Improving The Quality Of Health Care: What's Taking So Long?

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Abstract

Nearly fourteen years ago the Institute of Medicine's report, *To Err Is Human: Building a Safer Health System*, triggered a national movement to improve patient safety. Despite the substantial and concentrated efforts that followed, quality and safety problems in health care continue to routinely result in harm to patients. Desired progress will not be achieved unless substantial changes are made to the way in which quality improvement is conducted. Alongside important efforts to eliminate preventable complications of care, there must also be an effort to seriously address the widespread overuse of health services. That overuse, which places patients at risk of harm and wastes resources at the same time, has been almost entirely left out of recent quality improvement endeavors. Newer and much more effective strategies and tools are needed to address the complex quality challenges confronting health care. Tools such as Lean, Six Sigma, and change management are proving highly effective in tackling problems as difficult as hand-off communication failures and patient falls. Finally, the organizational culture of most American hospitals and other health care organizations must change. To create a culture of safety, leaders must eliminate intimidating behaviors that suppress the reporting of errors and unsafe conditions. Leaders must also hold everyone accountable for adherence to safe practices.

Hospitals | Quality Of Care | Quality Improvement | Patient Safety | High-Reliability Health Care

A sense of mounting frustration at the slow pace of improvement in health care quality is evident in conversations with many stakeholders lately. Their comments often go something like this: What's wrong with our hospitals? They can't get doctors and nurses to wash their hands despite an epidemic of health care–associated infections. They can't prevent fires from breaking out in their operating rooms and severely burning patients. They can't stop operating on the wrong patients or the wrong parts of their bodies. Don't they get it? The public is fed up with all these mistakes. Hospitals know what they have to do. Why can't they get it right? It's not rocket science.

The evidence supporting this frustration is substantial. Hand hygiene in hospitals fails about 60 percent of the time.[1] Communication across various transitions of care fails 40 percent of the time or more.[2,3] Operating-room fires may occur about 600 times every year,[4] and there may be as many as fifty wrong-site surgeries per week in the United States.[5] A steady stream of media stories puts names and faces to individual cases of these failures.[6,7]

Quality problems such as these have plagued health care for a long time, and in the past a litany of reasons emerged to explain their existence: Health care leaders were in denial. Quality was not a high enough priority locally or nationally. Hospitals were not devoting enough resources to solving the problems. National leadership was lacking, and good solutions didn't exist. All of these excuses have melted away in the nearly fourteen years that have passed since the Institute of Medicine's *To Err Is Human: Building a Safer Health System* sparked a nationwide movement to improve patient safety.[8]

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Since the publication of that report, an unprecedented national effort to improve health care quality and safety has taken place. Health care leaders no longer deny the magnitude of quality problems. A National Quality Strategy is in place,[9] and major national investments in improvement have been made. Hospitals have devoted considerable time, energy, and resources to solving safety and quality problems. Some progress has occurred.[10] But the improvements have been slow and have not spread throughout the delivery system. Nor have they affected the breadth of available health services. Altogether, they do not constitute an adequate response to the manifestly large and growing roster of quality problems confronting health care.

Clearly, those of us who are involved in improving quality in the United States must change what we have been doing if we want different results. Unfortunately, there are no highly successful efforts that we can import from other countries, because all developed health care systems around the world are struggling with exactly the same quality problems as exist in the United States. No other health care systems have produced effective, long-lasting solutions. The following three fundamental weaknesses of current US improvement efforts must be addressed to make substantial advances in safety and quality. First, current efforts are focused too narrowly on preventable complications. Second, they rely too heavily on older improvement methods that are proving to be ineffective in attacking many of the complex problems facing today's health care delivery system. Finally, insufficient attention has been devoted to changing the organizational culture that exists in most modern health care organizations, especially hospitals—a culture that is incompatible with sustained excellence.

Looking Beyond Preventable Complications

Broadly, quality problems exist in three forms: overuse, underuse, and misuse.[11] The patient-safety movement that has gained momentum since the publication of *To Err Is Human* has focused nearly exclusively on misuse—that is, "when an appropriate health service has been selected but is then poorly provided,"[11(p3472)] thereby increasing the risk of preventable complications. Health care–associated infections, hospital-acquired conditions, and adverse events such as wrong-site surgery and operating-room fires are all examples of misuse problems. In addition, some modest efforts have been made to address underuse, which is the failure to provide a health service when doing so would improve the outcome. Of course, these are extremely important problems to solve.

Until very recently, however, overuse—the use of health care services in circumstances when the services' benefits are absent or negligible—has been almost entirely left out of the quality improvement discourse. This omission is a long-standing phenomenon. Over the past twenty-five years, as research has focused on assessing the magnitude of misuse problems and the effectiveness of a variety of improvement interventions directed at them, overuse has been almost entirely neglected. As a consequence, current, comprehensive data on overuse are lacking, and very few well-documented examples of successful interventions to combat the problem exist.[12]

Eliminating overuse may be the most effective way to improve quality and reduce health care costs simultaneously. Two recent efforts have begun to attract more attention to the overuse problem. The Choosing Wisely campaign, initiated by the ABIM Foundation, encourages frank conversations between physicians and patients with the aim of avoiding unnecessary tests, treatments, and procedures.[13] And in 2012 more than a hundred health care organizations participated in the National Summit on Overuse. The summit was convened by the Joint Commission and the American Medical Association's Physician Consortium for Performance Improvement. It focused on developing specific recommendations for remedying five particularly important overuse problems, including the use of antibiotics in patients with colds and the use of tympanostomy tubes for children with brief middle-ear effusions.[14]

One of the problems addressed by the National Summit has led to improvement activities that may be models worthy of emulation. Elective delivery before thirty-nine weeks of gestation without a clear medical indication results in increased levels of harm to both mother and baby. The practice has been identified as inappropriate by many stakeholders, including the American College of Obstetricians and Gynecologists, American Academy of Pediatrics, March of Dimes, and Joint Commission.[14] Several health systems have documented effective programs to reduce early elective delivery,

and the Centers for Medicare and Medicaid Services has lent its support to the effort as well.[15] [–17] Many more multistakeholder efforts of this kind will be needed if we are to gain national traction on overuse.

One Size Does Not Fit All

Given that the substantial efforts of the past fourteen years have not produced quality improvement of sufficient magnitude, questions must be raised about how exactly those improvement efforts have been conducted. For the most part, quality improvement activities consist of variations on a single theme: the "one size fits all" best practice. Whether it is evidence-based guidelines for reducing catheter-associated urinary tract or bloodstream infections, tool kits and protocols for preventing wrong-site surgery, or bundles and checklists for avoiding ventilator-associated pneumonia, the improvement strategy leads to the recommendation that everyone should implement the same interventions. This strategy usually leads to some improvement, but the results are often less than stellar. Even impressive results are typically difficult to sustain over time. A different strategy is needed—one that recognizes that these problems are complex and defy simple solutions.

Complicated problems, such as ensuring and maintaining high levels of hand hygiene, require more sophisticated problem-solving strategies. A new approach is beginning to demonstrate that it is up to the challenge. Tools such as Lean, Six Sigma, and change management that General Electric and Best Buy and other companies have used to great effect in business are starting to penetrate the health care system.[18] [–20] The Joint Commission has adopted all of these tools as its internal method of improvement and refers to them, together, as "robust process improvement" (RPI). The Joint Commission also works directly with hospitals and health systems that have mastered RPI to address the most pressing clinical quality and safety problems facing health care today. These techniques are proving to be far more effective in tackling tough clinical quality problems than were the tools and methods that came out of industry in the 1980s: total quality management and continuous quality improvement.

In brief, what distinguishes RPI from older improvement methods is its disciplined, systematic approach to rigorous measurement of the magnitude of a particular problem, meticulous determination of all of the causes of the problem, focused implementation of interventions targeted to the most important causes, and careful attention throughout the improvement process to sustaining effective interventions. Although it was possible to achieve good results with older methods, RPI typically produces far greater improvement by this methodical and consistent strategy for dissecting complex problems.

Three key findings have repeatedly emerged from this work, no matter whether the problem under investigation is wrong-site surgery, hand-hygiene compliance, or patient falls. First, there are many causes or contributing factors that explain these failures—often as many as thirty or more. Second, each cause requires a different intervention to deal with it effectively. Third, although it is typical for five or six causes to explain the majority of the reasons for a particular problem in one hospital, a different group of important causes is found when a different hospital is examined. Thus, for a given problem, it is typically possible to package five or six targeted interventions that will work to make major improvements in one hospital. However, it is unlikely that those same interventions will be equally successful in another hospital, where the principal causes of the same problem are different.[21]

For example, one hospital may discover that its major risks for wrong-site surgery occur because the surgical scheduling system fails to obtain standardized and complete data for patient identification or the specification of exactly what procedure is planned. Another hospital may find that its most important risks relate to failures to correctly mark the surgical site. A third hospital may have inadequate operating-room processes in place to verify the intended procedure by examining radiographic images. And a fourth may discover that its preoperative assessment fails to ensure that all the necessary information (including the physician's order, consent forms, and radiology reports) is available when the patient arrives. Until improvement strategies and tools such as RPI are widely employed to address the most vexing quality problems, those problems will continue to resist solution.

Culture Matters

Finally, health care leaders must change the organizational culture in hospitals. A small but growing number of hospitals and health systems are applying lessons learned from organizations in other industries that function at extremely high levels of safety in the face of hazards that are every bit as dangerous as the ones health care confronts.[22] One of the most important lessons from these high-reliability organizations is the importance of an organizational culture of safety. Whether they be commercial airlines, aircraft carriers, or nuclear power plants, these organizations stay safe because all workers know that they have key roles to play. Workers all understand and act on their obligation to recognize and report unsafe conditions, inappropriate behaviors, and errors. Those reports identify problems in safety systems at a very early stage, long before they pose substantial risk. The organization acts rapidly to remedy the problems and communicates those improvements to the people who provided the initial reports. In addition, workers in these organizations hold themselves accountable for consistently adhering to safety procedures. Imagine a protocol that is as essential to the safety of a nuclear power plant as hand hygiene is to preventing infections in hospitals—it is inconceivable that workers in the power plant would exhibit a compliance rate of only 40 percent.

Today's typical hospitals have a long way to go before they achieve the kind of safety culture that exists in high-reliability organizations.[23] They fall short on both of its crucial features: first, encouraging the reporting of and learning from blameless errors and unsafe conditions; and second, assuring accountability for adherence to agreed-upon safe practices. There can be no higher priority today for health care leaders than eliminating the barriers to a strong and vibrant culture of safety. One of the most important of these barriers is the nearly ubiquitous intimidating and disrespectful behaviors that suppress the identification and reporting of unsafe conditions. Front-line caregivers—including nurses, pharmacists, physical therapists, housekeepers, and food service workers—report that physicians and nonphysicians alike frequently refuse to answer questions or return phone calls, provide condescending or demeaning responses to questions, and deliver outright verbal abuse.[24] The necessary next steps toward creating a safety culture include eradicating such behaviors; celebrating and acting upon reports of close calls or near misses; and establishing and enforcing clear and transparent disciplinary procedures for blameworthy acts that are applied equitably, regardless of who commits them.

Conclusion

Public frustration over the slow progress toward far higher levels of safety and quality than exist today is understandable. Health care must and can do better. But let us not underestimate the magnitude of the task. The critics are right. It's not rocket science. It's much more difficult. All rocket scientists have to do is get a machine to behave the way they want it to. Our health care quality challenge ultimately is to create something that doesn't exist anywhere in the world today: hospitals and health systems in which preventable harm does not occur. Some effective next steps toward this goal include addressing overuse problems as vigorously as preventable complications, embracing much more effective process-improvement strategies and tools, and changing the culture within our health care organizations to one that supports high reliability.

NOTES

1. Erasmus V, Daha TJ, Brug H, Richardus JH, Behrendt MD, Vos MC, et al. Systematic review of studies on compliance with hand hygiene guidelines in hospital care. *Infect Control Hosp Epidemiol*. 2010;**31**(3):283–94. »CrossRef »Medline
2. Bodenheimer T. Coordinating care—a perilous journey through the health care system. *N Engl J Med*. 2008;**358**(10):1064–71. »CrossRef »Medline
3. Joint Commission Center for Transforming Healthcare. *Improving transitions of care: hand-off communications* [Internet]. Oakbrook Terrace (IL): The Center; 2010 [last updated 2013 May 13; cited 2013 Aug 19]. Available from: **http://www.centerfortransforminghealthcare.org/assets/4/6/CTH_Hand-off_commun_set_final_2010.pdf**
4. ECRI Institute. *Surgical fire prevention* [Internet]. Plymouth Meeting (PA): ECRI; c2013 [cited 2013 Aug 19]. Available from: **https://www.ecri.org/surgical_fires**
5. Minnesota Department of Health. *Adverse health events in Minnesota: ninth*

annual public report [Internet]. Saint Paul (MN): The Department; 2013 Jan [cited 2013 Aug 19]. Available from: **http://www.health.state.mn.us/patientsafety/ae/2013ahereport.pdf**

6. Eisler P. Far more could be done to stop the deadly bacteria C. diff. *USA Today*. 2012 Aug 16. »Search Google Scholar
7. Giove CM, Edelman S. "Cover-up" investigation after city hospital patient "set on fire" during surgery. *New York Post*. 2012 May 6. »Search Google Scholar
8. Kohn LT, Corrigan JM, Donaldson MS, editors. *To err is human: building a safer health system*. Washington (DC): National Academies Press; 2000.
9. Department of Health and Human Services. *Report to Congress: National Strategy for Quality Improvement in Health Care* [Internet]. Washington (DC): HHS; 2011 Mar [cited 2013 Sep 17]. Available from: **http://www.ahrq.gov/workingforquality/nqs/nqs2011annlrpt.pdf**
10. Pronovost PJ, Goeschel CA, Colantuoni E, Watson S, Lubomski LH, Berenholtz SM, et al. Sustaining reductions in catheter related bloodstream infections in Michigan intensive care units: observational study. *BMJ*. 2010;**340**:c309. »Abstract/FREE Full Text
11. Chassin MR. Quality of care. Time to act. *JAMA*. 1991;**266**(24):3472–3. »CrossRef »Medline
12. Korenstein D, Falk R, Howell EA, Bishop T, Keyhani S. Overuse of health care services in the United States: an understudied problem. *Arch Int Med*. 2012;**172**(2):171–8. »CrossRef »Medline
13. ABIM Foundation. *Choosing Wisely* [home page on the Internet]. Philadelphia (PA): ABIM Foundation; [cited 2013 Aug 19]. Available from: **http://www.choosingwisely.org/**
14. Joint Commission, Physician Consortium for Performance Improvement. *Proceedings from the National Summit on Overuse* [Internet]. Oakbrook Terrace (IL): Joint Commission; 2012 Sep 24 [cited 2013 Aug 19]. Available from: **http://www.jointcommission.org/assets/1/6/National_Summit_Overuse.pdf**
15. Clark SL, Frye DR, Meyers JA, Belfort MA, Dildy GA, Kofford S, et al. Reduction in elective delivery at <39 weeks of gestation: comparative effectiveness of 3 approaches to change and the impact on neonatal intensive care admission and stillbirth. *Am J Obstet Gynecol*. 2010;**203**(5):449.e1–6. »Search Google Scholar
16. Oshiro BT, Henry E, Wilson J, Branch DW, Varner MW. Decreasing elective deliveries before 39 weeks of gestation in an integrated health care system. *Obstet Gynecol*. 2009;**113**(4): 804–11. »Medline
17. CMS.gov. *Strong Start for Mothers and Newborns Initiative: effort to reduce early elective deliveries* [Internet]. Baltimore (MD): Centers for Medicare and Medicaid Services; [cited 2013 Sep 10]. Available from: **http://innovation.cms.gov/initiatives/Strong-Start-Strategy-1/**
18. Bartlett CA, Wozny M. *GE's two-decade transformation: Jack Welch's leadership* [Internet]. Boston (MA): Harvard Business School; 1999 Apr [last updated 2005 May; cited 2013 Aug 19]. (Case 399-150). Available from: **http://hbr.org/product/ge-s-two-decade-transformation-jack-welch-s-leadership/an/399150-PDF-ENG** »Search Google Scholar
19. Rao J. *Best Buy: merging Lean Sigma with innovation* [Internet]. Boston (MA): Harvard Business School; 2011 Dec [cited 2013 Aug 19]. (Case BAB697). Available from: **http://hbr.org/product/best-buy-merging-lean-sigma-with-innovation/an/BAB697-PDF-ENG** »Search Google Scholar
20. DelliFraine JL, Langabeer JR 2nd., Nembhard IM. Assessing the evidence of Six Sigma and Lean in the health care industry. *Qual Manag Health Care*. 2010;**19**(3):211–25. »Medline
21. Joint Commission Center for Transforming Healthcare. *Projects* [Internet]. Oakbrook Terrace (IL): The Center; [cited 2013 Aug 20]. Available from: **http://www.centerfortransforminghealthcare.org/projects/projects.aspx**
22. Chassin MR, Loeb JM. The ongoing quality improvement journey: next stop, high reliability. *Health Aff (Millwood)*. 2011;**30**(4):559–68. »Abstract/FREE Full Text
23. Chassin MR, Loeb JM. High-reliability health care: getting there from here. *Milbank Q*. 2013;**91**(3):459–90. »CrossRef »Medline
24. Joint Commission. *Behaviors that undermine a culture of safety* [Internet]. Oakbrook Terrace (IL): Joint Commission; 2008 Jul 9 [cited 2013 Aug 20]. (Sentinel Event Alert No. 40). Available from: **http://www.jointcommission.org/assets/1/18/SEA_40.PDF**