

LETTERS—CONCISE RESEARCH REPORTS

# Patients' Perceptions of Hospitals Affiliated with America's Highest-Rated Medical Centers

Kyle H. Sheetz, MD, MSc, Hari Nathan, MD, PhD, and Justin B. Dimick, MD, MPH

Center for Healthcare Outcomes and Policy, University of Michigan, Ann Arbor, MI, USA.

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## INTRODUCTION

Numerous studies suggest that a hospital's reputation is an important factor in determining where patients decide to seek care.<sup>1,2</sup> In an era of frequent hospital mergers and acquisitions, academic medical centers have the opportunity to extend their reputable brands across larger markets of potential patients.<sup>3</sup> Whether these mergers influence the affiliating hospitals' reputation remains unclear.

Using the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey to measure how patients perceive a hospital's overall quality and reputation, we sought to determine whether HCAHPS scores increased for those affiliating with the prominent medical centers named to the U.S. News and World Report Honor Roll.

## METHODS

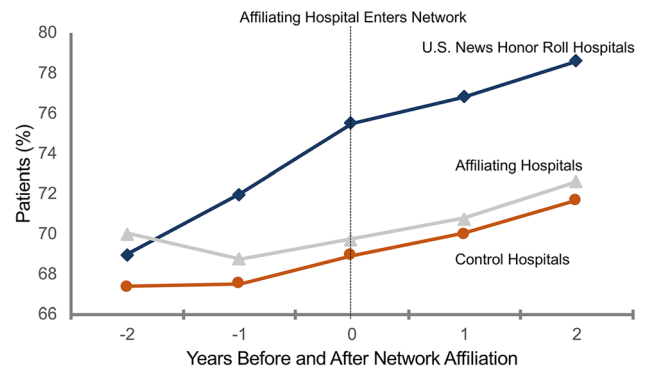
We identified hospitals affiliating with those named to the 2018 U.S. News Honor Roll between 2010 and 2016 using the American Hospital Association Survey. We used propensity scores to match affiliating hospitals with non-affiliated controls based on bed size, structural characteristics (e.g., nursing ratios and ICU availability), and geographic region. We evaluated the annual proportion of patients at each hospital responding to HCAHPS survey with a top rating of "9–10 out of 10" or reporting they would "definitely" recommend the hospital (years 2010–2016).

In order to account for secular trends or other factors that may influence patients' perceptions, we compared changes in survey responses between affiliated and control hospitals using a difference-in-differences approach.<sup>4</sup> The difference-in-differences estimate can be interpreted as the independent effect of affiliation on HCAHPS scores. Because few hospitals join networks in any single year, we organized hospitals around 2 years before and after each affiliating hospital joined a U.S. News Honor Roll network.

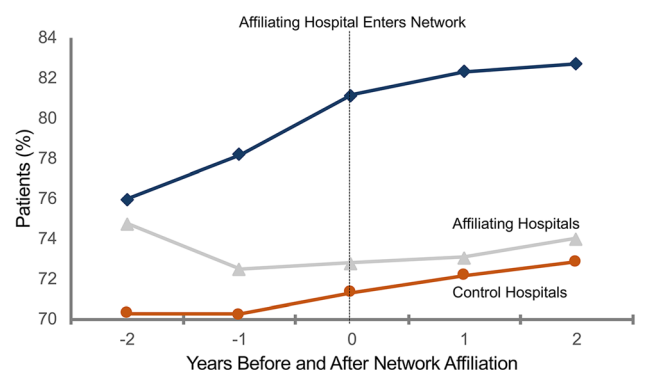
## RESULTS

The final cohort included 13 Honor Roll hospitals, 28 affiliating hospitals, and 28 controls. Characteristics of matched affiliating and control hospitals were similar. Survey results for each group are displayed in Figure 1. Honor Roll hospitals had better survey results compared to affiliating hospitals before and after network affiliation. Affiliation was not associated with a significant change in the proportion of patients responding to the survey with an overall top rating (−1.1%; 95% CI −5.5 to 3.2%) or definite recommendation (2.9%; 95% CI −7.6 to 1.7%) for the hospitals (Table 1).

### a Overall Rating



### b Willingness to Recommend



**Fig. 1** The proportion of patients giving hospitals a top overall rating of "9 or 10 out of 10" (a) or reporting that they would "definitely" recommend the hospital (b) before and after hospitals affiliated with a U.S. News Honor Roll Hospital.

Table 1 Hospitals' Survey Response Data, 2010-2016

HCAHPS survey item	Pre-intervention mean (95% CI)		Post-intervention change (95% CI)		Difference-in-differences estimate (95% CI)
	Control hospitals	Affiliating hospitals	Control hospitals	Affiliating hospitals	
Overall hospital rating <sup>1</sup>	70.9 (68.0 to 73.9)	72.9 (69.2 to 76.7)	-0.4 (-2.7 to 1.9)	-1.5 (-4.5 to 1.4)	-1.1 (-5.5 to 3.2)
Willingness to recommend hospital <sup>2</sup>	71.1 (67.9 to 74.2)	75.2 (71.1 to 79.2)	1.3 (-1.2 to 3.7)	-1.7 (-4.9 to 1.5)	2.9 (-7.6 to 1.7)

<sup>1</sup>Patients responding to survey question for an overall hospital rating of "9-10 out of 10"

<sup>2</sup>Patients responding to survey question that they would "definitely" recommend the hospital

## DISCUSSION

Affiliation with a U.S. News Honor Roll hospital was not associated with improvement in patients' perceptions of the hospital. Some might argue that affiliations can mislead patients who expect uniform quality for all hospitals carrying the name of a reputable academic medical center. However, these results suggest that patients are thoughtful consumers who are able to discriminate between hospitals under a common brand.

This study is limited by a lack of generalizability in using only U.S. Honor Roll networks, short-term follow-up, and the extent to which HCHAPS scores accurately reflect patients' perspectives of the hospital. While it is unclear whether any networks took deliberate action to improve patients' perceptions of their affiliates, this would likely result in marginal gains on the HCAHPS survey and bias this analysis towards finding an effect of affiliation.

These data suggest that affiliation alone is not sufficient to change a hospital's reputation. Efforts to do so will require a greater understanding for why patients perceive hospitals as high quality and factors influencing their willingness to recommend them to others. Prominent medical centers looking to capitalize on their reputation will need to be more deliberate about how they export their brand and customer service operations to affiliates.

**Corresponding Author:** Kyle H. Sheetz, MD, MSc; Center for Healthcare Outcomes and Policy University of Michigan, Ann Arbor, MI, USA (e-mail: ksheets@med.umich.edu).

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**Compliance with Ethical Standards:**

**Conflict of Interest:** The authors declare that they do not have a conflict of interest.

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