Peterson-Milbank
Program for Sustainable
Health Care Costs

An Introductory Guide to Leveraging Health Care Cost and Affordability Data

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About the Peterson Center on Healthcare

The Peterson Center on Healthcare is a non-profit organization dedicated to making higher quality, more affordable healthcare a reality for all Americans. The organization is working to transform U.S. healthcare into a high-performance system by finding innovative solutions that improve quality and lower costs, and accelerating their adoption on a national scale. Established by the Peter G. Peterson Foundation, the Center collaborates with stakeholders across the healthcare system and engages in grant-making, partnerships, and research. For more information, visit **petersonhealthcare.org**.

About the Milbank Memorial Fund

The Milbank Memorial Fund works to improve population health and health equity by collaborating with leaders and decision makers and connecting them with experience and sound evidence. Founded in 1905, the Milbank Memorial Fund advances its mission by identifying, informing, and inspiring current and future state health policy leaders to enhance their effectiveness; convening and and supporting state health policy decision makers to advance strong primary care, healthy aging, and sustainable health care costs; publishing high-quality, evidence-based publications and *The Milbank Quarterly*, a peer-reviewed journal of population health and health policy. For more information, visit **milbank.org**.

About The Peterson-Milbank Program for Sustainable Health Care Costs

The Peterson-Milbank Program for Sustainable Health Care Costs supports state-led efforts to make health care more affordable for everyone. Starting with setting a target for reasonable cost increases, states across the country are collecting data on their annual health care spending and analyzing it to find the cost growth drivers. With this information, everyone in the state who has a stake in health care can work together to identify community-wide solutions to improve affordability. For more information, visit **The Peterson-Milbank Program for Sustainable Health Care Costs**.

About Manatt Health

Manatt Health integrates legal and consulting services to better meet the complex needs of clients across the health care system.

Combining legal excellence, firsthand experience in shaping public policy, sophisticated strategy insight and deep analytic capabilities, we provide uniquely valuable professional services to the full range of health industry players.

Our diverse team of more than 200 attorneys and consultants from Manatt, Phelps & Phillips, LLP, and its consulting subsidiary, Manatt Health Strategies, LLC, is passionate about helping our clients advance their business interests, fulfill their missions and lead health care into the future. For more information, visit **manatt.com/Health**.

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Introduction

State leaders seeking to understand the drivers of unsustainable health care costs and their impact on residents can leverage a growing number of available data sources that can complement their own datasets. As a companion product to the Excel-based **Health Care Cost and Affordability Data Resource Inventory**, this *Guide* offers direction on how states can best use these data sources to identify solutions to improve health care affordability.

The data sources in the **Guide** cover the following topics:

1. **Health Care Service Spending:** Consumer and payer expenditures on health care services by sector and service category.
2. **Hospital Finances:** Hospital expenditures to provide services (e.g., personnel, overhead, administrative costs), as well as profit margins, uncompensated care costs, and net patient revenue.
3. **Consumer Health Care Affordability:** Consumer out-of-pocket spending on health care coverage and services.
4. **Access to and Utilization of Health Care Services:** Consumer access to health care services, and service utilization by population type.

For each topic, the *Guide* provides a brief overview of the kinds of questions that might prompt a data analysis for a select relevant data sources from the **Inventory**, including the anticipated level of difficulty associated with analyzing resources.[i] The **Guide** does not address all data sources included in the **Inventory**. Analysts should refer to the **Inventory** for detailed instructions on how to access data sources, the types of information captured by these data sources, and relevant data limitations. For additional instructions on how states can analyze one or more data sources to spur policy action, please see the Peterson-Milbank resources including:

- Intermediate Data Analytic Guides, (forthcoming);
- **A Data Use Strategy for State Action to Address Health Care Cost Growth** from Bailit Health and;
- **A Playbook for Implementing a State Health Care Cost Growth Target**

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i Users of this *Guide* should note that the level of difficulty associated with each data source is subjective and may vary based on personal experience. In general, **[Low Difficulty]** data sources often have online interactive tools to support analyses or can be analyzed with only minor manipulations to the underlying source data. **[Medium Difficulty]** data sources typically require additional manipulation, cleaning, or sub-setting before they can be used to generate insights and may require additional background knowledge or subject matter expertise to analyze. **[High Difficulty]** data sources generally require extensive manipulation and cleaning prior to analyses as well as relevant subject matter expertise, and often require analysts to use tools like SAS, R, or Stata to conduct analyses.

FIGURE 1. **Sustainable Health Care Cost Growth: Key Concepts**

This infographic illustrates the core components of state cost growth target programs — the target and total health care expenditures — and associated factors that are outlined in the *Guide*, including health care service spending, access to and utilization of services, consumer affordability, and hospital finances.

Cost Growth Targets

An annual, statewide goal for sustainable growth in health care spending that stakeholders have agreed to and are committed to achieving.

Total Health Care Expenditures (THCE)

Measures health care costs as an aggregate measure of health care spending, including all claims and non-claims spending reported by payers, as well as the administrative costs of health care.

Components of THCE

- Expenses paid to health care providers by **private and public payers**
- Expenses paid to health care providers by **patients**
- Net cost of private health insurance (i.e., administrative costs of health care)

Associated Factors Outlined in the *Guide*

Health Care Service Spending

Expenses paid to providers by private and public sector payers for the provision of health care services disaggregated by sector and service category.

Access to and Utilization of Services

Consumer access to health care services, and service utilization by population type.

Consumer Health Care Affordability

Consumer out-of-pocket spending on health care services and costs associated with insurance.

Hospital Financials

Hospital expenditures to provide health care services, as well as financial characteristics like profit margins, uncompensated care costs, and net patient revenue.

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1 Health Care Service Spending

Between 2000 and 2020, US national health care expenditures grew at a cumulative annual rate of 4.7%, and now account for nearly 20% of gross domestic product (GDP).[1,2] Despite the impact of rising spending on state, employer, and consumer budgets, little is known about state-level health care spending trends that might inform policy. States frequently receive questions about the composition of their health care spending — from "What populations and services are we spending the most on?" to "What are our cost drivers?"

Consider These Sources from the Inventory to Examine Health Care Service Spending Questions

- **[Low Difficulty]** Health Care Cost Institute's (HCCI) annual **Healthcare Care Cost and Utilization Report** (see Inventory source N2) includes national- and state-level estimates of health care spending, utilization, and prices for individuals younger than 65 years of age covered by employer-sponsored insurance (ESI). These analyses help illuminate whether increases in overall health care spending are driven by utilization and/or price. Reports are based on health care claims data from approximately 55 million individuals and may not necessarily reflect the market-dominant insurer(s) in a given state. The underlying data behind the annual reports can be downloaded for free from the HCCI website.
  - **Analytic Opportunities:** Assess whether price or utilization drives spending across care settings and markets (e.g., commercial, Medicare)
- **[Low Difficulty]** The **Centers for Medicare and Medicaid Services (CMS) National Health Expenditures (NHE) and State Health Expenditure Accounts (SHEA)** (see Inventory source F4) provide a reliable source of information on national and state health care spending trends. NHE data include information on nationwide annual health spending in the United States by type of service (e.g., hospital, physician/clinical, prescription drugs) and payer type (e.g., private insurance, Medicare, Medicaid, or out-of-pocket). SHEA is updated every five years and includes state-level data on trends in annual health care spending by type of service and payer type. NHE and SHEA data can be downloaded for free from the CMS website.
  - **Analytic Opportunities:** Examine the percent change in annual health care spending by payer type (e.g., Medicare, Medicaid, ESI) across states. Analysts may consider comparing trends in their state relative to peer states to contextualize local trends in annual health care spending growth.
- **[Medium Difficulty]** **State Insurer/Provider Aggregate Data** (see Inventory source S2) offer a valuable data source to examine aggregate trends in health care spending at the state level. State cost growth target data are more granular than CMS NHE or SHEA data, but less granular than data available through state all-payer claims databases (APCDs). State cost growth target data comprise data from public and private payers analyzed over time by payer, line of business, service type, geography.[ii] States also build on their cost growth target data collection process to collect data on premiums, cost-sharing, plan design, and alternative payment models (APMs), which are unavailable in most federal sources and APCDs. States vary slightly in how they collect cost growth target data, which may be an important consideration for cross-state

ii Individuals and their health care costs are attributed to specific providers for cost growth accountability purposes.

comparisons, depending on the analysis and states of interest. State cost growth target data are updated annually. Data are available on many state websites for download and may also be accessible via online interactive tools.[iii]

  - **Analytic Opportunities:** Calculate total health care expenditures including payer and consumer spending on health care services, as well as non-claims-based expenditures for health care services (e.g., bundled payments or directed payments). These data also may be analyzed by individual payer organizations and health systems and used to examine cost growth benchmark performance.

- **[High Difficulty] State All Payer Claims Databases (APCDs)** (see **Inventory** source S1) are state repositories of public and private health care claims and encounter data. APCD data include records of health care service utilization and associated costs, as well as demographic and clinical information on the individuals served. Like cost growth target data, state APCDs only include data from a single state. Cross-state analyses require the acquisition of data from other state APCDs — where available — and data normalization to support comparisons. State technical staff interested in using state APCDs may work with the state health data organization to obtain access. Most APCDs are updated quarterly, but this frequency may vary by state.

  - **Analytic Opportunities:** Examine trends in health care spending by service type. Analysts, for example, may define and apply very broad (e.g., inpatient vs. outpatient) or very narrow (e.g., outpatient colonoscopy with biopsy vs. outpatient colonoscopy without biopsy) service categories.

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iii For more information on state benchmarking programs, see the **Peterson-Milbank Program for Sustainable Health Care Costs** or **Manatt Health's Cost Containment reporting**.

Health Status as a Driver of Health Care Utilization and Spending

"Health status," an indicator of an individual's health and wellbeing, can have a significant impact on an individual's health care utilization and associated spending. For example, individuals with chronic diseases like diabetes, heart disease, or substance use disorders can be expected to have higher levels of health care utilization and related spending compared to individuals without similar chronic conditions. Analysts may consider segmenting examined populations by composite or specific measures of health status to better understand population health and utilization/spending trends for similar populations. To account for differences in member illness burden and medical costs, for example, states may use aggregate insurer data to examine member per month spending (PMPM) on a health-status adjusted basis across Medicaid managed care plans.

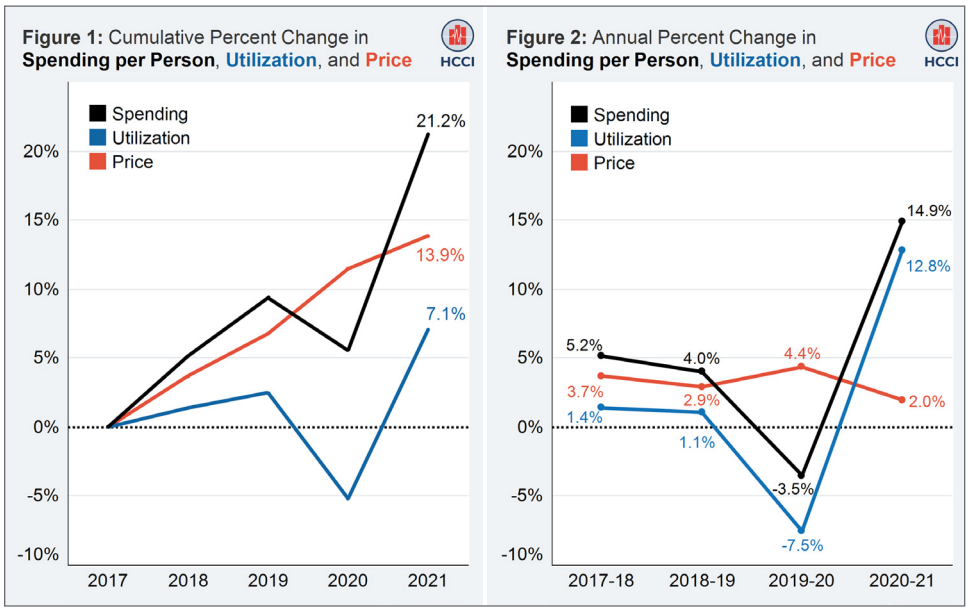
State technical staff may use the data sources outlined above to identify total health care expenditures by various population and service segmentations, as well as cost drivers and changes over time. State technical staff should always consult available user guides, subject matter experts, and review previous data analyses prior to approaching new data sources. Over time, states may use these data sources in tandem to better understand the health care cost growth contributions by:

- Price, utilization, and intensity of services;
- Population and provider characteristics;
- State market characteristics (e.g., health system consolidation); as well as
- Other characteristics of spend, such as geography or place of service.

Data in Action

HCCI produces annual reports that use administrative claims data from ESI plans to examine nationwide health care spending trends. In its 2021 report, HCCI analyzed health care spending to assess whether increasing prices or utilization drove cost increases. HCCI found that from 2017 to 2021 increasing health care spending per person was largely driven by rising prices for health care services rather than increases in utilization. Over the 2017–2021 period, commercial ESI prices rose by 13.9% while utilization rates increased by 7.1% — contributing to a total increase in spending of 21.2% (Figure 2). In 2020, there was a decrease in utilization and overall spending due to the COVID-19 public health emergency, which coincided with an increase in prices.[3]

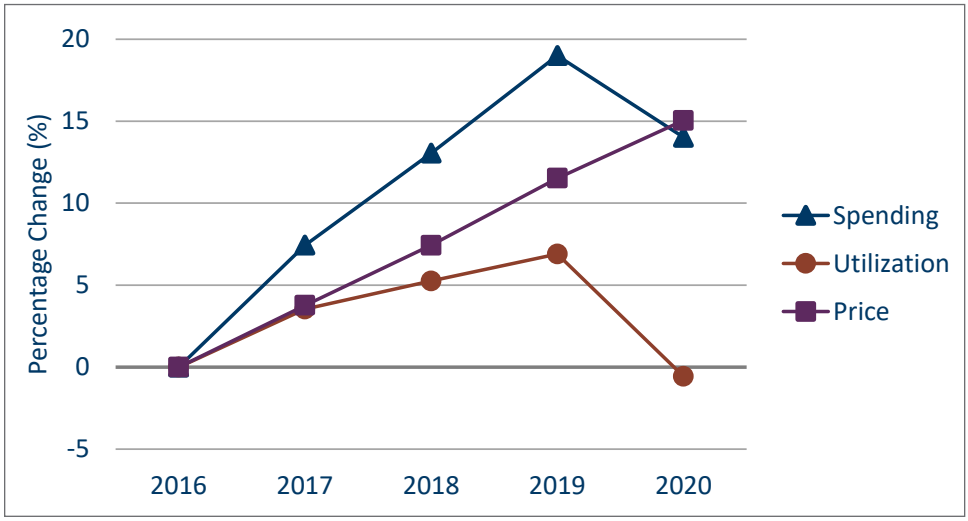
FIGURE 2. **Cumulative and Annual Percent Changes in ESI Spending per Person, Utilization and Price**



Source: Health Care Cost Institute (HCCI). "2021 Health Care Cost and Utilization Report". April 2023. https://healthcostinstitute.org/images/pdfs/HCCI_2021_Health_Care_Cost_and_Utilization_Report.pdf. Accessed October 9, 2023.

States may consider replicating this kind of decomposition analysis using their own APCD data. For example, in a November 2022 report, the Minnesota Department of Health (MDH) used its APCD data from 2016 through 2020 to assess whether utilization or prices were driving cumulative increases in the ESI market. Like HCCI, MDH found that rising health care spending was primarily driven by increasing prices for health care services rather than increasing utilization (Figure 3).[4]

FIGURE 3. **Cumulative Growth in Health Care Spending, Utilization, and Prices, 2016 to 2020**



Source: Minnesota Department of Health. "Health Care Spending, Prices, and Uses in Minnesota: 2016 to 2020". November 2022. https://www.health.state.mn.us/data/economics/docs/hcspendingbrief.pdf. Accessed October 9, 2023.

Additional Resources

- **A Data Use Strategy for State Action to Address Health Care Cost Growth**. This 2021 Peterson-Milbank Program for Sustainable Health Care Costs report by Bailit Health authors offers an overview of two types of analyses that states with health care cost growth targets need to perform on data collected from payers and providers to identify factors driving health care spending levels and health care spending growth.
- **Realizing the Promise of All Payer Claims Databases**. This 2022 paper developed by Manatt Health, with the support of the Robert Wood Johnson Foundation, describes the value of APCDs in informing an emerging discussion among the federal government, states, and health data leaders about the future of our systems of health. The authors propose investing in and building on state health data infrastructure to develop national health data capacity.
- **Annual Report on the Performance of the Massachusetts Health Care System**. The Center for Health Information and Analysis (CHIA) publishes this report each year, examining the performance of the Massachusetts health care system and related trends in cost, coverage, and quality metrics. This report includes the state's Total Health Care Expenditure (THCE) calculation, which is used for health care cost growth benchmark evaluation by the Health Policy Commission (HPC).
- **Health Care Spending and Quality in Rhode Island**. This annual report from the Rhode Island Office of the Health Insurance Commissioner details the state's activities to monitor health care spending growth. It includes reports on the state's spending performance against its cost growth target and strategies to curb spending while maintaining high-quality care and access to care.
- **2021 Health Care Cost and Utilization Report**. The Health Care Cost Institute (HCCI) annual report (known as the Health Care Cost and Utilization Report) examines nationally trends in health care spending, utilization, and pricing for individuals based on available claims and encounter data. The report focuses on trends across four broad service categories: hospital inpatient, hospital outpatient, professional (i.e., physician and other clinician) services, and pharmacy.
- **Health Care Costs 101**. The Health Care Costs 101 Almanac from the California Health Care Foundation (CHCF) analyzes the impact of federal spending during the COVID-19 pandemic on national expenditure trends. CHCF's Almanac includes both a quick reference guide, summarizing key data points, and a full detailed report.

2 Hospital Finances

Hospital inpatient and outpatient service spending are major drivers of health care spending across insurance markets, yet many hospitals continue to report financial challenges.[5,6,7] States frequently receive questions about how to reconcile these seemingly competing trends: "What are the primary cost drivers of rising hospital spending?" "Which hospitals are really in danger of closing?" While expert counsel should help guide state's unpacking of complex, detailed hospital financial data, information on hospital financial performance and costs are more readily available and interpretable than ever before.

Consider These Sources from the Inventory to Examine Hospital Financial Questions

- **[High Difficulty]** The Centers for Medicare and Medicaid Services' (CMS) **Healthcare Cost Report Information System (HCRIS) data** (see **Inventory** source F7), comprise raw data abstracted from standardized annual hospital cost reports submitted by Medicare-certified institutional providers. These data, sometimes referred to as the "Medicare cost reports," provide rich and granular information on hospital financial metrics but can be challenging and time-consuming to analyze. State technical staff may want to solicit analytic support from expert counsel. HCRIS data are updated quarterly and can be downloaded for free from CMS with data as recent as 2022.
  - **Analytic Opportunities:** Analysts may consider using HCRIS data over other hospital financial cost reporting (e.g., NASHP, RAND) if they are seeking to conduct analyses of hospital expenses associated with different cost centers (e.g., capital costs, administrative costs, or personnel costs). HCRIS data also can support in-depth analyses of hospital staffing, including data on full time equivalent providers, interns, and residents.
- **[Low Difficulty]** **The NASHP Hospital Cost Tool** (see **Inventory** source F7) provides user-friendly summaries of information reported by hospitals to federal agencies. These data are abstracted from HCRIS data (i.e., "hospital cost report" information). State technical staff can use this tool to generate figures that compare key hospital financial metrics across hospitals or states; downloadable summary files of historical and curated HCRIS data are also available. The tool is free and includes data from 2012 onwards.[iv]
  - **Analytic Opportunities:** Examine trends of median net patient revenue per discharge in state relative to peer states. Or analyze in-state variation among hospitals with different characteristics (e.g., size, ownership type, payer mix, workforce).
- **[Low Difficulty]** The **RAND Hospital Data** (see **Inventory** source F7) offers highly readable summaries of information abstracted from HCRIS data. Individuals can register for a free, downloadable limited dataset that summarizes key HCRIS metrics at the hospital level from the most recent year available. Individuals can purchase a subscription to the premium version of the RAND Hospital Data for customizable panel datasets that include historical HCRIS data, value-added metrics, and additional documentation. While the premium version of the RAND Hospital Data offers some advantages over the NASHP Hospital Cost Tool, the NASHP tool provides more years of data than the free version of the RAND Hospital Data.

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iv Resources cited in this Guide are updated regularly, and most are updated annually.

– **Analytic Opportunities:** The premium version of the RAND Hospital Data provides users with access to datasets that are aggregated to the county, core-based statistical area, state, and national level, facilitating analyses among a variety of geographic stratifications. Analysts may consider using these data to compare hospital financial metrics across regions within their state.

Audited Hospital Financial Statements

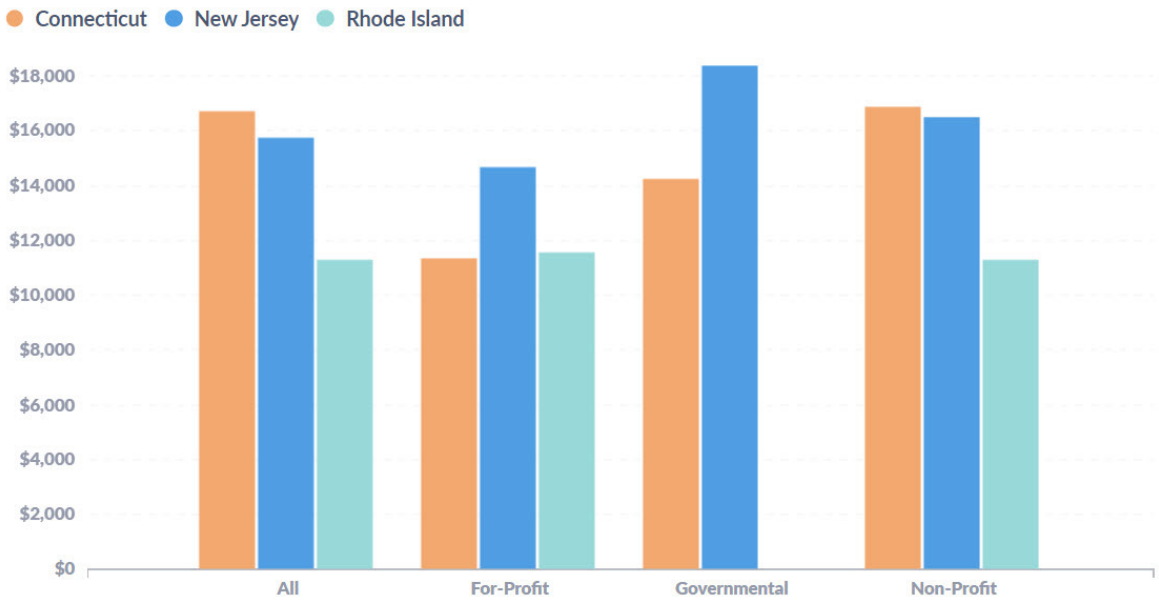
States may collect audited hospital financial statements, which often serve as the "gold standard" for complete and accurate health system financial information, often providing more granular data that has been certified by a trusted third party. Audited financial statements may be collected by the state's department of health, department of insurance, or independent state health care data agency. State technical staff should assess the availability and analytic usability of these data in their state. Audited hospital financial statements may contain more granular data than the cost reports submitted by hospitals to CMS and may also include data on non-Medicare certified institutions.

Data in Action

The NASHP Hospital Cost Tool allows users to examine key metrics related to hospital financial performance across and within states, and by various hospital segmentations.[8] In an illustrative Manatt analysis shown in Figure 4, the tool was used to assess variation in median net patient revenue by hospital ownership type in three states in 2021, finding that across all hospitals, Connecticut had the highest median net patient revenue per discharge, followed by New Jersey and Rhode Island. However, New Jersey had the highest revenue per discharge for governmental and for-profit hospitals.

The tool enables users to dig deeper into this information, identifying which hospitals were primary contributors to results. Manatt encourages state users to review **NASHP Tool user instructions** when undertaking analyses, and to seek additional policy and environmental context and verification when profiling results (see **Inventory** source F7 for more information).

FIGURE 4. **Median Net Patient Revenue Per Adjusted Patient Discharge for the Selected Geographies by Hospital Ownership**



Source: Sample visual generated using the National Academy for State Health Policy (NASHP) Hospital Cost Tool. **https://tool.nashp.org/**. Accessed October 9, 2023.

Additional Resources

- **Medicare Cost Report Resources**. This documentation from the ResDAC Assistance Center includes information on how to access and understand CMS facility cost report resources, including download instructions and a description of file contents.
- **Updated Hospital Cost Tool Adds New Data to Help States and Employers Further Explore Hospital Costs**. This NASHP blog post discusses new features of the NASHP Hospital Cost Tool, including staffing cost data, COVID-19 provider relief funds, and charity care metrics.
- **Hospital Price Transparency Study**. This RAND study analyzes data from self-funded employers in 11 APCDs to assess variation in hospital prices paid by private health plans and Medicare for the same services. RAND has conducted four rounds of data analysis related to this study.

3 Consumer Out-Of-Pocket Experience and Health Care Affordability

The high cost of health care in the United States imposes a significant financial burden on many families, with almost half of US adults reporting delaying or forgoing medical care in the last year due to cost.[9] With rising affordability concerns, consumers are turning to state policymakers to intervene. A 2021 survey from the Robert Wood Johnson Foundation found that four in five Americans viewed the government as the responsible entity for addressing health care affordability.[10] States can use data to understand the local consumer out-of-pocket experience and place this experience in the context of broader economic trends.

Consider These Sources from the Inventory to Examine Consumer Out-of-Pocket Experience and Health Care Affordability Questions

- **[Low Difficulty]** Altarum's **Consumer Healthcare Experience State Surveys (CHESS) data** (see **Inventory** source N1) offer detailed state-specific information related to consumer affordability burdens, including variation by demographic characteristics. CHESS data are available through individual state data briefs on Altarum's Healthcare Value Hub website. However, state-specific briefs are not available for all states, and the briefs may capture different data points for different states. Additionally, raw data are not available for download and the website does not support data querying. Analysts should also be aware that the survey data captured in the state data briefs comes from a limited sample of individuals who are contacted to complete surveys.
  - **Analytic Opportunities:** Examine the proportion of individuals in a state who report being uninsured due to high premium costs. Compare survey results from peer states to examine differences by state.
- **[Low Difficulty]** The Agency for Healthcare Research and Quality (AHRQ) **Medical Expenditure Panel Survey (MEPS) Insurance Component (IC)** (see **Inventory** source F9) surveys approximately 40,000 private-sector employers annually about their health insurance plans. MEPS-IC includes national and state-level data related to benefit design, annual premiums, and employee cost-sharing, and can be used to examine trends in covered benefit out-of-pocket costs associated with employer-sponsored health insurance.[v] MEPS-IC data are updated annually, and analysts can download detailed annual data files for free from the AHRQ website with data as recent as 2021 (as of September 2023). AHRQ has also developed multiple interactive data tools that analysts can use to query and visualize data rather than analyze the raw data files.
  - **Analytic Opportunities:** The MEPS-IC interactive data tool allows analysts to quickly examine average premium costs among individuals with different types of private sector ESI coverage (e.g., single versus family coverage) by state. Consider using the tool to examine intra- and inter-state trends in the average total employee and/or employer premium contribution among individuals enrolled for single, single-plus-one, or family coverage.
- **[Low Difficulty]** The Current Population Survey (CPS) Annual Social and Economic Supplements (ASEC) (see **Inventory** source F5) from the U.S. Census Bureau and the Occupational Employment and Wage Statistics (OEWS) (see **Inventory** source F11) from the U.S. Bureau of Labor Statistics (BLS) do not include data on consumer out-of-pocket spending but comprise economic data that can provide helpful context when measuring health care affordability. For example, CPS ASEC includes data related to personal and household income,

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v Data do not capture out-of-pocket spending for health care goods and services that are not covered under medical insurance (e.g., uncovered prescription drugs, over-the-counter medications, dental and vision care).

poverty, educational attainment, and other economic indicators. CPS ASEC data are updated monthly. Analysts can download raw data for free from the U.S. Census Bureau website or analyze the data with user-friendly, interactive querying tools. OEWS includes annual data on employment and wages at the national, state, and metropolitan statistical area levels. Like the CPS, analysts can download raw OEWS data from the BLS website or use the user-friendly "Data Finder." Consider using data from the CPS ASEC to contextualize consumer out-of-pocket spending relative to the trends in household/personal income or data from the OEWS data to provide context related to trends in employment rates.

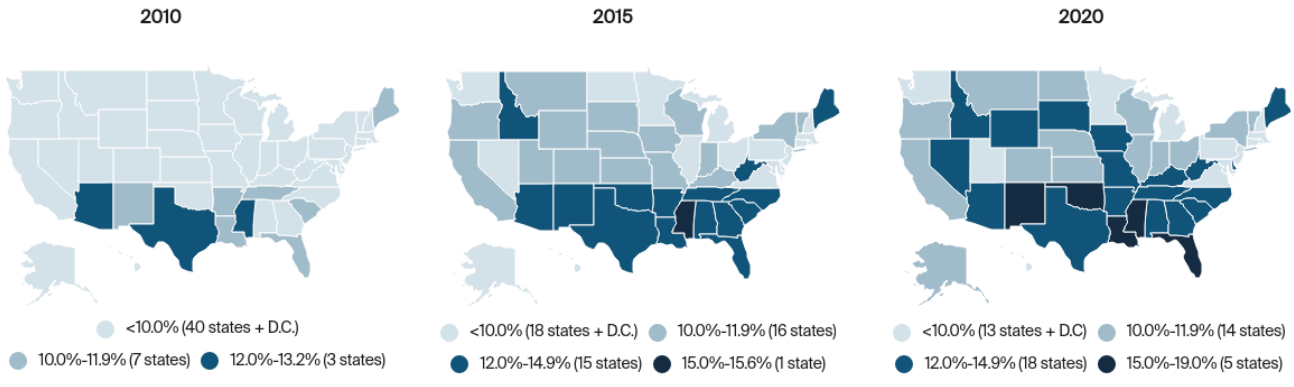
- **Analytic Opportunities:** Consider using the CPS ASEC online query tool to examine trends in average total family income by state. Use data pulled from the MEPS-IC (described above) to compare average total family income with average premium costs for individuals enrolled in ESI family coverage plans to examine affordability of health care coverage.

Analysts can investigate the consumer out-of-pocket experience by assessing trends in premiums and individual cost-sharing, and compare these trends to other economic indicators, such as household income and inflation, to present a more holistic view of health care affordability. State technical staff should always consult **MEPS-IC** and **CPS ASEC** user guides and subject matter experts, and review previous data analyses prior to approaching new data sources.

Data in Action

In 2020, The Commonwealth Fund used data from MEPS-IC and CPS ASEC to examine trends in health care affordability over time. The results show that premium contributions and deductibles among individuals enrolled in ESI plans comprised 10% or more of household income in 37 states in 2020, compared with only 10 states in 2010, underscoring that health care affordability is a growing national concern (Figure 5).[11]

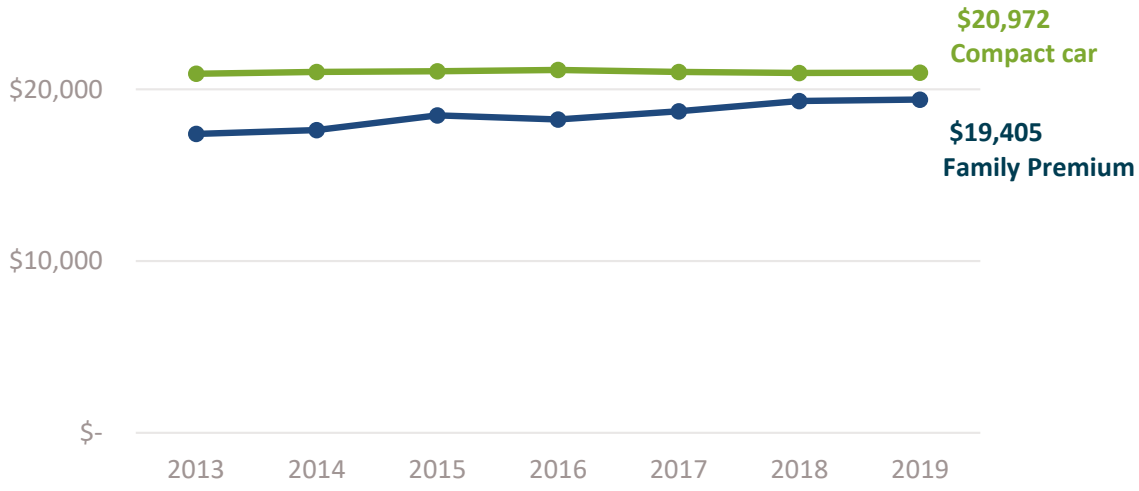
FIGURE 5. **Average Employee Share of Premium Plus Average Deductible as Percent of Median State Income**



Source: Collins S, Radley D, Baumgartner J. "State Trends in Employer Premiums and Deductibles, 2010-2020". The Commonwealth Fund. January 2022. **https://www.commonwealthfund.org/publications/fund-reports/2022/jan/state-trends-employer-premiums-deductibles-2010-2020**. Accessed October 9, 2023.

The Oregon Health Authority used data from MEPS-IC, Kelley Blue Book, and BLS to compare trends in family plan premiums to the cost of a new compact car (Figure 6). OHA found the average annual cost of family health insurance premiums was approaching the cost of a new compact car in the state, with the average annual cost of family premiums totaling $19,405 and the price of a compact car averaging $20,972 in 2019.[12]

FIGURE 6. **The Average Cost of Family Health Insurance Premiums in Oregon Is Approaching the Cost of a New Compact Car**



Source: Oregon Health Authority (OHA). "Impact of Health Care Costs on People in Oregon, 2019". April 2022. https://www.oregon.gov/oha/HPA/HP/Cost%20Growth%20Target%20documents/Impact-of-Health-Care-Costs-on-Oregonians.pdf. Accessed October 9, 2023.

Additional Resources

- **MEPS Insurance Component Chartbook 2021**. The MEPS-IC chartbook includes analyses using private-sector MEPS-IC data from 2009 to 2021, detailing trends in health insurance benefit design, eligibility, enrollment, premiums, and cost sharing. The chartbook includes relevant links to MEPS-IC data tables throughout.
- **How Affordability of Employer Coverage Varies by Family Income**. This 2022 brief from the Peterson-KFF Health System Tracker analyzes the Current Population Survey to assess the share of family income individuals with ESI paid toward premiums and out-of-pocket costs. The report found that lower-income families spend a greater share of income on health care services compared to those with higher incomes.

4 Access to and Utilization of Health Care Services

Studies show that access to care is limited for many US populations, and that people often forgo needed care due to costs. To provide context for who is being served by our health care system and what reforms are needed, analysts may consider pairing health care spending analyses with examinations of health care access and utilization. Data on access to health care services can be found in survey data, which can be timely but high-level, or more granular but more time- and resource-intensive administrative data (e.g., claims/encounters) that captures utilization.

Consider These Sources from the Inventory to Examine Access to and Utilization of Health Care Services Questions

- **[Low Difficulty]** The **Behavioral Risk Factor Surveillance Survey (BRFSS)** data (see **Inventory** source F3), conducted by the U.S. Centers for Disease Control and Prevention (CDC), is an annual telephone survey that collects data on health risk behaviors (e.g., tobacco and alcohol use), health conditions (e.g., chronic disease prevalence), and access to health care services (e.g., health care cost burden). The BRFSS includes information on the rate at which individuals went without needed medical care due to costs, as well as the utilization of preventive services, including screenings, immunizations, and primary care visits. Analysts interested in using BRFSS data can download free raw data files or use a variety of user-friendly, online querying tools to run state- or national-level analyses on the CDC website. BRFSS data are updated annually, with data as recent as 2021 available for download.
  - **Analytic Opportunities:** Consider using BRFSS data to analyze the proportion of adults who reported not seeing a doctor in the past year because of cost; results may be stratified by sociodemographic characteristics such as respondent race and ethnicity to assess potential disparities in access to care. Results can be calculated at the state level and compared to trends in peer states.
- **[Low Difficulty]** The **National Health Interview Survey (NHIS)** (see **Inventory** source F10) is another household survey from the CDC that provides data on access to and utilization of health services. Like the BRFSS, the NHIS includes questions that identify individuals who forgo needed health services due to costs, but it also includes other access-related questions related to prescription drugs and mental health care and utilizes a nationally representative sample of all ages. However, many NHIS data points are only available at the national level, while BRFSS data are generally available at the national and state levels. NHIS data are available via an interactive online querying system on the CDC website, although this system is more limited than the BRFSS querying system. NHIS data are updated annually, with data as recent as 2022 available for download.
  - **Analytic Opportunities:** The NHIS includes data on the proportion of respondents who report access issues for different types of health care services. Consider using these metrics to compare whether some types of services are harder to access than others.
- **[Low Difficulty]** **Altarum's Consumer Healthcare Experience State Surveys (CHESS)** (see **Inventory** source N1) offers static, state-specific information related to health care access issues. CHESS surveys include more detailed questions than what is available via NHIS or BRFSS, but the survey results are state-specific point-in-time estimates and cannot be used to examine changes in access measures over time. State-specific reports are available via the Altarum website; raw data are not available for download and interactive

querying tools are not available. Analysts should also be aware that the survey data captured in state data briefs comes from a limited sample of individuals who are contacted to complete surveys and the survey years are not consistent across states.

  - **Analytic Opportunities:** Analysts may consider using CHESS data to examine potential inequities in access to care by comparing the proportion of individuals who worry about health care affordability by respondent race and ethnicity. Analysts can also search for surveys from peer states to examine differences by state.

- **[High Difficulty] All-payer claims databases (APCDs)** (see **Inventory** source S1) include administrative claims data that may be used to assess health care service utilization. APCDs capture claims data for, on average, at least two-thirds of a state's population across most payer types, making them a strong source for utilization trends. APCDs provide analysts flexibility to broadly or narrowly define different types of services of interest based on procedure codes, revenue codes, place of service codes, and national drug codes. State technical staff interested in using state APCDs may work with their local state health data organization to obtain access. Most APCDs are updated quarterly, but this frequency may vary by state and there may be additional data lag for Medicare claims.

  - **Analytic Opportunities:** APCDs offers flexibility to examine trends in utilization by service types that can be defined according to custom criteria. For example, analysts have the flexibility to define very broad (e.g., inpatient vs. outpatient) or very narrow (e.g., outpatient colonoscopy with biopsy vs. outpatient colonoscopy without biopsy) service categories.

- **[High Difficulty]** Private claims databases (see **Inventory** source N7) or the Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files (TAF) data (see **Inventory** source F12) may be used to examine utilization by analysts in states without APCDs. These data are similar to those in APCDs in terms of content and structure, but typically only capture a limited portion of the market in a given area. For example, private claims databases often only include data on limited subsets of the commercially insured population. Similarly, the TAF data only capture claims for individuals enrolled in Medicaid. Private claims and TAF data offer an advantage over APCDs in that they support cross-state analyses.[vi] However, access to these data sources typically requires licensing fees and data use agreements. Private claims and TAF data are updated annually, and some data sources have data as recent as 2022.

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vi While the private claims databases profiled in the **Inventory** include multiple states, some private claims databases, such as Washington's voluntary APCD effort through the Washington Health Alliance, only include data for one state and would not readily support cross-state analyses.

– **Analytic Opportunities:** TAF data include Medicaid enrollment as well as fee-for-service claims and managed care encounter records from every Medicaid program in the US. Consider using these data to examine variation in service utilization trends across states to examine the impact of Medicaid policy changes (e.g., 1115 waivers) on utilization of specific services.

Impact of Social Drivers of Health on Access to and Utilization of Health Care Services

Social drivers of health like income, education, employment, and food security, as well as demographic characteristics such as race, ethnicity, and language can have a dramatic — and often reinforcing — impact on an individual's ability to access and utilize health care services. A significant body of research has found that social drivers of health can significantly impact health outcomes, and racial disparities in access to care persist in the United States.[13,14,15] Unfortunately, many health care system data sources fail to capture complete and accurate data on individuals' social drivers of health or race, ethnicity, or language. For example, while race and ethnicity data fields are often included in administrative claims datasets (e.g., APCDs, private claims data, T-MSIS TAF data), individual-level data is frequently missing or misreported.[16]

Analysts interested in examining the impact of social drivers of health on access to and utilization of health services may consider pairing community-level administrative data analyses with survey data like the BRFSS, NHIS, and CHESS, which collect more robust data on social drivers of health and individual demographic characteristics. Analysts may also consider leveraging probabilistic matching approaches combined with data from the US Census Bureau to impute race and ethnicity information based on an individual's surname or geographic area (i.e., using Census data to estimate the likelihood that an individual falls into a particular racial/ethnic group based on that individuals last name and zip code).[vii] Finally, the datasets that are missing information on race and ethnicity or other social drivers of health may be integrated with other datasets based on availability of linkable person IDs.[17]

To examine trends in utilization or access measures over time, results can be stratified by market (e.g., commercial, Medicaid, or Medicare), type of service (e.g., hospital, pharmacy, or physician), or population demographic characteristics (e.g., age, gender, or race/ethnicity). State technical staff should always consult available user guides, subject matter experts, and review previous data analyses prior to approaching new data sources.

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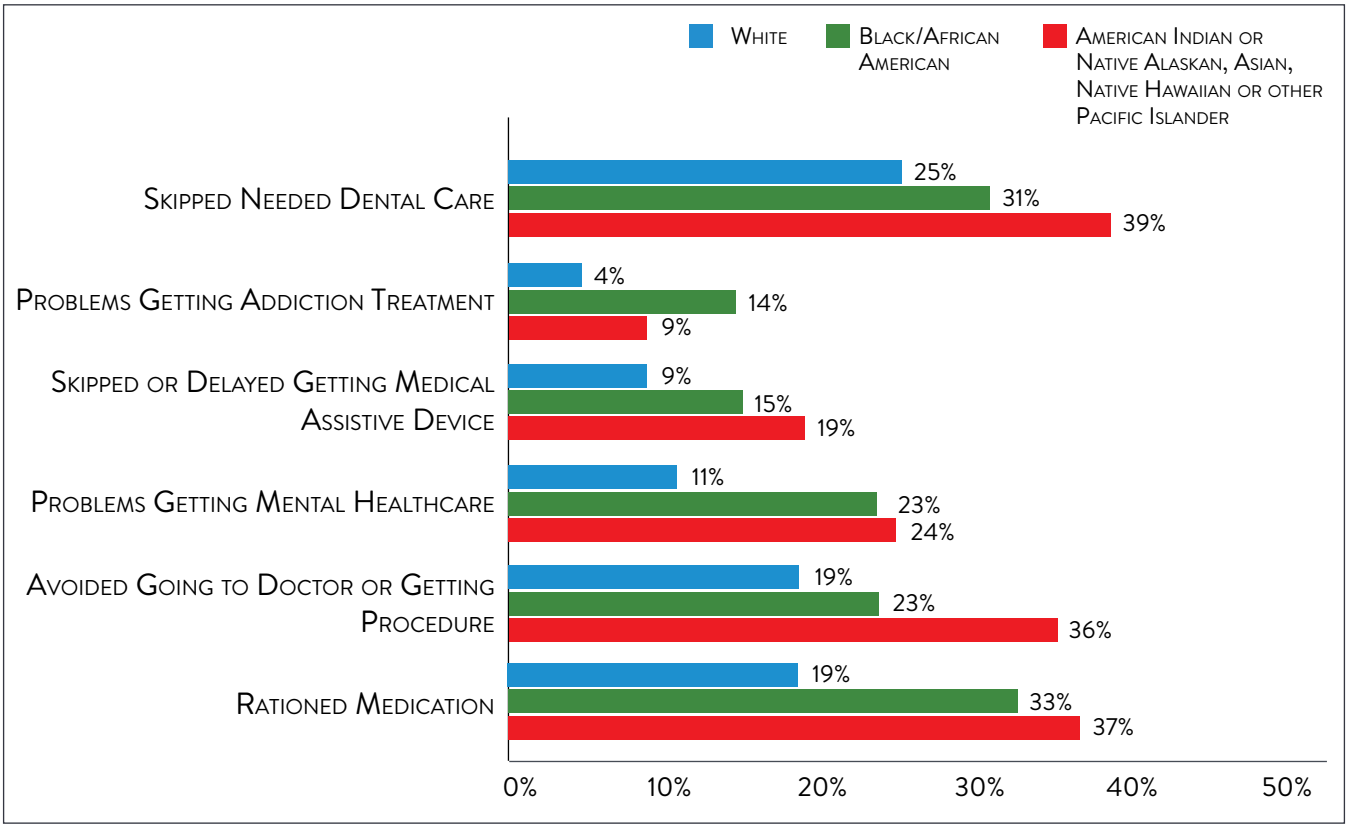
vii Analysts interested in learning more about the imputation approach may review this manuscript by: Derose SF, Contreras R, Coleman KJ, Koebnick C, Jacobsen SJ. Race and ethnicity data quality and imputation using U.S. Census data in an integrated health system: the Kaiser Permanente Southern California experience. Med Care Res Rev. 2013 Jun;70(3):330-45. doi: 10.1177/1077558712466293. Epub 2012 Nov 20. PMID: 23169896. Accessed August 10, 2023. Available **here**.

Data in Action

The Altarum CHESS surveys investigate a variety of health care access issues, including whether individuals forgo different health care services due to costs and whether findings vary by population demographics. For example, in its October 2022 brief examining access issues in Connecticut, Altarum assessed the percentage of individuals who went without select types of health care services stratified by race.[18] Results from the analysis, show that individuals of color were more likely to report forgoing needed services than White individuals (Figure 7). For example, 19% of White respondents reported rationing medication compared with 33% to 37% of respondents of color. Unlike administrative data, survey data are often more recent, can directly assess individuals' perceptions of access barriers, and can often support demographic segmentation-based analyses.

FIGURE 7. **Percent Who Went Without Select Types of Care Due to Cost, by Race**



Source: 2022 Poll of Connecticut Adults, Ages 18+, Altarum Healthcare Value Hub's Consumer Healthcare Experience State Survey

Source: Altarum Healthcare Value Hub. "Data Brief No. 133, Connecticut Residents Struggle to Afford High Healthcare Costs; Worry about Affording Healthcare in the Future; Support Government Action across Party Lines." October 2022. **https://www.healthcarevaluehub.org/application/files/1816/6610/6517/Hub-Altarum_Data_Brief_No._133_-_Connecticut_Healthcare_Affordability.pdf**. Accessed October 9, 2023.

Local Surveys

While numerous federal and national surveys exist that capture data on access to health care services, analysts should also consider leveraging local surveys that may provide more in-depth information on potential access issues. For example, several states including Massachusetts, California, Ohio, and West Virginia have developed their own surveys that are similar to the BRFSS and NHIS surveys but collect more granular data on social drivers of health, demographics, and individual experiences with the health care system. Analysts interested in examining access issues should research whether local health surveys are regularly conducted in their state and should consider leveraging these data in lieu of, or in addition to, data from other survey sources described in this section.

Additional Resources

- **Gender disparities in difficulty accessing healthcare and cost-related medication non-adherence: The CDC behavioral risk factor surveillance system (BRFSS) survey**. This 2021 paper analyzed 2016–2019 BRFSS data to examine the impact of gender on obtaining health care coverage, accessing health care services, and adhering to medication. The authors also examined the confounding impact of race, ethnicity, and age on access.
- **Treated Chronic Disease Prevalence and Spending in Minnesota**. In this 2022 report, Minnesota Department of Health (MDH) calculated health care spending in the state attributable to select chronic conditions. The report uses multiple data sources to achieve this objective, including the state's APCD, BRFSS, NHIS, and MEPS.

Notes

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