AHRQ Agency for Healthcare Research and Quality
MEPS Medical Expenditure Panel Survey

Concentration of Healthcare Expenditures and Selected Characteristics of People with High Expenses, United States Civilian Noninstitutionalized Population, 2018-2022

Statistical Brief #560 | March 2025 | Adriana Hernandez-Viver, MS and Emily M. Mitchell, PhD

Introduction

National health expenditures in the United States as a percentage of GDP increased in 2020 due to the pandemic and remained elevated in 2021[1]. However, by 2022, growth in health expenditures returned to levels more consistent with those seen before the pandemic. Healthcare expenses in the United States are typically highly concentrated among a small proportion of people, with 5 percent of the population accounting for nearly half of total healthcare expenditures [2].

In this Statistical Brief, data from the Agency for Healthcare Research and Quality's Medical Expenditure Panel Survey Household Component are used to examine the concentration of healthcare expenses in 2022, comparing it with the early pandemic years of 2020 and 2021 and pre-pandemic years 2018 and 2019. The most commonly treated conditions among persons in the top expenditure groups are identified, and the shares of expenses by age groups, race/ethnicity, type of medical service, source of payment, and number of AHRQ-defined priority conditions are illustrated for 2022. Expenditures include all sources of payment for medical care, including payments by private insurance, Medicare, Medicaid, out-of-pocket expenses, and other sources. All differences discussed in the text are statistically significant at the 0.05 level.

Highlights

- In 2022, the top 1 percent of people ranked by their healthcare expenditures accounted for 21.7 percent of total healthcare expenditures, while the bottom 50 percent accounted for less than 3 percent.
- People with the top 1 percent of expenses had an average of $147,071 in healthcare expenditures in 2022, which was lower than in 2021.
- People ages 65 and older and non-Hispanic Whites were disproportionately represented in the above median expenditure tiers.
- Ambulatory events, inpatient stays, and prescribed medicines each accounted for about 30 percent of healthcare expenses for people with the top 5 percent of expenses.
- Over three-quarters of expenses for people with the top 5 percent of expenses were paid for by private insurance or Medicare.
- Among adults in the top 5 percent expenditure tier, 75.1 percent had two or more of the AHRQ-designated priority conditions.

1 Hartman M, Martin A B, Whittle L, et al. National Health Care Spending in 2022: Growth Similar to Prepandemic Rates. Health Affairs. 2024; 43:1, 6-17. doi: https://doi.org/10.1377/hlthaff.2023.01360

2 Hernandez-Viver, A., and Mitchell, E.M. *Concentration of Healthcare Expenditures and Selected Characteristics of Persons with High Expenses, U.S. Civilian Noninstitutionalized Population, 2021*. Statistical Brief #556. March 2024. Agency for Healthcare Research and Quality, Rockville, MD. https://meps.ahrq.gov/data_files/publications/st556/stat556.shtml

Findings

Overall expenditures, 2018 - 2022 (figures 1 and 2, table 1)

In 2022, the top 1 percent of people ranked by their healthcare expenditures accounted for 21.7 percent of total healthcare expenditures among the U.S. civilian noninstitutionalized population (figure 1). People in the top 5 percent of the expenditure distribution accounted for about half (49.7 percent) of healthcare expenses in 2022. On the other hand, people with the bottom 50 percent of expenses in 2022 accounted for only 2.8 percent (100 minus 97.2) of total healthcare expenses.

Average costs for people in the top expenditure tier were higher in 2021 compared with 2022. After adjusting for inflation[3], people with the top 1 percent of expenses in 2022 had an average of $147,071 in healthcare expenditures during the year, which was approximately $30,000 lower than in 2021 (figure 2).

People with the top 1 percent of healthcare expenses are defined as those with healthcare costs of $80,990 or more in 2022. Expenses for people in the bottom 50 percent of the distribution were less than $1,361 during 2022. Cut-points for additional percentile groups are shown in table 1.

Table 1. Percentile of population ranked by healthcare expenditures during the year

Percentile of Population	Annual healthcare expenditures (inflated to 2022 dollars)				
	2022	2021	2020	2019	2018
Top 1%	$80,990 or more	$92,906 or more	$92,920 or more	$88,632 or more	$83,300 or more
Top 5%	$30,206 or more	$32,032 or more	$30,650 or more	$31,267 or more	$30,402 or more
Top 10%	$16,202 or more	$17,250 or more	$16,175 or more	$17,214 or more	$16,901 or more
Bottom 50%	Less than $1,361	Less than $1,471	Less than $1,287	Less than $1,490	Less than $1,519

Age (figure 3)

Older people were disproportionately represented in the higher expenditure tiers. In 2022, persons 65 and older constituted 18.1 percent of the U.S. civilian noninstitutionalized population, and 21.6 percent were under age 18. Among people with the top 5 percent of expenses, however, 40.5 percent were 65 and older, while only 4.9 percent were under age 18. In contrast, among people in the bottom 50 percent expenditure tier, 29.5 percent were under the age of 18 while only 7.4 percent were 65 years and older.

Race/ethnicity (figure 4)

Non-Hispanic Whites were disproportionately represented among people with the top 50 percent of expenses, while Hispanics were proportionately less likely to be in this higher expenditure group. Non-Hispanic Whites comprised 57.9 percent of the U.S. civilian noninstitutionalized population in 2022 but accounted for 68.2 percent of people with the top half of expenses. Hispanics, on the other hand, comprised 19.3 percent of the total population but only 12.7 percent of people with above median expenses.

Type of service (figure 5)

Among people with the top 5 percent of expenditures, the majority of medical expenses were associated with ambulatory events (32.5 percent), inpatient stays (27.9 percent) and prescribed medicines (27.8 percent).

For people with the bottom 50 percent of expenses, over half of their medical expenses were for ambulatory events (56.3 percent), and 11.2 percent were for prescribed medicines. The proportion of expenses for inpatient stays (0.1 percent) and home healthcare (0.1 percent) in this group was negligible.

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[3] Dollars were inflated to 2022 levels using the Gross Domestic Product (GDP) price index (see https://meps.ahrq.gov/about_meps/Price_Index.shtml for more details)

Source of Payment (figure 6)

Medicare and private insurance paid for approximately three-quarters of expenses for people with the top 5 percent of expenditures (30.8 percent for Medicare and 44.4 percent for private insurance), while out-of-pocket payments comprised only 8.0 percent of expenses for this group.

For people in the bottom 50 percent of expenses, out-of-pocket payments accounted for over one-quarter of their expenditures (26.2 percent), while Medicare payments accounted for only 6.1 percent.

Health Conditions (figures 7 and 8)

The most commonly treated condition among people with the top 5 percent of expenses in 2022 was hypertension (42.9 percent), followed by hyperlipidemia (35.6 percent), and musculoskeletal pain and back problems (30.6 percent). In the overall population, the percentages of people who received treatment for these conditions were 18.7, 14.6, and 12.2 percent, respectively. Other commonly treated conditions for people with the top 5 percent of expenses included diabetes mellitus, injuries, anxiety, cancer, and arthritis. Note that while these conditions are the most common among people with high expenses, the majority of these are not necessarily the most expensive conditions to treat. Rather, the top expenditure groups are more likely to include people with multiple chronic conditions or costly treatments (e.g., surgeries, hospitalizations) associated with these conditions.

MEPS also collects information about a select group of chronic medical conditions that are considered priority conditions due to their prevalence, expense, or relevance to policy. Adults (those ages 18 and older) were asked if they had ever been diagnosed as having high blood pressure, heart disease, stroke, emphysema, high cholesterol, cancer, diabetes, arthritis, or asthma. They were also asked whether they had experienced joint pain or chronic bronchitis in the last 12 months. Among adults in the top 5 percent expenditure tier, 75.1 percent had two or more of these conditions. In contrast, among adults in the bottom 50 percent expenditure tier, 22.9 percent had two or more priority conditions while 49.9 percent had no priority conditions.

Data Source

The estimates shown in this Statistical Brief are based on data from the MEPS 2018 - 2022 Full Year Consolidated Files (HC-209, HC-216, HC-224, HC-233, and HC-243) and the MEPS 2022 Medical Conditions file (HC-241).

Definitions

Age

Age was defined as age at the end of the year 2022 (or on last date of MEPS eligibility if the person was out of scope at the end of the year).

Expenditures

Total expenditures were defined as the sum of payments from all sources to hospitals, physicians, other healthcare providers (including dental care), and pharmacies for services reported by respondents in the MEPS-HC. For comparisons across years, dollar amounts were inflated to 2022 levels using the Gross Domestic Product (GDP) price index.

Expenditure Percentiles

Expenditure percentiles were formed by ordering sampled people by their total expenditures from highest to lowest, then allocating people to groups based on weighted percentages of the population. Near the cut point of each percentile, a person was included in the top percentile group if their added weight did not surpass the specified percentile. In the case of ties, where two or more people had the same expenditures close to a percentile cut point, the person with the lower weight was included in the higher percentile group. In this brief, the 'Bottom 50%' and 'Top 50%' are mutually exclusive, while the 'Top 50%', 'Top 10%', 'Top 5%', and 'Top 1%' are not.

Health Conditions

The health conditions reported in this statistical brief were the most commonly treated conditions among people with high expenses and are not mutually exclusive. People were classified as treated for a particular condition if they had one or more healthcare events (i.e., office-based, hospital outpatient or emergency room visits, hospital inpatient stays, prescribed medicine purchases, or home healthcare) where the condition was reported as leading to or having been discovered during the event (see Mitchell, E., Ahrnsbrak, R., Soni, A., and Machlin, S. (2023), parts 1 and 2, for more information about analyzing MEPS medical conditions data).

Conditions reported by the household were coded into ICD-10 codes, which were then collapsed to Clinical Classification Software Refined (CCSR) codes (see https://www.hcup-us.ahrq.gov/toolssoftware/ccsr/ccs_refined.jsp for details). Similar CCSR codes were further grouped into broader condition categories. For the purposes of this brief, "catch-all" condition categories (e.g, "Other care and screening") are excluded for this analysis. The conditions discussed in this brief were defined as follows:

Collapsed Condition Category	Classification Software Refined (CCSR) Codes
Hypertension	CIR007, CIR008
Hyperlipidemia	END010
Musculoskeletal Pain and Back Problems (including joint and back pain)	MUS010, MUS011, MUS022, MUS038
Diabetes Mellitus	END002 – END006
Injuries	INJ000-INJ021, INJ024 – INJ027, INJ032, INJ038 – INJ058, INJ061 – INJ064, INJ068, INJ073, INJ074
Anxiety	MBD005
Cancer	NEO000 – NEO072, NEO074, FAC006
Arthritis	MUS006

Priority Conditions

MEPS collects information about a select group of medical conditions that have been specified by AHRQ as priority conditions due to their prevalence, expense, or relevance to policy. For most conditions (except joint pain and chronic bronchitis), respondents were asked if they had ever been diagnosed with the condition. For joint pain and chronic bronchitis, respondents were asked if they experienced the condition in the last 12 months. For this brief, adults with any of the following conditions were categorized into "One Condition" or "Two or More Conditions" as appropriate:

- High blood pressure (identified as HIBPDX = 1)
- Heart disease, including coronary heart disease (CHDDX = 1), angina (ANGIDX = 1), myocardial infarction (MIDX = 1), and other unspecified heart disease (OHRTDX = 1)
- Stroke (STRKDX = 1)
- Emphysema (EMPHDX = 1)
- Chronic bronchitis in the last 12 months (CHBRON31 = 1 and/or CHRBRON53 = 1)
- High cholesterol (CHOLDX = 1)
- Cancer (CANCERDX = 1)
- Diabetes (DIABDX_M18 = 1)
- Arthritis (ARTHDX = 1) or joint pain in the last 12 months (JTPAIN31_M18 = 1 and/or JTPAIN53_M18 = 1)
- Asthma (ASTHDX = 1)

Race/Ethnicity

MEPS respondents were asked if each family member was Hispanic or Latino and about each member's race.

Based on this information, categories of race and Hispanic origin were constructed as follows:

- Hispanic
- White, non-Hispanic (no other races reported)
- Black, non-Hispanic (no other races reported)
- Asian, non-Hispanic (no other races reported); other, non-Hispanic (no other races reported); or multiple races, non-Hispanic

Sources of payment

- **Out-of-pocket**: Expenses paid by the patient or other family member.
- **Private insurance**: Payments made by insurance plans covering hospital and medical care (excluding payments from Medicare, Medicaid, and other public sources). Payments from Medigap plans or TRICARE (Armed Forces-related coverage) are included.
- **Medicare**: Payments by Medicare, which is a federally financed health insurance plan for people aged 65 and older, people receiving Social Security disability payments, and people with end-stage renal disease.
- **Medicaid/CHIP**: Payments by Medicaid and the Children's Health Insurance Program (CHIP), which are means-tested government programs jointly financed by federal and state funds that provide health care to those who are eligible. Medicaid is designed to provide health coverage to families and individuals who are unable to afford necessary medical care while CHIP provides coverage to additional low-income children not eligible for Medicaid. Eligibility criteria for both programs vary significantly by state.
- **Other sources**: Includes payments from the Department of Veterans Affairs; other federal sources (Indian Health Service, and other care provided by the Federal Government, except TRICARE); various state and local sources (community and neighborhood clinics, state and local health departments, and state programs other than Medicaid/CHIP); Workers' Compensation; and various unclassified sources (e.g., charity, automobile, homeowner's, or other liability insurance, and other miscellaneous or unknown sources).

Type of service

- **Ambulatory**: Includes office-based visits (visits to medical providers seen in office settings), hospital outpatient visits, and emergency room visits. Expenses for outpatient and emergency room visits include payments for services covered under the basic facility charge and those for separately billed physician services. Emergency room payments exclude expenses for emergency room services that are included in a hospital inpatient admission.
- **Hospital inpatient**: Includes room and board and all hospital diagnostic and laboratory expenses associated with the basic facility charge, payments for separately billed physician inpatient services, and some emergency room expenses incurred immediately prior to inpatient stays.
- **Prescribed medicines**: Includes expenses for all prescribed medications that were initially purchased or refilled during the year.
- **Home health**: Includes expenses for home care provided by agencies and independent providers.
- **Dental and other**: Includes payments for services to any type of dental care provider as well as expenses for care in all categories not specified as a separate category (e.g., vision aids, medical equipment and supplies).

About MEPS

The MEPS-HC is a nationally representative survey that collects detailed information on healthcare utilization and expenditures, health insurance, and health status, as well as a wide variety of social, demographic, and economic characteristics for the U.S. civilian noninstitutionalized population. The MEPS-HC is cosponsored by the Agency for Healthcare Research and Quality (AHRQ) and the National Center for Health Statistics (NCHS). More information about the MEPS-HC can be found at https://meps.ahrq.gov/.

References

The following methodology reports contain information on the survey and sample designs for the MEPS Household and Medical Provider Components (HC and MPC, respectively). Data collected in these two components are jointly used to derive MEPS health care expenditure data.

Cohen, J. *Design and Methods of the Medical Expenditure Panel Survey Household Component*. MEPS Methodology Report No. 1. AHCPR Pub. No. 97-0026. Rockville, MD. Agency for Healthcare Policy and Research, 1997. http://meps.ahrq.gov/mepsweb/data_files/publications/mr1/mr1.pdf

Chowdhury, S.R., Machlin, S.R., Gwet, K.L. *Sample Designs of the Medical Expenditure Panel Survey Household Component, 1996–2006 and 2007–2016*. Methodology Report #33. January 2019. Agency for Healthcare Research and Quality, Rockville, MD. https://meps.ahrq.gov/data_files/publications/mr33/mr33.pdf

Machlin, S.R., Chowdhury, S.R., Ezzati-Rice, T., DiGaetano, R., Goksel, H., Wun, L.-M., Yu, W., Kashihara, D. *Estimation Procedures for the Medical Expenditure Panel Survey Household Component.* Methodology Report #24. September 2010. Agency for Healthcare Research and Quality, Rockville, MD. https://meps.ahrq.gov/data_files/publications/mr24/mr24.shtml

Mitchell, E., Ahrnsbrak, R., Soni, A., and Machlin, S. *Analyzing Medical Conditions in MEPS: User Guide (Part 1 of 2). Methodology Report #36.* Rockville, MD: Agency for Healthcare Research and Quality; February 2023. https://meps.ahrq.gov/data_files/publications/mr36/mr36ug.shtml

Mitchell, E., Ahrnsbrak, R., Soni, A., and Machlin, S. *Analyzing Medical Conditions in MEPS: Detailed Reference Guide (Part 2 of 2). Methodology Report #36.* Rockville, MD: Agency for Healthcare Research and Quality; February 2023. https://meps.ahrq.gov/data_files/publications/mr36/mr36dr.shtml

Stagnitti, M.N., Machlin, S.R., Zodet, M.W., Saleska, E. *Design, Methods, and Field Results of the Medical Expenditure Panel Survey Medical Provider Component (MEPS MPC) including the Medical Organizations Survey (MOS)— 2016 Data Year.* Methodology Report #32. October 2018. Agency for Healthcare Research and Quality, Rockville, MD. https://meps.ahrq.gov/data_files/publications/mr32/mr32.pdf

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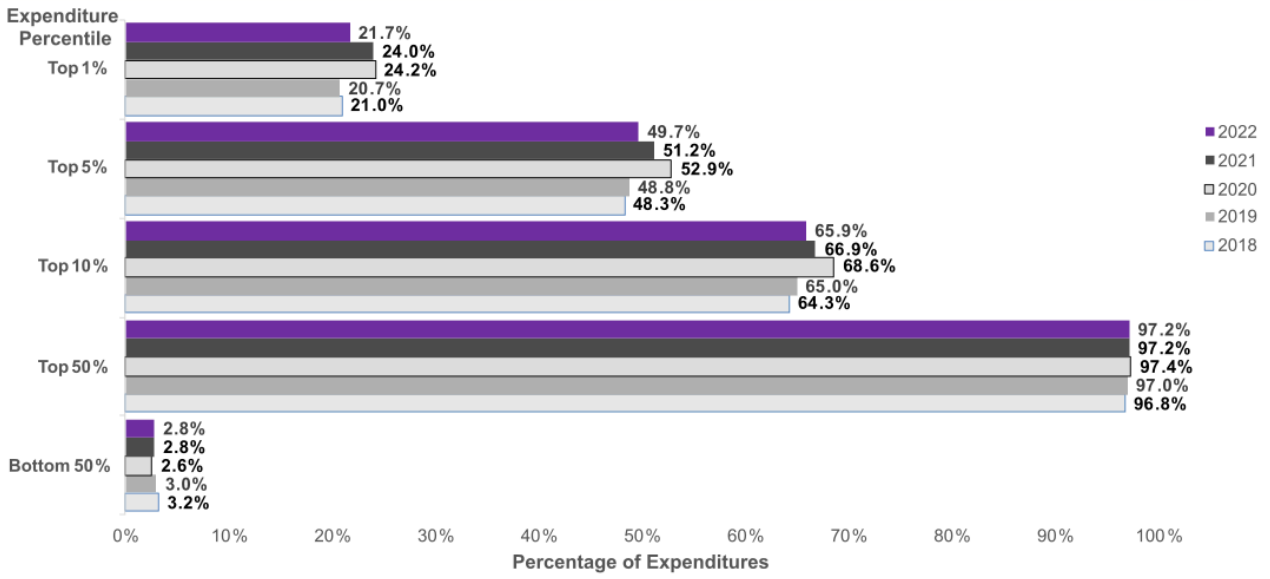
AHRQ welcomes questions and comments from readers of this publication who are interested in obtaining more information about access, cost, use, financing, and quality of healthcare in the United States. We also invite you to tell us how you are using this Statistical Brief and other MEPS data and tools and to share suggestions on how MEPS products might be enhanced to further meet your needs. Please email us at MEPSProjectDirector@ahrq.hhs.gov or send a letter to the address below:

Joel W. Cohen, PhD, Director
Center for Financing, Access, and Cost Trends
Agency for Healthcare Research and Quality
5600 Fishers Lane, Mailstop 07W41A
Rockville, MD 20857

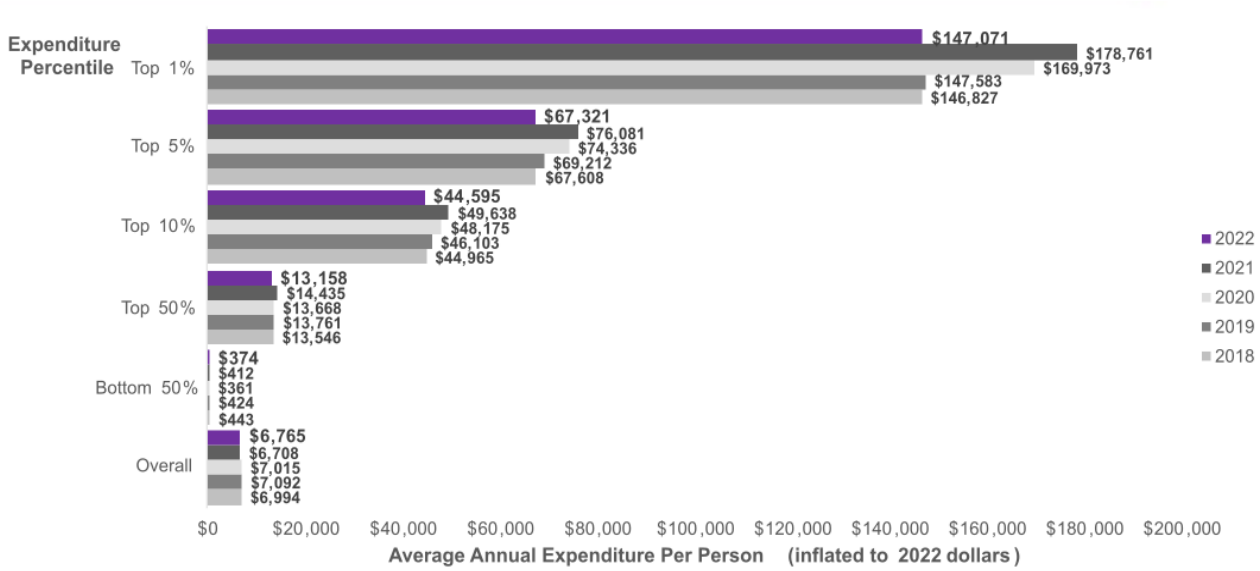
Figure 1. Concentration of healthcare expenditures by expenditure percentile, 2018 - 2022



Year	Top 1%	Top 5%	Top 10%	Top 50%	Bottom 50%
2022	21.7	49.7	65.9	97.2	2.8
2021	24.0	51.2	66.9	97.2	2.8
2020	24.2	52.9	68.6	97.4	2.6
2019	20.7	48.8	65.0	97.0	3.0
2018	21.0	48.3	64.3	96.8	3.2

Source: Agency for Healthcare Research and Quality. Medical Expenditure Panel Survey, Household Component, 2018-2022

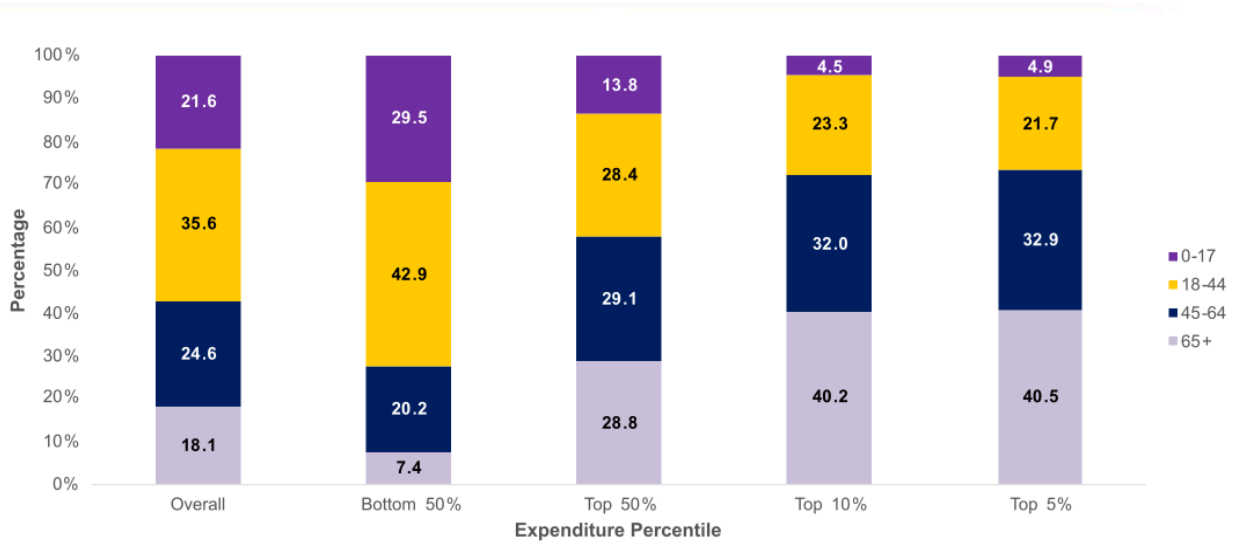
Figure 2. Average expenditure per person by expenditure percentile, 2018 - 2022



Year	Top 1%	Top 5%	Top 10%	Top 50%	Bottom 50%	Overall
2022	$147,071	$67,321	$44,595	$13,158	$374	$6,765
2021	$178,761	$76,081	$49,638	$14,435	$412	$6,708
2020	$169,973	$74,336	$48,175	$13,668	$361	$7,015
2019	$147,583	$69,212	$46,103	$13,761	$424	$7,092
2018	$146,827	$67,608	$44,965	$13,546	$443	$6,994

Source: Agency for Healthcare Research and Quality. Medical Expenditure Panel Survey, Household Component, 2018-2022

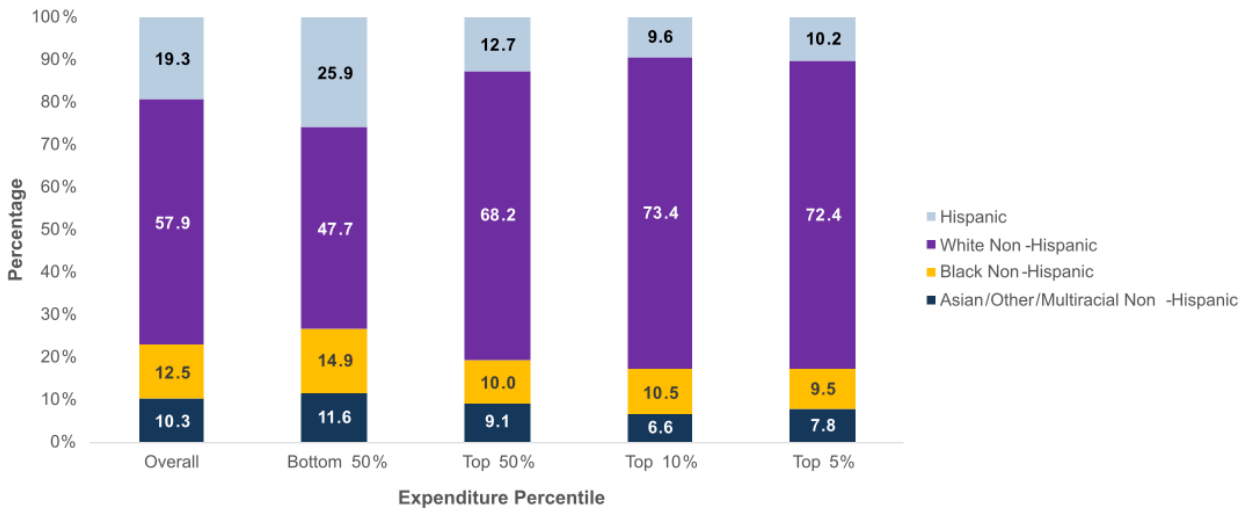
Figure 3. Percentage of people by age group and expenditure percentile, 2022



Age Group	Overall	Bottom 50%	Top 50%	Top 10%	Top 5%
0-17	21.6	29.5	13.8	4.5	4.9
18-44	35.6	42.9	28.4	23.3	21.7
45-64	24.6	20.2	29.1	32.0	32.9
65+	18.1	7.4	28.8	40.2	40.5

Source: Agency for Healthcare Research and Quality. Medical Expenditure Panel Survey, Household Component, 2022

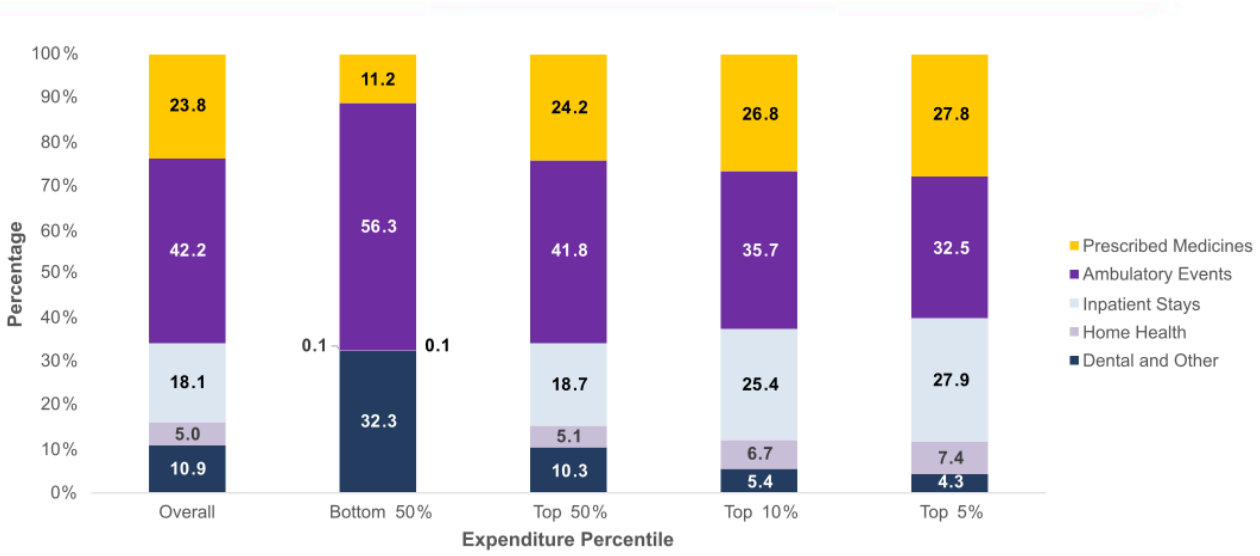
Figure 4. Percentage of people by race/ethnicity and expenditure percentile, 2022



Race/Ethnicity	Overall	Bottom 50%	Top 50%	Top 10%	Top 5%
Hispanic	19.3	25.9	12.7	9.6	10.2
White Non-Hispanic	57.9	47.7	68.2	73.4	72.4
Black Non-Hispanic	12.5	14.9	10.0	10.5	9.5
Asian/Other/Multiracial Non-Hispanic	10.3	11.6	9.1	6.6	7.8

Source: Agency for Healthcare Research and Quality. Medical Expenditure Panel Survey, Household Component, 2022

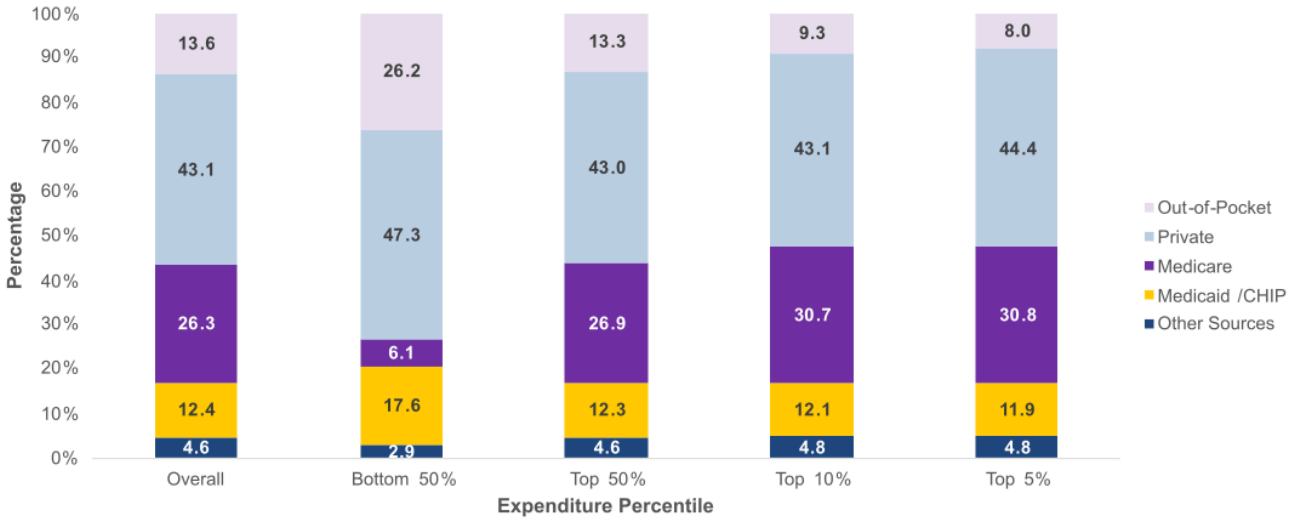
Figure 5. Percentage of expenditures by type of service and expenditure percentile, 2022



Type of Service	Overall	Bottom 50%	Top 50%	Top 10%	Top 5%
Prescribed Medicines	23.8	11.2	24.2	26.8	27.8
Ambulatory Events	42.2	56.3	41.8	35.7	32.5
Inpatient Stays	18.1	0.1	18.7	25.4	27.9
Home Health	5.0	0.1	5.1	6.7	7.4
Dental and Other	10.9	32.3	10.3	5.4	4.3

Source: Agency for Healthcare Research and Quality. Medical Expenditure Panel Survey, Household Component, 2022

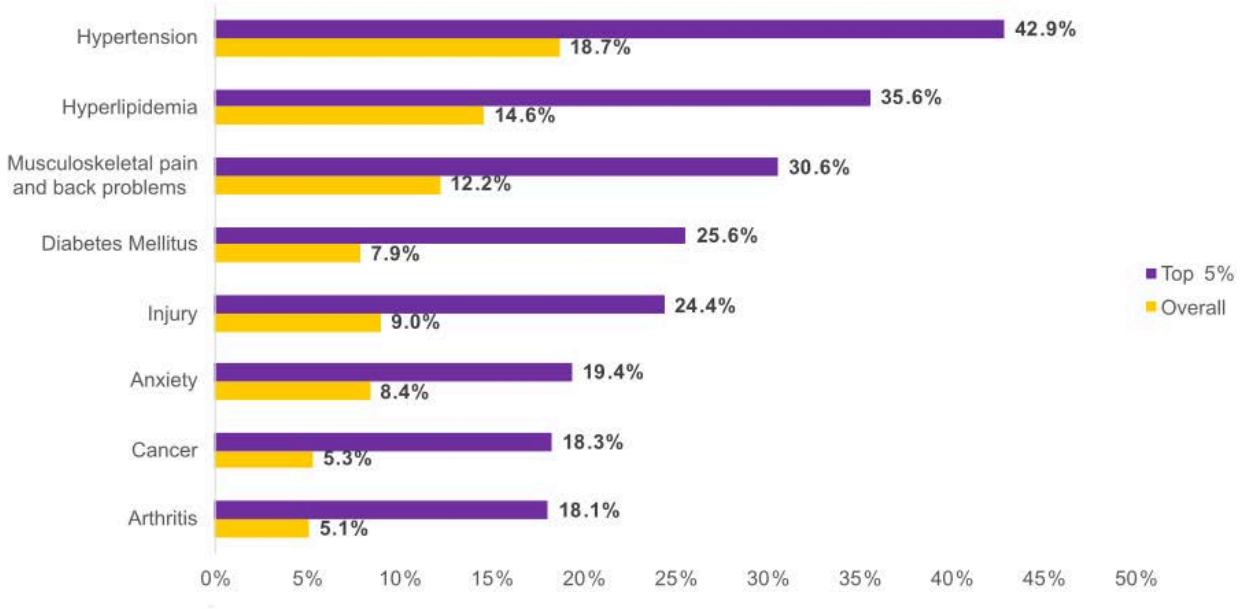
Figure 6. Percentage of expenditures by source of payment and expenditure percentile, 2022



Source of Payment	Overall	Bottom 50%	Top 50%	Top 10%	Top 5%
Out-of-Pocket	13.6	26.2	13.3	9.3	8.0
Private	43.1	47.3	43.0	43.1	44.4
Medicare	26.3	6.1	26.9	30.7	30.8
Medicaid/Children's Health Insurance Program (CHIP)	12.4	17.6	12.3	12.1	11.9
Other Sources	4.6	2.9	4.6	4.8	4.8

Source: Agency for Healthcare Research and Quality. Medical Expenditure Panel Survey, Household Component, 2022

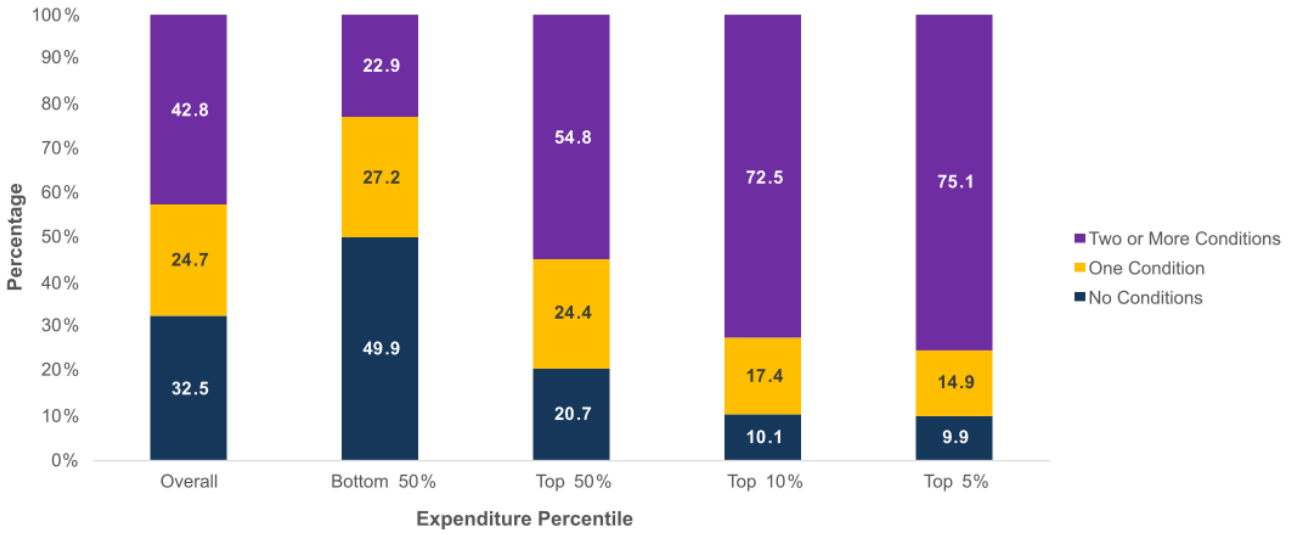
Figure 7. Most commonly treated conditions among people with top 5 percent of expenses: Percentage of people treated, 2022



Condition	Overall	Top 5%
Hypertension	18.7%	42.9%
Hyperlipidemia	14.6%	35.6%
Musculoskeletal pain and back problems	12.2%	30.6%
Diabetes mellitus	7.9%	25.6%
Injury	9.0%	24.4%
Anxiety	8.4%	19.4%
Cancer	5.3%	18.3%
Arthritis	5.1%	18.1%

Source: Agency for Healthcare Research and Quality. Medical Expenditure Panel Survey, Household Component, 2022

Figure 8. Percentage of adults by number of priority conditions and expenditure percentile, 2022



Number of Priority Conditions	Overall	Bottom 50%	Top 50%	Top 10%	Top 5%
Two or More Conditions	42.8	22.9	54.8	72.5	75.1
One Condition	24.7	27.2	24.4	17.4	14.9
No Conditions	32.5	49.9	20.7	10.1	9.9

Source: Agency for Healthcare Research and Quality. Medical Expenditure Panel Survey, Household Component, 2022

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