the importance of a clean hospital room, according to patients

Among the measures the Centers for Medicare & Medicaid Services (CMS) uses for value-based purchasing are several patient survey questions that can be difficult to translate into actionable information to make improvements. The reason is it is difficult to derive facts from subjective data.

One such measure is for hospital room cleanliness. Patients are asked, "How often were the patient's rooms and bathrooms kept clean?" For this specific item, there are data points that provide insight into the investment necessary to keep a hospital clean: In the Medicare Cost Report, hospitals report data on resources spent on housekeeping services and on the area in the facility specific to patient care.

For this analysis, these data were matched with Hospital Compare patient survey data for hospital room cleanliness to evaluate correlations between the scale of those efforts and survey scores, as

expressed in Medicare's Star Ratings. To provide additional perspective, the housekeeping resource statistics were compared with other reported hospital data, including discharges and bed size.

Hospitals were grouped according to the star ratings earned for performance on the hospital room cleanliness survey question. For each group, the total cost reported for housekeeping services was calculated and divided by the total number of patient days to ascertain how much hospitals in each group invest in their housekeeping services while accounting for volume. Because patient days will not account for outpatient volume and other services, the size of the hospital measured in square feet also was included in the analysis.

The analysis disclosed some remarkable, seemingly contradictory findings. First, as one might expect, facilities with higher housekeeping

HOSPITAL CHARACTERISTICS BY PATIENTS' STAR RATINGS OF HOUSEKEEPING SERVICES						
Star Rating	Number of Facilities	Housekeeping Cost per Patient Day	Housekeeping Cost per Square Foot	Average Acute Bed Size	Average Length of Stay	Occupancy Rate
1	227	\$75.93	\$4.34	243	4.94	63.52%
2	1,165	\$75.98	\$3.83	248	4.83	64.46%
3	1,086	\$85.16	\$4.96	189	4.59	62.05%
4	801	\$103.82	\$6.73	89	4.24	52.73%
5	170	\$174.98	\$2.80	35	3.46	35.59%
Total	3,449	\$82.23	\$4.43	181	4.69	61.97%

costs per patient day scored at the top of the survey. This pattern makes intuitive sense because additional resources devoted to housekeeping would logically lead to a cleaner hospital and a higher score on the survey. However, the same logic does not apply when one looks at the housekeeping cost per square foot. By that measure, the highest-ranking hospitals have considerably lower housekeeping costs, on average, than do hospitals in any other group.

These observations warranted additional investigation to find potential drivers for the discrepancy. Evaluating the average bed size and average length of stay (ALOS) of each group again shows a pattern from high- to low-scoring providers. In this instance, higher-scoring hospitals tend to be both smaller and have shorter ALOS than lower-scoring providers. In addition,

the occupancy rate of the five-star hospitals is remarkably low by comparison.

These results suggest that, because of their scale, larger facilities struggle to compete with smaller and low-volume hospitals in efforts to achieve a high rating on this measure. The findings are useful for hospital operators seeking to examine their own facilities' performance on this part of the Hospital Compare survey, providing insight into how their investment in housekeeping services might be affecting patient opinions of their operations, and why they may need to address their facilities' size and volume as factors in their efforts to improve those patient perceptions.

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