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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 *2014 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:

- By 2019, up to 5 percent more hospitals would experience negative total facility margins, and an additional 5-10 percent would experience negative Medicare margins.
- By 2040, approximately half of hospitals, two-thirds of skilled nursing facilities (SNFs), and 90 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. Other factors, such as private insurance coverage expansions, could also help alleviate some of the financial pressures. 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.

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 2012. Only providers that are paid under the Medicare prospective payment systems (PPS)

[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 private, nonfarm business multifactor productivity.

and that have submitted an MCR are included; providers that were determined to be outliers are excluded.

For each year after 2012, we made assumptions regarding the trends in revenues and expenses. The only factors assumed to affect these measures were price increases; that is, we made no assumptions about changes in utilization or intensity of services. In the short range, we assumed that Medicare revenues would grow by the payment updates required by current law. These payment updates were based on the 2014 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 2014 and 2017 that is considerably larger than the productivity adjustments.[3] Ultimately, Medicare revenues for each provider type were assumed to grow approximately 2.4 percent annually (calculated as 3.5-percent market basket growth less 1.1-percent growth in private, nonfarm business productivity).

We assumed that provider expenses and non-Medicare revenues would grow based 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]; as a result, beginning in 2024, hospital non-Medicare revenues, and both Medicare and non-Medicare expenses, were assumed to grow on an annual basis at 3.5 percent and 3.1 percent, respectively, under the two scenarios.[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]; based on these assumptions, SNF and HHA non-Medicare revenues, and both Medicare and non-Medicare expenses, would grow on an annual basis at 3.5 percent and 3.4 percent, respectively, under the two scenarios beginning in 2024.

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 grows from 25 percent in 2007 to 29 percent in 2012 and to 30-34 percent by 2019. The increase in the percentage of hospitals experiencing negative *Medicare* margins between 2012 and 2019 is larger, with growth of 7 percentage points to almost 80 percent. It should be noted that these simulations are simplistic in that they do not include other factors that could affect margins, such as the impacts of the recent private and Medicaid coverage expansions or new efforts by hospitals to improve efficiencies in response to lower Medicare payment updates. However, there is a wide range of

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[2] The law requires the productivity adjustment to be based on the growth in private, nonfarm business multifactor productivity.
[3] Other legislatively required payment adjustments include the reduction to payment rates for hospital documentation and coding adjustments.
[4] Cylus, Jonathan D., and Dickensheets, Bridget A. "Hospital Multifactor Productivity: A Presentation and Analysis of Two Methodologies." *Health Care Financing Review*, 29, no. 2 (2007): 49-64.
[5] The increase in non-Medicare revenues and in both Medicare and non-Medicare expenses varies by provider type and year through 2023 because of variation in market basket assumptions.
[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.

uncertainty associated with these types of behavioral changes. By 2040, the simulations suggest that as many as 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	2012	2019	2040	2019	2040
Hospital*	29%	34%	53%	30%	44%
SNF	36%	44%	69%	43%	66%
HHA	37%	76%	90%	75%	89%

*The percentage of hospitals with negative Medicare margins is 71 percent in 2012, increasing under the achievable productivity scenario to 78 percent in 2019 and to 93 percent in 2040.

For SNFs, the simulations produced an additional 7-8 percent of providers experiencing negative total facility margins by 2019, with the negative proportion reaching more than 65 percent by 2040. For HHAs, the simulations produced nearly an additional 40 percent of 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 about 90 percent.

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