

# Consumer Expenditure Survey compared with National Health Expenditure Accounts

Past Consumer Expenditure Survey (CE) biennial reports included comparisons of CE data to those from other sources to check for consistency of results. Personal Consumption Expenditures (PCE) from the Bureau of Economic Analysis were used to make detailed comparisons with a range of CE spending categories. Less-detailed comparisons of CE out-of-pocket health care expenditures were made with those from the National Health Expenditure Accounts (NHEA) of the Centers for Medicare and Medicaid Services of the Department of Health and Human Services. The purpose of this article is to examine the latest CE estimates of aggregate health-care expenditures and how they compare with NHEA data, but in more detail than previously shown.

Published by the Centers for Medicare and Medicaid Services of the U.S. Department of Health and Human Services, the National Health Expenditure Accounts (NHEA) are the official estimates of total health care spending in the United States. Dating back to 1960, the NHEA measures annual aggregate U.S. spending for health care goods and services, public health activities, program administration, the net cost of private insurance, and research and other investment related to health care.

The Consumer Expenditure Survey (CE) and the NHEA differ in the population covered. The CE is designed to be representative of the U.S. civilian noninstitutionalized population which includes everyone living in the U.S., who is not in an institution, such as a nursing home or prison, and who is not living on a military base. The NHEA covers a larger population because all persons, both military and civilian, living in the U.S. are part of the resident population.

CE health care data are direct out-of-pocket expenditures net of any reimbursements. These data include payments directly to the providers of care, such as hospitals, and to third parties, such as insurance companies for private group or individual health insurance coverage and the Federal Government for premiums to the Medicare Supplementary Trust Fund (Part B, C, and D coverage). In the NHEA, household spending for health care also includes direct spending and amounts paid to third party insurers.

The CE obtains information from individual consumer units, while the NHEA uses many secondary data sources, such as the American Hospital Association Annual Survey and the Census Bureau's Services Annual Survey. The CE and NHEA also differ in how spending is categorized. In the

NHEA, the type of establishment providing a service generally determines what is included in a spending category, while CE usually categorizes spending by the type of service provided. For example, the CE has separate categories for inpatient hospitalization and other medical services (outpatient hospital care, emergency room services, etc.), but the NHEA places these services in its Hospital Care category.<sup>6</sup>

The two data sources differ somewhat in the items covered. For example, the CE does not have a category that specifically requests information about home health-care outlays. In the NHEA, the Home Health Care category includes freestanding home health agencies, while hospital-based home health care is in the Hospital Care category. The NHEA includes employee and self-employment contributions to the Medicare Hospital Insurance Trust Fund (Part A coverage) in household spending for insurance coverage, in addition to premiums to the Medicare Supplementary Insurance Trust Fund, while the CE only includes the latter in its health insurance estimates.

Text table 3 shows CE estimates of aggregate expenditures for healthcare and CE/NHEA out-of-pocket spending ratios. Categories have been aligned to make them as comparable as possible. In 2007, CE aggregate medical care expenditures (excluding nursing home care) were \$340.9 billion, or 67 percent of the NHEA out-of-pocket estimate of \$506.1 billion (excluding nursing home and home health care expenditures). Of the CE total, \$185.6 billion was spent on health insurance, \$72.0 billion on medical commodities, and \$83.3 billion on medical services. These amounts were 67 percent, 72 percent, and 64 percent, respectively, of the NHEA estimates.

For all expenditure categories, CE-to-NHEA ratios varied over the 2004–07 period. These results may reflect the variability of health care expenses and/or year-to-year fluctuations, due to random sampling variation which affects survey data bases. The differences between CE and NHEA estimates may also reflect survey differences in population, concepts, and scope.

<sup>6</sup> The NHEA defines the population used in its data tables as the U.S. Census resident population plus the net undercount. For more information about the National Health Expenditure Accounts see "National Health Expenditure Accounts, Definitions, Sources and Methods, Department of Health and Human Services, Centers for Medicare and Medicaid Services, Baltimore, Md., [www.cms.hhs.gov/NationalHealthExpendData/downloads/dsm-07.pdf](http://www.cms.hhs.gov/NationalHealthExpendData/downloads/dsm-07.pdf) and "Health Expenditures by Sponsors: Business, household and government, [www.cms.hhs.gov/NationalHealthExpendData/06\\_NationalHealthAccountsBusinessHouseholdGovernment.asp#TopOfPage](http://www.cms.hhs.gov/NationalHealthExpendData/06_NationalHealthAccountsBusinessHouseholdGovernment.asp#TopOfPage)

**Text table 3. Comparison of aggregate health care expenditures: Consumer Expenditure Survey and National Health Expenditure Accounts, 2004–07**

| Expenditure category                               | Aggregate consumer expenditures<br>Consumer Expenditure Survey<br>(in billions) |       |       |       | Ratio of Consumer Expenditure<br>Survey to National Health<br>Expenditure Accounts <sup>1</sup> |      |      |      |
|--|---|-------|-------|-------|---|------|------|------|
|  | 2004  | 2005  | 2006  | 2007  | 2004  | 2005 | 2006 | 2007 |
| Health care, total <sup>2</sup> .....              | 294.6   | 309.4 | 326.7 | 340.9 | .70   | .70  | .68  | .67  |
| Health insurance <sup>3</sup> .....                | 154.9   | 159.7 | 174.1 | 185.6 | .70   | .68  | .67  | .67  |
| Medical commodities, total .....                   | 69.1  | 73.7  | 75.6  | 72.0  | .77   | .73  | .74  | .72  |
| Prescription drugs.....                            | 40.6  | 47.6  | 46.7  | 43.2  | .88   | .83  | .87  | .85  |
| Medical supplies and<br>nonprescription drugs..... | 18.9  | 17.0  | 18.2  | 18.4  | .62   | .53  | .55  | .53  |
| Medical equipment .....                            | 9.6   | 9.1   | 10.7  | 10.4  | .73   | .70  | .69  | .69  |
| Medical services, total .....                      | 70.6  | 76.1  | 77.0  | 83.3  | .65   | .66  | .63  | .64  |
| Professional services.....                         | 54.1  | 58.3  | 58.8  | 63.2  | .60   | .61  | .58  | .59  |
| Physicians services .....                          | 17.0  | 18.1  | 20.0  | 20.6  | .42   | .42  | .43  | .42  |
| Dental services.....                               | 28.0  | 29.8  | 28.4  | 29.4  | .73   | .78  | .71  | .70  |
| Other professional<br>services .....               | 9.1   | 10.3  | 10.5  | 13.3  | .66   | .72  | .70  | .84  |
| Hospital care.....                                 | 16.4  | 17.8  | 18.2  | 20.0  | .88   | .90  | .85  | .86  |

<sup>1</sup> National Health Expenditure Accounts data exclude nursing home and home health care spending.

<sup>2</sup> Consumer Expenditure Survey data exclude nursing home care spending.

<sup>3</sup> Includes premiums for private health insurance and premiums paid to the Medicare Supplementary Insurance Trust Fund.

NOTE: Sums may not equal totals due to rounding. Expenditure categories have been adjusted to make the two surveys as comparable as possible.

SOURCE: The National Health Expenditure Accounts (NHEA) data

used to compute the CE/NHEA ratios are from U.S. Department of Health and Human Services, Centers for Medicare and Medicaid Services, "National Health Expenditures by Type of Service and Source of Funds: Calendar Years 1960-2007," [http://www.cms.hhs.gov/NationalHealthExpendData/02\\_NationalHealthAccountsHistorical.asp#TopOfPage](http://www.cms.hhs.gov/NationalHealthExpendData/02_NationalHealthAccountsHistorical.asp#TopOfPage) and Health Expenditures by Sponsors: Business, Household, and Government," [http://www.cms.hhs.gov/NationalHealthExpendData/06\\_NationalHealthAccountsBusinessHouseholdGovernment.asp#TopOfPage](http://www.cms.hhs.gov/NationalHealthExpendData/06_NationalHealthAccountsBusinessHouseholdGovernment.asp#TopOfPage). Because retrospective adjustments to NHEA data are made when new data are issued, CE/NHEA ratios may differ from those published in previous years.