 and 2022 in a subsequent section. In recent releases of the official NHEA for the U.S. for 2020 and 2022, CMS includes these payments in their health spending estimates; therefore, to be consistent with our analyses of Virginia health spending trends, we omitted the PPP and PRF data from the national health spending findings in all comparisons.

Additional key data sources used in this report include the Virginia APCD, from which we used data on Medicaid and commercial health insurance claims; CMS Form-64 data on state Medicaid expenditures; Altarum's Health Sector Economic Indicators (HSEI) data; Agency for Health Research and Quality's (AHRQ) Medical Expenditure Panel Survey—Insurance/Employer Component (MEPS-IC) data; and BEA state-level PCE for the health sector. We used these data, blended and combined with data on health insurance enrollment statistics from the American Community Survey and official CMS Medicare and Medicaid enrollment files, to estimate by component and payer Virginia health spending trends through 2022.

We have designed all estimates to benchmark the existing CMS state-level health spending data, while extending those data through the most recent period available. We standardize most data in this report to be quarterly, using cubic splines to interpolate data when annual sources are used and averages to roll up monthly-level data. More detail on the specific data used in our analyses and the methodologies used to process and standardize the data are detailed in the methods appendix.

Overall Virginia Health Sector Spending

Figure 1: Virginia Annual Personal Health Care Spending (in Billions) and Growth Rate from Prior Year (Percent)



Virginia PHC spending in 2022 was $83.5 billion,[1] increasing 6.3% ($4.9 billion) from the prior year's spending level of $78.6 billion (**Figure 1**). This 6.3% increase in PHC spending was the second fastest increase since 2012, but slightly below last year's revised growth rate of 7.8%.[2] Growth in PHC spending since 2020 has been above the average seen in Virginia since 2012 (4.1%), primarily because the COVID-19 pandemic resulted in significant reductions in utilization for many types of health care services and led to a negative growth rate in PHC spending (-0.6% year-over-year) from 2019 to 2020.

Adding in the non-PHC spending categories, total health care spending in Virginia in 2022 was an estimated $98.8 billion, a 5.4% increase over the 2021 total spending estimate of $93.8 billion. PHC spending in 2022 continued the rebound observed in 2021. Spending on non-PHC spending categories (e.g., public insurance administration costs, net cost of private insurance, public health care spending, and research and development) increased by 0.4% year over year in 2022, slowing somewhat from last year's change (1.5%) and following the 2019 to 2020 rapid increase of 11.0% that was the largest since at least 2008.

Figure 2 shows the quarterly trend in Virginia's PHC spending relative to national growth in the last twelve quarters, showing that after an initial slump in cumulative health spending growth in the Commonwealth and nationwide (-12.1% versus -10.6%) in Q2 2020 (the peak of initial COVID-19

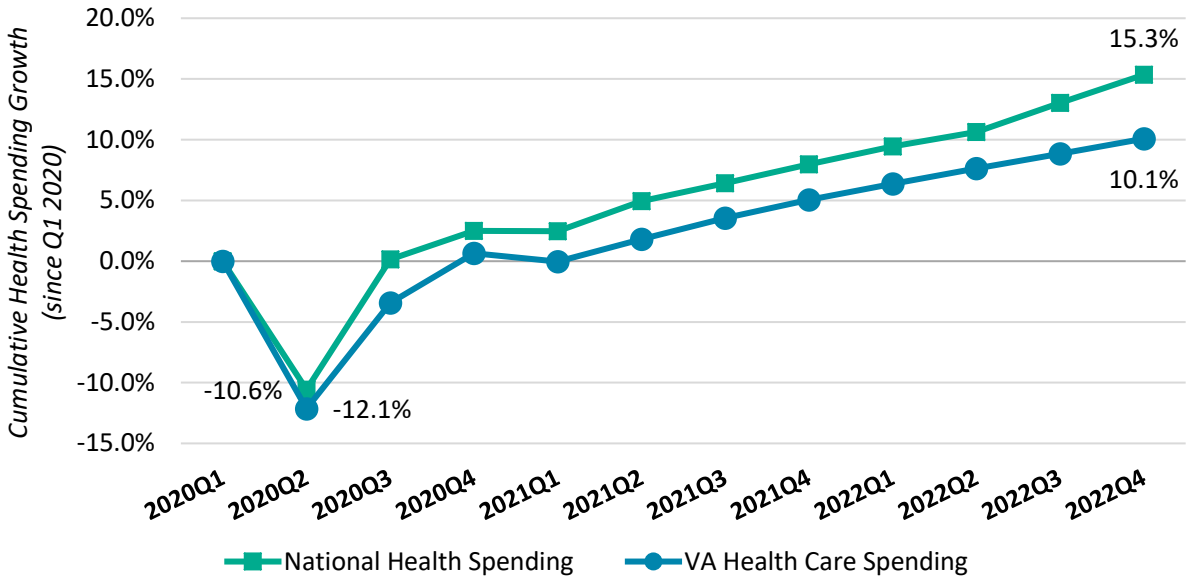
[1] In this report we show personal health care (PHC) spending as the amount spent on the traditional CMS-defined PHC categories, while excluding supplemental federal government support for health providers, such as Paycheck Protection Program (PPP) forgivable loans or Provider Relief Fund (PRF) provider payments. 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. We differentiate between the underlying growth trends in PHC vs. non-PHC categories. More details on PHC vs. non-PHC definitions are here.

[2] Unless otherwise noted, health spending and growth rates in this report are shown as nominal, annualized values to be consistent with the way CMS reports spending in its NHEA. This means these spending data are not adjusted for inflation, and this report instead uses measures such as spending as a percent of GDP or per-capita spending values when assessing changes over time.

infections and a period of significant economic lockdowns), there has been a gradual recovery of health spending through Q4 2022. By Q4 2022, total national health care spending was 15.3% higher than it was in Q1 2020; yet, for Virginia, health care spending was only 10.1% greater over the same period. The gap in this health spending recovery could be due to differences in how the pandemic lockdowns and health care utilization reductions impacted Virginia or the willingness of residents to go back to seeking care as the pandemic continued into 2021 and 2022.

Nationally, much of the growth in health spending in 2021 and 2022 has been attributable mostly to increases in utilization rather than price increases; however, state-specific, sector-wide health care price and utilization trends are not readily available to assess differences Virginia's underlying utilization vs. price factors on total spending.

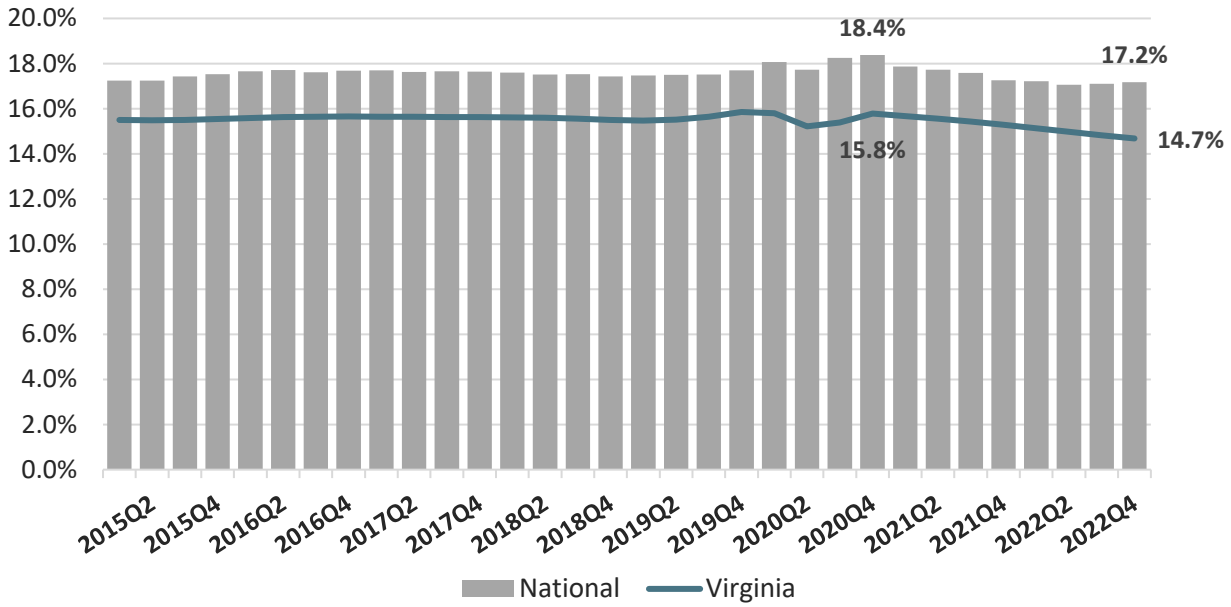
Figure 2: Virginia and National Quarterly Health Care Cumulative Spending Growth (since Q1 2020)



As a percent of Gross Domestic Product (GDP), Virginia's total health spending (including both PHC and non-PHC) mainly stayed constant between 2015 and 2020 but has been declining in 2021 and 2022. Both total health care spending and state GDP fell slightly in 2020, before each rebounded significantly in 2021 through to 2022. Due in part to faster inflation in economywide products relative to price increases for health care products and services, GDP increased faster than overall health spending in the Commonwealth in 2021 and 2022. Between 2020 and 2022, nominal state GDP increased at an annualized average rate of 5.9%, whereas health spending increased at an annualized rate of only 4.4%. As a result, the percentage of state GDP spent on health care fell from an estimated 15.8% in 2020 Q4 to 14.7% in 2022 Q4 (**Figure 3**). The 14.7% of GDP spent on health care in Virginia is the lowest since 2011 and well below the national average.

Figure 3 shows quarterly data on how Virginia's total health care spending as a percent of the economy has been consistently less than the national average since 2015. National health spending as a percent of GDP peaked in Q4 2020, at 18.4%, while Virginia health spending as a percent of GDP peaked at 15.9% in Q4 2019 and then at 15.8% in Q4 2020. Since that local maximum in 2020, Virginia's health care spending as a percent of GDP has been falling steadily to 14.7% in Q4 of 2022. While this 2022 trend is notable and represents significant reductions in the relative size of the Virginia health sector over this period, given a rebound in nationwide health spending as a percent of GDP throughout 2023, we expect there to be a rebound in health spending as a share of Virginia's economy in next year's data.

Figure 3: Virginia and National Health Spending as a Percent of GDP (2015–2022)

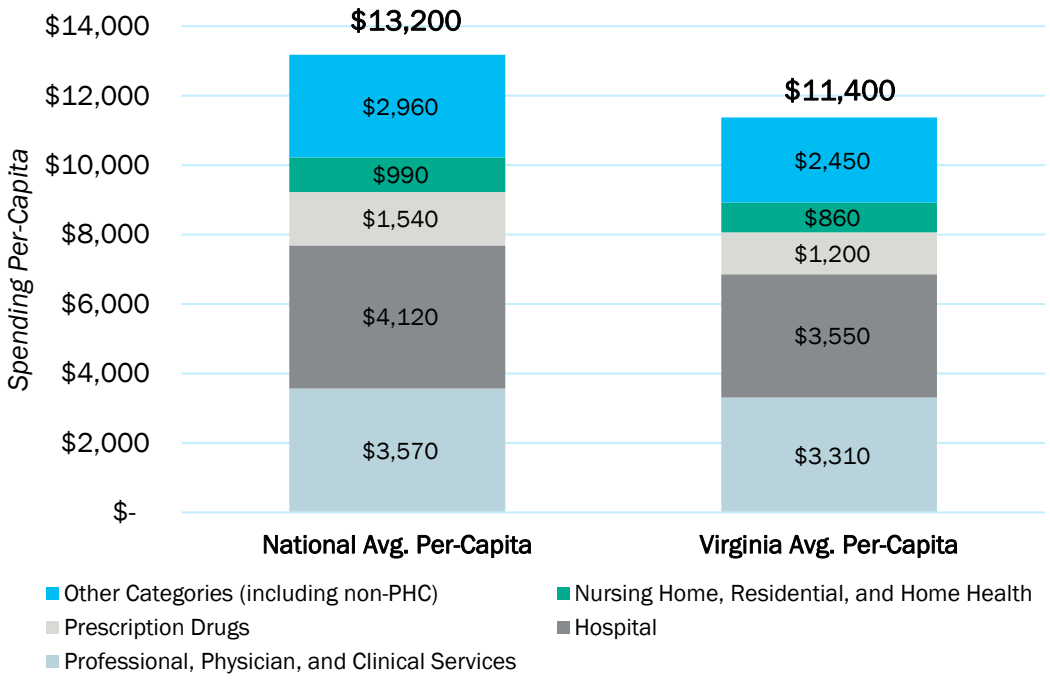


In 2022, if Virginia had spent the same proportion of its state GDP as the national average on health care, health care spending would have been $14.9 billion dollars more ($113.7 billion versus the actual $98.8 billion). The gap in the percentage of GDP relative to the national average going to health care declined slightly in 2022, resulting in small reduction in the difference compared to last year's reported difference of $15.8 billion between actual spending and the hypothetical total spending based on the national GDP share (data not shown).

As a result of the recovery in total health care spending following the pandemic, health spending on goods and services increased on a per capita basis in Virginia between 2021 and 2022, from $10,800 per person in 2021 to $11,400 in 2022. Despite this increase, Virginia's per capita health spending remains below the national average, which increased from $12,400 in 2021 to $13,200 per capita in 2022.[3] As a result, Virginia's estimated health spending per capita in 2022 was over $1,800 less than the national average (**Figure 4**). Among the major health spending components, residents on average in Virginia spent less per capita in 2022 than the national average on professional, physician, and clinical services ($260 less per capita); hospital care ($570 less per capita); nursing home, residential, and home health ($130 less per capita); prescription drugs ($340 less per capita) and other care ($510 less per capita) (*differences may not match chart values exactly due to rounding*).

[3] Note that both national and Virginia total and per-capita spending estimates for 2021 are revised slightly from last year's report due to incorporating data revisions from some spending input sources.

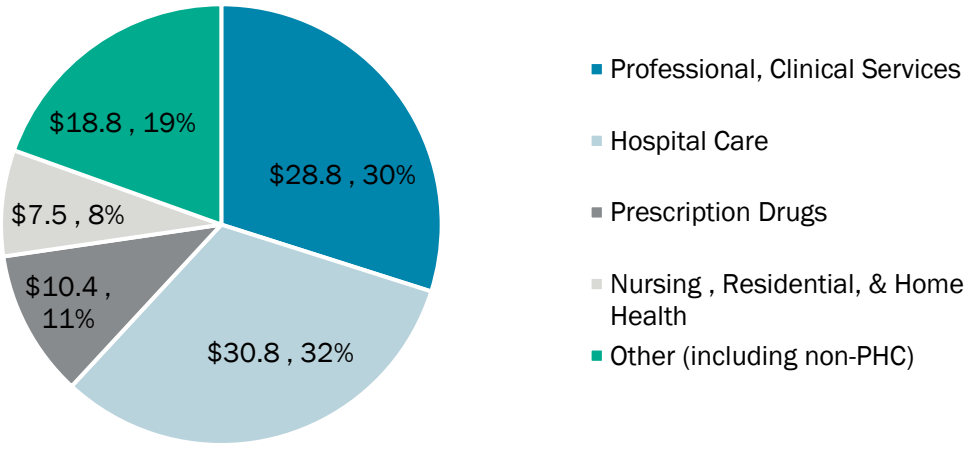
Figure 4: Average Total Health Spending Per Capita, by Category, 2022



This means, relative to the national average spending per capita, Virginia residents spend 7.3% less on professional and physician care, 13.8% less on hospital care, 13.1% less on nursing home, residential and home health care, and 22.1% less on prescription drugs (*values may not match chart exactly due to rounding*). These differences do not account for differences in the population (age, demographics, economic factors, or health status); however, a recent analysis in Health Affairs Forefront that did adjust for these factors found Virginia to be 4th lowest spending state in the country in "standardized health spending."

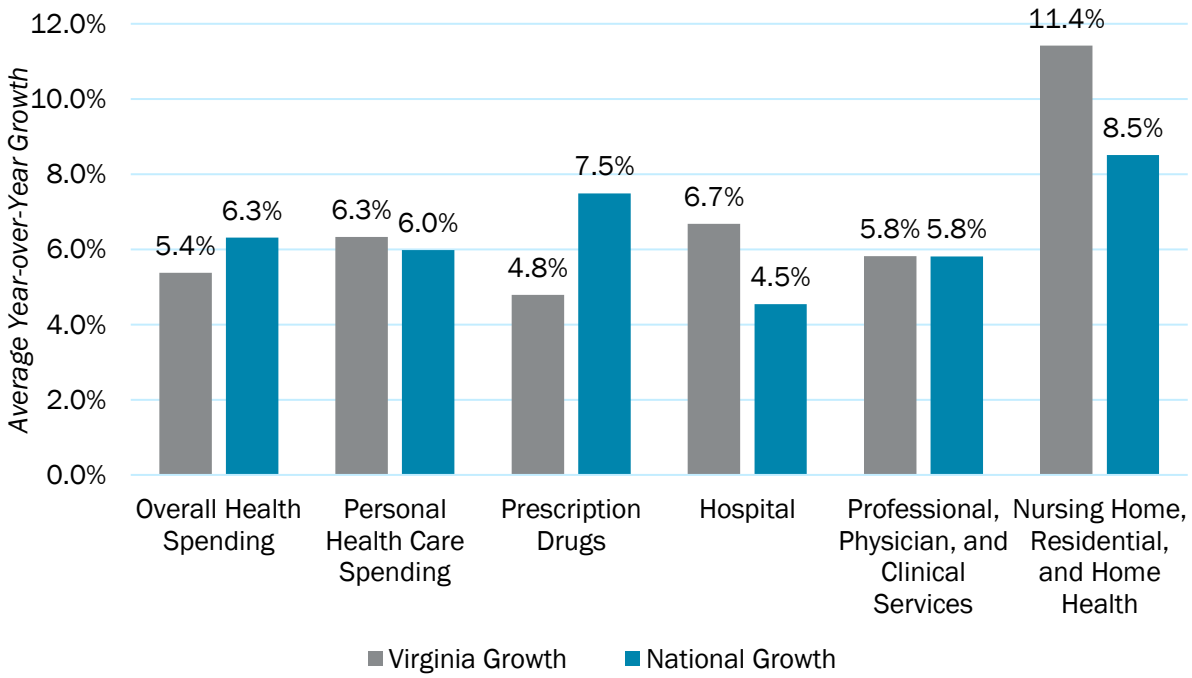
As a percentage of total health spending in Virginia, hospital spending was the largest major category of spending in 2022, accounting for $30.8 billion (32%) of spending (**Figure 5**). Professional, physician, and clinical services were the next largest category at $28.8 billion (30%), followed by other care and non-PHC categories at $18.8 billion (19%). The smallest two categories for the year were prescription drug spending and nursing home, residential, and home health spending, which accounted for $10.4 billion (11%) and $7.5 billion (7%), respectively in 2022. These proportions of total spending are broadly similar to the national averages. Hospital spending accounts for 31% of total health, professional and physician services is 27%, nursing home and home health care comprises 8%, and prescription drug spending is 12% of 2022 health spending.

Figure 5: Virginia Health Care Spending by Category (in Billions), 2022



Virginia's fastest-growing health spending category is nursing home, residential, and home health care with a growth rate of 11.4% year-over-year (**Figure 6**). The next fastest-growing categories of spending are hospital care (6.7%); professional, physician, and clinical services (5.8%) and prescription drug spending (4.8%). Of note, spending growth on prescription drugs has been slower in Virginia than the national average over this period while spending growth in the other categories have either been at par or higher the national average.

Figure 6: Average Spending Growth Rates (2021–2022), by Major Personal Health Care Category

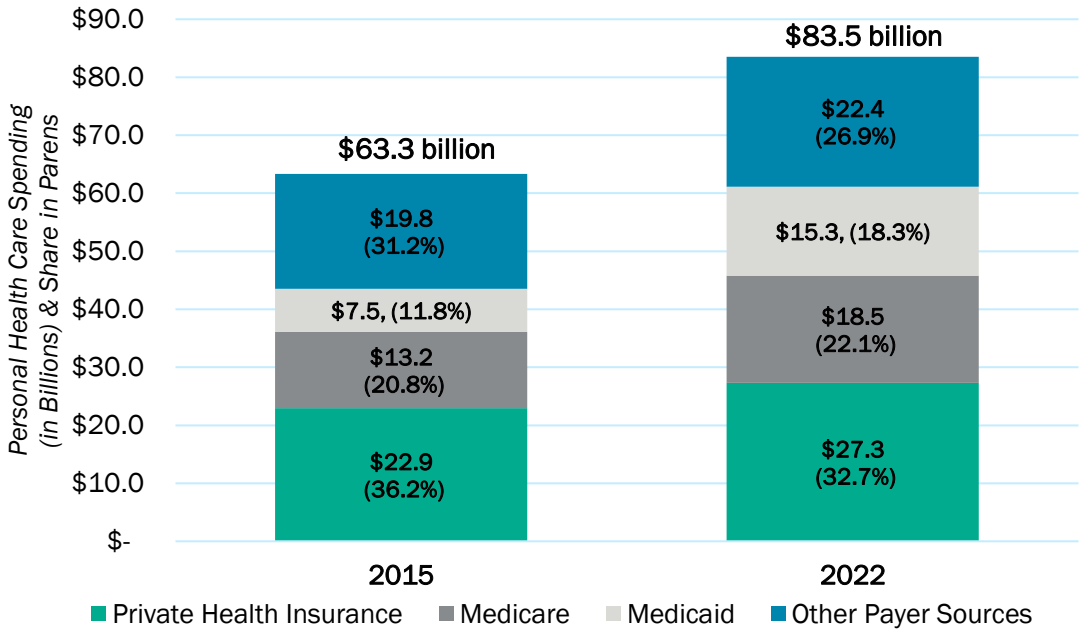


Virginia Health Sector Payers

The largest payer (by dollars spent) for health care products and services in Virginia in 2022 was private health insurance, spending an estimated $27.3 billion in PHC spending,[4] followed by Medicare ($18.5 billion), and Medicaid ($15.3 billion) (**Figure 7**). As a share of total PHC spending, the proportion of health care dollars covered under private insurance fell from 36.2% in 2015 to an estimated 32.7% in 2022. Conversely, the percentage of PHC paid by Medicare increased from 20.8% to 22.1% in 2022, and spending covered through Medicaid increased from 11.8% in 2015 to 18.3% in 2022, an increase from $7.8 billion in total spending to over $15 billion.

Compared to 2021, private health insurance spending increased by 2.6% year over year, Medicare spending increased by 4.4%, and Medicaid spending grew by 12.4%. Some 2021 spending estimates by payer were updated in this new data series, with a notable reduction in the estimate of private insurance spending from $28.0 billion last year to $26.6 billion in the new data due to updated BEA data and smoothing new private insurance spending estimates through 2022. Spending from other payer sources reached $22.4 billion in Virginia or 26.9% of all health spending. Included in this "other" category is out-of-pocket spending, other third-party payer spending, Department of Defense and Department of Veterans Affairs spending, school health spending, and worker's compensation. Nationally, the largest subcomponent of the "other" category is out-of-pocket spending.

Figure 7: Virginia Personal Health Care Spending Levels by Major Payer, 2015 & 2022



[4] CMS NHE state spending by payer estimates only include 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" PHC data in this section.

The enrollment in each of these major payer types follows the spending trends, with the largest number enrolled in private health insurance (5.8 million), Medicaid (2.0 million), and Medicare (1.6 million).[5] An estimated 875,000 individuals were uninsured in Virginia in 2022.

Since 2020, Medicaid enrollment has exceeded enrollment in Medicare in Virginia, although the gap in enrollment between the two public programs is expected to close in 2023 as the public health emergency ends, likely resulting in fewer Medicaid enrollees. Growth in personal health care spending and enrollment for public payers has been inversely proportional to their starting size as Medicaid enrollment and spending growth has been the fastest of the three payers since 2015—enrollment growth averaging 8.5% year over year since 2015 and spending growth averaging 9.3% (**Figure 8**). Medicare is the second fastest-growing payer, with enrollment growth averaging 2.2% and spending 4.4% through 2022. Lastly, private insurance enrollment is growing very slowly, with only 0.7% year-over-year average growth since 2015 and a 2.8% average increase in spending growth.

The dramatic rise in Medicaid spending growth between 2015 and 2022 is primarily due to the growth in enrollment and Medicaid expansion for the Commonwealth. As of Q4 2022, there were an estimated 2.0 million people covered by Medicaid, up from 1.4 million just three years before. The rate of this growth remained high in 2022, increasing 10.0% from the year before, and continuing the fast growth period of initial Medicaid expansion. Medicaid remains by far the fastest-growing payer population in the Commonwealth.

Figure 8: Virginia Personal Health Care Spending and Enrollment Growth by Major Payer, 2015–2022

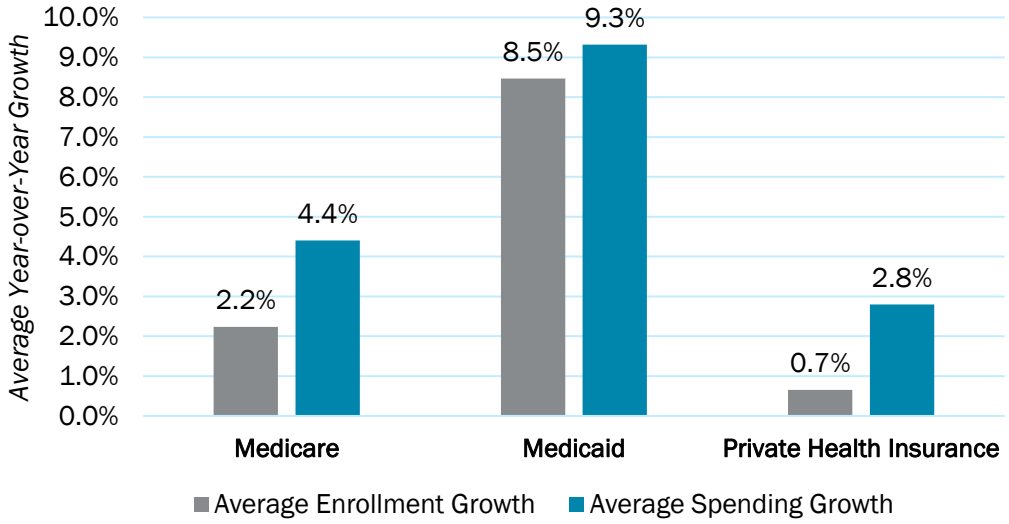
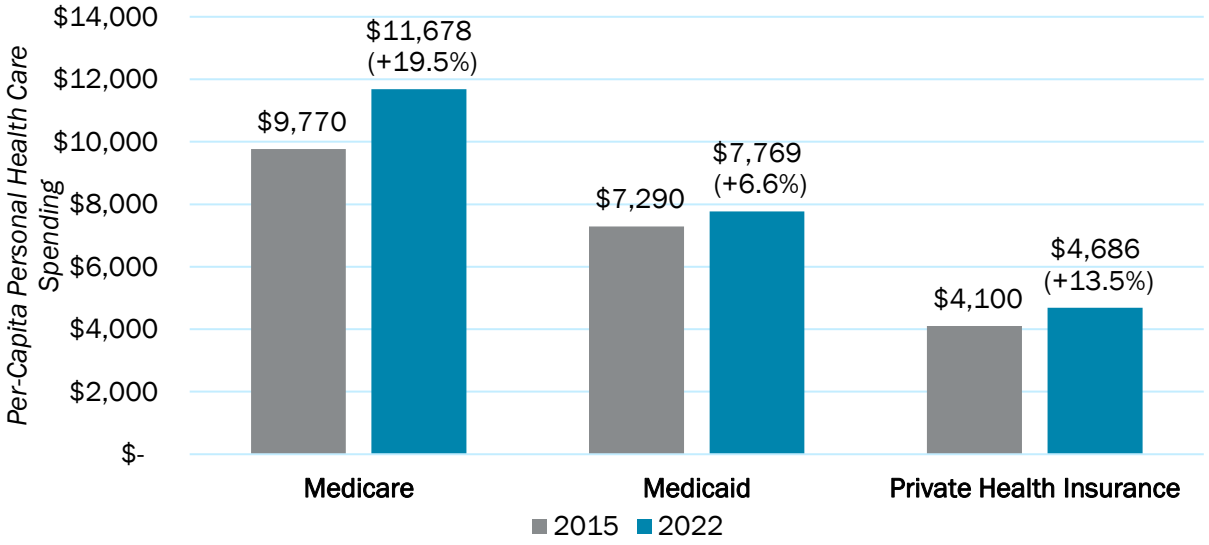


Figure 9 shows spending per capita changes by payer between 2015 and 2022 for Virginia, where per capita Medicare spending has grown the most (19.5%), then private health insurance health spending per capita (13.5%), and lastly Medicaid per capita spending growth (6.6%).

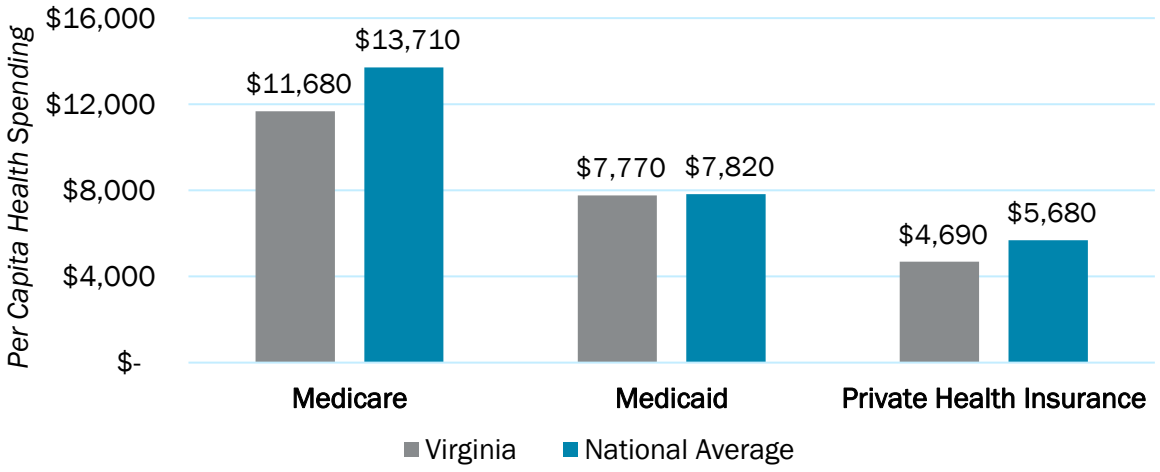
[5] The sum of these insurance counts will exceed the total number of Virginia residents, due to the fact individuals can report multiple types of insurance within a single year. In this report, we benchmark to CMS NHEA enrollment estimates through 2020 and then use KFF data to estimate the total private insurance through 2022 and direct enrollment data from CMS to estimate Medicare and Medicaid enrollment.

Figure 9: Virginia Per Capita Personal Health Care Spending by Major Payers, 2015 & 2022



For 2022, this equates to $11,700 of PHC spending per Medicare enrollee, $7,800 per Medicaid enrollee, and $4,700 per private health insurance enrollee (note this spending is estimated only for the personal health care spending component of total health expenditures and does not include out-of-pocket costs, as this is the CMS NHEA state data standard). When compared to the national average in 2021, annual personal health care spending per enrollee in Virginia is below average for private insurance enrollees ($4,700 vs. $5,700) and Medicare enrollees ($11,700 vs. $13,700) and is also slightly lower for Medicaid enrollees ($7,770 vs. $7,800) (**Figure 10**).

Figure 10: 2022 Virginia and National Per Capita Personal Health Care Spending, by Major Payers

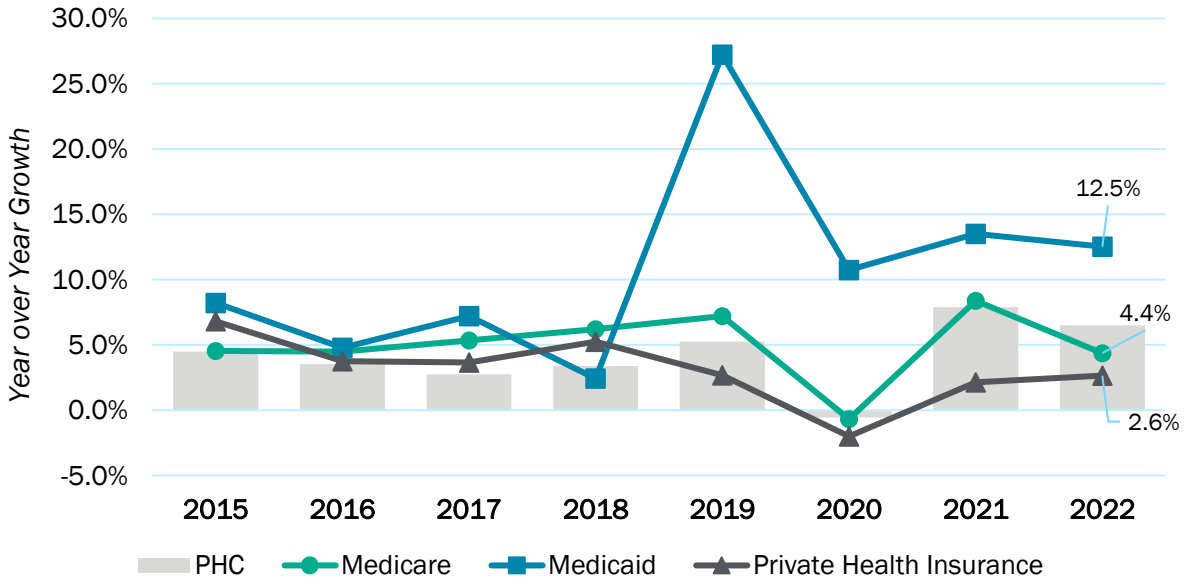


Between 2015 and 2019, growth in total health spending in Virginia remained relatively constant at about 4.0% (**Figure 11**). Nationally, total health spending also grew at a relatively constant rate of about 5.0% between the same period. In 2020, when the COVID-19 pandemic emerged, total health spending (including PHC and non-PHC components) grew by only 1.2% and 1.5% in Virginia and nationally respectively. Health spending growth rebounded to 6.7% in 2021 and 5.4% in 2022, above the pre-pandemic average in Virginia.

Since 2015, Medicaid spending has been the biggest contributor to the growth in health spending in Virginia, growing at an average rate of 10.8% (10.0% and 12.3% on average before and after the pandemic began respectively). The pre-pandemic growth average for Medicaid spending is strongly impacted by the 2019 outlier, due to the first year of Medicaid expansion in the state. The second biggest contributor has been Medicare spending with an average growth rate of 5.0% (5.6% and 4.0% on average before and after the pandemic began respectively); the least contributor has been private health insurance, growing on average by 3.1% since 2015 (4.4% before the emergence of the pandemic and 0.9% after the pandemic).

Nationally, while Medicare spending contributed the most to growth in national health spending before the pandemic emerged, with an average growth of 5.1%, Medicaid spending contributed the least to national health spending with an average growth rate of 4.4%. However, since the pandemic began, Medicaid has been the biggest contributor to growth in national health spending, growing at an average rate of 8.8%; private health insurance spending has contributed the least since the pandemic emerged with an average growth rate of 4.6%.

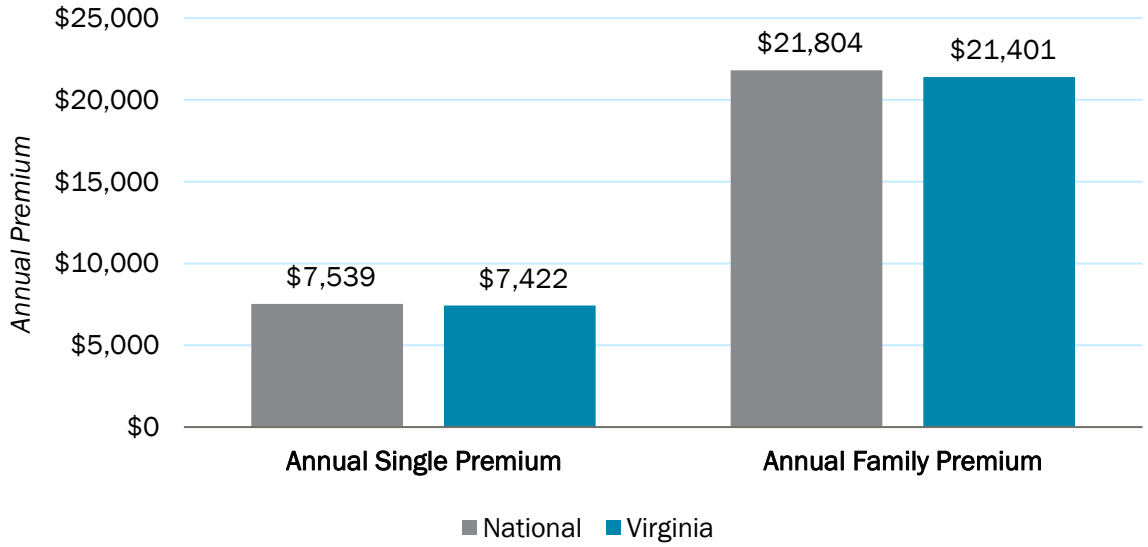
Figure 11: Virginia Personal Health Care Spending Growth by Major Payers, 2022



Virginia Private Health Insurance Cost Trends

For individuals with single coverage from a private-sector employer, annual average premiums were $7,420, about $100 less than the national average of $7,540. For those with family plans, annual premiums from a private-sector employer were $21,400 compared to $21,800 nationally, a slightly larger difference (**Figure 12**).

Figure 12: Virginia and National Private Insurance Single and Family Premiums, 2022

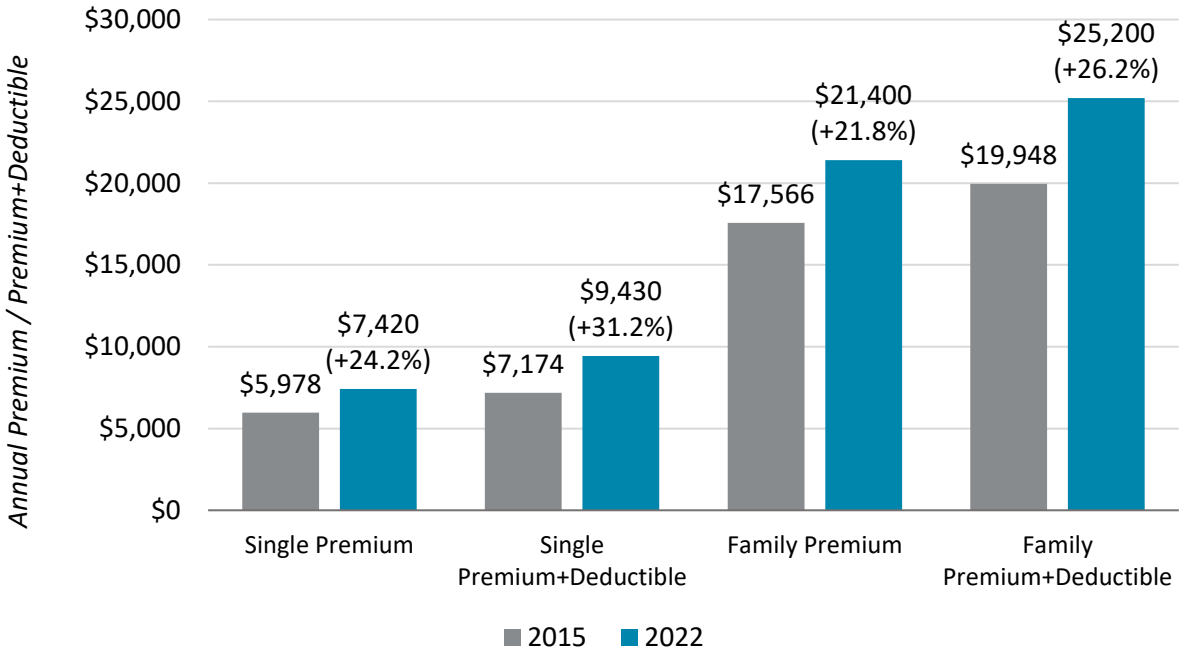


Virginia's private health insurance spending (not including out-of-pocket costs) per capita in 2022 is approximately $1,000 (17.5%) less than the national average ($4,700 vs. $5,700); however, the accompanying private insurance premium in Virginia for family coverage, is only 1.8% below national average and 2.1% below the national average when combined premiums and average deductibles are considered in 2022.[6] Furthermore, average single premiums and premiums + deductibles are only lower in Virginia by 1.6%, despite much lower per-enrollee private insurance spending.

Since 2015, private insurance premiums for individual coverage have increased 24.2%, while premiums for family coverage have increased 21.8%. Even greater has been the increases in estimates of total health care insurance payments computed based on total premiums plus average deductibles for each plan type. When rising deductibles are included in the calculations, single private insurance coverage became 31.2% more expensive over the past 7 years, while family coverage became 26.2% more costly (**Figure 13**).

[6] These reports have typically relied exclusively on Medical Panel Expenditure Survey – Insurance Component (MEPS-IC), estimates of Virginia health insurance premiums and deductibles. However, due to greater than normal disparate response values for the 2022, we have alternatively used KFF Employer Health Benefits Annual Survey data to estimate Virginia's 2022 insurance premiums.

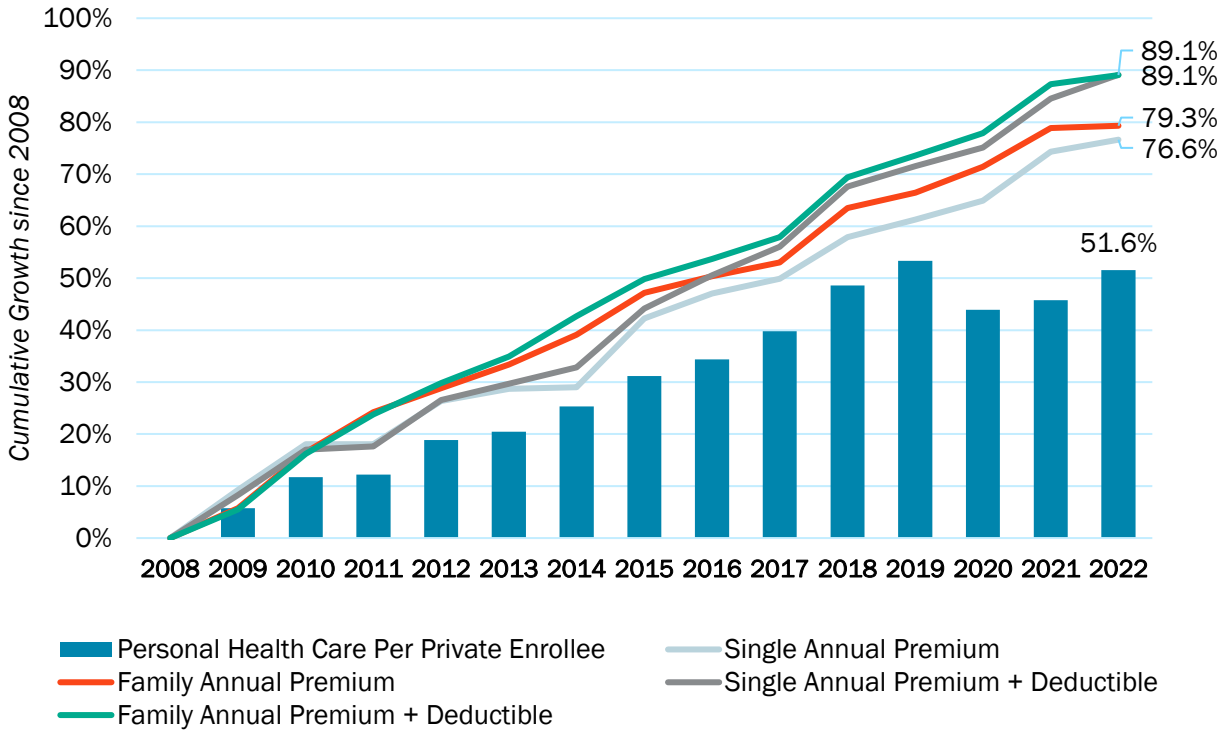
Figure 13: Virginia Private-Sector Employee Health Insurance Premiums, 2015 & 2022



When assessing the impact of these growth differences over a longer period, it is clear that, for Virginia, the cumulative growth in both single and family annual premiums has outpaced underlying spending on personal health care services by private insurance plans. Since 2008, personal health care expenditures per private insurance enrollee are up 51.6%, while the premiums for single coverage of a private-sector employee are up 76.6%, and family premiums are 79.3% higher (**Figure 14**). Furthermore, over this period, other types of cost-sharing have also increased—average deductibles are substantially higher, as are many types of co-payments for specific services. If the annual deductible were added to each of the single and family plan annual premiums, total plan costs would be 89.1% and 89.1% higher, respectively, in 2022 (**Figure 14**).

Separately, for individual coverage purchased on the marketplace, monthly premiums in Virginia in 2022 were higher than the national average, by 2.7% ($450 versus $438, *data not shown*). These individual premiums in Virginia have decreased slightly from the prior year ($479 in 2021), but are up significantly from 2015, when the benchmark single premium in Virginia was $281. 2022 insurance premiums in Virginia could have been impacted in part due to expectations of the 2023 reinsurance program. In a bid to lower prices, the state, with federal approval, passed a reinsurance program to cover a portion of the most expensive claims by insurers. The program operates as a traditional reinsurance program by reimbursing ACA individual market health insurers for a percentage of an enrollee's claims costs that exceed a specified threshold and up to a specified ceiling. Consequently, it is expected that private premiums for single residents in both the individual market and from private insurance could fall in 2023 and in the years that the program is in operation.

Figure 14: Cumulative Growth in Private Insurance Personal Health Care Expenditures, Single Premiums, and Family Premiums, Virginia, 2008-2022



Indications from experts are that health insurance costs for private employers are increasingly unaffordable, particularly for small employers. In assessing the net cost of insurance component of insurance premiums, there are a variety of sources that can be used, although they are not available annually at the state level. To calculate national totals, we used the CMS National Health Expenditure Accounts (NHEA) data to find that the net cost of insurance expenditures increased from $235 billion in 2019 to $297 billion in 2020 and remained high through 2022 at $279 billion.

Federal Government Direct Pandemic Financial Assistance

In this section, we analyze Virginia's health care sector details of the direct financial support from the federal government to health care systems and providers in the Commonwealth to help providers cope with the adverse impacts of the COVID-19 pandemic. These funds came mostly from two major programs: the Provider Relief Funds (PRF) and the Paycheck Protection Program (PPP).

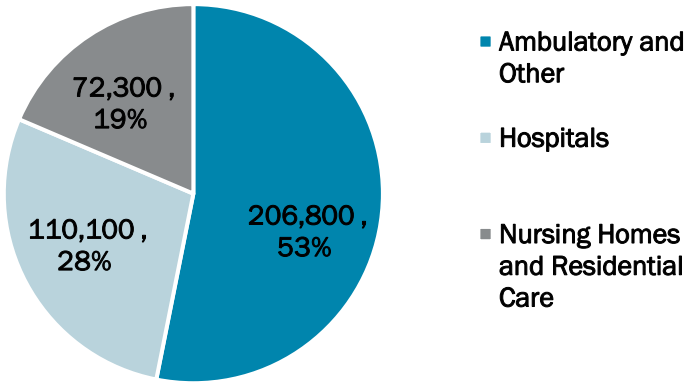
PRF was federal financial support specific to health care entities and was primarily provided to large hospital and health care systems to assist with additional costs required to treat COVID patients and make up for lost revenues due to delayed and forgone care during the pandemic. PRF funds were typically direct payments that would not be expected to be repaid. PPP was, conversely, a program that offered financial assistance to businesses in all industries (although health care was one of the largest recipients of these funds) and support in health care settings mostly went to small- or medium-sized practices and these dollars were offered as forgivable loans as long as conditions such as maintaining staff employment levels were met. PPP ended in May of 2021. Consequently, federal financial support came only from the PRF in 2022.

Compared to other states, Virginia received just 1.6% of the total PRF provided nationally in 2022. Virginia's health care providers received $235 million in PRF financial support from the federal government in 2022, which is 19.8% down from 2021, and representing 0.3% of total health care spending (down from 0.8% of total health care spending a year ago). This is a similar percentage to the 0.3% of national health care spending that was offered nationwide, representing nearly $15.5 billion in financial COVID relief.

Virginia Health Sector Employment

As of the fourth quarter of 2022, the Commonwealth's private sector employed more than 3.4 million Virginians, with 389,000, or about 11.5% of the privately employed population working in the health sector.[7] Health sector employees had steadily increased over time, growing from 338,000 individuals in early 2015 to 381,000 in Q1 2020. This then fell dramatically at the start of the pandemic due to furloughed health workers (to a bottom of 350,000) before bouncing back to the current 389,000. Among those employees, 207,000 (53.1%) work in ambulatory care settings, 110,000 in hospital settings (28.3%), and 72,000 (18.6%) in nursing homes and residential care settings (**Figure 15**).

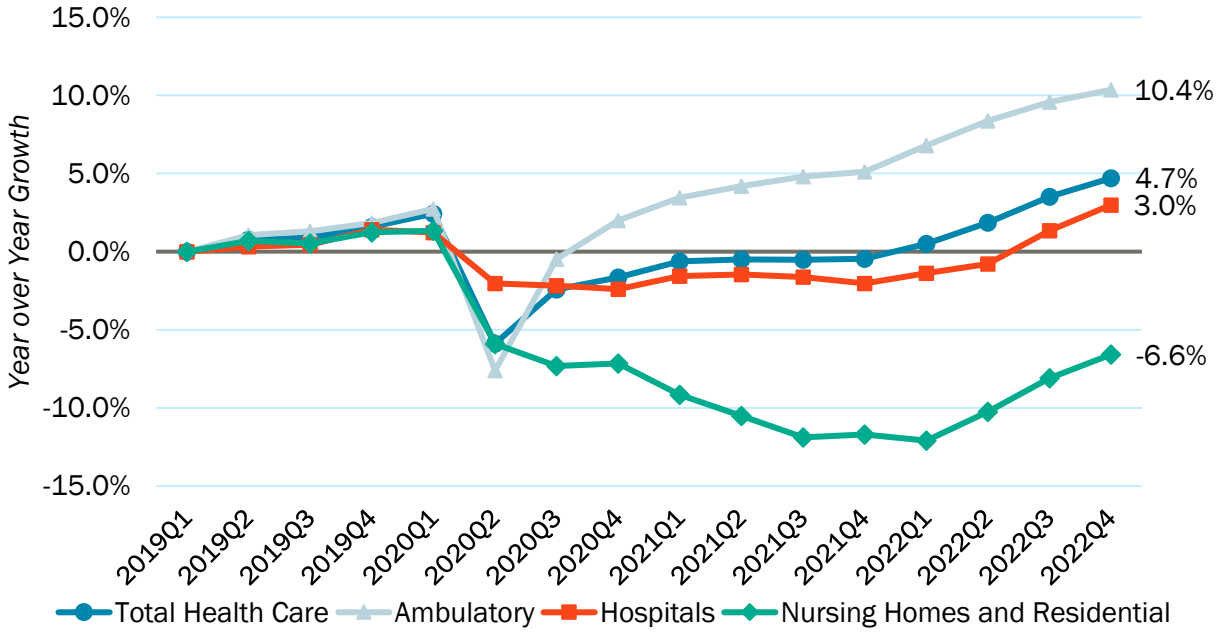
Figure 15: Virginia Health Sector Employment, Q4 2022



By the end of 2022, employment in hospitals returned to their pre-pandemic levels of employment (up by 3.0% from Q1 2019). However, nursing home and residential care facilities were still down nearly 7.0% in total employment over the same period (**Figure 16**). These trends were similar to the national health care employment situation, where nursing homes and residential care facilities employment went down while employment in hospitals and ambulatory settings have returned to their pre-pandemic levels. Hospitals and nursing home employment rebounded in 2022, with year-over-year growth rates of 5.1% and 5.8% respectively. This was also the case nationally, with employment in both sectors growing at a rate of 2.1% and 3.1% year-over-year by the end of Q4 of 2022.

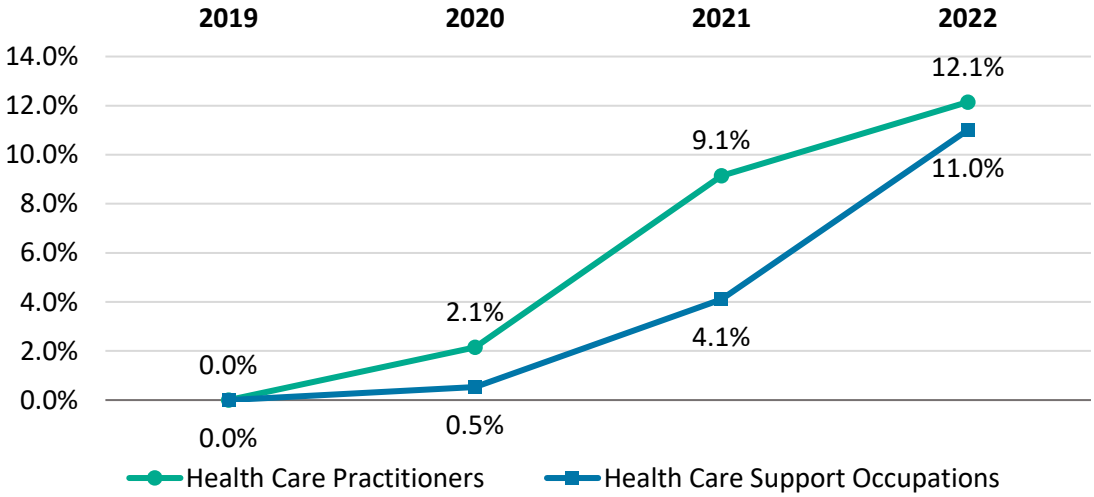
[7] Note that this 370,000 and other employment estimates come from the BLS Current Employment Statistics (CES) and a survey of Virginia business and government establishments. As a result, temporary and contract employees and self-employed health care workers are not included in these statistics.

Figure 16: Virginia Health Sector Employment Cumulative Growth, by Major Category



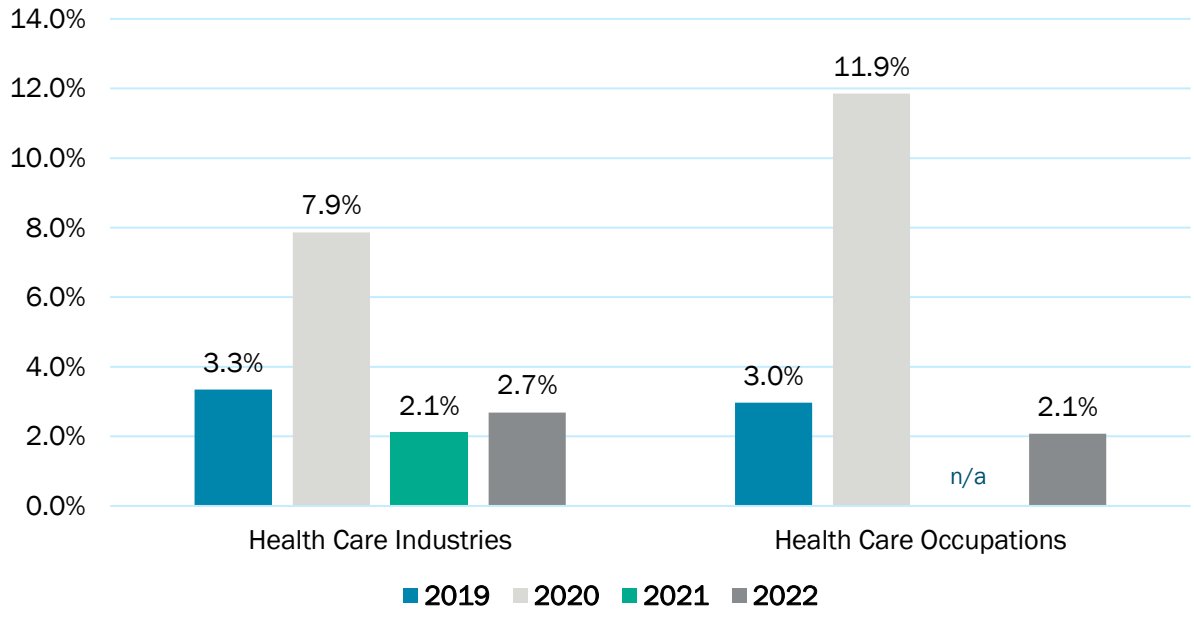
While health care employment totals recovered in 2022 and for the majority of settings exceeded counts of employees in Virginia prior to the pandemic, there remained signficant evidence that the labor market for health care employees was very tight, driving up costs of providing care. Wages continued to increase in 2022 after above average increases in 2021 and since 2019 in Virginia, annual wages for health care practitioners (e.g., physicians, nurses, and technitions) were up 12.1% cumulatively, while wages for health care support (e.g., aides and asssitants) employees were up 11.0% (**Figure 17**). Growth in 2022 for the support employees (6.6%) exceeded the growth in wages for practitioners (2.8%), after the opposite ocurred in 2021. As a result, cumulative growth of the support employee's annual wages nearly caught up to practitioners between 2019 and 2022.

Figure 17: Virginia Cumulative Health Sector Year-Over-Year Wage Growth (2019-2022), by Occupation Category



Moreover, assessing the unemployment rate among Virginia's health care industries and occupations, we see that the labor market has remained very tight in 2022. Among all health care industry jobs, unemployment rates averaged 2.7% in 2022, while among health care specific occupations, unemployment averaged and even lower 2.1% (**Figure 18**).

Figure 18: Virginia Unemployment Rates in 2022, by Occupation and Industry Category



Higher labor costs likely contributed to greater overall costs for providing care for many health care entities. Labor and capital costs in 2022 increased for health care as economywide inflation continued to increase significantly, while health spending (and revenues for many providers) likely increased at a slower rate in Virginia. Evidence from regional data sources (such as the KaufmanHall National Hospital Flash Report), found that total hospital expenses in the "Northeast/Mid-Atlantic" region increased by 7% year-over-year in 2022 and 17% between 2019 and 2022, while the labor expenses increased by 8% year-over-year and 16% from 2019. Compared to volume and operating revenue trends that either saw either negative or very slow growth between 2021 and 2022, many hospital financial metrics were signficantly worse in 2022. KaufmanHall reports for the Northeast/Mid-Atlantic regions that hospital operating margins were down 44% year-over-year in 2022 and down 12% from 2019 to 2022. Newer data for 2023 show that these trends began to reverse this year as labor cost growth and other inflation pressures have slowed and revenues have increased, but 2022 was a year of particularly difficult financial performance for many health care providers due to higher costs.

Conclusion

The Virginia health care sector continued to stabilize in 2022 after the dramatic impacts of the pandemic that hit in 2020. The return to moderate health spending growth that we saw in last year's report has continued into 2022, although this health spending growth has been somewhat overshadowed by much larger increases in statewide GDP increases and economywide inflation. After PHC spending declined in Virginia in 2020, we found that with updated data it increased 5.8% in 2021 and 5.6% in 2022. These growth rates are above recent historical averages. However, even with above average growth, the relative size of the health care sector compared to statewide GDP shrunk in 2022, falling from an average of 15.2% in 2021 to 14.3% in Q4 2022. This 14.3% of the economy is the smallest share of the Virginia's GDP since 2011.

Overall trends in Virginia health spending continue to show that total health spending per capita in Virginia is lower than nationwide averages, and that less was spent per person in 2022 on hospital care ($500 per capita), professional services ($300 per capita), prescription drugs ($300 per capita), and nursing home care ($100 per capita). While average health spending per capita and private health insurance spending on care per enrollee in Virginia are well below national averages, premiums for many types of private health insurance remain higher than what might be expected given the differences in spending (continuing a finding we've discussed in previous years). Growth in private-sector employee premiums and combined premiums and deductibles have increased between 13.3% and 35.0% since 2015.

Lastly, while 2022 data show that hiring picked up for health care employment categories in Virginia, the labor market remained tight and growth in labor costs likely remained elevated, affecting provider financials. Annual wage increases for both health care practitioners and health care support operations were positive in 2022, putting upward pressure on costs for providers and systems. These higher costs included the observed changes in health care wages, but also higher costs due to economywide inflation in 2022. Looking ahead to the data for 2023, we expect that as new health spending information becomes available, we will see health spending growth continue to rebound from the pandemic, and that total health care as a share of the overall economy will likely bounce back from the ten-year low seen in 2022. We will continue to track trends in Virginia's health sector employment data and expect robust hiring to continue, while private insurance premium trends relative to underlying health care spending are more likely to slowly adjust in future years given early 2023 indications.

Appendix A: Report Methodology

Virginia Health Sector Spending

CMS National Health Expenditure Accounts Benchmarking

Analyses in this report follow strategy of Altarum's national-level Health Sector Economic Indicators (HSEI) briefs and data, at the state level. HSEI spending analyses are designed to provide the most up-to-date possible estimates of health expenditures that are consistent with and build upon the CMS National Health Expenditure Accounts (NHEA). Among health economists and health sector experts, these data are among the most frequently cited and most trusted estimates of health sector spending and provide robust, consistent, and understandable estimates of health sector expenditure trends. The NHEA accounts contain data at the national level (updated annually) and state level (updated every 4 or 5 years), data by payer, data by spending category, and data for specific demographic groups (age and gender). Also included in the NHEA are projections of future health 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 (the most recent data at the time of writing are available through the year 2020).

Therefore, this work directly incorporates and benchmarks to CMS NHEA data whenever it is available, and then subsequently builds on those data to generate estimates of spending for periods that are not yet available in the NHEA data: in this report the quarterly data for 2022. When subsequent releases of NHEA data become available, this approach makes it possible to re-benchmark our findings for the years provided and continue estimating for new periods not yet available from CMS. All category definitions, populations, and spending estimates in this report match directly with the CMS definitions used in the NHEA. Details on the NHEA methodology and how it compares to other health sector spending estimates, for example those in GDP accounting, are available on the NHEA homepage. In the case of the state health spending trends, we benchmark to the data available from 2008 through 2020 in the state-level NHEA accounts, using data on total spending by health category, spending by payer, and spending per enrollee for each of the three major insurance types. Data on state health spending trends come in two variants, based on residence and provider location; we use data by residence as the source for this report.

In some cases, data from CMS (which are reported annually), need to be portioned into quarterly or monthly estimates to support the estimates of future periods and to ensure consistent reporting over time. In the national HSEI, within-year trends are estimated using the underlying health spending estimates from Bureau of Economic Analysis (BEA) National Income and Product Accounts (NIPA) data, while splined to ensure that the national annual HSEI totals match with the CMS NHEA totals. In the state-level work, we follow a similar approach, yet often do not have the same historical data in our underlying series to generate intra-year trends. Therefore, in this work, we instead use a simple cubic spline for intra-year trends of the state-level CMS total spending, spending by category, and spending by payer data from 2008 to 2020. As a result, averages of quarterly data in the final workbooks may differ very slightly from the annual data reported by CMS, due to the cubic spline methodology. Generally, our approach is to report on annualized data, which estimates spending quarterly based on what an annual total of spending would be for that period if it continued for an entire year.

In order to estimate future periods of data, while benchmarking to the CMS NHEA state-level data through 2020, we use the same approach as in the national-level HSEI analyses. We calculate from other data 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 Virginia APCD and data from state-level GDP and NIPA sources are used to calculate year-over-year growth rates and those are then applied directly to the base year (2020) CMS NHEA estimates. This approach is made

separately and independently for total state spending category spending, spending by payer, and enrollment by payer. This approach ensures that future period estimates are consistent with the CMS NHEA data and that there are no discontinuities between the official CMS NHEA data and the more recent periods in this report and the underlying data. We specifically highlight this in Figure 1 of this report, showing the official and estimated periods in different colors.

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 expenditures (PHC), nor do they directly contain estimates of total spending or spending per enrollee from minor insurance types (like military health systems or the Indian Health Service) or for the uninsured. Generally, when CMS spending data are not available to be used as benchmarks, we do not include estimates of those components in this report. The exception to that is our estimate of total health expenditures for Virginia (in addition to the PHC expenditure data). We estimate this by applying the ratio of national total health spending to national PHC expenditures to the state-level estimates of PHC to estimate state-level total health spending. This statistic is then used in our comparison of total health spending as a percent of GDP nationally to health spending as a percent of state GDP.

The benchmarking approach discussed above also applies to estimates of enrollment by major insurance types in the state, using CMS data through 2020. We attempt to remain consistent with NHEA population data, including the way that individuals are reported with multiple insurance types, and do not specifically report on the number of individuals uninsured at the state level. Details on data used to estimate enrollment in subsequent periods is described below, primarily relying on U.S. Census American Community Survey data.

Population and Health Insurance Enrollment Estimates

Data used to estimate enrollment by insurance type in Virginia for 2022 incorporate data from the U.S. Census American Community Survey (ACS) and official Medicaid enrollment data. 1-year ACS data on health insurance status by type were obtained from the Kaiser Family Foundation State Health Facts, and 2022 data were used for individuals residing in Virginia, using growth rates to estimate the change in those insured with private health insurance and Medicare. Note that despite the fact the ACS data allow for respondents to flag multiple insurance types, this approach does not double-count enrollees, because only the growth rate from 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, we used data on enrollment by state from the Kaiser Family Foundation, again applying the year-over-year growth rate from this data to the benchmark CMS NHEA Medicaid enrollment counts. This yielded what we believe to be a more accurate count of Medicaid enrollment growth statistic, particularly for the years 2019-2022, where enrollment expanded greatly due to the state passing Medicaid expansion in the prior year.

Private Health Insurance Personal Health Care (PHC) Spending Estimates

Total health spending and spending per enrollee for those with private health insurance in this report benchmark to CMS NHEA estimates of spending from private health insurance sources. The primary data source used to build on the CMS NHEA data (which ends in the year 2020) is data on private health insurance spending captured in medical claims contained within the Virginia All-Payer Claims Database. Importantly, we use this data only in combination with the enrollment data described above to estimate trends in health sector private insurance spending. We do this by estimating trends in the APCD for health spending per private insurance enrollee over time and then multiply this data on spending per enrollee by the enrollment data from ACS above to estimate total year-over-year growth trends for Virginia's private health insurance funded spending. Spending per enrollee is calculated from the APCD on a monthly basis based on data using the sum of health

expenditures in the four major claim types (Inpatient-IP, Outpatient-OP, Prescription Drug-RX, and Professional-PB) and then dividing by the number of enrollees in that month in the APCD enrollment tables.

We use this approach to incorporate the APCD data into our health spending estimates, rather than simply using total spending from private insurers directly from the APCD because the APCD does not cover all individuals with private insurance in Virginia. Those covered by a self-insured employer are potentially missing from this data, due to the fact that those entities are not required to submit their claims to the APCD. This is particularly an issue during periods following March 2016, when the Gobeille v. Liberty Mutual Insurance Co. case was decided by the U.S. Supreme Court. Moreover, the number of submitters and enrollees covered by the APCD are not consistent over time. Therefore, the approach of using monthly computations of total spending and enrollment compensates for changes in enrollment over the year and also for potential loss of submitters over time in a way that does not bias our estimates of total spending.

The monthly data on per enrollee spending were then 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, such as 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 Personal Health Care (PHC) Spending Estimates

An identical approach to the one used in the private insurance personal health care spending 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 in the APCD for Medicaid are less significant, because it is likely all Medicaid enrollees are covered by the APCD submitters (unlike those with private insurance), we chose to use the same approach to ensure consistency between the Medicaid and private health insurance methodology. However, for Medicaid, an additional step was taken to also include additionally available data on spending trends from CMS State Expenditure Reporting for Medicaid & CHIP data collected via CMS-64 forms for each state. We believe that this data, which measures trends in total spending by the Virginia Medicaid program in each state over time is also likely to be strongly predictive of the official CMS reported health sector spending (separately from the underlying claims data reported to the APCD).

Therefore, to estimate final 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 from the Form-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 Personal Health Care (PHC) Spending Estimates

Estimates of total personal health care expenditures for Medicare differ from the above approaches, due to the fact that comprehensive Medicare claims were not available in the APCD for all necessary time periods at the time of analysis. We therefore use data from the BEA State Gross Domestic Product data, which details the size of government transfer payments to state residents for Medicare benefits. This varies from prior works where we used Medicare Geographic Variation Public Use File and the Medicare Part D Provider Utilization and Payment Data: Part D Prescriber file to estimate per enrollee spending trends for Virginia and multiply those data with the enrollment counts from the ACS to estimate year-over-year growth in Medicare spending. At the time of analysis, the 2022 Medicare Geographic Public Use file was unfortunately available, leading to our use of the alternate BEA source. Data for 2022 were updated from the prior report using the Geographic Public Use File for that year.

Spending by Personal Health Care Category

Independent of the spending estimates by payer, we also estimate 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 drug expenditures. These 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 weighted averages, weighted by the 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 APCD for private insurance and Medicaid are attributed based on claim type (Inpatient claims attributed to hospital spending, professional claims to physician and clinical spending, and prescription drug claims to prescription drug spending) and data from the Medicaid Form-64 data are attributed based on the category of spending listed. The overall state of 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 and 2022 spending estimates.

Also incorporated into the health spending category estimates are data from BEA state-level personal consumption expenditures data 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 spending category estimates derived from the blended payer data and growth estimated directly from the BEA personal consumption expenditures data are available upon request.

Lastly, to generate estimates of total PHC expenditures for the state for 2022, data on growth in spending for those not covered by the three major insurance types was required. An estimate of this aggregate PHC spending was computed directly from Virginia personal consumption expenditure data for health care services and then blended with the data described above on the three major payers. 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 Bureau of Labor Statistics (BLS) Current Employment Statistics (CES) data for Virginia. These data are available directly for all categories used in this report. Monthly data are collected and then combined via an average to generate quarterly and annual data. State-level data are only available in the "Not Seasonally Adjusted" data series; however, this has a minimal impact, as seasonal trends in health care employment are very slight. Health employment as a percent of total employment is calculated in two ways (described in the report), using both a base of total nonfarm employment and total private sector employment (also not seasonally adjusted). The difference between these two series is that private sector employment excludes those employed by public state and federal government entities.

In this year's report, we added data on health employment and wage trends by occupation from the BLS Occupational Employment and Wage Statistics (OEWS) and findings from the Current Population Survey (CPS). These data were processed to reveal findings for the Commonwealth of Virginia for specific health employment statistics, while analyzing the underlying microdata such that findings were consistent with aggregate, publicly-available findings.

Virginia Private Health Insurance Costs

Data on private employer health insurance premiums are calculated based on the Agency for Health Research and Quality's (AHRQ) Medical Expenditure Panel Survey— Insurance/Employer Component (MEPS-IC) and KFF Employer Health Benefits Annual Survey Data. MEPS-IC data track and allow for the comparison of private health insurance premiums and plan characteristics, such as deductibles,

for individuals with coverage from a private-sector employer across the U.S. and for specific states. The data were curated using the MEPSnet/I.C. Trend Query online portal, and data for private-sector establishments were taken for Virginia to include all plan types (single, family, and employee+1) separately, all provider types (HMO, PPO, any-provider plans) combined, for all firm types combined, and all firm sizes combined for the Commonwealth. In 2022, data from the MEPS-IC Virginia survey respondents showed abnormally disparate survey response values and data that did not align with national or regional trends. As a result, for 2022 individual and family premiums, data from the KFF Employer Health Benefits survey were supplemented to estimate 2022 premiums. Data on the "South" region for all insurance types (Figure 1.4) in the KFF report were applied to 2021 data to estimate Virginia's 2022 premiums.

MEPS-IC data for national premiums and deductibles were obtained using the above approach. We collected additional data on insurance coverage purchased directly by individuals (not through an employer) from the Healthcare.gov marketplace, specifically trends in the state's average "benchmark" premium—the second-lowest-cost silver plan for a 40-year-old. These data are compiled by the Kaiser Family Foundation and made publicly available in the State Health Facts: Marketplace Average Benchmark Premiums tables.

Virginia Federal Government Pandemic Financial Support Analyses

Direct financial support for health care systems and providers was calculated using data on the Provider Relief Fund payments (Health Resources & Services Administration) and Paycheck Protection Program (U.S. Small Business Association) from their respective agencies. Data were collected by year, state, and (when possible) type of provider receiving the funds. These spending totals by program were aggregated together and then contrasted with the total health care spending by health sector category. In order to identify the quantity of Provider Relief Fund payments allocations among the seven health care service categories, the Paycheck Protection Program allocations were subtracted from the total allocations reported by CMS in the 2020, 2021, and 2022 NHEA.