

## STATISTICAL BRIEF #244

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### **The Concentration in Health Expenditures over a Two Year Time Interval, Estimates for the U.S. Population, 2005–2006**

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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. Over the two year period 2005–2006, health care expenses among the U.S. community population totaled approximately \$2.1 trillion. Medical care expenses, however, are highly concentrated among a relatively small proportion of individuals in the community population. In 2005, 1 percent of the population accounted for 23.3 percent of total health care expenditures, and in 2006, the top 1 percent accounted for 21.1 percent of the total expenditures.

Using information from the Household Component of the Medical Expenditure Panel Survey (MEPS-HC) for 2005 and 2006, this report provides detailed estimates of the concentration of health care expenditures over a two year time interval. Studies that examine the concentration of high levels of expenditures over extended time periods 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 are particularly well suited for measuring these trends in the concentration of expenditures over time. All differences between estimates discussed in the text are statistically significant at the 0.05 level unless otherwise noted.

#### **Findings**

For the period 2005–2006, 1 percent of the population accounted for 18.7 percent (\$0.4 trillion) of total health care expenditures summed across the two years and the top 5 percent of spenders accounted for 44 percent of total spending (figure 1). Similarly, the top 10 percent of the population ranked by their health care expenditure totals across a two year span accounted for 59.5 percent (\$1.2 trillion) of the total. Alternatively, the lower 50 percent of the population ranked according to their health care expenditure experience across 2005–2006 accounted for only 4.3 percent of spending (figure 1).

#### **Highlights**

- For the two year period 2005–2006, 1 percent of the population accounted for 18.7 percent of total health care expenditures and the top 5 percent of spenders over the two year period accounted for 44 percent of aggregate spending. The lower half of the population ranked by total medical expenditures over the two year period accounted for only 4.3 percent of spending.
- Relative to the overall population, those with the highest levels of health care expenditures over the two year interval were more likely to be in fair or poor health, continuously insured, elderly, female, and non-Hispanic whites. Those in the bottom half of spenders more likely to be in very good or excellent health: children and young adults, men, Hispanics and the continuously uninsured.
- While 11.5 percent of persons under age 65 were continuously uninsured for all of 2005–2006, the continuously uninsured comprised 16.6 percent of all individuals in the lower half of spenders over this same period. Only 3.9 percent of those under age 65 who were in the highest 5 percent of spenders were continuously uninsured for this two year period.

Given the high concentration of medical expenditures incurred by the top percentiles of the population ranked by health care spending over a two year period, identifying the characteristics of those individuals exhibiting the highest levels of spending is of interest. To inform this analyses, the population was categorized into the following percentile classifications based on their level of medical expenditures over the two year period: top 5 percent of the population; >5-top 10 percent; >10-top 25 percent; >25-top 50 percent; lower 50 percent. These population subgroups were then compared, based on the following socio-demographic characteristics: age, race/ethnicity, sex, poverty status, health status, and insurance coverage.

Individuals who were between the ages of 45 and 64, and the elderly (65 and older) were disproportionately represented among the population with the highest levels of medical expenditures across this two year interval. While the elderly represented 13 percent of the overall population, they represented 45.1 percent of those individuals with the top 5 percent of health care expenditures over this two year period (figure 2). Similarly, those between the ages of 45 and 64 represented more than a third of the subgroup with the top 5 percent of expenditures, while representing only 25 percent of the overall population. For those individuals who were 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 in the bottom half of spenders over this time period (36 percent and 21.2 percent, respectively, figure 2).

Individuals identified as Hispanic, non-Hispanic black single race, and non-Hispanic Asian single race were disproportionately represented among the population classified in the lower half of the distribution based on health care spending across 2005–2006. While Hispanics represented 15 percent of the overall population in 2006, they represented 21.0 percent of those individuals in the lower 50 percent of spenders (figure 3). Alternatively, for those individuals in the top percentiles of health care spending, Hispanics represented only 6.8 percent of the highest 5 percent and only 7.8 percent of next highest 5 percent of spenders. Individuals in the top tiers of the medical expenditure distribution over 2005–2006 were more likely to be non-Hispanic whites and other races (78.6 percent of the top 5 percent, 80.9 percent of top >5-top 10 percent) relative to their representation in the overall population (68 percent, figure 3).

Individuals who experienced the highest levels of medical expenditures across 2005–2006 also differed significantly by sex, compared with those in the lower half of the distribution ranked by medical care expenditures. While females represented 51 percent of the overall population, they represented 56.3 percent of the top 5 percent and 57.9 percent of the next highest 5 percent of individuals (>5-top 10 percent) ordered according to their level of medical expenditures (figure 4). For those individuals who remained in the lower half of the distribution based on health care expenditures over the two-year span, females represented only 44.1 percent of the population.

Health status was a particularly salient factor that distinguished those individuals in the top tier of spenders over the two year interval. Overall, while 3.8 percent of the population was consistently reported to be in fair or poor health throughout the period 2005–2006, they represented 22.1 percent of individuals experiencing the top 5 percent of health care expenditures (figure 5). Similarly, individuals experiencing transitions between fair or poor health and a better health status (18.4 percent) were disproportionately represented in the top tier of spenders over the two year interval (49.2 percent of the top 5 percent, 33.9 percent of top >5-top 10 percent). Alternatively, while 77.8 percent of the population was consistently reported to be in excellent, very good or good health throughout the period 2005–2006, they only represented 28.7 percent of individuals associated with the top five percent of health care expenditures (figure 5).

For the population under age 65, health insurance coverage status also distinguished individuals who remained in the top tiers of spenders from their counterparts in the lower half of the distribution over the two year period. Individuals who were continuously uninsured for both years were disproportionately represented among the population that remained in the lower half of the distribution based on health care spending. While 11.5 percent of the overall population under age 65 was continuously uninsured for all 2005–2006, the long term uninsured comprised 16.6 percent of all individuals in the lower half of spenders over this same period (figure 6). Alternatively, only 3.9 percent of those under age 65 who were in the highest 5 percent of spenders were continuously uninsured. In comparison, while 68 percent of the overall population under age 65 had a source of coverage throughout 2005–2006, such individuals

with continuous coverage were disproportionately represented among those with the highest levels of medical expenditures (81 percent of the top 5 percent, 84 percent of top >5-top 10 percent, figure 6).

With respect to poverty status classifications, 29 percent of the overall population resided in families or single-person households with high incomes in both years (figure 7). A lower representation of high income individuals (23.5 percent) was observed among those in the lower half of spenders for the two year interval.

## Data Source

The estimates shown in this Statistical Brief are drawn from analyses conducted by the MEPS staff from the following public use files: 2005 and 2006 Full Year Consolidated Data Files, HC-097 and HC-105, and MEPS HC-106: MEPS Panel 10 Longitudinal Data File.

## Definitions

### *Expenditures*

MEPS defines total expense as the sum of payments from all sources to hospitals, physicians, other health care providers (including dental care), medical expenses for equipment, and pharmacies for services reported by respondents in the MEPS. Sources include direct payments from individuals and families, private insurance, Medicare, Medicaid, and miscellaneous other sources. Given that MEPS defines expenses as payments, it is important to understand that expenditures are related to, but not identical with, resource utilization.

### *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 years 2005–2006.

### *Age*

Age was defined as age at the end of the year 2006.

### *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 over the two year period.

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. Health status was based on the period 2005–2006.

#### **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/>.

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[http://www.meps.ahrq.gov/mepsweb/data\\_files/publications/st244/stat244.pdf](http://www.meps.ahrq.gov/mepsweb/data_files/publications/st244/stat244.pdf)

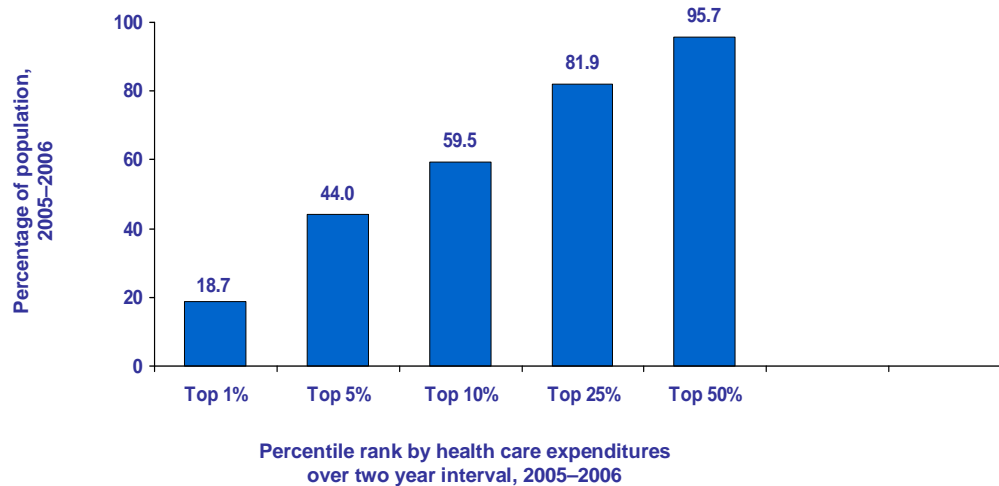
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AHRQ welcomes questions and comments from readers of this publication who are interested in obtaining more information about access, cost, use, financing, and quality of health care in the United States. We also invite you to tell us how you are using 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 e-mail us at [mepsd@ahrq.gov](mailto:mepsd@ahrq.gov) or send a letter to the address below:

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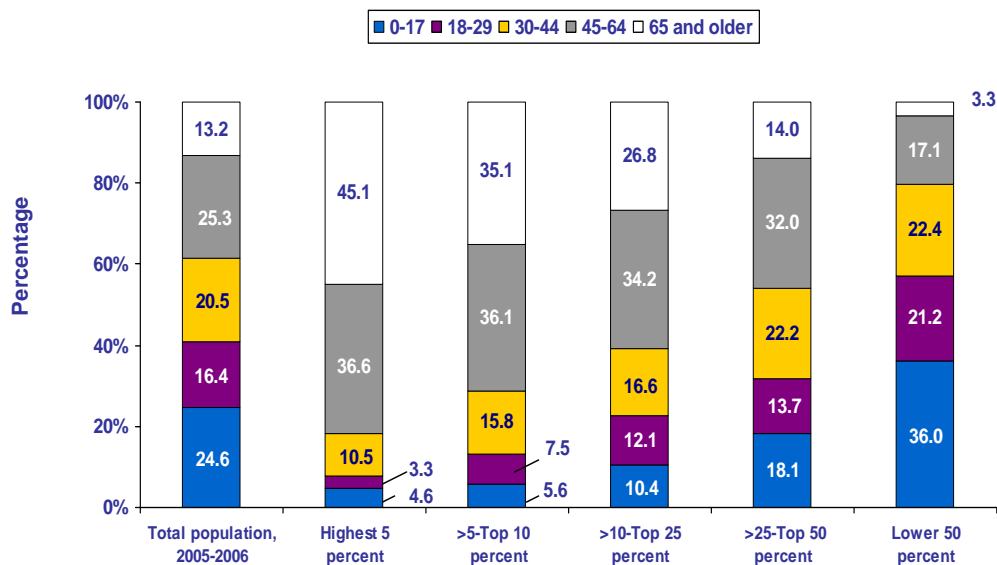
**Figure 1. Concentration of health care expenditures over two year interval, U.S. civilian noninstitutionalized population, 2005–2006**



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, HC-106 (Panel 10, 2005–2006)



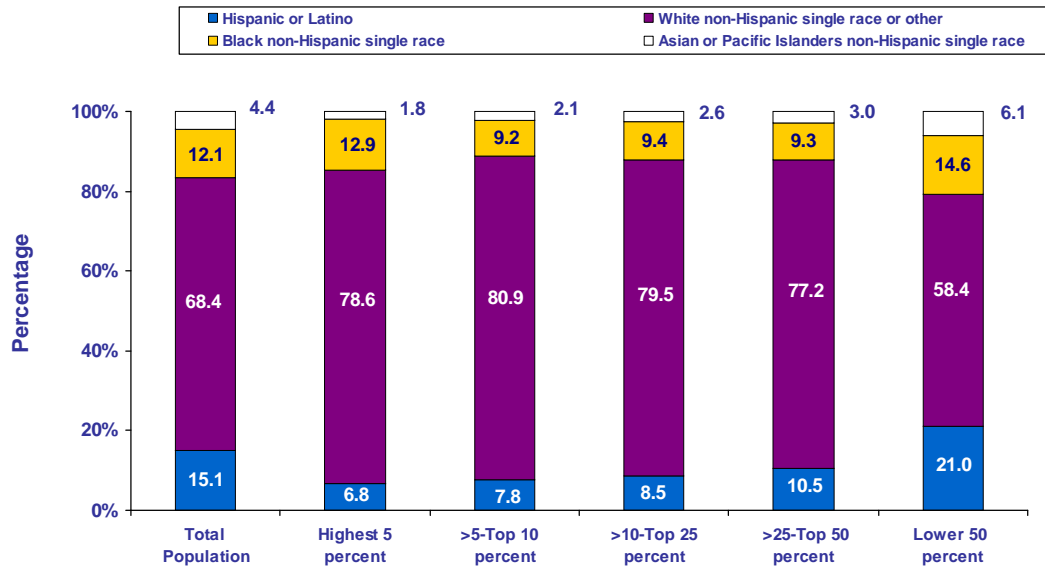
**Figure 2. Distribution of population by two year concentration of health care expenditures and age, in the U.S. civilian noninstitutionalized population, 2005–2006**



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, HC-106 (Panel 10, 2005–2006)



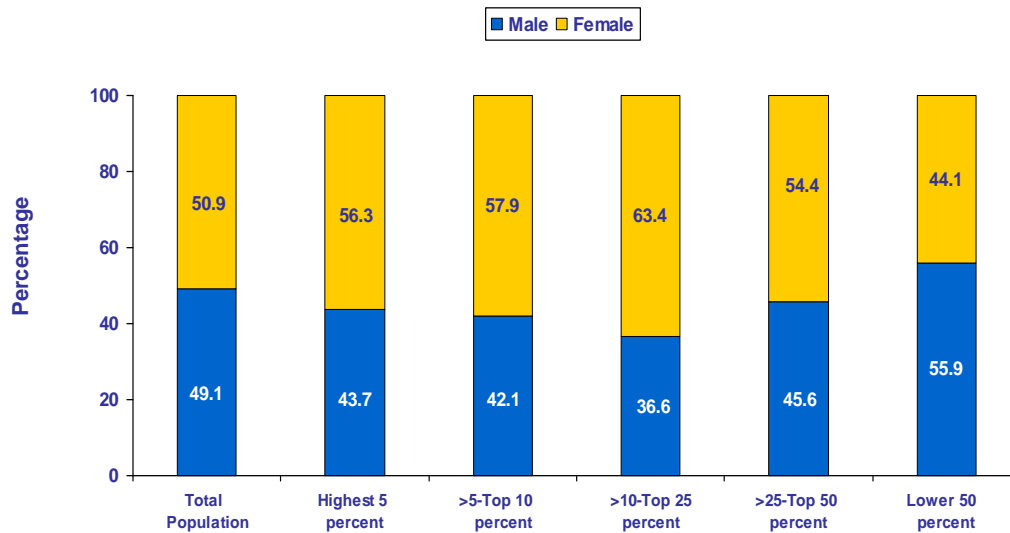
**Figure 3. Distribution of population by two year concentration of health care expenditures and race/ethnicity, U.S. civilian noninstitutionalized population 2005–2006**



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, HC-106 (Panel 10, 2005-2006)



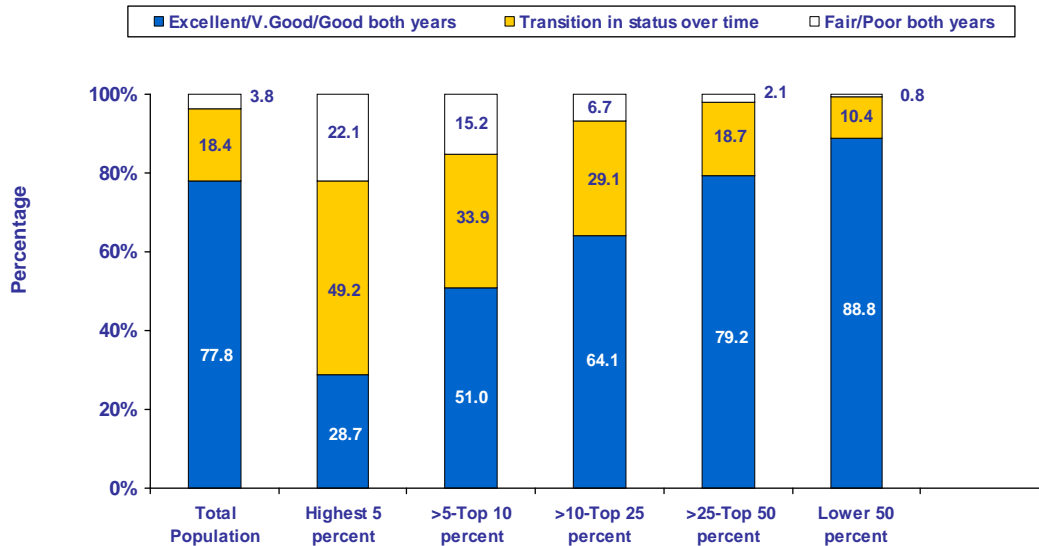
**Figure 4. Distribution of population by two year concentration of health care expenditures and sex, in the U.S. civilian noninstitutionalized population 2005–2006**



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, HC-106 (Panel 10, 2005-2006)



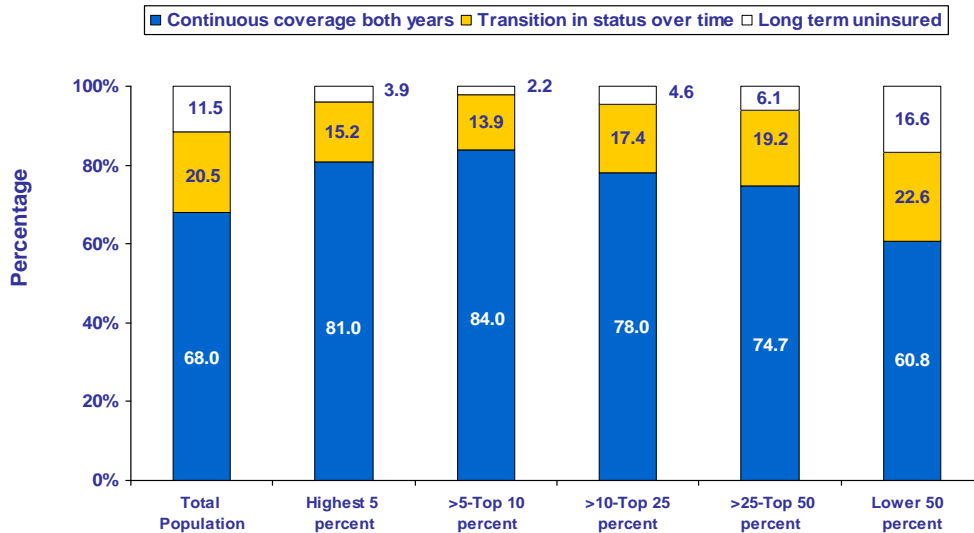
**Figure 5. Distribution of population by two year concentration of health care expenditures and health status, in the U.S. civilian noninstitutionalized population 2005–2006**



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, HC-106 (Panel 10, 2005-2006)



**Figure 6. Distribution of population by two year concentration of health care expenditures and health insurance coverage, U.S. civilian noninstitutionalized population under age 65, 2005–2006**

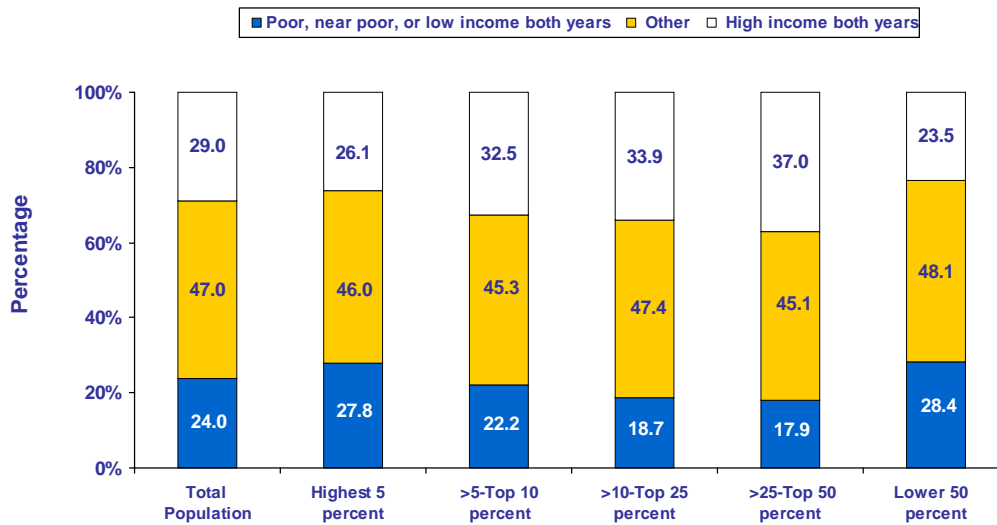


Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, HC-106 (Panel 10, 2005-2006)





**Figure 7. Distribution of population by two year concentration of health care expenditures and poverty status, in the U.S. civilian noninstitutionalized population 2005–2006**



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, HC-106 (Panel 10, 2005-2006)