Medical Expenditure Panel Survey

Agency for Healthcare Research and Quality

STATISTICAL BRIEF #423

September 2013

Differentials in the Concentration in the Level of Out-of-Pocket Health Expenditures across Population Subgroups in the U.S., 2011

Steven B. Cohen Ph.D. and Namrata Uberoi, MPH

Introduction

Estimates of health care expenses for the U.S. civilian noninstitutionalized (community) population are critical to policymakers and others concerned with access to medical care and the cost and sources of payment for that care. In 2011, health care expenses among the U.S. community population totaled $1.33 trillion. Medical care expenses, however, are highly concentrated among a relatively small proportion of individuals in the community population. As previously reported in 1996, the top 1 percent of the U.S. population accounted for 28 percent of the total health care expenditures and the top 5 percent for more than half. More recent data have revealed that over time there has been some decrease in the extent of this concentration at the upper end of the expenditure distribution. In 2011, nearly 14 percent of health care expenditures in the community population for direct payments for medical care (which excludes expenses for insurance premiums) were paid out of pocket ($185 billion). In addition, the distribution of health care expenditures paid out of pocket is also concentrated among a relatively small proportion of individuals.

Using information from the Household Component of the Medical Expenditure Panel Survey (MEPS-HC) for 2011, this Brief provides detailed estimates of the concentration in the level of out-of-pocket health care expenditures for the nation, further distinguished by specific population subgroups. Studies that examine the concentration of health care expenditures, their magnitude, and their respective differentials among specific population subgroups are essential to help discern the factors most likely to drive health care spending and the characteristics of the individuals who incur them. The MEPS-HC data is particularly well suited for measuring the population's distribution of health care expenditures because it contains nationally representative data on individuals' expenditures for health care by source. All differences between estimates discussed in the text are statistically significant at the 0.05 level unless otherwise noted.

Findings

In 2011, the top 1 percent ranked by their health care expenses paid out of pocket accounted for 18.3 percent of total health care expenditures paid out of pocket with an annual mean out-of-pocket expenditure of $10,924 (figure 1). The top 5 percent of the population accounted for 43.2 percent of total out-of-pocket expenditures with an annual mean out-of-pocket expenditure of $5,141. In addition, the top 10 percent of the population accounted for 59.3 percent of total out-of-pocket expenditures with an annual mean out-of-pocket expenditure of $3,525. Overall, the top 50 percent of the population ranked by their out-of-pocket expenditures accounted for 97.5 percent of overall out-of-pocket health care expenditures while the lower 50 percent accounted for only 2.5 percent of the total. Those individuals ranked in the top half of the out-of-pocket health care expenditure distribution had an annual mean out-of-pocket expenditure of $1,160.

Highlights

- In 2011, the top 1 percent ranked by their out-of-pocket health care expenses accounted for 18.3 percent of total out-of-pocket health care expenditures with an annual mean out-of-pocket expenditure of $10,924. Overall, the top 50 percent of the population ranked by their out-of-pocket expenditures accounted for 97.5 percent of overall out-of-pocket health care expenditures while the lower 50 percent accounted for only 2.5 percent of the total.
- In 2011, 6.9 percent of the population (21.5 million individuals) had out-of-pocket expenditures for medical care that were equal to or greater than $2,000. Nearly 4.8 million individuals (1.5 percent) paid $5,000 or more out of pocket for their medical care. When considering higher spending thresholds, approximately 1.3 million individuals (0.4 percent) incurred out-of-pocket expenditures of at least $10,000.
- In 2011, only 3.1 percent of medical expenditures for inpatient hospitalizations were paid out of pocket. Alternatively, 12.1 percent of ambulatory care expenditures, 19.7 percent of prescribed medical expenditures and 46 percent of dental expenditures were paid out of pocket.
- Children under the age of 18 were characterized by substantially greater concentrated levels of out-of-pocket health care spending relative to their older counterparts. Alternatively, the elderly had the highest mean levels of out-of-pocket health care expenditures relative to younger population subgroups at the top quantiles of the expenditure distribution.
- The top 5 percent of the publicly insured population under age 65 ranked by their health care expenses accounted for 69.7 percent of the out-of-pocket health care expenditures incurred by this subpopulation with an annual mean of $2,977. Individuals with public insurance had the most concentrated levels of out-of-pocket health care expenditures and the lowest annual mean out-of-pocket expenses.

In 2011, 6.9 percent of the population (21.5 million individuals) had out-of-pocket expenditures for medical care that were equal to or greater than $2,000. Nearly 4.8 million individuals (1.5 percent) paid $5,000 or more out of pocket for their medical care. When considering higher spending thresholds, approximately 1.3 million individuals (0.4 percent) incurred out-of-pocket expenditures of at least $10,000. In addition, the elderly were 2.4 times as likely as their younger counterparts to have experienced out-of-pocket expenditures at or above $2,000 (13.9 percent relative to 5.8 percent, figure 2).

Of the $485.3 billion spent on ambulatory care in 2011, $58.7 billion or 12.1 percent was spent out of pocket (figure 3). Relative to the $386.5 billion spent on hospital inpatient care, only 3.1 percent ($11.9 billion) was paid out of pocket. Spending on prescription medications totaled $296.8 billion, with $58.5 billion or 19.7 percent paid out of pocket. Alternatively, 46 percent ($39.2 billion) of the $85.2 billion in medical expenditures for dental care was paid out of pocket.

Relative to the total out-of-pocket medical expenditures incurred in 2011 ($185 billion), nearly one-third of these expenses were attributable to ambulatory care ($58.7 billion), similar to the proportion associated with out-of-pocket costs for prescribed medicines ($58.5 billion, figure 4). Another one-fifth of out-of-pocket expenditures were for dental care ($39.2 billion), with the remainder attributable to hospital inpatient care ($11.9 billion) and other medical services ($16.7 billion of which $3.7 billion was for home health).

Age
In 2011, the top 5 percent of children under the age of 18 ranked by their out-of-pocket health care expenses accounted for 59.3 percent of the out-of-pocket health care expenditures incurred by this subpopulation with an annual mean out-of-pocket expenditure of $2,906 (figure 5). Among persons 18–44 years, the top 5 percent accounted for 47.1 percent of the out-of-pocket health care expenditures incurred by this population subgroup with an annual out-of-pocket mean of $3,926. The top 5 percent of individuals 45–64 were associated with 35.0 percent of the out-of-pocket health care expenditures incurred by this age group with an annual out-of-pocket mean of $5,933. The top 5 percent of the elderly aged 65 years and older accounted for 35.0 percent of the out-of-pocket medical expenditures experienced by this domain, with an annual mean of $8,249. In summary, the youngest age cohort (under 18 years old) was characterized by the most concentrated levels of out-of-pocket health care spending. In contrast, the elderly had the highest mean levels of out-of-pocket health care expenditures relative to younger population subgroups at the highest quantiles of the out-of-pocket health care expenditure distribution.

Race/ethnicity
The top 5 percent of non-Hispanic whites and other races accounted for 39.2 percent of the out-of-pocket health care expenditures incurred by this subpopulation with an annual mean out-of-pocket expenditure of $5,770 in 2011 (figure 6). Among non-Hispanic black individuals, the top 5 percent accounted for 50.2 percent of the out-of-pocket health care expenditures for this subgroup, with an annual mean of $3,268. For non-Hispanic Asians, the top 5 percent were associated with 47.0 percent of the out-of-pocket health care expenditures incurred for this subpopulation, exhibiting a mean of $3,546. The top 5 percent of Hispanics accounted for 59.4 percent of out-of-pocket health care expenditures by this subpopulation with an annual mean of $3,709. Non-Hispanic whites and other races had the lowest concentration of out-of-pocket expenditures and the highest mean levels of out-of-pocket health care expenditures at the top quantiles when controlling for race/ethnicity.

Sex
In 2011, the top 5 percent of males accounted for 45.4 percent of out-of-pocket health care expenditures incurred by this subpopulation with an annual mean of $4,602 (figure 7). Among females, the top 5 percent were associated with 41.3 percent of out-of-pocket health care expenditures for this subgroup, with mean out-of-pocket expenditures of $5,606. Females had higher mean levels of out-of-pocket health care expenditures at the top quantiles compared to males.

Insurance status
The top 5 percent of the uninsured population under age 65 ranked by their health care expenses accounted for 56.3 percent of the out-of-pocket health care expenditures incurred by this subpopulation with an annual mean out-of-pocket expenditures of $4,562 in 2011 (figure 8). Among non-elderly persons with public coverage only, the top 5 percent accounted for 69.7 percent of out-of-pocket health care expenditures for this subgroup, with mean expenditures of $2,977. For those non-elderly with any private coverage, the top 5 percent were associated with 39.8 percent of this group's out-of-pocket health care expenses, exhibiting a mean of $4,780. Individuals with public insurance had the most concentrated levels of out-of-pocket health care expenditures and the lowest annual mean out-of-pocket expenses.

Income
In 2011, the top 5 percent of the poor accounted for 59.6 percent of out-of-pocket health care expenditures incurred by this subgroup with an annual mean of $3,936 (figure 9). For near poor individuals, the top 5 percent were associated with 49.1 percent of out-of-pocket health care expenses for this subpopulation, exhibiting a mean of $4,159. Among low income persons, the top 5 percent accounted for 51.6 percent of this groups out-of-pocket health care expenditures, with an annual mean of $5,049.The top 5 percent of the middle income subgroup accounted for 42.3 percent of out-of-pocket health care expenditures and an annual mean of $4,954. For those persons in the high income subgroup, the top 5 percent were associated with 36.5 percent of out-of-pocket health care expenditures, exhibiting a mean of $5,718. The poor had a significantly more concentrated level of out-of-pocket health care expenditures than their high income counterparts.

Data Source

The estimates shown in this Statistical Brief are drawn from analyses conducted by the MEPS staff from the following public use file: MEPS HC-147, 2011 Full Year Consolidated Data File.

Definitions

Expenditures
MEPS-HC defines total expense as the sum of payments from all sources to hospitals, physicians, other health care providers (including dental care), and pharmacies for services reported by respondents in the MEPS-HC. Sources include direct payments from individuals and families, private insurance, Medicare, Medicaid, and miscellaneous other sources.

Type of service

- *Office-based:* Includes expenses for visits to both physician and non-physician medical providers seen in office settings.
- *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.
- *Hospital outpatient:* Includes expenses for visits to both physicians and other medical providers seen in hospital outpatient departments, including payments for services covered under the basic facility charge and those for separately billed physician services.
- *Emergency room:* Includes payments for services covered under the basic facility charge and those for separately billed physician services, but excludes expenses for emergency room services that are included in a hospital inpatient admission.
- *Prescribed medicines:* Includes expenses for all prescribed medications that were initially purchased or refilled during the year, as well as expenses for diabetic supplies.
- *Dental:* Includes payments for services to any type of dental care provider, including general dentists, dental hygienists, dental technicians, dental surgeons, orthodontists, endodontists, and periodontists.
- *Ambulatory:* Combines office-based, hospital outpatient, and emergency room expense categories described above.
- *Home Health:* Includes expenses for home care provided by agencies and independent providers.
- *Other:* Includes expenses for care in all categories not specified as a separate category including those for miscellaneous medical equipment and supplies.

Age
Age was defined as age at the end of the year 2011.

Race/ethnicity
Classification by race and ethnicity was based on information reported for each family member. Respondents were asked if each family member's race was best described as American Indian, Alaska Native, Asian or Pacific Islander, black, white, or other. They also were asked if each family member's main national origin or ancestry was Puerto Rican; Cuban; Mexican, Mexicano, Mexican American, or Chicano; other Latin American; or other Spanish. All persons whose main national origin or ancestry was reported in one of these Hispanic groups, regardless of racial background,

were classified as Hispanic. Since the Hispanic grouping can include black Hispanic, white Hispanic, Asian and Pacific Islanders Hispanic, and other Hispanic, the race categories of black, white, Asian and Pacific Islanders, and other only include non-Hispanics for the race/ethnicity classifications. MEPS respondents who reported other single or multiple races and were non-Hispanic were included in the other category. For this analysis, the following classification by race and ethnicity was used: Hispanic (of any race), non-Hispanic blacks single race, non-Hispanic whites single race, and others, and non-Hispanic Asian and Pacific Islanders single race.

Health insurance status
Individuals under age 65 were classified into the following three insurance categories based on household responses to the health insurance status questions:

- *Any private health insurance:* Individuals who, at any time during the year, had insurance that provided coverage for hospital and physician care (other than Medicare, Medicaid, or other public hospital/physician coverage) were classified as having private insurance. Coverage by TRICARE (Armed Forces-related coverage) was also included as private health insurance. Insurance that provided coverage for a single service only, such as dental or vision coverage, was not included.

- *Public coverage only:* Individuals were considered to have public coverage only if they met both of the following criteria: 1) they were not covered by private insurance at any time during the year, and 2) they were covered by one of the following public programs at some point during the year: Medicare, Medicaid, or other public hospital/physician coverage.

- *Uninsured:* The uninsured were defined as people not covered by private hospital/physician insurance, Medicare, TRICARE, Medicaid, or other public hospital/physician programs at any time during the entire year or their period of eligibility for the survey.

Income
Sample persons were classified according to the total yearly income of their family. Within a household, all people related by blood, marriage, or adoption were considered to be a family. Poverty status categories are defined by the ratio of family income to the Federal income thresholds, which control for family size and age of the head of family. Poverty status was based on annual income in 2011.

Poverty status categories are defined as follows:

- *Poor:* Persons in families with income less than or equal to the poverty line; includes those who had negative income.
- *Near poor:* Persons in families with income over the poverty line through 125 percent of the poverty line.
- *Low income:* Persons in families with income over 125 percent through 200 percent of the poverty line.
- *Middle income:* Persons in families with income over 200 percent through 400 percent of the poverty line.
- *High income:* Persons in families with income over 400 percent of the poverty line.

About MEPS-HC

MEPS-HC is a nationally representative longitudinal survey that collects detailed information on health care 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. It is cosponsored by the Agency for Health care Research and Quality and the National Center for Health Statistics.

For more information about MEPS, call the MEPS information coordinator at AHRQ (301-427-1406) or visit the MEPS Web site at http://www.meps.ahrq.gov/.

References

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 Health care Policy and Research, 1997. http://meps.ahrq.gov/mepsweb/data_files/publications/mr1/mr1.pdf

Cohen, S. Design Strategies and Innovations in the Medical Expenditure Panel Survey. *Medical Care*, July 2003: 41(7) Supplement: III-5–III-12.

Cohen, S. and Yu, W. *The Concentration and Persistence in the Level of Health Expenditures over Time: Estimates for the U.S. Population, 2008–2009*. Statistical Brief #354. December 2010. Agency for Health care Research and Quality, Rockville, MD. http://www.meps.ahrq.gov/mepsweb/data_files/publications/st354/stat354.pdf

Cohen, S. and Yu, W. *The Concentration and Persistence in the Level of Health Expenditures over Time: Estimates for the U.S. Population, 2006–2007*. Statistical Brief #278. March 2010. Agency for Health care Research and Quality, Rockville, MD. http://www.meps.ahrq.gov/mepsweb/data_files/publications/st278/stat278.pdf

Ezzati-Rice, T.M., Rohde, F., Greenblatt, J. *Sample Design of the Medical Expenditure Panel Survey Household Component, 1998–2007*. Methodology Report No. 22. March 2008. Agency for Health care Research and Quality, Rockville, MD. http://www.meps.ahrq.gov/mepsweb/data_files/publications/mr22/mr22.pdf

Suggested Citation

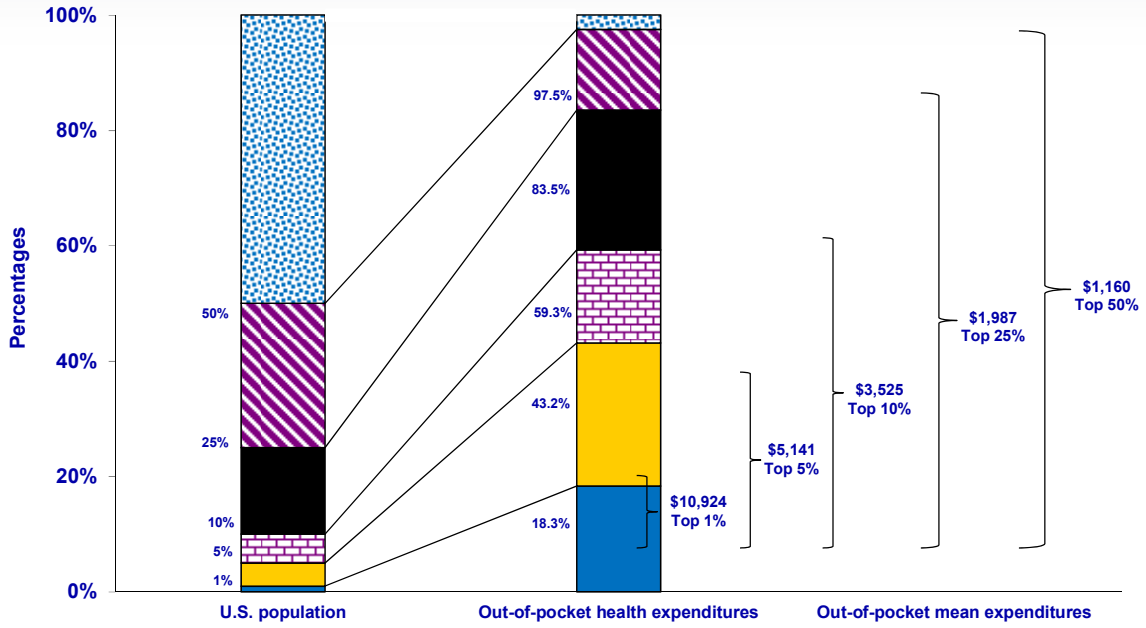
Cohen, S. and Uberoi, N. *Differentials in the Concentration in the Level of Out-of-Pocket Health Expenditures across Population Subgroups in the U.S., 2011*. Statistical Brief #423. September 2013. Agency for Health Care Research and Quality, Rockville, MD. http://meps.ahrq.gov/mepsweb/data_files/publications/st423/st423.pdf

* * *

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 health care 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:

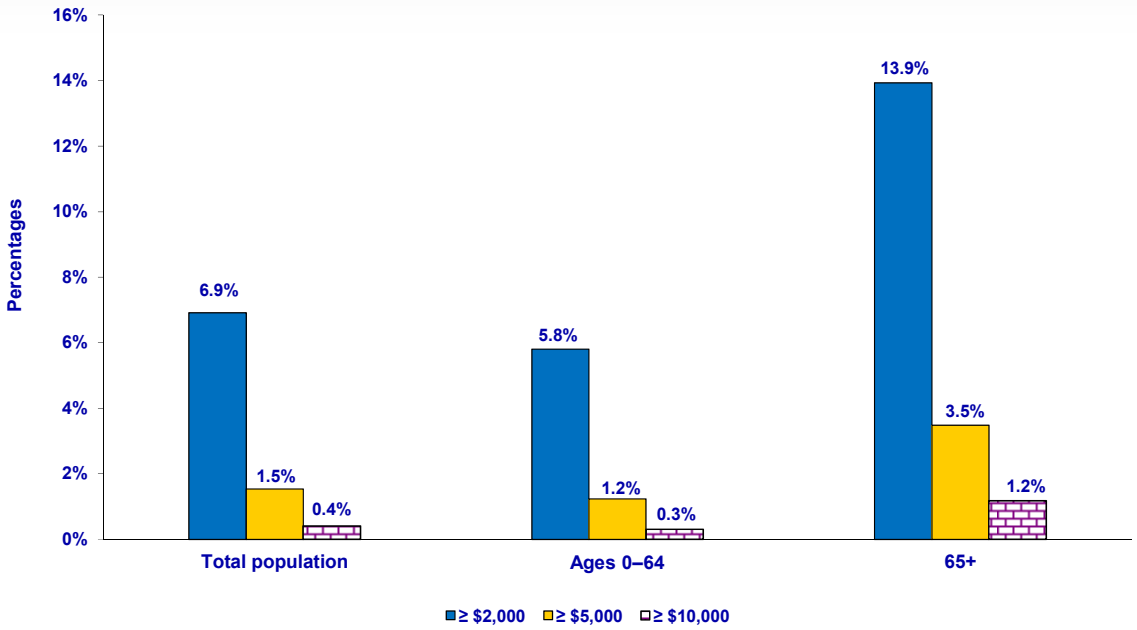
Steven B. Cohen, PhD, Director
Center for Financing, Access, and Cost Trends
Agency for Health care Research and Quality
540 Gaither Road
Rockville, MD 20850

Figure 1. Distribution of out-of-pocket health expenditures for the U.S. population by magnitude of out-of-pocket expenditure and mean out-of-pocket expenditures, 2011



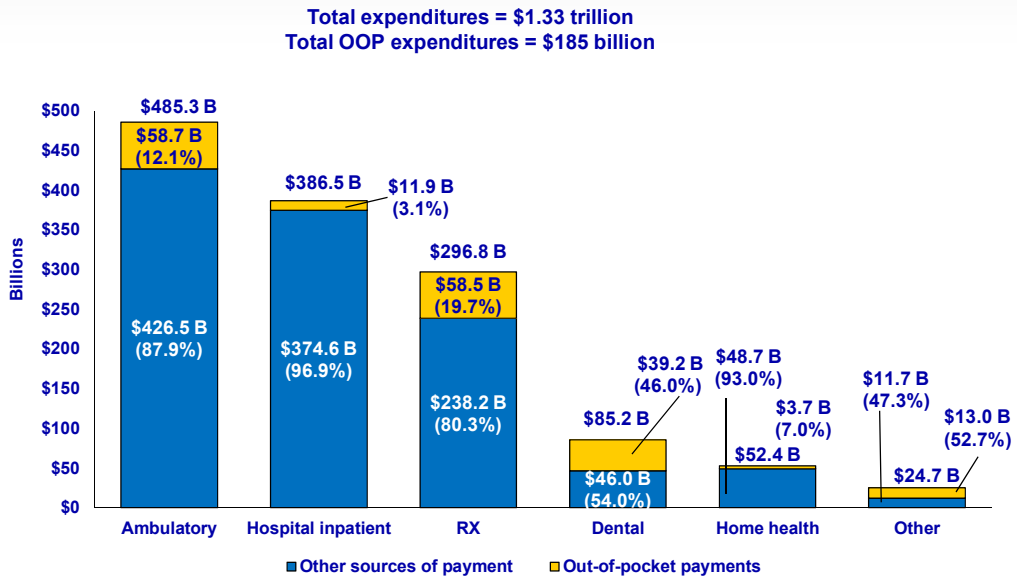
Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 2011

Figure 2. Percentage of the U.S. population with of out-of-pocket health care expenditures by age, 2011



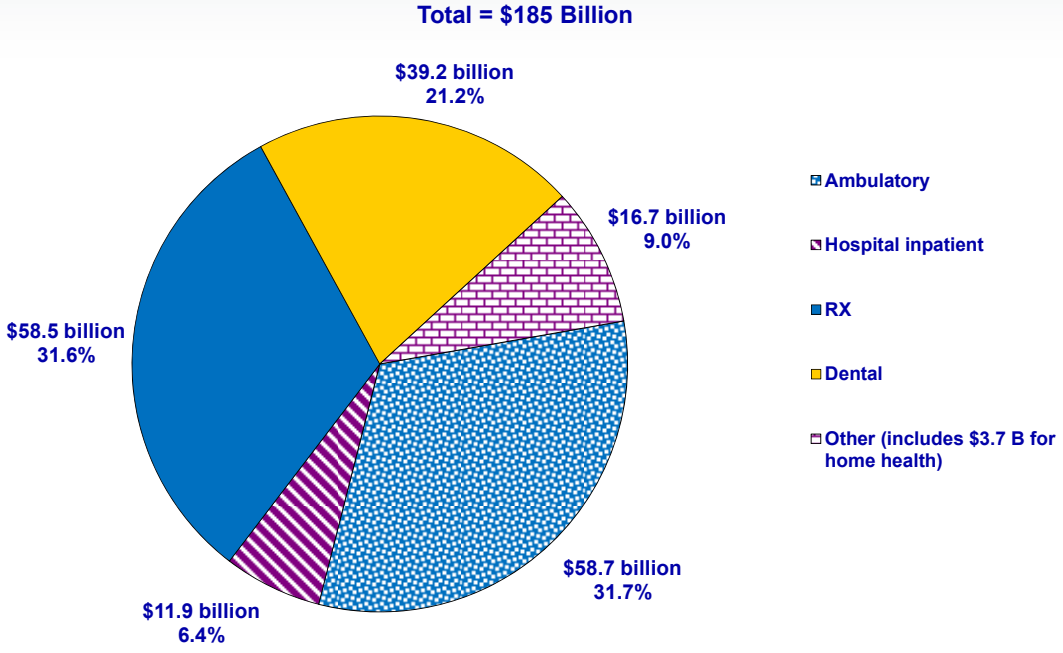
Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 2011

Figure 3. Percentage of health care expenditures by type of service, 2011



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 2011

Figure 4. Out-of-pocket expenditures by type of service, 2011



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 2011

Figure 5. Distribution of out-of-pocket health care expenditures and mean out-of-pocket expenditures for the U.S. population by age, 2011

Figure 5a. Distribution of out-of-pocket health care expenditures by age

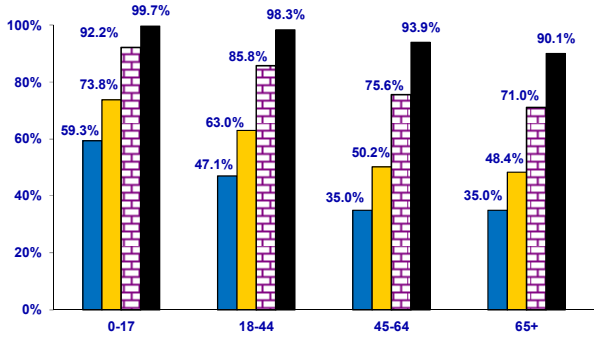
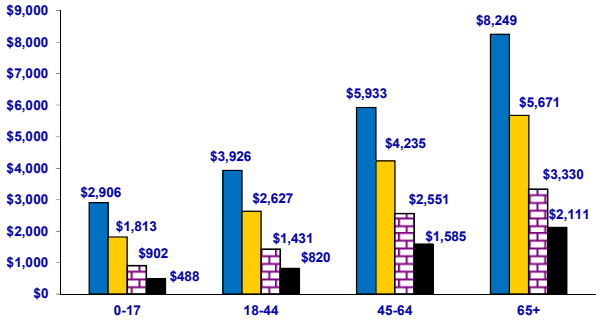


Figure 5b. Annual mean out-of-pocket expenditures by age



Top 5% Top 10% Top 25% Top 50%

Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 2011

Figure 6. Distribution of out-of-pocket health care expenditures and mean out-of-pocket expenditures for the U.S. population by race/ethnicity, 2011

Figure 6a. Distribution of out-of-pocket health care expenditures by race/ethnicity

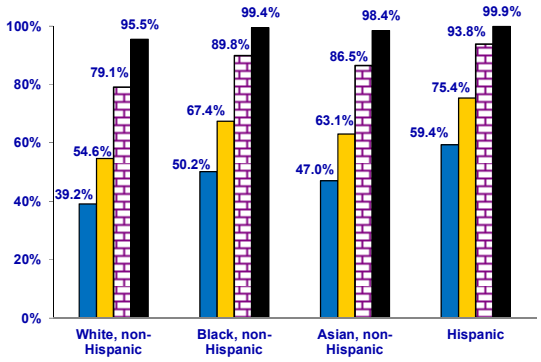
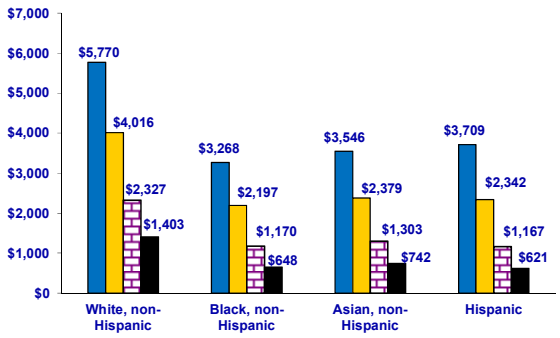


Figure 6b. Annual out-of-pocket mean expenditures by race/ethnicity



Top 5% Top 10% Top 25% Top 50%

Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 2011

Figure 7. Distribution of out-of-pocket health care expenditures and mean out-of-pocket expenditures for the U.S. population by sex, 2011

Figure 7a. Distribution of out-of-pocket health care expenditures by sex

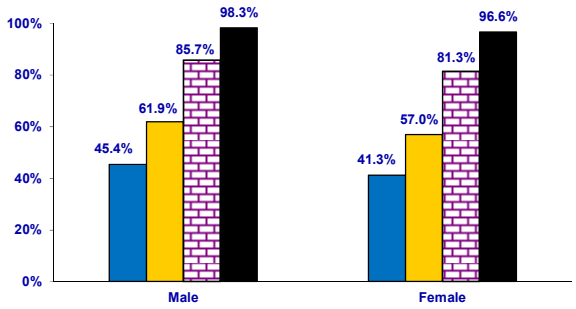
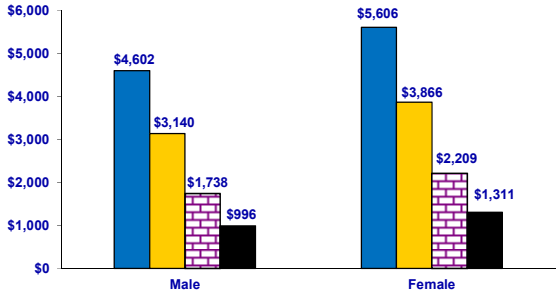


Figure 7b. Annual mean out-of-pocket expenditures by sex



Top 5% Top 10% Top 25% Top 50%

Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 2011

Figure 8. Distribution of out-of-pocket health care expenditures and mean out-of-pocket expenditures of the U.S. population under age 65 by insurance status, 2011

Figure 8a. Distribution of out-of-pocket health care expenditures by insurance coverage status for those <65 years of age

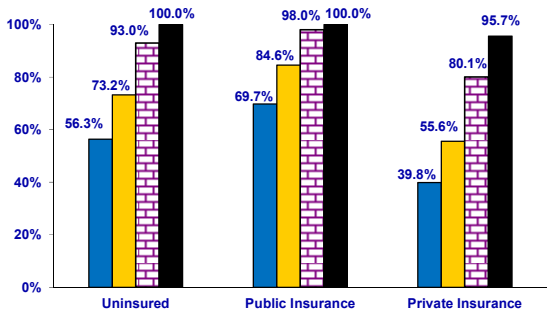
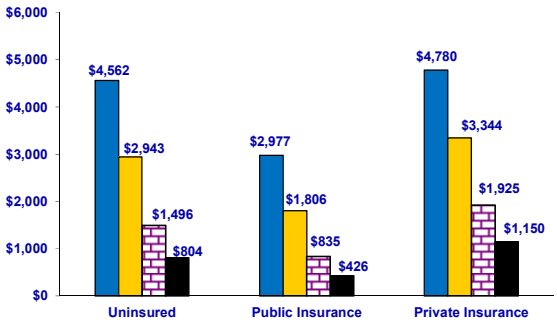


Figure 8b. Annual mean out-of-pocket expenditures by insurance coverage status for those <65 years of age



Top 5% Top 10% Top 25% Top 50%

Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 2011

Figure 9. Distribution of out-of-pocket health care expenditures and mean out-of-pocket expenditures for the U.S. population by income, 2011

Figure 9a. Distribution of out-of-pocket health care expenditures by income

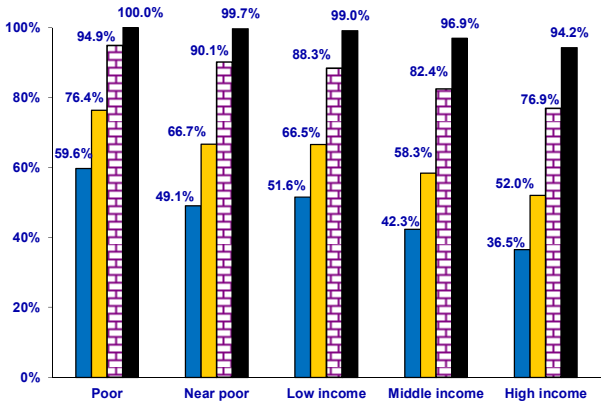
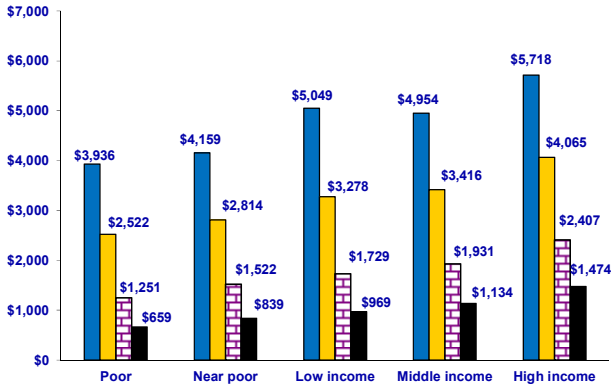


Figure 9b. Annual mean out-of-pocket expenditures by income



Top 5% Top 10% Top 25% Top 50%

Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 2011