

Session 3

Michael CHRISTIAN, U.S. Bureau of Economic Analysis

Michael.Christian@bea.gov

Measuring the Output of Health in the United States

I discuss possibilities for a satellite account for health care in the national income accounts of the United States. These include accounting for home and volunteer production of health care services; measuring real output of health care services as conditions treated rather than procedures performed; and volume measures of health care services.

Accounting for home and volunteer production of health care services is possible with the American Time Use Survey, which surveys the American population about detailed activities for a single day. There are two major challenges for such an account: distinguishing activities that are home health care services, and assigning monetary values to these activities. Many recommendations for measuring home and volunteer production are made in *Beyond the Market*, a study published by the National Science Foundation (Abraham and Mackie, 2005).

Since the majority of health care in the United States is produced in the private sector, most American research in health care measurement has focused on measurement of prices. Many of these studies find that price growth in health care services is substantially slower when prices are measured as the full cost of treating ailments rather than the costs of individual procedures (Berndt et al, 2002; Frank et al, 2004; Shapiro et al, 2001; Cutler et al, 1998).

In the United States, the volume of health care services is normally measured by dividing expenditure on health care by a price index for health care. Price deflation is normally preferred because prices are more likely to be correlated across similar services over time. BEA currently uses a combination of the Consumer Price Index, the Producer Price Index, and input cost indexes to deflate expenditure and measure the volume of health care. Some of these price indexes measures the price of individual procedures; others, such as that for hospital services, comes closer to measuring the full price of treatment.

Even with the availability of prices, it may be preferable to use a volume measure of health care services. When aggregating across goods and services, prices are normally used as weights because it is believed that they reflect each product's marginal value to the consumer. However, there are many distortions in the health care market, such as asymmetric information and moral hazard, that may cause prices to not reflect marginal valuations. A volume measure of health care that uses a weight other than prices may be preferred. One possible weight is the marginal quality-adjusted life-years (QALYs) produced by the service; a measure such as this is suggested in Pauly (1999). Between this and other work in health care, there are many possibilities and many decisions to be made for national health accounts for the United States.