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OFFICE OF THE ACTUARY

DATE: April 22, 2019

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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 *2019 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 2017 through 2027, the simulations suggest that up to 5 percent more hospitals would experience negative total facility margins and that approximately 10 percent more would experience negative Medicare margins.
- By 2040, simulations suggest that approximately 40 percent of hospitals, roughly two-thirds of skilled nursing facilities (SNFs), and nearly 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 2017. 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 2017, we made assumptions regarding the trends in revenues and expenses. Only key factors, such as price increases 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 2019 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.[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. 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.[4] 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.[5]

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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 hospital documentation and coding adjustments and the end of sequestration in 2027.

[4] 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.

[5] 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 2017 to 2027. The increase in the percentage of hospitals experiencing negative *Medicare* margins between 2017 and 2027 is larger, and reaches more than 80 percent by 2027. 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 approximately 40 percent 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

Provider Type	2011	Current Base Year 2017	Historical Experience Scenario		Achievable Productivity Scenario	
			2027	2040	2027	2040
Hospital*	30%	29%	37%	44%	33%	37%
SNF	40%	45%	56%	65%	55%	63%
HHA	36%	38%	68%	79%	66%	77%

*The percentage of hospitals with negative Medicare margins was 66 percent in 2011 and 72 percent in 2017, increasing under the achievable productivity scenario to 82 percent in 2027 and to 88 percent in 2040.

For SNFs, the simulations produced approximately 10 percent more providers experiencing negative total facility margins by 2027, with the negative proportion reaching approximately roughly two-thirds by 2040. For HHAs, the simulations produced around 30 percent more providers experiencing negative margins by 2027. By 2040, under both scenarios, the proportion of HHAs with negative total facility margins reaches nearly 80 percent.

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