

WORKING P A P E R

How Hospitals Have Implemented the National Quality Forum Safe Practices

PETER MENDEL, M. SUSAN RIDGELY,
CHERYL L. DAMBERG, PETER HUSSEY,
REBECCA SHAW, DONNA O. FARLEY

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EXECUTIVE SUMMARY

In early 2000, the Institute of Medicine (IOM) published the report entitled *To Err Is Human: Building a Safer Health System*, calling for leadership from the U.S. Department of Health and Human Services (DHHS) in reducing medical errors and identifying AHRQ as the lead agency for patient safety research and practice improvement (IOM, 2000). Soon thereafter, the U.S. Congress funded the Agency for Healthcare Research and Quality (AHRQ), in the Department of Health and Human Services, to establish a national patient safety initiative. In its patient safety initiative, AHRQ has funded a portfolio of patient safety research and implementation projects to expand knowledge in this area, provided motivation and guidance for the activities of others, and integrated its work with that of other public and private organizations to achieve synergy through collaboration.

AHRQ contracted with RAND in September 2002 to serve as its Patient Safety Evaluation Center (evaluation center) and evaluate AHRQ's patient safety initiative. This evaluation was completed in September 2006, culminating in a final report that presents evaluation findings over the full four-year evaluation period (Farley et al., 2008). The final report was preceded by three annual reports, each of which documents the status of the patient safety initiative as of September 2003, 2004, and 2005 (Farley et al., 2005; Farley et al., 2007a; Farley et al., 2007b).

The evaluation center then undertook another two years of work in 2007 and 2008 to assess the extent to which patient safety infrastructure and practices were being put into place across the nation's health care system, and the effects they were having on involved stakeholders, the results of which were published in 2009 (Farley, et al., 2009). A major component of that work was a study of four U.S. communities in which we examined progress being made by health care providers in adopting patient safety practices.

This working paper presents additional information collected in the community study that was not included in the above-referenced report. We present here detailed descriptions of the approaches and actions undertaken by 15 hospitals as they implemented a number of the safe practices endorsed by the National Quality Forum (NQF) (NQF, 2007), which expands upon the summary information provided in the previous report.

BACKGROUND ON THE COMMUNITY STUDY

The community study used qualitative, case-study methods to gather and analyze data on the patient safety activities in four communities characteristic of mid-sized metropolitan areas in the United States. The practice adoption actions are, in themselves, a desired effect of the AHRQ national patient safety initiative, and the adoption process also has effects on the various stakeholders involved. The aims of the study were (1) to trace the evolution of patient safety efforts in four U.S. communities that are typical of local health care markets in various regions of the United States, and (2) to understand, in particular, how hospitals in those communities made decisions about adoption of safe practices and how they implemented them within their institutions.

The four communities selected for the community study were identified from a larger set of 12 communities that have been subjects of study by the Center for Studying Health System Change (HSC). Since 1996, the HSC *Community Tracking Study* (CTS) has conducted biannual

site visits to 12 metropolitan areas representative of health care markets in the United States to study how the interactions of providers, insurers, and other stakeholders help to shape the accessibility, cost, and quality of health care in local communities (HSC, 2009). In 2002–2003, they conducted a special data collection on patient safety, in which HSC investigators contrasted the patient safety experience of five CTS communities that were also Leapfrog regional rollout communities (Leapfrog Group, 2009) with the remainder of the CTS communities.

Our goal in selecting the four communities for this study was to achieve diversity in community characteristics. We collected data on the eight candidate CTS/Leapfrog rollout sites from a number of sources, including information from the Community Tracking Study Web site, the Area Resource File (maintained by the Health Resources and Services Administration), and internet searches to identify existing patient safety initiatives within the communities. Refer to the full report on the community study for additional details on our study methods (Farley, et al., 2009). Based on these data, we chose the following communities for the study, defined as the relevant Metropolitan Statistical Areas:

Indianapolis, Indiana	Cleveland, Ohio
Seattle, Washington	Greenville, South Carolina

STUDY OF HOSPITAL USE OF SAFE PRACTICES

The study results presented in this working paper address the second aim of the community study—to examine the uptake of safe practices by hospitals in the four communities. Specifically, we present results of our analysis of how the interviewed hospitals implemented each of a number of the 2006 NQF safe practices (NQF, 2007). The methods used in this component of the community study are summarized here; refer to the full report for more detailed information (Farley, et al., 2009).

The primary data-collection method was semi-structured interviews, which we performed during a single site visit to each of 15 participating hospitals, four in each of three communities and three in the fourth community (Cleveland). We wanted to understand the main sources of information and influences on patient safety for each hospital, how decision makers in the hospital prioritize their patient safety efforts and specific practices, which safe practices they have chosen to implement, and their strategies and experiences in implementing different types of practices.

Two separate processes were used to collect data regarding safe practice adoption by the 15 participating hospitals. The first process was the conduct of semi-structured interviews with individuals and groups in which we collected data on the evolution of patient safety within the hospital, the hospitals' current activities, and how other organizations—such as employers, health plans, or peers—may have affected the practice-adoption efforts. The respondents included the hospital leadership (e.g., chief executive officer, chief medical officer, chief of surgery, chief of nursing, chief of pharmacy, chief information officer, or their designees) and the Patient Safety Officer or person responsible for or most knowledgeable about the hospital's patient safety initiatives.

The second process was the conduct of two roundtable discussions, in which we examined in depth how hospitals approached adopting specific sets of NQF safe practices, and their experiences in implementing them. Each hospital was asked to discuss two sets of NQF safe practices that they already had adopted. One roundtable focused on an aspect of the

development of patient safety culture and the second focused on a grouping of other safe practices (see Appendix A for a listing of the NQF safe practices by group). The following are the practice groupings addressed in the roundtables:

Safety Culture Practices

Leadership
Culture Survey
Teamwork
Safety Risks

Other Safe Practice Groupings

Communication with Patients and Families
Transparency Across Continuum of Care
Surgery Procedures
Medical Evaluation and Prevention
Medication Safety Management
Workforce

Participants in each roundtable consisted of individuals most familiar with and responsible for implementing the specific sets of safe practices being addressed. At most of the hospitals, these discussions included clinicians and other front-line staff who are involved in implementing the practices on a daily basis.

A semi-structured interview format was used to guide each roundtable discussion. First, we asked the respondents to describe all safety practices and activities by their hospital that fell into the safe-practices group being addressed. We focused the discussion on three basic themes: the goals the hospital had set for the safe practices; how the hospital had operationalized and implemented the group of NQF practices in the specific context of their hospital; and the major challenges and facilitators they had experienced in their implementation of the group of practices.

IMPLEMENTATION OF NQF SAFE PRACTICES BY HOSPITALS

The interviewed hospitals reported that they had been working to implement many of the practices for several years, from when guidelines were first being developed, even before the publication of the NQF standards. The practices most commonly undertaken in early years included most practices in the Medical Evaluation and Prevention group. The establishment of the NQF safe practices, as well as other external initiatives, refocused their attention on these areas. Although the hospitals had made progress and laid important foundations for patient safety, the hospitals also reported that they still tended to be in fairly early or nascent stages of development in many areas (e.g., safe culture, adverse event reporting).

THEMES AND SYNERGIES IN SAFE PRACTICE IMPLEMENTATION

The discussions at the hospital roundtables revealed complex interactions among the various aspects of patient safety culture (role of leadership, use of culture survey and measurement, teamwork development, and systems for identifying and mitigating risks) and actions being undertaken by the hospitals to drive their patient safety agendas and projects. The following themes were identified from their experiences in working with these practices:

- For safety culture development, actions were taken to instill a sense of ownership for safe practices among individuals throughout the organization; create a “proactive” mentality in which staff attempt to identify problems and improve processes before an incident occurs; and emphasize a culture of open communication, including a nonpunitive, nonblame climate for reporting errors.

- Patient safety culture is integrally related to a hospital's wider organizational culture.
- The four sets of practices for developing patient safety culture were observed to be integrally related to each other.
- Common elements across the implementation of the other practice groupings also were identified, such as use of multidisciplinary teams to implement practices in the areas of Transparency Across the Continuum of Care and Medication Safety Management.
- The reliance on technology was emphasized for both Medication Safety Management (e.g., computerized physician order entry [CPOE] systems) and Identification of Risks (e.g., electronic error-reporting systems).
- Strong emphasis was placed on communication practices for a number of practice groupings, including the role of leadership in establishing communication mechanisms, principles of communication embedded in models of teamwork, and internal marketing and communication to promote error reporting.
- Education and training was also strongly emphasized for many of the practices, such as training programs on teamwork, training of safety professionals and staff in risk-identification and risk-mitigation techniques, and continuing education and cross-training as part of workforce practices.

IMPLEMENTATION PRIORITIES AND APPROACHES

Patient Safety Culture Practices. The hospitals identified leadership and risk management as high priority areas for implementing patient safety culture practices, and they identified culture survey and teamwork as generally important. They also reported several techniques that were central elements of their actions to improve safety culture, including communication with the Board and staff on safety issues, a proactive approach to engage staff, training on necessary skills, use of multi-disciplinary teams, and involvement in decision making.

Other Groups of Safe Practices. Among the other groups of safe practices, the hospitals identified surgery procedures and medication safety management as the highest priority areas, transparency across the continuum of care as a high priority area, and medical evaluation and prevention and workforce as generally important. Hospitals' implementation approaches for these practices varied widely, depending on the practice being addressed. However, common themes did emerge, including the importance of supporting implementation with effective communication, teamwork development, staff training, and monitoring.

IMPLEMENTATION CHALLENGES AND FACILITATORS

Challenges identified. The hospitals reported encountering a number of key challenges as they implemented each of the practices in the practice groupings addressed in this study. A general theme across the hospitals was the difficulty inherent in changing patient-safety systems and culture. This challenge is consistent with the observations made by the hospitals that patient safety culture is embedded in deep-seated mind sets and expectations within the hospital's wider culture. As a result, changing patient safety culture is necessarily a long-term endeavor. The following additional challenges also were identified by the interviewed hospitals:

- Physician resistance to adopting new practices

- Resistance by the general staff to perceived additional workload and changes in routine, with a tendency to do pro forma performance of new practices and find work-arounds for new systems.
- Difficulty in disseminating information and practices across different groups of professionals, as a result of boundaries between organizational units within and outside of the hospital, and especially among academic and attending staff who hold multiple affiliations or who practice only intermittently in the hospital.
- Issues related to implementing and managing technology, such as system incompatibilities and interfaces among complex information systems.

Facilitators identified. Roundtable respondents also identified a number of facilitators that helped them in implementing safe practices, including the following:

- Flexibility, such that strict uniformity was not expected in implementation across units, and small changes in safety procedures were allowed that could make a large difference in reducing workload burden on care providers
- Encouraging inclusion of a wide range of stakeholders in the implementation process, and use of methods by which they can participate.
- Medical leader support for adoption of safe practices
- Leadership support, particularly in establishing coordination and networking mechanisms (e.g., patient safety governance committees) and providing tangible resources for safety efforts.
- Communication and feedback to front-line staff, with investment of time to explain patient safety issues, and to “close the loop” with care providers, which were described as highly motivating to hospital staff for committing to and implementing patient safety practices.

DISCUSSION

This sample of 15 hospitals offers encouraging news and useful information regarding the extent of progress being made by U.S. health care providers in putting safe practices to work in their care delivery processes. Although a limited number of hospitals, they are operating in four communities that were selected by HSC for its Community Tracking Study as reflecting characteristics of typical local health care markets within the country. Thus, we may anticipate that similar efforts are underway in many other hospitals across the country. The information provided by the interviewed hospitals emphasizes that, like any quality improvement activity, investment of time and effort is required to achieve sustainable practice changes by the various personnel involved in the care process.

Hospitals in the study tended to be addressing a wide range of safety practices at once, including some they had been working to implement since before the NQF safe practices were established, as well as certain areas not included in the NQF standards. The hospitals also tended to view virtually all groupings of NQF practices as having (or pushed by external sources with) at least a modicum of importance. As a consequence, the roundtable discussions on NQF safe practices pointed to a general challenge—echoed in the interviews on overall strategy and evolution of patient safety activities within the hospitals—of attempting to balance multiple patient safety initiatives and requirements in a coherent fashion, and avoiding project and information “overload” on both hospital leadership and frontline staff, as well as to the role that

external agencies can play in helping to rationalize and focus—as opposed to multiplying—patient safety priorities.

In terms of implementing specific safe practices, we observed a diversity of actions by the interviewed hospitals and also a number of common themes that were important implementation elements for many of the safe practices. Foremost among these are proactive communications with the key groups of personnel (stakeholders), training of staff in the skills required by the safe practice, engaging front-line staff in decisions on the plan and actions for implementing a safe practice, development of effective interdisciplinary teamwork, and monitoring of progress.

Chapter 1 provides an introduction and further background to the study. Chapter 2 provides a more extensive summary of findings, and Chapters 3 and 4 describe detailed results from our study regarding hospitals' approaches, actions, and experiences in implementing the specific sets of NQF safe practices, including examples and insights into facilitators, challenges, and other aspects of safe practice adoption from the various hospitals studied in the four communities. Information for the patient safety culture practices is presented in Chapter 3, and information for the other groups of safe practices is presented in Chapter 4.