Patient Hospital Experience Improved Modestly, But No Evidence Medicare Incentives Promoted Meaningful Gains

Take Away Points

- The overall patient experience ratings for all hospitals increased by 6.1 percentage points between 2008-2014, from 64.3 to 70.4 percent.
- There was no evidence to suggest that implementing Medicare’s Hospital Value-Based Purchasing program accelerated the improvement of patient experience. The overall rating improved at a faster rate following public reporting of HCHAPS scores (1.49 percent) than in the post Value-Based Purchasing period (0.55).

The Issue

Over the last decade, the Centers for Medicare and Medicaid Services (CMS) have pressed for improvements in patients’ hospital care experiences. Evidence suggests that improvements in healthcare provider characteristics have been associated with patients’ adherence to treatment and patient health outcomes. CMS started publicly reporting hospital performance on patient-reported experiences in 2008 through the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey. CMS later included a patient experience measure in the Hospital Value-Based Purchasing (VBP) program that ties Medicare payment directly to hospital performance starting in 2011. CMS rewards hospitals either for a high absolute rank compared to other hospitals or for improvement achievement on a number of metrics. Health care organizations have been investing in strategies and interventions to improve patient experience, however, little is known on the effect that CMS efforts have had on the patient experience of care. The goals of this study were to assess if there was an improvement of patient experience over time and if implementation of the VBP program have a measurable effect on patient experience.

Study Methods and Design

The hospital sample was constructed from CMS public data. Hospitals that did not submit data throughout the entire study period, January 2008 through December 2014, were excluded. The final study had 3,452 hospitals, with 3,033 subjected to the VBP program. There were 419 non-VBP control hospitals, including 379 critical access hospitals and 40 hospitals from Maryland. The American Hospital Association annual survey was used to obtain data on the hospital characteristics.

Primary outcomes of interest from the HCAHPS survey were the two global items: overall experience and willingness to recommend the hospital, and were constructed as the percentage of patients with answers of 9 or 10 on a scale of 0 to 10. Secondary outcome measures included eight composite or individual measures from HCAHPS, including communication with doctors/nurses, responsiveness of staff,
communication about medicine, pain management, and the cleanliness and quietness of the hospital environment.

Trend plotting was performed first to determine if there were differences, and was followed by a segmented linear regression model. To adjust for correlation over time, a random effects model was applied. Slopes were observed before and after the VBP interventions were implemented. Analysis was also performed to observe if performance improvements were more distinct for certain hospital types.

**Key Findings**

- Trends in patient experience, 2008-14: The overall trends in patient experience from 2008-14 in all hospitals increased by 6.1 percentage points, an increase from 64.3 to 70.4 percent. The pre-VBP intervention period showed a faster improvement rate (1.49 percent, [1.41, 1.56]) than in the post-VBP intervention period (0.55 percent [0.48, 0.62]), creating a slope change in the time periods of -0.94 [-1.06, 0.82].

- Improvement of patient experience by hospital characteristics:
  - Smaller hospitals saw more improvement than larger hospitals, and rural hospitals improved more than urban hospitals.
  - Unlike other hospitals, public hospitals did not show the improvement trend difference between the pre- and post-VBP intervention periods.
  - Grouping by baseline performance quartiles, the lowest performing hospitals had the most improvement, an increase of 11.5% and slope change of -0.06 (95% CI: -0.29, -0.18), while the highest performing hospitals improved the least with an increase of 1.0% with a slope change of -2.16 (95% CI: -2.47, -1.84).

- Impact of the program on patient experience: For difference in the VBP and non-VBP groups, pre-VBP intervention between hospital groups were similar, VBP hospitals having an annual change of 1.51 percent vs non-VBP hospitals at 1.28 percent (p-value=0.1). After the VBP intervention, the rate of change was also similar, reduced to 0.56 percent for VBP hospitals and 0.47 percent for non-VBP hospitals

**Limitations**

- The HCAHPS survey has low response rates (30%), but the likelihood of nonresponse bias is suggested to be minimal.

- The control group in this study tends to either have different structural characteristics or are subject to a different incentivized hospital payment system. The study addressed these differences by controlling for key hospital characteristics and by running sensitivity analyses using coarsened exact matching. However, the nonsignificant difference may not be generalizable to all VBP hospitals.

**Final Thoughts**

Patient experience reported through the HCAHPS survey has improved modestly over time, however, the clear majority of improvement occurred prior to the VBP intervention, questioning if the program is producing a meaningful impact on patient experience. As value-based payment continues to be promoted and rolled out in other care settings, it is critical to ensure that payments are structured in ways that lead to better patient experience.