Medical Expenditure Panel Survey

Agency for Healthcare Research and Quality

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The Concentration and Persistence in the Level of Health Expenditures over Time: Estimates for the U.S. Population, 2011-2012

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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 2012, health care expenses among the U.S. community population totaled $1.35 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 tail of the expenditure distribution (Yu and Ezzati-Rice, 2005).

Using information from the Household Component of the Medical Expenditure Panel Survey (MEPS-HC) for 2011 and 2012, this report provides detailed estimates of the persistence in the level of health care expenditures over time. Studies that examine the persistence of high levels of expenditures over time are essential to help discern the factors most likely to drive health care spending and the characteristics of the individuals who incur that spending. The MEPS-HC data are particularly well suited for measuring trends in concentration and persistence. All differences between estimates discussed in the text are statistically significant at the 0.05 level unless otherwise noted.

Findings

In 2011, 1 percent of the population accounted for 21.5 percent of total health care expenditures, and in 2012, the top 1 percent accounted for 22.7 percent of total expenditures with an annual mean expenditure of $97,956. The lower 50 percent of the population ranked by their expenditures accounted for only 2.8 percent and 2.7 percent of the total for 2011 and 2012 respectively. Of those individuals ranked at the top 1 percent of the health care expenditure distribution in 2011 (with a mean expenditure of $92,825), 19.6 percent maintained this ranking with respect to their 2012 health care expenditures (figure 1).

In both 2011 and 2012, the top 5 percent of the population accounted for nearly 50 percent of health care expenditures. Among those individuals ranked in the top 5 percent of the health care expenditure distribution in 2011 (with a mean expenditure of $42,228), approximately 35 percent retained this ranking with respect to their 2012 health care expenditures (figure 1). Similarly, the top 10 percent of the population accounted for 65.3 percent of overall health care expenditures in 2011 (with a mean expenditure of $27,927), and 41.5 percent of this subgroup retained this top decile ranking with respect to their 2012 health care expenditures. The data also indicate that a small percentage of the individuals in the top percentiles in 2011 had expenditures for only one year because they died, were institutionalized, or were otherwise ineligible for the survey in the subsequent year.

Highlights

- In 2011, 1 percent of the population accounted for 21.5 percent of total health care expenditures and 19.6 percent of the population in the top 1 percent retained this ranking in 2012. The bottom half of the expenditure distribution accounted for 2.8 percent of spending in 2011; about three out of four individuals in the bottom 50 percent retained this ranking in 2012.
- Those who were in the top decile of spenders in both 2011 and 2012 differed by age, race/ethnicity, sex, health status, and insurance coverage (for those under 65) from those who were in the lower half in both years.
- Those in the bottom half of health care spenders were more likely to report excellent health status, while those in the top decile of spenders were more likely to be in fair or poor health relative to the overall population.
- While 14.8 percent of persons under age 65 were uninsured for all of 2012, the full year uninsured comprised 23.9 percent of those in the bottom half of spenders for both 2011 and 2012. Only 2.7 percent of those under age 65 who remained in the top decile of spenders in both years were uninsured for all of 2012.
- Relative to the overall population, those who remained in the top decile of spenders were more likely to be in fair or poor health, elderly, female, non-Hispanic whites and those with public-only coverage. Those who remained in the bottom half of spenders were more likely to be in excellent health, children and young adults, men, Hispanics, and the uninsured.

In both 2011 and 2012, the top 30 percent of the population accounted for 90 percent of health care expenditures. Among those individuals ranked in the top 30 percent of the health care expenditure distribution in 2011, 63.2 percent retained this ranking with respect to their 2012 health care expenditures (figure 1). Furthermore, individuals ranked in the top half of the health care expenditure distribution in 2009 accounted for 97 percent of all health care expenditures. Among this population subgroup, 75 percent maintained this ranking in 2012. Alternatively, individuals ranked in the bottom half of the health care expenditure distribution accounted for only 2.8 percent of medical expenditures (with a mean expenditure of $240 in 2011). Similar to the experience of the top half of the population based on their medical expenditure rankings, 74.3 percent of those in the lower half of the expenditure distribution retained this classification in 2012.

Given the high concentration of medical expenditures incurred by the top decile of the population ranked by health care spending (65.3 percent), identifying the characteristics of those individuals exhibiting significant reductions in health care spending in a subsequent year is also of interest. Among those ranked in the top decile in 2011 based on their high level of medical expenditures, 28.4 percent shifted to a ranking in the lower 75 percent of the expenditure distribution in 2012 (data not shown). Individuals ranked in the lower 75 percent of health care spending accounted for only 13.3 percent of all medical expenditures in 2012.

Individuals who were between the ages of 45 and 64 and the elderly (65 and older) were disproportionately represented among the population that remained in the top decile of spenders for both 2011 and 2012. While the elderly represented 14.4 percent of the overall population, they represented 45.2 percent of those individuals who remained in the top decile of spenders (figure 2). For those individuals who remained in the lower half of the distribution based on health care expenditures over the two-year span, the elderly represented only 3.3 percent of the population. Alternatively, children (0–17) and young adults (18–29) were disproportionately represented among the population that remained in the bottom half of spenders (31.2 percent and 24.1 percent, respectively). In contrast, children and young adults represented only 2.4 percent and 3.8 percent, respectively, of those individuals who remained in the top decile of spenders. Individuals in the top decile ordered by medical expenditures in 2011 that shifted below the first quartile in 2012 were predominantly between the ages of 30–64.

Individuals identified as Hispanic and black non-Hispanic single race were disproportionately represented among the population that remained in the lower half of the distribution based on health care spending. While Hispanics represented 17.1 percent of the overall population in 2012, they represented 25.5 percent of those individuals who remained in the bottom 50 percent of spenders (figure 3). For those individuals who remained in the top decile of spenders, Hispanics represented only 6.1 percent of the population. Individuals in the top decile ordered by medical expenditures in 2011 that shifted below the first quartile in 2012 were most likely to be non-Hispanic whites and other races (71.2 percent).

Individuals who remained in the top decile of spenders in 2011 and 2012 also differed significantly by sex, compared with those who remained in the lower half of the distribution ranked by medical care expenditures. While women represented 51.1 percent of the overall population, they represented 59.2 percent of those individuals who remained in the top decile of spenders (figure 4). For those individuals who remained in the lower half of the distribution based on health care expenditures over the two-year span, women represented only 43.2 percent of the population. Alternatively, men were disproportionately represented among the population that remained in the bottom half of spenders (56.8 percent). In contrast, men represented only 40.8 percent of those individuals who remained in the top decile of spenders. Individuals in the top decile ordered by medical expenditures in 2011 that shifted below the first quartile in 2012 were predominantly female (56.3 percent).

Health status was a particularly salient factor that distinguished those individuals who remained in the top decile of spenders. Overall, 2.9 percent of the population was reported to be in poor health in 2012, and another 8.1 percent was classified in fair health (figure 5). In contrast, of those individuals who remained in the top decile of spenders, 21.1 percent were in poor health and another 24.4 percent were in fair health. Furthermore, for those individuals remaining in the bottom half of spenders, only 0.3 percent were reported to be in poor health and 3.9 percent in fair health. Individuals in excellent health were disproportionately represented among those who remained in the lower half of spenders both years (43.7 percent). Alternatively, for those individuals remaining in the top decile of spenders, only 5.1 percent were reported to be in excellent health and 18.6 percent in very good health. Individuals in the top decile ordered by medical expenditures in 2011 that shifted below the top quartile in 2012 were predominantly in excellent, very good, or good health (21.7, 33.4, and 28.3 percent, respectively).

Focusing on the under age 65 population, health insurance coverage status also distinguished individuals who remained in the top decile of spenders from their counterparts in the lower half of the distribution. Individuals who were uninsured for all of calendar year 2012 were disproportionately represented among the population that remained

in the lower half of the distribution based on health care spending. While 14.8 percent of the overall population under age 65 was uninsured for all of 2012, the full year uninsured comprised 23.9 percent of all individuals remaining in the bottom half of spenders (figure 6). Alternatively, only 2.7 percent of those under age 65 who remained in the top decile of spenders were uninsured. In addition, while 18.8 percent of the overall population under age 65 had public-only coverage for all of 2011, 29.4 percent of those who remained in the top decile of spenders had public-only coverage (figure 6).

With respect to poverty status classifications, 35.7 percent of the overall population resided in families or single-person households with high incomes in 2012 (figure 7) and 15.0 percent had incomes at or below the poverty threshold. A lower representation of high income individuals (27.9 percent) and a higher representation of the poor (18.9 percent) were observed among those who remained in the lower half of spenders in both 2011 and 2012.

Data Source

The estimates shown in this Statistical Brief are drawn from analyses conducted by the MEPS staff from the following public use files: MEPS HC-129 and HC-138, 2011 and 2012 Full Year Consolidated Data Files, and MEPS HC-139: Panel 16 Longitudinal 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.

Uninsured
Individuals who were not covered by any comprehensive private or public health plan during the year were defined as uninsured. People who were covered only by noncomprehensive State-specific programs (e.g., Maryland Kidney Disease Program) or private single-service plans (e.g., coverage for dental or vision care only, coverage for accidents or specific diseases) were also considered to be uninsured. Insurance status was defined for calendar year 2012.

Age
Age was defined as age at the end of the year 2012.

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.

Poverty status
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 2012.

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.

Health status
In every round, the respondent is asked to rate the health of every member of the family. The exact wording of the

question is: "In general, compared to other people of (PERSON)'s age, would you say that (PERSON)'s health is excellent, very good, good, fair, or poor?" The health status classification in Round 3 was used for this report, and the small percentage of missing (~1 percent) responses were classified in the good health status category.

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 Healthcare 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 Healthcare Policy and Research, 1997. http://www.meps.ahrq.gov/mepsweb/data_files/publications/mr1/mr1.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 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:

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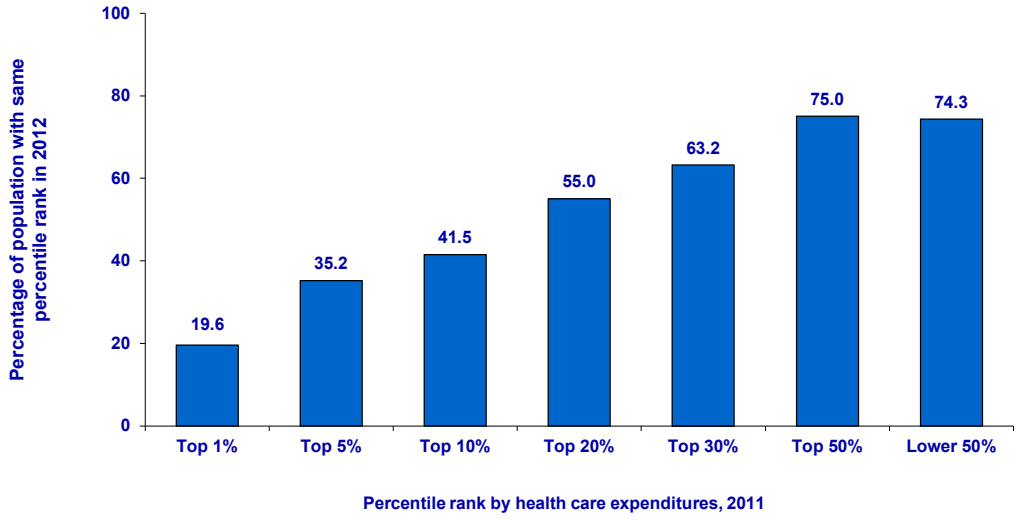
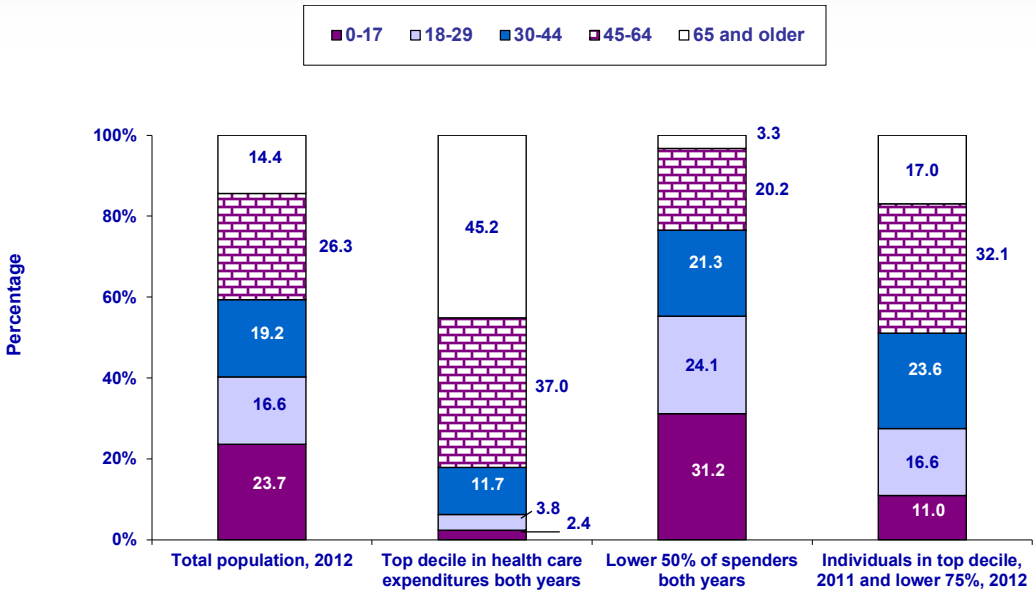
Figure 1. Persistence in the level of health care expenditures, U.S. civilian noninstitutionalized population, 2011 to 2012



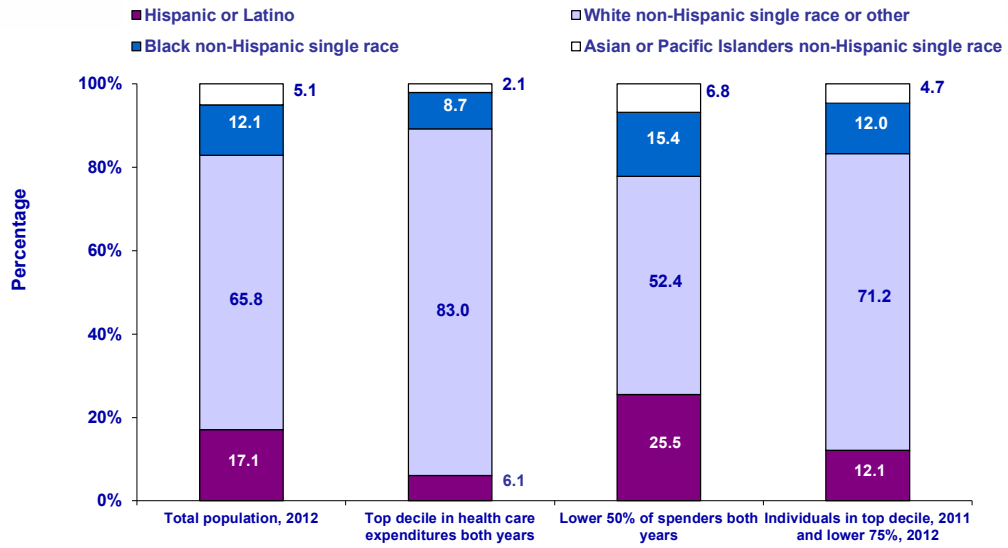
Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, HC-129, HC-138, and HC-139 (Panel 16, 2011–2012)

Figure 2. Distribution of population by persistence of health care expenditures and age, in the U.S. civilian noninstitutionalized population, 2011 to 2012



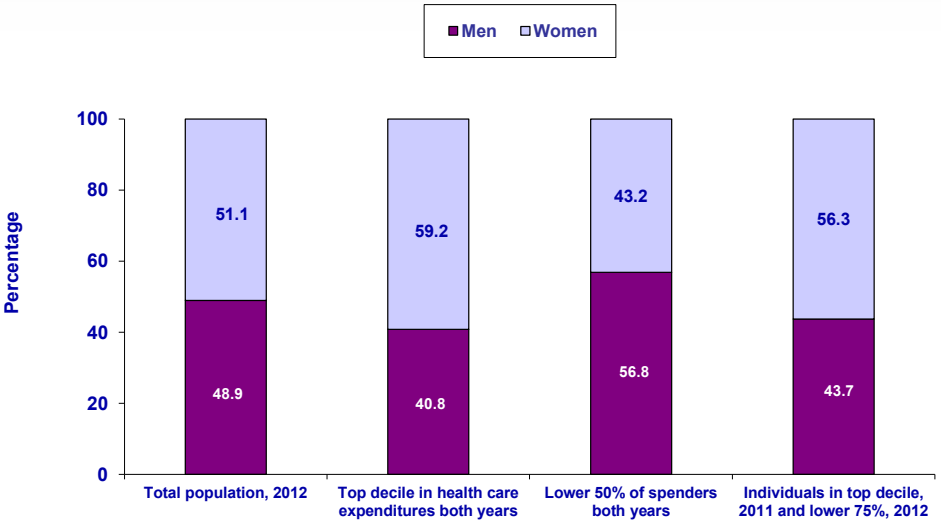
Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, HC-129, HC-138, and HC-139 (Panel 16, 2011–2012)

Figure 3. Distribution of population by persistence of health care expenditures and race/ethnicity, U.S. civilian noninstitutionalized population, 2011 to 2012



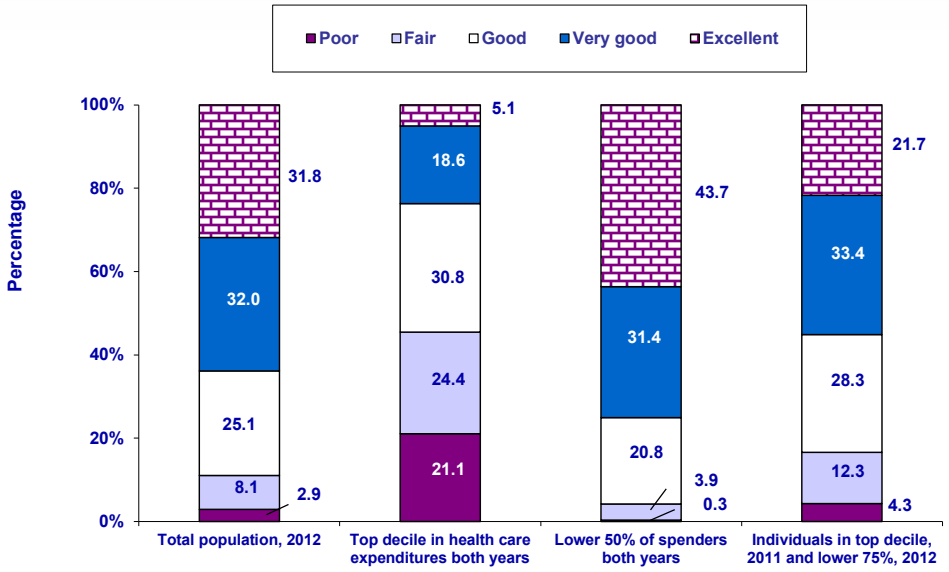
Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, HC-129, HC-138, and HC-139 (Panel 16, 2011–2012)

Figure 4. Distribution of population by persistence of health care expenditures and sex, in the U.S. civilian noninstitutionalized population, 2011 to 2012



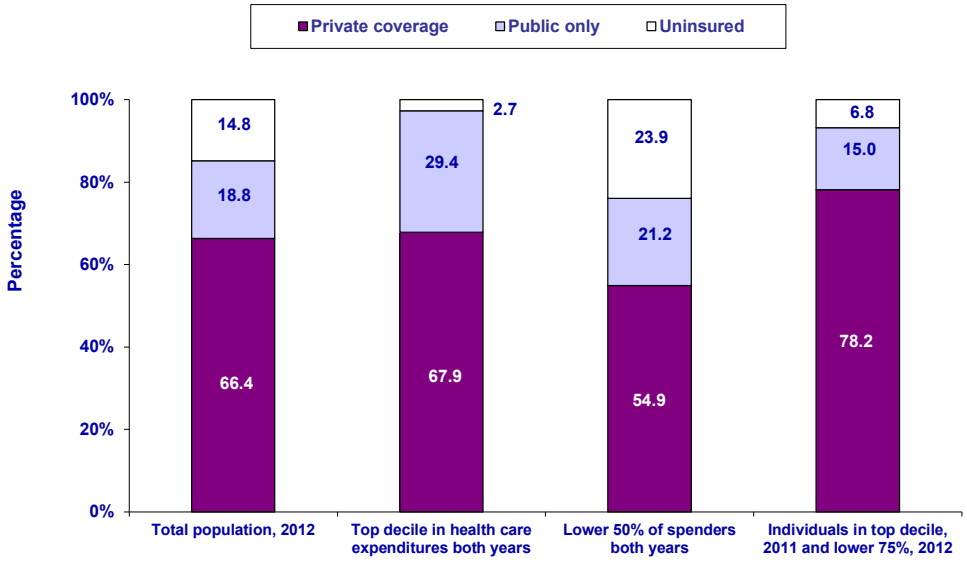
Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, HC-129, HC-138, and HC-139 (Panel 16, 2011–2012)

Figure 5. Distribution of population by persistence of health care expenditures and health status, in the U.S. civilian noninstitutionalized population, 2011 to 2012



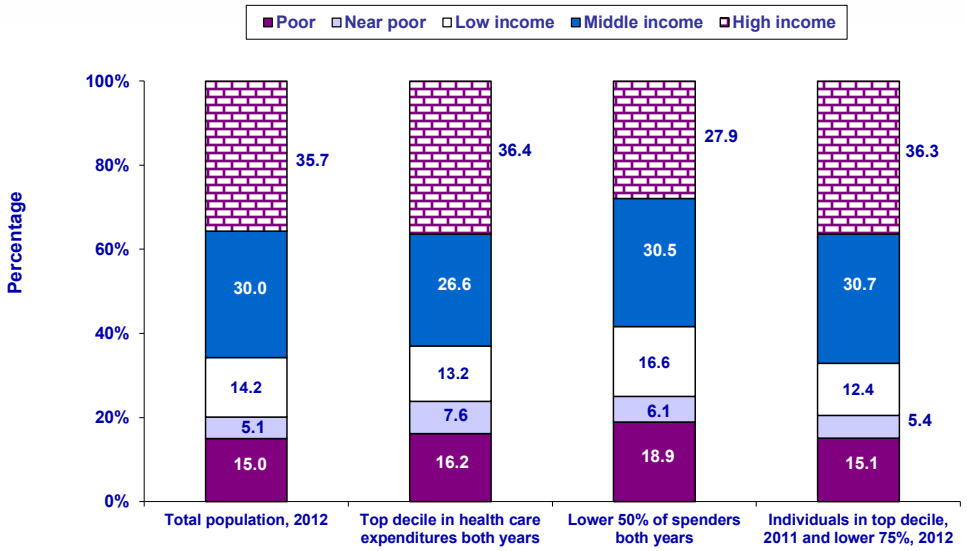
Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, HC-129, HC-138, and HC-139 (Panel 16, 2011–2012)

Figure 6. Distribution of population by persistence of health care expenditures and health insurance coverage, U.S. civilian noninstitutionalized population under age 65, 2011 to 2012



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, HC-129, HC-138, and HC-139 (Panel 16, 2011–2012)

Figure 7. Distribution of population by persistence of health care expenditures and poverty status, in the U.S. civilian noninstitutionalized population, 2011 to 2012



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