OFFICE OF THE ACTUARY

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Subject: Certification of Home Health Value-Based Purchasing (HHVBP) Model

Certification

Section 1115A of the Social Security Act established the Center for Medicare and Medicaid Innovation (CMMI) within the Centers for Medicare & Medicaid Services (CMS) to test innovative payment techniques and service delivery models. For successful models, the law states that "the Secretary may, through rulemaking, expand (including implementation on a nationwide basis) the duration and the scope of a model that is being tested…to the extent determined appropriate by the Secretary, if—

(1)   The Secretary determines that such expansion is expected to—
(A) reduce spending under the applicable title without reducing the quality of care; or
(B) improve the quality of patient care without increasing spending;
(2)   The Chief Actuary of the Centers for Medicare & Medicaid Services certifies that such expansion would reduce (or would not result in any increase in) net program spending under the applicable titles; and
(3)   The Secretary determines that such expansion would not deny or limit the coverage or provision of benefits under the applicable title for applicable individuals."

We were asked to consider a nationwide expansion of the Home Health Value-Based Purchasing (HHVBP) Model. The considered expansion would simply apply the current model operating in 9 states to all states. Based on the formal evaluation of the first 3+ years of the program as well as our own analysis, I certify that the expansion of the HHVBP Model would reduce program spending. The remainder of this memorandum summarizes the evidence and analysis supporting this certification.

Model Description

The HHVBP is a 5-year demonstration that began in 2016 and applied to all home health providers in nine states, each randomly selected from within a distinct geographic subdivision of the United States. The states chosen to participate in the model were Arizona, Florida, Iowa, Massachusetts, Maryland, Nebraska, North Carolina, Tennessee, and Washington. Participation in the HHVBP was mandatory for all providers in the selected states.

The goal of the model was to incentivize providers to offer improved care and to discharge healthier patients, thereby reducing hospital admissions and skilled nursing facility (SNF) stays during or immediately following home health care and achieving savings for the Medicare program. The incentives consisted of payment adjustments to home health agencies (HHAs)

based on an HHA's Total Performance Score (TPS). The TPS is a composite of scores on achievement and quality as compared to other HHAs in the same state, based on (1) claims (unplanned hospitalizations, emergency department use), (2) quality measures as obtained through the self-reported Outcome and Information Assessment Set (OASIS), (3) patient experience, as determined by the patient-reported Home Health Care Consumer Assessment of Healthcare Providers and Systems (HHCAHP) measures, and (4) HHA self-reported process measures (the so-called New Measures).

Higher relative TPS scores result in a payment increase to providers while low scores result in a payment decrease. These payment adjustments are made in a budget-neutral manner based on an HHA's performance two years prior. The maximum adjustment is to be phased in from 2018-2022, starting with +/-3 percent and ending with +/-8 percent.

Office of the Actuary Analysis

For our analysis, we first assessed the financial arrangement imposed by the HHVBP Model. Home health agencies participating in the model are subject to payment adjustments based on their TPS scores. These adjustments are made in a budget-neutral manner and there are no up-front payments to the providers, therefore impacts on total Medicare spending would only result from the changes in care delivery. Since the TPS scores include claims-based metrics as well as quality metrics, it is unlikely that this model design would result in cost increases.

Additionally, we reviewed the September 2020 "Evaluation of the Home Health Value-Based Purchasing (HHVBP) Model: Third Annual Report", prepared by Arbor Research and its subcontractor L&M Policy Research. This report is based on complete data through 2018, the first year adjustments to home health payments were made. The evaluation contained the following findings:

- There was a small non-significant increase in HHA spending.
- TPS scores increased during the demonstration, largely due to the OASIS measures.
  - o The distribution of HHA payment adjustments was narrow. For 2018, the maximum adjustment was 3 percent, but actual average adjustment was 0.85 percent.
- Medicare spending showed a statistically significant decrease of 1.2 percent for 2016-2018 during the period of the HH episode plus the next 30 days.
  - o Unplanned Acute Care Hospital (ACH) expenditures were reduced by $1.50 per day or 4.5 percent, SNF expenditures fell by 4.0 percent per day, while emergency department expenditures increased by 5.9 percent per day.
  - o For the 9 states, expenditures in 5 states were reduced, 3 states did not show a statistically significant difference, and spending increased 3.5 percent per day in one state (Maryland), an increase which was statistically significant.

We also reviewed the preliminary data for the first three quarters of 2019 and the findings were very similar to the results for 2016-2018.

One of the nine states included in the demonstration was Florida. We were concerned that its inclusion could bias the results since (1) the baseline spending per episode in Florida was significantly higher than the average for the US, (2) the total home health spending in Florida represented over 40 percent of the total spending in the nine demonstration states, and there was

a statistically significant increase in emergency department use with Florida included. As a result, we requested a second set of results, with Florida and its comparison states removed from the evaluation. These results showed more cost reductions than the overall evaluation with total Medicare savings of 1.4 percent. In addition, the results without Florida did not show a statistically significant increase in emergency department spending.

We were also concerned that since Medicare spending per day per beneficiary was higher in the HHVBP states during the baseline period for the evaluation (2013-2015), the measured savings could have been the result of a reversion to the mean. After removing Florida from the evaluation, the daily spending for 2013-2015 between the HHVBP and non-HHVBP states was aligned much closer, and the non-HHVBP daily spending was trending upward at a faster rate than HHVBP daily spending, with the two essentially converging in 2018. Additionally, an evaluation was conducted on 2015 spending using 2013-2014 as the base. The results showed no measurable impact indicating that the change occurred in 2016 when the HHVBP model was put in place.

As noted earlier, total Medicare spending during the HHVBP demonstration in the state of Maryland actually increased. However, this result may have been confounded by the Maryland All-Payer Model which was in effect at the same time. It is also unclear whether Maryland's unique all-payer, rate-setting system for hospital services had an impact on the results.

As noted earlier, the maximum payment adjustment is phased in from 2018-2022, starting with +/-3 percent and ending with +/-8 percent. The results to date only include the experience through the 3rd quarter of 2019 so the impact of the higher payment adjustments has not yet been observed. We believe that larger bonuses and penalties would provide an even greater incentive to improve care, so the higher adjustments are not expected to reduce the savings from the model.

Conclusion

The evaluation results for the HHVBP demonstration indicate that the model produced a small amount of savings to the Medicare program. Since the selection of the states was random and participation by the home health agencies in the selected states was mandatory, it is unlikely that these results were biased. Also, while the total spending under the demonstration was heavily weighted towards one state, evaluation results with that state removed also showed Medicare savings.

The model design did not include any up-front payments and the incentive payments were made in a budget-neutral manner providing little risk for increased Medicare costs. The considered expansion of the program envisions a continuation of this model expanded to include all states. Since the model test produced statistically significant savings, we have concluded that an expansion of the model would produce Medicare savings. This would be true whether the expansion uses the same phase-in for payment adjustments (starting with +/-3 percent) as was done in the demonstration or jumps immediately to the same adjustment range currently being used in the demonstration states.