

The Role of Quality Transparency in Healthcare: Challenges and Potential

Solutions

Soroush Saghafian¹ and Wallace J. Hopp²

¹Harvard University, Harvard Kennedy School, Cambridge, MA

²University of Michigan, Ross School of Business, Ann Arbor, MI

National Academy of Medicine, 2019 (forthcoming)

Customers searching for consumer goods (e.g., home appliances, electronics, etc.) can make use of an abundance of information about the quality of available options (e.g., through Consumer Reports, Consumersearch.com, etc.). In contrast, consumers seeking a healthcare provider have very limited information about the quality of their options. For years, this lack of information was blamed on peculiarities of the healthcare sector and chalked up by policymakers as another example of healthcare exceptionalism. In the past two decades, however, government and private organizations have made conscious efforts to increase quality transparency in the healthcare sector to enable consumers to make more informed decisions. Examples include the Center for Medicare and Medicaid Services (CMS) website Hospital Compare, CalHospitalCompare.org, the ProPublica Surgeon Scorecard, and the Compare Hospitals site by the Leapfrog Group, all of which offer hospital outcome data, as well as websites by Healthgrades, Consumer Reports, Yelp, and U.S. News, which offer hospital ratings and rankings.

The practice of measuring and publicly reporting clinical outcomes is known as “public reporting” and has been on the rise around the world. For example, the U.K. Prime Minister pledged in 2011 that the National Health Service (NHS) would make outcome data publicly available, emphasizing *“Information is power, and by sharing it, we can deliver modern, personalized, and sustainable public services.”*¹

The immediate promise of using public reporting to increase quality transparency is that it will enable consumers to choose providers best suited to their needs, and thereby lead to improved patient outcomes and welfare. Unfortunately, however, early empirical findings failed to detect the anticipated benefits from public reporting. For example, studies have indicated that the launch of the Hospital Compare website and other efforts aimed at increasing quality transparency have not resulted in improved outcomes.²

This raises two important questions: (1) why haven't public reporting efforts been effective in improving outcomes? and (2) what can policymakers do to make them more effective in future?

The two possible answers to the first question are that publicly reported information is not useful or is not used. The reason most often cited for the former is that outcome measures are biased due to inadequate risk adjustment, and hence, may not help patients make better choices. However, a recent analysis suggests that using common quality metrics to select providers does result in substantially better patient outcomes.³ Despite this, studies of the impact of public reporting on patient behavior have been unable to detect significant use of these metrics. New research into the impact of quality information on the behavior of patients and providers offers the potential to break this impasse by identifying the following three reasons for underuse of publicly reported metrics and the improvement paths they imply.⁴

First, improving quality transparency requires making outcome information *publicly useful*, not simply available. Health outcomes are complex, requiring statistical summaries to state and statistical risk adjustment to enable comparisons. It is, therefore, unsurprising that patients without statistical training find such information confusing and give it less weight in their decisions than factors like proximity and familiarity. Simple rankings of providers (e.g., U.S. News rankings) are easier to understand, but these fail to take into account the heterogeneous effects of provider choice on clinical results.⁵ Consequently, use of such rankings has less impact on patient outcomes than would use of more granular and personalized outcome information. The implication is that, to enable patients to convert detailed outcome information into useful knowledge, public reporting websites need to make use of intuitive displays or summaries to communicate statistical comparisons of alternatives that are both customized to individual patients and understandable by them.

Second, gaining significant benefits from improving quality transparency requires *targeting*. The reason is that quality information has the potential to affect choices by some patients more than others. For example, such information is less likely to alter decisions by emergent, older or rural patients with fewer hospital options than elective, younger and urban patients with many realistic hospital options. By deliberately targeting public reporting efforts at segments of the population whose decisions are most subject to influence by better information, policymakers can achieve greater impact on patient outcomes for a given budget.

Third, public reporting needs to be supplemented with other *policy interventions*. Previous efforts at improving quality transparency may have been undermined by their lack of accompaniment by mechanisms to overcome barriers to selecting the best provider. For example, without some form of

travel subsidy, patients may choose a nearby hospital instead of a superior hospital. Private firms (e.g., Walmart, Lowes, and Boeing) have recognized the challenge presented by patient inertia, and have built incentives for choosing “centers of excellence” into their health plans. Policymakers seeking to improve health outcomes via public reporting also need to work with payers to facilitate use of quality outcome information in patient coverage and co-payment plans.

These three enhancements to public reporting initiatives are aimed at changing patient behavior, and hence patient outcomes, in the short term. But public reporting can also impact provider behavior over the intermediate and long term, and lead to even greater health benefits. The simplest mechanism is by better aligning patient choice with outcome quality, public reporting provides incentives for providers to focus strategically on their strengths and/or make investments to improve their weaknesses. Both of these can lead to enhanced ability to deliver better patient outcomes.

However, not all long-term benefits from increased quality transparency can be obtained by market forces alone. The well-known “*learning-by-doing*” mechanism, which leads to a positive correlation between patient volume and outcome quality (a.k.a. “*volume-outcome effect*”), creates a tension between short-term patient utility and long-term societal utility. In a market modified only by improving the transparency of quality information, patients will choose providers without taking into account the volume effect on future outcomes. The result will be poorer options and outcomes for future patients. Thus, as research reveals, increasing quality transparency can lead to sub-optimal scenarios.⁴ This sub-optimality can be countered by policy interventions that (1) alter the patient utility calculus (e.g., via travel subsidies) such that their utility maximizing choices are aligned with social needs, and/or (2) incentivize hospitals (e.g., via pay-for-performance mechanisms or by adjusting net reimbursements) to increase their quality for, and market share of, specific patient types.

Finally, long-term analyses of the impacts of increasing quality transparency suggest that hospitals will have incentive to shift their investment budgets from advertising to quality improvement.⁴ These analyses also indicate that hospitals will make use of these quality improvement investments to amplify their strengths.⁴ The overall effect on the market is, therefore, likely to be an increase in medical specialization as hospitals increasingly focus on particular treatment and/or patient types they can serve well.

Taken together, these results indicate that increasing quality transparency can be an effective tool to improve the healthcare sector. However, to achieve its potential the tool needs to be used correctly. Notably, outcome information needs to be made *publicly useful* (not simply available), *targeted* at

patient populations whose choices can be influenced, and accompanied by complementary *policy interventions* to incentivize patient, provider, and payer behavior.

References

1. Henke, N., T. Kelsey, H. Whately. 2011. Transparency – the most powerful driver of healthcare improvement. *Health International* (11) 64–737.
2. Totten A.M., J. Wagner, A. Tiwari , C. O'Haire, J. Griffin, M. Walker. 2012. Closing the quality gap: revisiting the state of the science. Evidence Report No. 208. AHRQ Publication No. 12-E011-EF.
3. Doyle, J.J., J.A. Graves, J. Gruber. 2019. Evaluating measures of hospital quality. *The Review of Economics and Statistics* (forthcoming)
4. Saghafian, W.J. Hopp. 2019. Can public reporting cure healthcare? The role of quality transparency in improving patient-provider alignment. *Operations Research* (forthcoming).
5. Wang, G., J. Li, W.J. Hopp, F. Fazzalari, S. Boling. Using patient-centric quality information to unlock hidden health care capabilities. *Manufacturing and Service Operations Management* (forthcoming)