The National Academies of
SCIENCES · ENGINEERING · MEDICINE

Panel on Improving Cost-of-Living Indexes
and Consumer Inflation Statistics in the Digital Age

Measuring Price Changes in Medical Care

March 31, 2021
1:30 – 4:00 PM (US eastern)

AGENDA

Session goals: The panel is charged with examining the potential to improve the CPI by supplementing (or in some cases replacing) traditional survey-based data collection with an approach that blends multiple (survey and non-survey, government and commercial) data sources. The focus of this session is on strategies for improving the accuracy, timeliness, and detail of price measurement for medical care items, including health insurance, purchased by consumers. The bulk of the meeting will be organized around a set of questions about (1) the potential of alternative data sources to improve the medical care CPI and (2) conceptual issues regarding pricing of insurance and on measuring quality change in medical care.

1:30 PM   Welcome, charge to the panel, introductions
      − **Dan Sichel**, panel chair
      [Support document: Panel's Statement of Task]

1:35   Opening comments on the major issues of interest for the study by the panel's medical care subgroup
      − **Louise Sheiner**, panel member [and/or **Laura, Ana, Marshall**]

1:45   Current state of play of the medical care CPI, including use of alternative data sources, priorities, and plans. Key questions to the panel.
      − **Brett Matsumoto**, BLS
      [Support document: Measuring Price Change in the CPI: Medical Care (https://www.bls.gov/cpi/factsheets/medical-care.htm)]

1:55   Medical care price measurement issues of interest to BEA. Ideally, what would the agency want from BLS for the experimental medical care accounts? How could the two agencies collaborate on some data acquisition projects? A few thoughts on the topic of prescription drug rebates.
      − **Abe Dunn**, BEA
      [Support Document: *Are Medical Care Prices Still Declining? A Systematic Examination of Quality-Adjusted Price Index Alternatives for Medical Care*, by Dauda, Dunn, and Hall. And/or *Health Insurance and the Demand for Medical*

Care: Instrumental Variable Estimates Using Health Insurer Claims Data, by Abe Dunn]

2:05   Round table discussion of the set of questions circulated before the meeting, moderated by some combo of Louise, Ana, and Laura.

– **David Cutler**, Harvard University
– **Matt Fiedler**, Brookings Institution
– **Martin Gaynor**, Carnegie Mellon University
– **Matthew Shapiro**, University of Michigan (not confirmed)
– **Abe Dunn**, BEA
– **Brett Matsumoto**, BLS
[Support document: Question list, see below]

2:30   ***BREAK***

2:35   Round table discussion of questions (continued)

3:30   ***BREAK***

3:35   Round table discussion of questions (continued)

3:50   Key takeaways, concluding thoughts
– **Louise Sheiner**, panel member [and/or **Laura, Ana, Marshall**]
– **Dan Sichel**, panel chair

4:00 PM   ***ADJOURN***

Discussion questions

Shorter term issues—improvements within the current CPI framework

1. What are the key (mainly non-survey) data sources (claims data, hospital data, scanner data on drugs, etc.) that can be used to improve the coverage, detail, and timeliness of price and quantity information in the medical care component of the CPI? Specifically, how could BLS better incorporate claims data.
2. What are the pros and cons of the direct vs the currently used indirect approach (which involves pricing health insurance with retained earnings blended with changes in the price of medical care) to pricing health insurance?
   - How does the availability of high detail, high frequency data affect the decision of best approach?
   - What alternative sources of data could be used to improve the current indirect pricing (a limitation of the current method is its use of highly aggregated annual data)?
   - How does the choice of direct vs indirect pricing of health insurance affect how the other medical goods and services should be priced?
3. In the context of measuring quality change, what data sources could allow for a more careful tracking of the characteristics of the services, insurance plans, etc. that consumers purchase?

Longer term questions/research projects

4. How does the measurement objective and scope of the CPI (tracking prices faced by consumers) differ from that of the national accounts/PCE (aggregate economy)?
5. What are appropriate quality adjustment concepts for measuring price changes faced by consumers on out-of-pocket expenditures on professional and hospital services, health insurance premiums, drugs, etc.
6. Should the CPI control for disease/treatment outcomes? Currently, disease-based price indexes are experimental at BLS (include shout-out to BEA measures in question too). Given current data limitations, it is unlikely that the disease-based price indexes will soon meet the standards for production in their current form. The primary data source for the disease-based price indexes is the Medical Expenditure Panel Survey, which is not timely and has a relatively small sample size particularly for calculating price indexes for less common medical conditions. What are some new data directions that could be taken to push disease-based price indexes forward, particularly in terms of quality adjustments (presumably based on measures of outcomes at the level of specific diagnoses)?
7. BLS suggested that we might briefly discuss the 2002 panel's recommendation (not adopted by BLS) to produce a more broad-based measure of the changing cost of medical care that could be valuable for policy purposes—specifically:

   BLS should include the portion of health insurance paid for by employers in one version of the CPI, perhaps calling it an "expanded-scope medical CPI." Because many commonly used income measures exclude employer-provided benefits, and because the Consumer

Expenditure Survey is based only on out-of-pocket expenditures, the original conception of the MCPI domain should still be maintained in constructing the traditional (flagship) CPI. The panel also recommends examining the practicality of including other employer-paid employee benefits (e.g., dental and cafeteria plans) in the expanded-scope CPI. (*At What Price?* Recommendation 6-2)

Study Statement of Task (current panel)

An ad hoc panel of the National Academies of Sciences, Engineering, and Medicine will review measurement issues in the Bureau of Labor Statistics (BLS) Consumer Price Index program and provide guidance for its continued modernization. The study will examine the potential to improve CPI methodology by incrementally transitioning from traditional survey-based data collection to an approach that blends multiple (survey and non-survey, government and commercial) data sources. The panel will consider opportunities to apply new data sources to improve the construction of specific elementary item-area indexes as well as to improve index aggregation along several dimensions.

Many data sources have emerged during the past 20 years (since the last National Academies' review of the CPI) that could be used in the construction of the 7,000+ elementary item-area indexes in a way that improves the accuracy, timeliness, and detail of resulting price statistics, or reduces costs in the CPI program. The panel will identify specific areas where new kinds of data may be harnessed in a relatively straightforward way to improve price measurement of some items such as food and electronics. The panel will also propose solutions for some historically difficult-to-measure expenditure categories, particularly for which the availability of alternative data create opportunities for improved price measurement.

The panel will consider opportunities to use new data sources to improve aggregation of the elementary item-area indexes and also to mitigate upper-level substitution bias in the CPI-U and the CPI-W—for example, by taking advantage of the simultaneous availability of quantity and price information to update baskets and weights with shorter lags. As part of this task, the panel may revisit concerns about data sources used to estimate population item expenditure weights. The panel will also assess the prospects for creating new index aggregates that would present information about prices paid and expenditure weights for goods and services by households across the income distribution (by decile, or perhaps by quintile).
Finally, the panel will offer forward-looking thoughts about what price measurement may look like in 20 years and what BLS can do to anticipate future research and policy needs. As part of its information-gathering activities, the panel will gather input from data users, stakeholders, and survey experts. The panel will produce a consensus report with conclusions and recommendations.