November 14, 2018

Honorable Mike Enzi
Chairman
Committee on the Budget
U.S. Senate
Washington, DC 20510

Re: Plans to Update CBO's Health Insurance Simulation Model

Dear Mr. Chairman:

This letter responds to your recent inquiry about the Congressional Budget
Office's health insurance simulation model (HISIM) and our work on updating it.
HISIM is one of the tools that we use to produce baseline budget projections and
cost estimates for legislation related to the Affordable Care Act (ACA).[1] We are
currently enhancing it through a process that is thorough and transparent and that
includes extensive peer review and broad external validation.

CBO has long been dedicated to providing information that is objective,
insightful, timely, and clearly presented and explained. In order to ensure
independent, nonpartisan analysis, CBO must make choices about what models to
use and when to use them on the basis of its best analytical assessment. Those
choices are informed by knowledge and insight that CBO solicits from outside
experts as part of its effort to be transparent.

CBO's dedication to transparency applies strongly to its analyses of federal
subsidies for health insurance. For instance, CBO has frequently published
material about those analyses in the past and then sought input about those

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[1] For a discussion of HISIM's role in the analytic process, see Congressional Budget
Office, *How CBO and JCT Analyze Major Proposals That Would Affect Health
Insurance Coverage* (February 2018), www.cbo.gov/publication/53571.

publications from many sources.[2] CBO has also regularly conducted outreach and gathered feedback.[3] The agency has intensified such transparency efforts this year.

We are currently following through on the general plans for HISIM that we previously described to you.[4]

- We are obtaining systematic feedback from the research community by making presentations about various aspects of the model as they are developed.

- We are also publishing conceptual overviews and documentation of all parts of the model, as well as more detailed information—including computer code—about key aspects of the modeling.

The rest of this letter addresses subjects that you raised—specifically, the development process for the updated HISIM, documentation for it, and estimates that it can provide of health insurance coverage under the ACA.

Development Process
The update of HISIM has been very extensively reviewed. CBO is currently discussing the update with representatives from the Congress, federal agencies, states, insurers, employers, doctors, hospitals, and the general public. For example, CBO staff members met with Senate staff in October to discuss HISIM

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[2] For example, see Congressional Budget Office, *Federal Subsidies for Health Insurance Coverage for People Under Age 65: 2018 to 2028* (May 2018), www.cbo.gov/publication/53826; *How CBO Defines and Estimates Health Insurance Coverage for People Under Age 65* (May 2018), www.cbo.gov/publication/53822; *How CBO and JCT Analyze Major Proposals That Would Affect Health Insurance Coverage* (February 2018), www.cbo.gov/publication/53571; and *CBO's Record of Projecting Subsidies for Health Insurance Under the Affordable Care Act: 2014 to 2016* (December 2017), www.cbo.gov/publication/53094.

[3] For example, see Congressional Budget Office, "The Health Insurance Simulation Model Used in Preparing CBO's 2018 Baseline" (February 2018), www.cbo.gov/publication/53592; Jessica Banthin, Deputy Assistant Director, Health, Retirement, and Long-Term Analysis Division, Congressional Budget Office, "An Overview of CBO's Estimates of Federal Subsidies for Health Insurance for People Under Age 65: 2017 to 2027" (presentation at a Congressional Research Service seminar, Washington, D.C., January 10, 2018), www.cbo.gov/publication/53447; and Sarah Masi, Analyst, Budget Analysis Division, Congressional Budget Office, "Estimating the Costs of Proposals Affecting Health Insurance Coverage" (presentation at a Congressional Research Service seminar, Washington, D.C., January 10, 2018), www.cbo.gov/publication/53448.

[4] See testimony of Keith Hall, Director, Congressional Budget Office, before the Senate Committee on the Budget, *Transparency at CBO: An Update* (September 13, 2018), www.cbo.gov/publication/54445; and testimony of Keith Hall, Director, Congressional Budget Office, before the Senate Committee on the Budget, *The Congressional Budget Office's Work in 2017 and Plans for the Future* (January 24, 2018), www.cbo.gov/publication/53481.

and are currently working to schedule meetings with additional Senate and House staff in November for the same purpose.

Discussion also took place during a meeting of CBO's Panel of Health Advisers in September.[5] The panel consists of widely recognized experts in health policy and the health care sector. Members of the panel have a variety of backgrounds, areas of expertise, and experience: They are administrators of state health programs, insurance executives, employers, doctors, hospitals, and health researchers. Congressional staff also attended the meeting.

During the same meeting, presentations were made by two members of a newly established technical review panel that provides CBO with feedback on the updates to HISIM.[6] (That panel will provide CBO with special assistance during the next two years in the course of the current major upgrades; after that, assistance with HISIM will be provided by CBO's regular Panel of Health Advisers.) The review panel's members were selected for their analytic expertise and include people recommended by staff of the Senate Budget Committee. CBO is scheduled to have technical discussions with those reviewers on specific aspects of the model's development and testing during the next few months. CBO also plans to obtain their feedback about preliminary baseline projections of health insurance coverage before releasing final projections in the spring.

Furthermore, CBO is conducting other outreach to experts in research organizations and industry, and the general public. For example, CBO staff engaged in discussion with a variety of stakeholders at a public event at the Bipartisan Policy Center.[7] CBO has met with experts in microsimulation modeling at the Agency for Healthcare Research and Quality, the Heritage Foundation, the RAND Corporation, and the Urban Institute to discuss numerous technical issues. The agency also conducted a webinar with the American Academy of Actuaries that attracted about 200 participants from around the country.[8] And CBO has worked with staff at the Congressional Research Service so that they can better communicate about CBO's undertakings as part of their own service to the Congress. In the coming months, CBO will continue to solicit

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[5] See Jessica Banthin and Alexandra Minicozzi, Congressional Budget Office, "How CBO Is Updating Its Health Insurance Simulation Model" (presentation to CBO's Panel of Health Advisers, Washington, D.C., September 21, 2018), www.cbo.gov/publication/54478.

[6] See Congressional Budget Office, "CBO's Technical Review Panel for Its Health Insurance Simulation Model," *CBO Blog* (September 6, 2018), www.cbo.gov/publication/54436.

[7] See Jessica Banthin and Alexandra Minicozzi, Congressional Budget Office, "Updating CBO's Health Insurance Simulation Model (HISIM)" (presentation at the Bipartisan Policy Center, Washington, D.C., June 19, 2018), www.cbo.gov/publication/54063.

[8] For the material presented during that webinar, see Jessica Banthin and Alexandra Minicozzi, Congressional Budget Office, "CBO's Health Insurance Simulation Model: Overview of Planned Updates" (presentation to the American Academy of Actuaries, Washington, D.C., October 25, 2018), www.cbo.gov/publication/54623.

feedback from people recommended by Congressional staff and from a broad array of other stakeholders.

Documentation

During the next year, CBO plans to publish more documentation of the updated model and more detailed information, including computer code, about key aspects of that model. Taken together, those public releases will provide a comprehensive picture of the model. Specifically, before publishing its spring baseline projections, the agency plans to release the following:

- An updated slide deck that describes the model's specifications and includes many of the key equations and parameters;

- Additional documentation describing the sources and preparation of input data; and

- Segments of computer code underlying the model's simulations of certain decisions about insurance choices.

(CBO cannot release some aspects of the modeling publicly because the agency must maintain the confidentiality of the underlying data.)

Furthermore, CBO's annual report on federal subsidies for health insurance will include a discussion of differences between the spring 2019 baseline projections and the previous ones.

Estimates of Coverage Under the ACA

The main points of reference for the updated HISIM come from data about health insurance coverage during the past four years. Specifically, as part of the process of developing the model, CBO is starting with data about coverage in 2015 and then using the model to estimate coverage under the ACA in the following three years. The agency will then be able to assess and report about how closely it is able to calibrate its estimates for those years with data from multiple sources about health insurance coverage. That process of checking the estimates against a large collection of external data helps validate the model.

I hope this information is helpful to you. Please contact me if you would like to talk directly or if I can provide any other assistance.

<div align="right">Sincerely,</div>

Keith Hall
Director

cc: Honorable Bernie Sanders
          Ranking Member
          Senate Committee on the Budget

Identical letters sent to the Honorable John Boozman, the Honorable Bob Corker, the Honorable Tom Cotton, the Honorable Mike Crapo, the Honorable Cory Gardner, the Honorable Lindsey Graham, the Honorable Charles Grassley, the Honorable Ron Johnson, the Honorable John Kennedy, the Honorable David Perdue, and the Honorable Patrick Toomey.