State Health Expenditure Accounts, by State of Residence: Data Sources & Methods

The health spending estimates by state of residence are based on the National Health Expenditure Accounts, the official government estimates of health spending in the United States.[1] The state health expenditure data provide state-specific personal health care spending trends by service, as well as state-level estimates of Medicare and Medicaid spending by service, using consistent definitions and methodologies that allow for comparisons across time and across states.

In order to construct per capita health spending estimates for each state, interstate border-crossing expenditure flow patterns were used to adjust provider-based data.[2] This adjustment was necessary because health spending estimates by location of provider include spending on both residents and nonresidents, while population estimates are based on residency.[3] Adjustments were not made for Medicaid because Medicaid spending estimates were based on data provided by in-state providers for eligible residents only. States may pay small amounts for services that occur outside of a resident's state; however, these dollars are a small proportion of all Medicaid spending. Therefore, Medicaid spending by state was assumed to be identical on a residence and provider basis.

Medicare fee-for-service claims data were used to adjust Medicare spending from a provider to a residence basis. All non-Medicare and non-Medicaid expenditures — except for Prescription Drugs and Other Personal Health Care spending, which are assumed to already be based on state of residence — were also adjusted using Medicare claims data.[4] Inpatient hospital and physician services were further adjusted to reflect non-Medicare case mix by reweighting Medicare expenditure flows using private hospital discharge information and physician claims records.[5]

Due to data limitations, these estimates do not adjust for international inflows of health care spending.[6] Additionally, the Census resident population does not include an adjustment for the population undercount by state, which results in slightly overstated per capita spending that do not materially impact our findings.

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1 A. Catlin et al., "National Health Spending in 2005: The Slowdown Continues."

2 Centers for Medicare and Medicaid Services, "Health expenditures by state of provider, 1980-2004," February 2007, http://www.cms.hhs.gov/NationalHealthExpendData/05_NationalHealthAccountsStateHealthAccounts.asp (accessed 15 May 2007).

3 U.S. Bureau of the Census, "Annual Estimates of the Population for the United States and States," http://www.census.gov/popest/estimates.php (accessed 16 March 2007).

4 Medicare is the most comprehensive nationwide insurer with publicly available claims files containing a large pool of service-specific records upon which to base interstate flows of spending between providers' and beneficiaries' resident locations.

5 National Inpatient Samples from Healthcare Cost and Utilization Project 3 data, and Medstat data from their Market Scan Commercial Database were used to reweight expenditure flows to reflect the procedure-specific bundle of services used by the non-Medicare, non-Medicaid population. Fu Associates, "Interstate Flows of Health Spending: Update for 2002." (Memorandums dated 30 January 2004 and 19 May 2006, Contract no. CMS-03-01070, prepared for the Centers for Medicare & Medicaid Services, Baltimore, 2005).

6 A small percentage of U.S. citizens who are Medicare beneficiaries receive health care services (paid by Medicare) outside of the fifty states, and a small percentage of U.S. citizens living in the U.S. territories and in other countries return to the United States for health care.