

Analysis of Factors Leading to Changes in Projected 2019 National Health Expenditure Estimates: A Comparison of April 2010 Projections and June 2012 Projections

Researchers, policymakers, and the public have expressed great interest in understanding historical and projected health care spending, as well as the actual and projected impact of the Patient Protection and Affordable Care Act (ACA), as amended, on such spending. Also of interest are the questions of how and why the outlook for health spending has changed in the two years since the ACA was passed.

Since April 2010, when the Office of the Actuary released its original estimates of the financial, enrollment, and national health expenditure (NHE) impacts of the ACA,¹ the historical estimates and projections have been updated in three installments, all of which have resulted in lower projected health spending levels and growth by 2019. As of June 2012, our projection of national health spending for 2019, inclusive of the impacts of the ACA, is \$509 billion (or 11 percent) lower than projected in April 2010.

We have prepared this paper to identify the major factors underlying not only the lower historical health spending levels, but also the lower projected health spending levels and growth rates expected by 2019.

I. Major Findings

As shown in Table 1, changes to *baseline* historical and projected national health expenditures (that is, our estimates of health spending excluding the impacts of the ACA) explain the lower levels of health spending and growth by 2019 as published through June 2012, while our estimated impacts of the ACA on health spending are relatively close to what was estimated in April 2010. The following are the major factors influencing the \$509-billion difference in projected spending in 2019 (with each discussed in greater detail in Section II):

- In June 2012, the level of health spending in 2010 is lower than had been expected in April 2010, largely reflecting the impact of a more severe recession than had been projected. Isolating this effect accounts for \$68 billion of the \$509-billion difference.
- In June 2012, macroeconomic assumptions call for lower income and price growth over the 2011-2019 period than had been expected in April 2010. This changed outlook gets reflected through our models as slower growth in health spending through 2019. Isolating this effect accounts for \$59 billion of the \$509-billion difference.
- In June 2012, lower growth assumptions for Medicaid, Medicare, and other government payers and programs are anticipated compared to what had been expected in April 2010. These assumptions are unrelated to the ACA, and largely reflect a changing economic and policy environment that affects Medicaid per enrollee trends and enrollment, as well as lower expected growth in Medicare spending for hospital and prescription drugs. Isolating these effects accounts for \$262 billion of the \$509-billion difference.
- In June 2012, other non-ACA related factors that are difficult to estimate separately influence the projections, such as changes in non-personal health care spending paid for by other private revenues and the net cost of private health insurance, model changes, and re-estimated

¹Foster, R.S. "Estimated Financial Effects of the 'Patient Protection and Affordable Care Act,' as Amended," Centers for Medicare & Medicaid Services, 2010 April 22. Available at http://www.cms.gov/Research-Statistics-Data-and-Systems/Research/ActuarialStudies/Downloads/PPACA_2010-04-22.pdf (accessed 1 June 2012).

equations based on updated data, research, and assumptions. Cumulatively these factors, calculated as a residual, account for \$134 billion of the \$509-billion difference.

**Table 1 – Summary of Projected 2019 NHE Level Differences: June 2012 versus April 2010
(In billions)**

	April 2010	June 2012	Difference
NHE	\$4,717	\$4,207	-\$509
Section A: Impact of historical spending levels through 2010			-\$68
Section B: Impact of macroeconomic assumptions			-\$59
Section C: Impact of growth in Medicaid, Medicare, & other government payers and programs, unrelated to the ACA			-\$262
Section D: Impact of the ACA			+\$15
Section E: Other Factors, unrelated to the ACA (residual that would include model changes, non-measured health sector changes, etc.)			-\$134

SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary

On the other hand, our estimate of the percentage impact of the ACA on NHE in 2019 is higher in our June 2012 projection, an increase relative to our expectations in April 2010 of \$15 billion. There are a few major contributors to this increase, including updates and refinements to our estimates of the uninsured population and estimates of the costs of administering the ACA, which were not included in our initial estimate. Slightly offsetting these increases is the impact of changes to the definition of modified adjusted gross income (MAGI) applied in the ACA, which affects the number of persons eligible for coverage under the ACA's Medicaid expansion in our estimates.² On net, these factors increase spending and more than offset the lower cost of the coverage expansions due to lower baseline projected spending influenced by the factors described above.

II. Major Factors Contributing to Lower Projected Level of Health Spending in 2019

To estimate the impact of the major factors contributing to the lower level of health spending in 2019, we conducted an analysis in which we held constant all factors except the one being analyzed in order to isolate the impact of that one factor.³ For instance, to understand the impact of the lower level of historical spending in 2010 on the projected level of 2019, we used the 2010 spending levels included in our June 2012 release but applied the pre-ACA growth rates for 2011-2019 that were used in our April 2010 release. In this way, we can show how the 2019 level of spending would have been different in our April 2010 projections if we had accurately predicted the experience for 2008-2010, which included a more severe recession, holding all other factors constant. We were able to take this approach for the major factors described below, and thus we can attribute proportions of the \$509-billion difference to each factor. The residual that remains after these factors are identified represents other projection changes unrelated to the ACA, such as model changes, that are difficult to decompose separately.

² The definition of MAGI as applicable in the ACA was modified through P.L. 112-56 in November 2011 to include Social Security income.

³ This mechanical method does not take into account any interactions between factors or reflect any direct measure of each factor. As such, the results, though indicative of the magnitude and direction of the impacts, should not be interpreted as official estimates and when cited should include a reference to this uncertainty.

A. Impact of Historical Spending Levels through 2010

The depth and severity of the 2007-2009 recession, and its impact on health spending, has proven to be more substantial than expected in our April 2010 projections.⁴ Actual health spending for most payers has been lower than projected for 2008-2010, most notably for private health insurance, out-of-pocket spending, and other private revenues—all payers that are most likely to be sensitive to changes in economic conditions. Medicaid spending also was lower than projected, as the actual acceleration in spending growth associated with increased recession-related enrollment was slower than anticipated.

Because our 2010 spending levels are now lower than when the April 2010 projections were released, the level of NHE spending in 2019 would have been \$68 billion lower even if we had not changed our pre-ACA expectations for 2011-2019. Thus, roughly 13 percent of the \$509-billion difference in the level of spending now projected for 2019 is due to the lower growth experienced between 2007 and 2010.

B. Macroeconomic Assumptions

The baseline NHE projections model (which generates estimates of health spending excluding the impacts of the ACA, as stated above) takes macroeconomic assumptions exogenously from the latest available Social Security Trustees Report for each year,⁵ as well as from the latest available Blue Chip Economic Indicators.^{6,7} Over the last two years, the assumptions for growth in disposable personal income (DPI) and the Gross Domestic Product (GDP) deflator—the key macroeconomic assumptions in our baseline NHE projections model—reflect slower growth for 2011-2019 than was expected in April 2010. For this decomposition, we adjusted our April 2010 projections to account for the different macroeconomic expectations, and this adjustment lowered NHE spending by \$59 billion in 2019. Accordingly, roughly 12 percent of the \$509-billion difference in the level of spending now projected for 2019 is due to changing macroeconomic expectations.

⁴ The baseline NHE projections underlying the April 2010 estimates were based on the Updated and Extended National Health Expenditure Projections for 2010-2019, which reflected exogenous macroeconomic assumptions available as of January 2009. See R. Foster and S. Heffler, “Updated and Extended National Health Expenditure Projections, 2010-2019.” Memorandum dated June 29, 2009. Available at http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/downloads/NHE_Extended_Projections.pdf.

⁵ Board of Trustees, Federal Old-Age and Survivors Insurance and Disability Trust Funds, *The 2012 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds*, 23 April 2012, at <http://www.ssa.gov/OACT/TR/2012/tr2012.pdf> (accessed 1 June 2012).

⁶ Blue Chip Publications. Available at <http://www.aspenpublishers.com/blue-chip-publications.htm>.

⁷ For more information, please see “Projections of National Health Expenditures: Methodology and Model Specification,” at <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/projections-methodology.pdf> (accessed 1 June 2012).

C. Lower Growth Assumptions for Medicare, Medicaid, and Other Public Payers 2010-2019

We take our baseline Medicare and Medicaid projections exogenously from the Office of the Actuary's actuarial projections consistent with the assumptions and estimates in the latest Medicare Trustees Report and Medicaid Actuarial report, respectively.⁸

The environment within which the Medicaid program is now operating is significantly different from that in April 2010. Several factors unrelated to the ACA, such as State budget pressures, enrollment experiences from the recession, and recent utilization and per enrollee expenditure trends have all led to changing expectations for Medicaid spending growth for 2011-2019. These lower growth assumptions for Medicaid spending per enrollee and Medicaid enrollment principally account for the largest share of the \$509-billion difference in 2019 (\$126 billion, or 25 percent).

For Medicare, growth assumptions for 2011-2019 are lower than projected in April 2010, particularly those assumptions for growth in per enrollee hospital and prescription drug spending, again, unrelated to the ACA. Moreover, historical experience has been lower than expected, additional legislation has since passed, and regulatory changes have affected the expectations. These lower Medicare growth assumptions for 2011-2019 account for \$61 billion, or roughly 12 percent, of the \$509-billion difference in 2019.

Finally, slower growth rate assumptions for spending by other government payers and programs over the 2011-2019 period contribute to the lower level of NHE spending in 2019. Slower growth is most evident in our projection for spending on non-personal health care services (non-commercial research, structures, equipment, and government public health) and we have incorporated additional data and model refinements for our projections of health spending by the Department of Veterans Affairs and the Department of Defense for personal health care services. Taken together, lower growth in spending by other government payers and programs accounts for \$75 billion of the \$509-billion difference in 2019, or roughly 15 percent.

D. Impact of ACA on National Health Expenditures

In our June 2012 projections, the percentage impact on health spending from the ACA was higher than was estimated in our April 2010 projections. Had we used the same percentage impact when we did our April 2010 projections, we estimate that the ACA impact on NHE would have been \$15 billion higher in 2019 than was estimated in April 2010. Two principal reasons led to this higher estimated impact. First, our method for estimating the number of uninsured was refined and updated. These statistical modeling and data refinements resulted in a slightly higher number of uninsured in 2014, which would increase the magnitude of the estimated impact on spending associated with coverage-related provisions. The second reason for the higher impact is that in April 2010 we did not include the costs of administering the ACA, both at the Federal and State and local levels; we have included those costs in our June 2012 projections. The increase associated with these factors was slightly offset as a result of

⁸ Board of Trustees, *2012 Annual Report of the Boards of Trustees of the Federal Hospital Insurance Trust and Federal Supplementary Medical Insurance Trust Funds*, 23 April 2012, at <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/ReportsTrustFunds/downloads/tr2012.pdf> (accessed 1 June 2012); and C. Truffer, J. Klemm, C. Wolfe, and K. Rennie, *2011 Actuarial Report on the Financial Outlook for Medicaid*, Centers for Medicare & Medicaid Services, 22 March 2012. Available at <http://www.cms.gov/Research-Statistics-Data-and-Systems/Research/ActuarialStudies/downloads/MedicaidReport2011.pdf> (accessed 1 June 2012).

the legislative change to the definition of income (MAGI) as applied in the ACA, which resulted in fewer persons becoming eligible for Medicaid.

The factors described above added to the cost of the ACA, relative to our original expectations, and more than offset the downward influence on the costs for the ACA coverage expansions brought about by our lower projected NHE baseline spending. That is, we estimate the marginal increase/decrease in health spending associated with someone who changes or gains coverage because of the ACA. This marginal change is dependent on the projection of per person health spending by coverage type in 2014 (without the effects of the ACA), and that level of baseline spending is lower in our June 2012 projections than in our April 2010 projections, as we have explained earlier. For instance, for someone with Employer Sponsored Insurance (ESI), our baseline per enrollee spending projection was \$6,167 for 2014 in our April 2010 projections but is \$5,506 in our June 2012 projections. For someone who moves from ESI to a different type of coverage in our June 2012 projections, the marginal impact of that change is applied to a level of spending that is roughly 11 percent lower than we had previously assumed.

E. Other Factors (Residual)

We have identified the major factors for which we can estimate an impact; however, an additional \$134 billion (roughly 26 percent) of the \$509-billion difference in the 2019 level remains.

This residual reflects factors that cannot be quantitatively disentangled. One factor is lower expected growth in the net cost of private health insurance and other private revenues associated with spending on non-commercial research, structures, and equipment. Other major factors include updated assumptions given historical experience—most notably, the effect of increased cost sharing under private health insurance as more people are subjected to greater costs at the point of purchase and appear to be using fewer health care services because of that—and the effect of changing relationships between economic growth and spending. Methodological improvements to our baseline NHE projections model would also be captured in this residual. Other less tangible phenomena occurring in the health sector that appear to be affecting the amount of health insurance coverage but cannot be specifically quantified are behavioral changes by consumers in choosing the generosity of health coverage they want and the effects of structural changes to health insurance offerings and selection (such as more offering and selection of high-deductible plans). Additionally, process improvement initiatives on the part of health care providers and facilities may be impacting health care utilization.⁹ We do not have an impact for these types of factors and others that we have not identified, though each would likely have a small effect compared to those discussed previously.

⁹ For example, see K. Davis, “Health Spending Continues to Moderate, Cost of Reform Overestimated,” at <http://www.commonwealthfund.org/Blog/2011/Jul/Health-Spending-Continues-to-Moderate.aspx> (accessed 1 June 2012).

III. Conclusion

As discussed in our past accuracy analysis documentation,¹⁰ numerous factors can lead to changes in the short-range outlook for national health spending from release to release. In this paper, we have quantified the effects of the major factors that have resulted in spending levels for 2019 that are lower in our latest projections (June 2012) than in those published immediately following the passage of the ACA (April 2010).

The lower spending levels can be mostly attributed to changes in baseline NHE levels, changes in macroeconomic assumptions, and changes in expectations for growth in spending for Medicaid, Medicare, and other government payers and programs. Other factors that are difficult to specify also contributed to the difference. The effect of the recent recession is evident not only in our updated historical estimates but also in our projections due to macroeconomic assumptions that suggest slower health spending growth through 2019. We also anticipate slower growth in our baseline Medicare and Medicaid projections for reasons unrelated to the ACA. Our estimate of the total impact of the ACA on NHE, on the other hand, would have been higher than our April 2010 release and slightly offsets these other factors.

¹⁰ “Accuracy Analysis of the Short-Term (11-year) National Health Expenditure Projections, Centers for Medicare & Medicaid Services.” Available at <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/downloads/ProjectionAccuracy.pdf> (accessed 1 June 2012).