



RESEARCH BRIEF

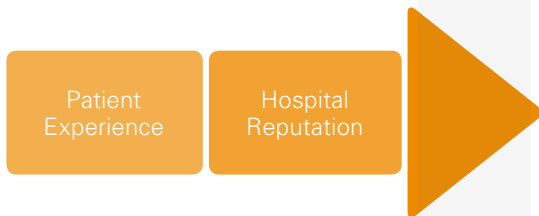
The link between patient experience and hospital reputation

Background

Hospitals and health systems across the United States are focusing increased effort on the delivery of a superior patient experience, and with good reason. The provision of top-notch patient care translates to tangible benefits to both patients and their families, as well as to the healthcare facility itself.

Research has shown that facilities delivering care rated highly by their patients have better patient health outcomes including lower readmission rates (Bardach, Asteria-Peñaloza, Boscardin, & Dudley, 2012, Boulding, Glickman, Manary, Schulman, & Staelin, 2011) and lower mortality rates (Bardach, et al., 2012, Glickman et al., 2010). Patient experience also has monetary impacts for the healthcare facility, with Medicare reimbursement rates being adjusted based partly on patient experience as part of the Value Based Purchasing Program (Centers for Medicare and Medicaid Services, 2013). Beyond these established correlates of patient experience, however, we consider whether there is a clear relationship between patient experience and the less tangible outcome of hospital reputation. We find that patient experience ratings are indeed significantly related to hospital reputation within the marketplace.

In other words, the caliber of the patient experience being provided within the four walls of a hospital is related to the opinions and perceptions held by the general population of consumers within the community.



We examine whether and to what degree hospital reputation is explained by patient experience. Patients leave the healthcare setting with opinions about the care they received, and then share those opinions with others. Regardless if opinions are shared via traditional word-of-mouth, various social media outlets, or through a more structured online quality rating website, the effect can be powerful in shaping the reputation of a hospital.

As consumers of healthcare become progressively more informed about their options, and increasingly empowered to make their own healthcare decisions, hospital reputation

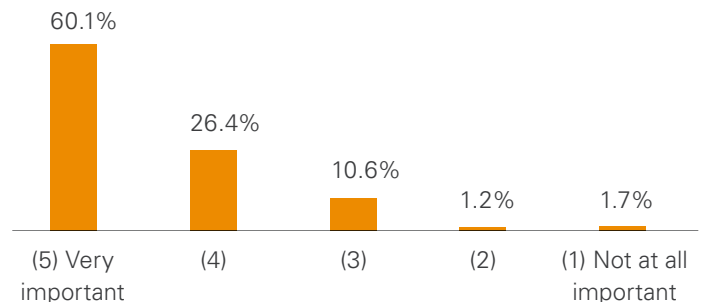
ABOUT NRC HEALTH MARKET INSIGHTS:

Market Insights, a consumer perception solution, collects information from approximately 270,000 healthcare consumers annually. The nationwide online survey asks respondents about their healthcare opinions, preferences, and behaviors. Because respondents in this vast database are not limited to only those who have had a direct hospital experience, but rather include a cross-section of the population as a whole, we're able to explore the thoughts and behaviors of consumers in general. These respondents have formed opinions about their healthcare options through a variety of sources, including past experience, marketing/media, or word-of-mouth. Within this online survey, hospital reputation is measured, in part, through a series of unaided questions asking respondents to name the hospital that comes to mind when they think of various quality and image factors such as "best doctors" or "best overall quality."

has become an integral part of the hospital selection process. In fact, among the almost 270,000 consumers participating in the 2012 Market Insights survey fielded nationwide by NRC Health, approximately 87% (top-two box score) indicated that reputation is important when selecting a hospital (see Figure 1).

Figure 1

Importance of hospital reputation when selecting a hospital for a planned overnight stay

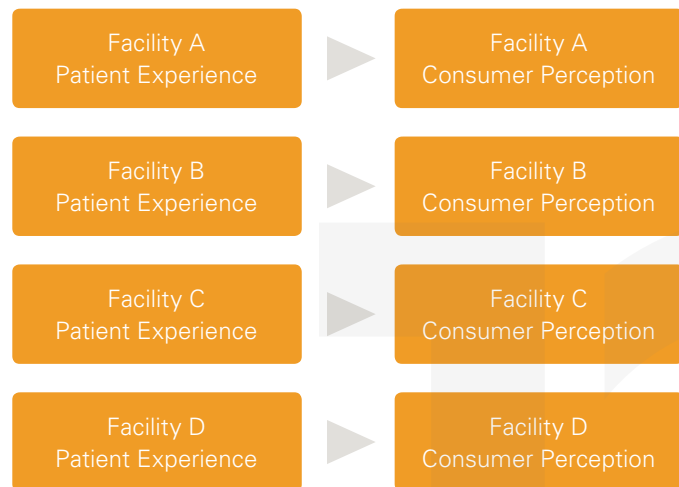


Source: NRC Health, Market Insights Survey 2012, n = 268,164

METHODS

Data Sources

Our analysis leverages two disparate data sets: one measuring hospital reputation among the general population, and another measuring patient experience among discharged patients. Both of these data sets have been aggregated to provide measurements at the facility level.



Approximately 1,200 Facilities Nationwide

Reputation, recognized as consumer perception, was measured using data collected through the Market Insights survey. Respondents were panelists nationwide, who may or may not have ever had a hospital experience. Number of mentions per facility on each of the quality and image metrics was converted to a percentage of the total and then transformed into a nationwide percentile ranking.

Patient experience was measured using publicly available HCAHPS data,¹ which contains patient ratings of thousands of hospitals nationwide. Specifically, two HCAHPS metrics were utilized: "Overall Hospital Rating" and "Recommend Hospital." In the "Overall Hospital Rating" measure, patients are asked to rate the hospital on a scale of 0 to 10 with 0 being the worst and 10 being the best. The top-two box score (i.e., the percentage of respondents who rated the hospital as a 9 or a 10) was then converted to a percentile ranking for analysis. Within the "Recommend Hospital" measure, patients are asked if they would recommend the hospital to friends or family. The top-box score (i.e., the percentage of respondents who said "definitely yes") was also converted to a percentile ranking for analysis.

¹ HCAHPS is the Hospital Consumer Assessment of Healthcare Providers and Systems. Available for download at from the Hospital Compare website <http://www.hospitalcompare.hhs.gov>

The two data sets were linked together at the facility level. After restricting the sample to include only those facilities with the most robust data (100 or more annual HCAHPS returns, valid bed size data gathered from Billian's HealthData, and at least 50 annual consumer perception mentions), the remaining nationwide sample included approximately 1,200 facilities.

Publicly available HCAHPS scores are released quarterly and contain a rolling 12 months of data. The current analysis uses HCAHPS scores for discharge dates between January 2009 and December 2009. The Market Insights survey is conducted continuously among approximately 22,000 respondents per month (approximately 270,000 respondents annually) with refreshed data points available monthly. Because of this flexibility, several different time period views of reputation data were leveraged within this study. The time periods used are noted below.

RESULTS

Relationship and Top Correlates

We calculated partial Pearson's correlations, controlling for bed size, between key reputation indicators and the two global HCAHPS measures, "Recommend the Hospital" and "Overall Hospital Rating." Results of correlation analyses indicate that patient experience and hospital reputation are, in fact, positively and significantly related. Those facilities with high patient experience scores also tend to score highly on reputation metrics.

The top five reputation metrics most strongly related to patient experience are listed in Table 1. Metrics topping this list tend to be related to comfort and safety. Hospitals scoring highly on "Most Personalized Care" among consumers also tend to score highly on "Recommend Hospital" among discharged patients. Similarly, facilities ranking highly on the reputation metrics around accommodations, safety, nurses, and quality among consumers also tend to be rated highly among discharged patients. For a complete list of reputation metrics and their relation to HCAHPS scores, see Appendix A.

It is interesting to note that among an analysis of 3 million HCAHPS surveys completed from patients discharged between July 2011 and June 2012, patient-level correlations or key drivers indicated that "Communication with Nurses" had the strongest relationship to both "Overall Hospital Rating" and "Recommend Hospital" (HCAHPS, 2013). This coincides with our findings in which the reputation metric "Best Nurses" was found to be one of the strongest correlates of the two global HCAHPS metrics.

LEARN MORE

Call toll free 1 800 388 4264 or visit nrchealth.com.

Table 1

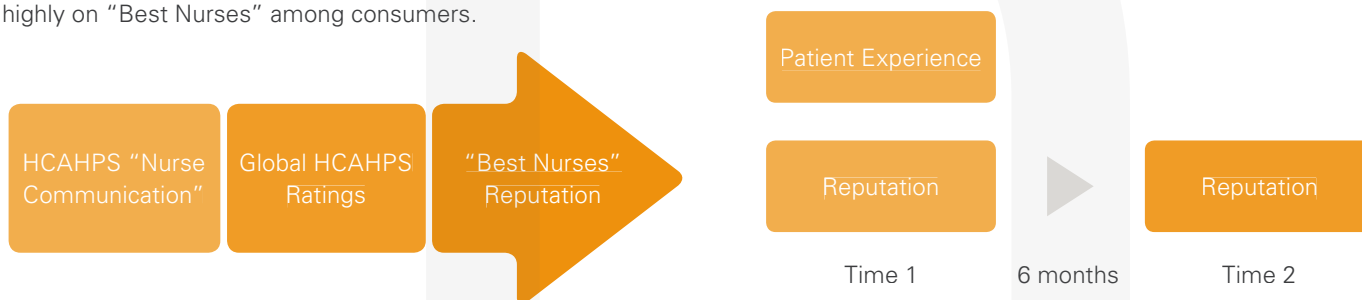
Top Consumer Perception Correlates with Patient Experience

MARKET INSIGHTS REPUTATION METRIC	CORRELATION TO HCAHPS "OVERALL HOSPITAL RATING"	CORRELATION TO HCAHPS "RECOMMEND HOSPITAL"
Most Personalized Care	.36***	.41***
Best Accommodations	.35***	.40***
Highest Patient Safety	.35***	.40***
Best Nurses	.34***	.39***
Best Overall Quality	.33***	.37***

*** $p < .001$

Nurse care is of paramount importance to patients and consumers alike. "Nurse Communication" is related to global hospital experience among patients, and hospitals that score highly on global hospital experience metrics also tend to score highly on "Best Nurses" among consumers.

relationship indicates that the quality of the patient experience being administered in a hospital today is significantly related to the reputation of that hospital six months from now.



Given the strong correlations, it's plausible that great nurse communication may lead to a great overall hospital experience among patients. It's also plausible that those patients then leave the hospital, sharing rave reviews about the nurse care they received, thus proliferating this reputation in the marketplace. In this way, the impact of nursing care can be seen in both global HCAHPS ratings and in hospital reputation.

Lag Time

It takes time for consumer perceptions to form and change, and there is evidence of lag-time in the relationship between patient experience and hospital reputation. While correlations were found to be significant when measured concurrently as well as at all other time periods, they tend to be slightly stronger when patient experience measurements at Time 1 (January – December 2009) are compared with reputation measurements at Time 2, approximately six months later (July 2009 – June 2010). This lag

The Power of Low Quality Patient Experience

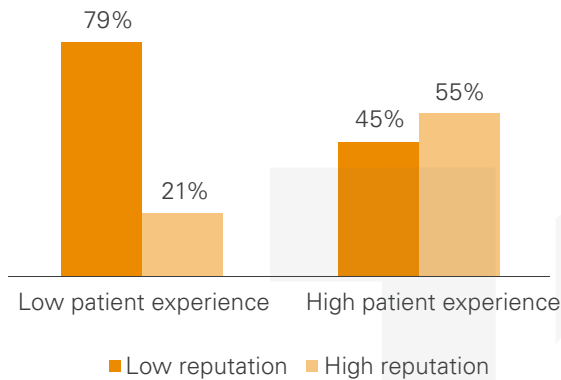
Although the patient experience/reputation relationship is significant at both high and low levels of patient experience, it is stronger and more tightly clustered at low levels of patient experience (i.e., patient experience is more "predictive" at low levels than it is at high levels). When we isolated those facilities with below average patient experience scores, almost 80% of them also garnered below average reputation scores, while only 55% of facilities with above average patient experience scores garnered above average reputation scores (see Figure 2).

Patients may be more likely to share opinions about poor patient experiences, or perhaps consumers are more likely to remember (and be influenced by) reviews that show healthcare facilities in a poor light; whatever the reason, poor quality patient experience is well-known in the marketplace. This is in line with previous research showing that consumers were more often able to

correctly identify low performing hospitals than high performing hospitals two months after viewing a quality report, and that this relationship persisted even when resurveyed two years later (Hibbard, Stockard, & Tusler, 2005).

Figure 2

Facilities with low patient experience scores are four times more likely to have poor reputation scores.



Conclusions and Next Steps

Patient Experience Matters

Our research indicates that there is a link between patient experience and hospital reputation (especially for hospitals with below average levels of patient experience) and that this relationship is strongest when reputation is measured six months later.

As patients make their way through the healthcare landscape and have experiences within healthcare facilities, they form opinions about the care they have received. They may be asked to share these opinions through an HCAHPS survey or may voice their opinion using a commercial rating website (e.g., Yelp.com, Angie's List). The less observable outcome is that these same consumers are also out in the world talking about their healthcare experiences with others in the marketplace. The potential result is that their own patient experience becomes the voice of experience shaping the thoughts and opinions of others who may have never been a patient. Former patients can be your strongest advocates or your most vocal detractors, and what people say about your hospital is influential and important.

Former patients can be your strongest advocates or your most vocal detractors, and what people say about your hospital is influential and important.

Consumers are developing a more sophisticated awareness of quality across all industries, and patients within the healthcare arena are no exception. Recent research has found that HCAHPS ratings tend to correlate positively with clinical adherence to treatment guidelines (Jha, Orav, Zheng & Epstein, 2008), and that consumers tend to select hospitals that have high clinical quality scores, even before the scores are publicized (Jung, Feldman & Scanlon, 2011). This lends further credence to the idea that patients tend to be fairly accurate in their assessments of quality despite a lack of medical and clinical training, and also supports our findings regarding the power of personal recommendations and word-of-mouth.

Additionally, support has been found for a relationship between HCAHPS scores and online hospital ratings on Yelp.com (a commercial website allowing consumers to rate various products and services, including physicians and hospitals) (Bardach et al., 2012). While Hospital Compare² has relatively limited usage with only 4.7% of Americans reporting ever visiting the site (Market Insights, 2013), Yelp.com reports 63 million visitors each month. This represents yet another way in which patient experience may translate into hospital reputation or consumer perception.

In short, what happens within a healthcare facility today may impact the reputation of that facility six months from now; even among those who have never had any direct healthcare experience. This is more true now than ever in the age of social media. Former patients have always shared their opinions about their healthcare experiences, but their voices are now amplified through the use of social media. Recent research shows (see Figure 3) that when using social media for health information, 27% are asking for recommendations, 20% are rating the quality of care they've received, and 27% are sharing stories about their healthcare experiences (Market Insights, July 2012 – July 2013). Social media and online quality ratings websites have become a trusted source of information. According to results of Nielsen's Global Online Consumer Survey, 90% of consumers online trust recommendations from people that they know; and approximately 70% trust the opinions of people that they do not know (Nielsen, 2009).

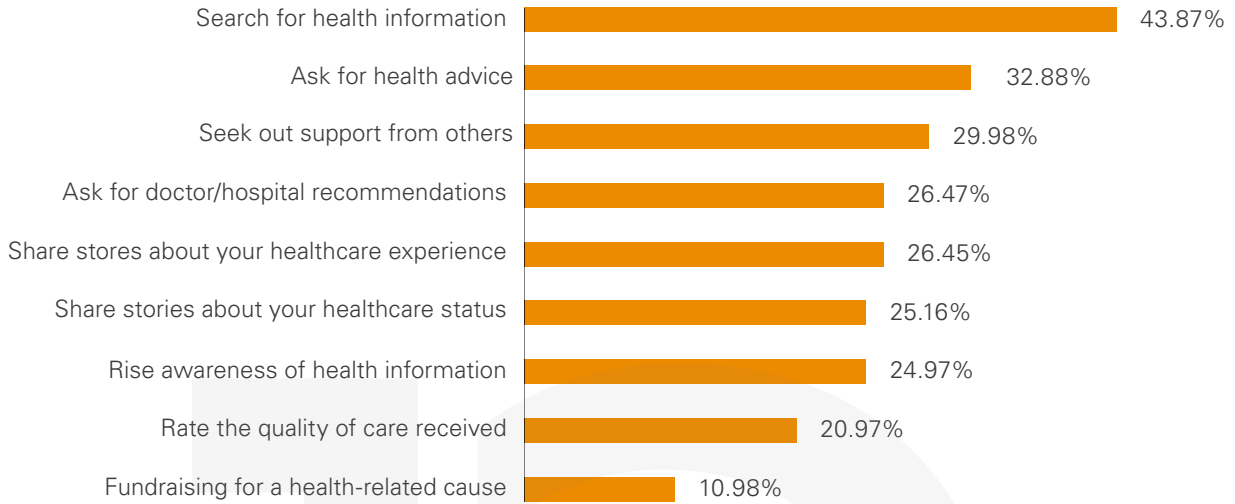
² Hospital Compare is a service hosted by Medicare.gov through which the public can access HCAHPS information as well as other information about the quality of care at Medicare-certified hospitals nationwide. <http://www.medicare.gov/hospitalcompare/>

LEARN MORE

Call toll free 1 800 388 4264 or visit nrchealth.com.

Figure 3

Healthcare related social media activities (n = 20,422)



Source: Market Insights Survey, July 2012 – July 2013, NRC Health.

NEXT STEPS

The importance of patient experience has always been clear. As this research shows, however, patient experience is important not only for quality measurement and accountability, but also because of its relationship to reputation. Figure 4 is designed for healthcare leaders who would like to explore potential improvement strategies based on where their facilities are situated on the continuum of patient experience and reputation.

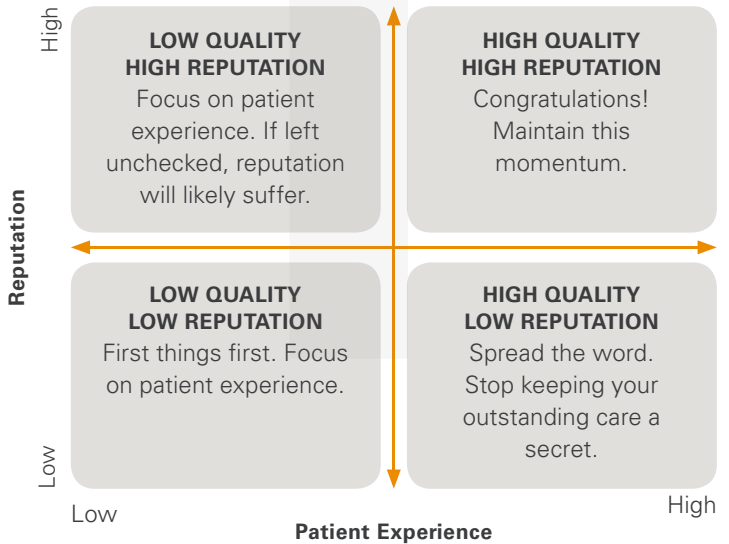
While we all strive to be in the top right category, scoring well on both patient experience and reputation, the reality is that the majority of facilities will find themselves located in one of the other three groups.

Facilities in the top or bottom groups on the left side would do well to focus on patient experience first and foremost. As we've learned, if the quality of patient experience is low, there is little that can be done effectively in terms of marketing and advertising.

Facilities in the bottom right quadrant (high quality patient experience, but with reputations not reflective of that), should put resources into spreading the word and advertise the strength of their patient experience. It's important that those in the community are made aware of the high caliber care being delivered.

Figure 4

Improvement Strategies



REFERENCES

Bardach, N., Asteria-Peñaloza, R., Boscardin, W., & Dudley, R. (2012). The Relationship between Commercial Website Ratings and Traditional Hospital Performance Measures in the USA. *Quality and Safety in Health Care*, 22, 194-202.

Billian's HealthData: <http://www.billianshealthdata.com/>

Boulding, W., Glickman, S., Manary, M., Schulman, K., & Staelin, R. (2011). Relationship between Patient Satisfaction with Inpatient Care and Hospital Readmission within 30 Days. *American Journal of Managed Care*, January 2011. http://www.ajmc.com/publications/issue/2011/2011-1-vol17-n1/ajmc_11jan_boulding_41to48/1

Centers for Medicare and Medicaid Services (2013). Hospital Value-Based Purchasing: The Official Website for the Medicare Hospital Value-based Purchasing Program <http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/hospital-value-based-purchasing/index.html?redirect=/hospital-value-based-purchasing>

Glickman, S., Boulding, W., Manary, M., Staelin, R., Roe, M., Wolosin, R., Ohman, M., Peterson, E., & Schulman, K. (2010). Patient Satisfaction and Its Relationship with Clinical Quality and Inpatient Mortality in Acute Myocardial Infarction. *Cardiovascular Quality and Outcomes: Journal of the American Heart Association*, 3, 188 – 195. <http://circoutcomes.ahajournals.org/content/3/2/188.full.pdf+html>

HCAHPS: Hospital Care Quality Information from the Consumer Perspective (Posted 4/18/13). HCAHPS Patient-Level Correlations. http://www.hcahpsonline.org/Files/Report_HEI_April_2013_Corrs.pdf

Hibbard, J., Stockard, J., & Tusler, M. (2005). Hospital Performance Reports: Impact on Quality, Market Share, and Reputation. *Health affairs (Project Hope)*, 24(4), 1150-1160.

Jha, A., Orav, E., Zheng, J., & Epstein, A. (2008). Patients' perception of hospital care in the United States. *New England Journal of Medicine*. 359:1921-1931.

Jung, K., Feldman, R., & Scanlon, D. (2011). Where Would You Go For Your Next Hospitalization? *Journal of Health Economics*, 30, 832 - 841.

Market Insights (July 2012 – April 2013). *Social Media Activities*. NRC Health.

Market Insights (May 2013). *Hospital Compare Utilization: Custom Question*. NRC Health.

Nielsen (2009). Global advertising consumers trust real friends and virtual strangers the most. <http://www.nielsen.com/us/en/newswire/2009/global-advertising-consumers-trust-real-friends-and-virtual-strangers-the-most.html>

Smith, R. & Fowler, G. (2011). Rate this: Yelp IPO targets \$2 billion. *The Wall Street Journal* November 9, 2011.



ABOUT THE AUTHOR:

KATIE JOHNSON, PH.D.

Dr. Katie Johnson is the Senior Director of Research and Analytics at NRC Health. In addition to contributing original research, Dr. Johnson leads the Research, Analytics, and CAHPS Compliance teams.

SUGGESTED CITATION

Dr. Katie Johnson, "The Link Between Patient Experience and Hospital Reputation," NRC Health, Lincoln, NE, February 2014.

LEARN MORE

Call toll free 1 800 388 4264 or visit nrchealth.com.

APPENDIX A

Consumer Perception Correlates to Patient Experience

MARKET INSIGHTS REPUTATION METRIC	CORRELATION TO HCAHPS "OVERALL HOSPITAL RATING"	CORRELATION TO HCAHPS "RECOMMEND HOSPITAL"
Most Personalized Care	.36***	.41***
Best Accommodations	.35***	.40***
Highest Patient Safety	.35***	.40***
Best Nurses	.34***	.39***
Best Overall Quality	.33***	.37***
Best Image/Reputation	.31***	.35***
Best Doctors	.30***	.34***
Most Preferred for All Health Needs	.28***	.34***
Hospital Website Used Most Often	.28***	.33***
Latest Technology and Equipment	.27***	.31***
Widest Range of Services	.25***	.29***
Best Community Health Programs	.24***	.30***
Hospital Most Conveniently Located	.06*	.10***
Care for Those Unable to Pay	.02	.03

*** $p < .001$; ** $p < .01$; * $p < .05$



1245 Q Street • Lincoln, NE 68508
Toll Free (800) 388-4264

For 35 years, NRC Health has been committed to achieving human understanding. We enable healthcare organizations to know the people they care for with greater clarity, immediacy, and depth. Our partners are able to illuminate and improve the key moments that define an experience and build trust. Guided by our uniquely empathic heritage, proprietary methods, skilled associates, and holistic approach, we help our partners design experiences that exceed expectations, inspire loyalty, and improve well-being among patients, residents, physicians, nurses, and staff.

[LEARN MORE](#)

Call toll free 1 800 388 4264 or visit nrchealth.com.



**NRC Health helps healthcare organizations
better understand the people they care for and
design experiences that inspire loyalty.**