

Adjusting the Measurement of the Output of the Medical Sector for Quality: A Review of the Literature

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Paper Abstract: In January 2015, the Bureau of Economic Analysis released the first version of the health-care satellite account, which redefines the good being measured in health care output from a single service to an episode of treatment of a specific medical condition. This change follows multiple recommendations by the Committee on National Statistics and by international authorities on national accounting as applied to medical care. BEA now faces the intensely difficult problem of how to adjust the price indexes for the quality of health care. In this paper, I review and summarize a number of previous papers that created quality-adjusted price indexes for individual medical conditions. It divides them into those that use primarily outcomes-based adjustments and those that use only process-based adjustments. Outcomes-based adjustments adjust the indexes based on observed aggregate health outcomes, usually mortality. They usually do so by calculating a concept called net value, which is the monetized value of the improved health outcome minus the increased spending on the condition. Process-based adjustments adjust the indexes based on the treatments provided and medical knowledge of their effectiveness. Outcomes-based adjustments are easier to implement while process-based adjustments are more demanding in terms of data and medical knowledge. I then calculate outcomes-based adjustments using the net value method for the indexes in the health-care satellite account with mortality by cause of death with data from the Centers for Disease Control and Prevention. They show that improved outcomes in diseases of the circulatory system created positive net value and declining inflation for those conditions but most other categories of diseases exhibit increasing inflation because spending on them is higher than the value of the improved outcomes.