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SUBJECT: Simulations of Affordable Care Act Medicare payment update provisions on Part A provider financial margins

In appendix C of the *2018 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds*, the Trustees discuss simulations of the impact of the Affordable Care Act (ACA) Medicare payment rate update provisions on Part A provider financial margins.[1] This memorandum details those simulations. Specifically, the findings are as follows:

- From 2011 through 2019, the simulations suggest that up to 5 percent more hospitals would experience negative total facility margins and that approximately 15 percent more would experience negative Medicare margins.
- By 2040, simulations suggest that nearly half of hospitals, approximately two-thirds of skilled nursing facilities (SNFs), and over 80 percent of home health agencies (HHAs) would have negative total facility margins.

The Trustees note that, over the short range, behavioral changes by hospitals (for instance, efforts to improve efficiency in lower-performing hospitals) could mitigate some of the impact of the ACA payment provisions, though there is considerable uncertainty regarding these types of changes. Over the long range, however, the simulations suggest that, absent other modifications, significant financial pressures will arise for providers, increasing the possibility of access and quality of care issues for Medicare beneficiaries.

The remainder of this memorandum discusses the data, methods, and assumptions used to conduct the simulations and briefly summarizes the results.

[1] The ACA requires that Part A Medicare payment updates be based on the increase in the market basket less the 10-year moving-average growth in economy-wide private nonfarm business multifactor productivity.

Data, Methods, and Assumptions

We used Medicare Cost Report (MCR) data for Medicare revenues, Medicare expenses, non-Medicare revenues, and non-Medicare expenses to compute total facility and Medicare margins for 2016. Only providers that are paid under the Medicare prospective payment systems (PPS) and that have submitted a MCR are included; providers that were determined to be outliers are excluded.

For each year after 2016, we made assumptions regarding the trends in revenues and expenses. Only key factors, such as price increases or direct revenue impacts associated with coverage expansions, were assumed to affect these measures; that is, we made no additional assumptions about changes in utilization or intensity of services. We assumed that Medicare revenues would grow by the payment updates required by current law. These payment updates were based on the 2018 Trustees' assumptions for both input prices (or "market baskets") and the ACA-required productivity adjustments.[2] We also assumed that the short-range Medicare revenues would incorporate other legislatively required payment adjustments—including, for HHAs, a rebasing modification between 2015 and 2017 that is considerably larger than the productivity adjustments.[3] Additionally, the Medicare revenues reflect the reduction in disproportionate hospital share (DSH) payments required under the ACA.

We assumed that provider expenses and non-Medicare revenues would grow based primarily on input prices and health care provider productivity[4]. We used two sets of assumptions for health care provider productivity: historical experience and achievable productivity. Based on historical measures of hospital productivity growth, we assumed that such growth would be zero under the historical experience scenario and 0.4 percent per year under the achievable productivity scenario.[5] For SNFs and HHAs, we assumed that productivity growth would be zero under the historical experience scenario and 0.1 percent per year under the achievable productivity scenario.[6] Moreover, for hospital services, we assumed that non-Medicare revenue would increase based on the Office of the Actuary's estimates of the reduction in the number of uninsured and uncompensated care costs.

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[2] The law requires the productivity adjustment to be based on the growth in economy-wide private nonfarm business multifactor productivity.

[3] Other legislatively required payment adjustments include the reduction to payment rates for hospital documentation and coding adjustments and the end of sequestration in 2027.

[4] The increase in non-Medicare revenues and in both Medicare and non-Medicare expenses varies by provider type and year through 2025 because of variation in market basket assumptions.

[5] Information on updated estimates of hospital productivity is available at https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/ReportsTrustFunds/Downloads/ProductivityMemo2016.pdf.

[6] We assume that, because SNFs and HHAs are significantly more labor intensive than hospitals, they would not be able to achieve the productivity gains assumed for hospitals.

Findings

As shown in the simulation results presented in table 1, the proportion of hospitals, SNFs, and HHAs that experience negative margins increases over time.

The proportion of hospitals experiencing negative total facility margins is simulated to increase up to 5 percent more from 2011 to 2019. The increase in the percentage of hospitals experiencing negative *Medicare* margins between 2011 and 2019 is larger, and reaches more than 80 percent by 2019. It should be noted that these simulations are simplistic in that they do not include other factors that could affect margins, such as new efforts by hospitals to improve efficiencies in response to lower Medicare payment updates. However, there is a wide range of uncertainty associated with these types of behavioral changes. By 2040, the simulations suggest that nearly half of hospitals would experience negative total facility margins, again holding all other factors constant.

Table 1. Simulated Proportion of Part A Providers with Negative Total Facility Margins

			Historical Experience Scenario		Achievable Productivity Scenario	
Provider Type	2011	Current Base Year 2016	2019	2040	2019	2040
Hospital*	30%	29%	35%	48%	34%	41%
SNF	40%	44%	48%	66%	48%	64%
HHA	36%	39%	59%	83%	58%	81%

*The percentage of hospitals with negative Medicare margins was 66 percent in 2011 and 72 percent in 2016, increasing under the achievable productivity scenario to 81 percent in 2019 and to 91 percent in 2040.

For SNFs, the simulations produced 8 percent more providers experiencing negative total facility margins by 2019, with the negative proportion reaching approximately 65 percent by 2040. For HHAs, the simulations produced over 20 percent more providers experiencing negative margins by 2019, though, as stated previously, this outcome is due more to other legislatively required payment provisions than to the productivity adjustments. By 2040, under both scenarios, the proportion of HHAs with negative total facility margins reaches approximately 80 percent.

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