Taking Account...

BEA paper compares health care data sets

To better analyze the role of health care in the economy, the Bureau of Economic Analysis (BEA) aims to develop better measures of health care spending and price changes. In particular, BEA aims to develop measures organized by disease. This stands in contrast to the conventional approach, which details spending by treatments, such as a doctor's office visit or a particular drug.

One key issue for BEA is the appropriateness of the data used to calculate by-disease measures. Data are available from several sources. The Centers for Medicare and Medicaid Services, for example, provides data about the patients it covers. However, for data about the largest segment of U.S. health care consumers—commercially insured patients and their families— there are some challenges.

While several large medical databases cover this segment, economists need a better understanding of the databases' relative strengths. To this end, a recent BEA paper compared two well-known data sets—the 2005 Medical Expenditure Panel Survey (MEPS) and 2005 data from the MarketScan® Research Databases from Thomson Reuters. The paper, available on the BEA Web site, was authored by BEA economists Ana Aizcorbe, Eli Liebman, and Sarah Pack with David M. Cutler of Harvard University and the National Bureau of Economic Research (NBER), Michael E. Chernew of Harvard Medical School, and Allison B. Rosen of the University of Michigan and the NBER.

The paper found the two data sources yielded differing estimates of both total spending and the distribution of annual per person spending; the MEPS estimates were 10 percent lower on average than the MarketScan estimates. These differences appeared to be a function of both underrepresentation of high expenditure cases and underestimation across the remaining distribution of spending.

The MEPS survey is conducted by the Department of Health and Human Services' Agency for Healthcare Research and Quality. The MEPS data have several components. Data used for BEA's estimates of employer contributions for privately administered health funds, a component of employee compensation in BEA's national income, are based on the insurance/employer component of MEPS (MEPS-IC), a survey of private and nonfederal public sector employers.

BEA's measures of consumer spending for health insurance are also based on MEPS-IC. BEA's estimates of spending on health care services in gross domestic product are largely based on Census Bureau surveys of services industries. Data used in this article are from the household component (MEPS-HC), a nationally representative survey of health care utilization and expenditures. It is regarded as a high-quality source of data on high-prevalence diseases and links expenditures from all services (across all types of providers) to patient care events.

The MarketScan Research Databases provide the results of a nationwide convenience sample of patients from all providers. This database collects information from employers, health plans, and state-level Medicaid agencies, and all claims have been paid and adjudicated. This paper used the MarketScan Commercial Claims and Encounters portion of the databases.

The analysis raises the issue of how best to utilize the large sample size of the MarketScan claims databases with the representativeness of the MEPS surveys. If the differences were uniform across the distribution of spending, adjustments could readily be made to correct the expenditures in both.

However, the differences between the two data sets are substantially greater at the high end of the spending distribution, requiring more research to assess consistency across the remaining distribution. The large sample size of the MarketScan data will allow for more detailed expenditure estimates; however, the differences between this proprietary claims database and the comparable population in MEPS suggest the need for additional research.