One of the recommendations of the Institute of Medicine (IOM) report *To Err Is Human* was that professional societies develop a curriculum on patient safety and encourage its adoption into training. Further, it suggested that interdisciplinary team training programs be created. A second report, *Crossing the Quality Chasm,* furthered the argument for education reform, noting that clinical education must be restructured to be consistent with the declared principles of the 21st-century health system—safety, effectiveness, patient centeredness, timeliness efficiency, and equity. The report recognized that given the conservative nature of health professionals, any change in the preparation of the workforce could be “exceedingly slow and difficult to accomplish, especially if there is not a clear understanding of why the change may be needed or of its impact on current practices.”

In 2002, the Accreditation Council on Graduate Medical Education, leading the way in response to these reports, developed a set of core competencies expected of graduates of all residency programs—medical knowledge, patient care, practice-based learning and improvement, systems-based practice, professionalism, and communication skills (including working effectively with others as a member or leader of a health care team).

A report published by the Association of American Medical Colleges (AAMC) in 2001, *Contemporary Issues in Medicine: Quality of Care,* suggested strategies to speed the process of change in medical student education, one of which was a pilot program among a cohort of medical schools to serve as a model for other institutions.
This report’s recommendations were of interest to the Institute for Healthcare Improvement (IHI), which in April 2003 convened a meeting of deans from six medical schools in the United States who agreed to collaborate around a set of objectives. An action plan was developed and regular communication was established among the schools. By October 2003, the collaborative had grown to 10 medical schools.

This article describes the results of interviews conducted between June 2004 and September 2004 of these founding deans of the collaborative to identify the leadership strategies used for the improvement of care at their medical centers—strategies considered essential for achieving the goals of the collaborative. In some instances, the dean was also the vice president for health affairs (or its equivalent) and exercised authority over the entire medical center. In others, leadership strategies represented the collective actions of a vice president, the dean, and the director of the principal teaching hospital.*

Methods
The author developed a semistructured telephone questionnaire on the basis of informal discussions with the deans. The aim of the interviews was to determine the strategies that each dean considered most effective in achieving goals relating to quality of care. Questions were submitted in advance. Seven deans were interviewed without another person present. For the other three interviews, recently appointed deans were joined by the person best informed of the school’s initiatives relating to quality of care before the appointment of the current dean. Interviews, which were conducted between June 2004 and September 2004, lasted from 40 to 60 minutes. Time was made available for open-ended discussion. After each interview, a summary was prepared of the main points made. Particularly informative quotes are provided in this article to highlight a specific strategy. Descriptive codes were used to cover (1) the factors leading to quality as a strategic objective, and 2) key themes bearing on administrative direction, oversight, and infrastructure for quality.

* For purposes of this report, the 10 medical schools are referred to as founding schools.

### Findings

#### Quality as a Strategic Imperative
Drivers contributing to quality as a strategic objective are listed in Table 1 (above). All 10 deans indicated that the Quality Chasm report was a positive influence on their thinking. Most of the deans indicated that quality and safety were already high on their agenda for action as the result of personal experiences, such as repeated observations of substandard medical care and disappointing safety were already high on their agenda for action as the result of personal experiences, such as repeated observations of substandard medical care and disappointing experiences, as members of their specialty boards, in the recertification of physicians. These personal observations, which mirrored the concerns expressed by many physicians and nurses in recent years, persuaded them that building in the knowledge, methods, and skills necessary for the improvement of quality must begin in medical school. Five of the deans brought a quality “agenda” to their new positions. Leadership by the university president or the governing body was a contributing factor in three instances, and in an additional three, a high adjusted mortality at the principal affiliated teaching hospital was a key driving force for improving quality.

Review of adjusted mortality data revealed opportunities to reduce deaths. For example, in 1987 Dartmouth formed the Northern New England Cardiovascular Group in response to high adjusted mortality, as shown by Health Care Financing Administration (HCFA) data. In 2001, the four teaching hospitals at the University of Tennessee (UT) and other hospitals in Memphis, the medical school, and the Memphis Business Coalition formed the University Medical Center Alliance (UMCA) to address health care quality and costs in response to high-adjusted mortality rates.

### Table 1. Factors Contributing to Quality and Safety as an Institutional Priority

<table>
<thead>
<tr>
<th>Factor</th>
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<tr>
<td>IOM report, Crossing the Quality Chasm*</td>
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<tr>
<td>Personal experiences of deans with health care</td>
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<tr>
<td>High hospital mortality rates</td>
</tr>
<tr>
<td>State law</td>
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<tr>
<td>University administration and governance</td>
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<tr>
<td>Failed merger</td>
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</table>

A new state law in Florida in 2002 requiring the teaching of safety and improvement methods to medical students was a contributing factor at the University of Miami School of Medicine, which had already established a priority for safety and quality in its teaching and service programs. At Penn State/Hershey Medical Center, a failed merger galvanized the faculty around an agenda for the improvement of care. The Quality Chasm report, which was released soon after, led to new insights by the faculty that care by any given professional is only as good as the system in which the care is delivered. A systemwide focus thus became a shared responsibility.

At the University of Connecticut School of Medicine (UConn), the creation of a board of directors for the medical center that was separate from the university board of trustees, was the most important factor leading to improvement of quality as a strategic priority. The board established a mandate for change that helped leverage the initiatives of the hospital director and dean in teaching, service, and research for the improvement of care.

Throughout the Mayo system, initiatives relating to quality of care were a high priority for years before the To Err Is Human report. For example, an annual conference on quality, at which faculty and staff presented quality improvement (QI) projects, had been in place since 1996.

Leadership Strategies

New Organizational Structures. “Our Center for Health Care Quality serves as a core resource to the broader health care enterprise, creating and studying innovation in health services delivery and health professions education.”

Eight schools developed new organizational structures in partnership with their principal teaching hospitals. These structures varied from quality councils focused on important elements of quality and safety to comprehensive organizations whose missions were to address the full array of the medical center’s quality initiatives in service, education, and research. Virtually all the structures involved faculty and staff from medicine, nursing, and pharmacy and, in some cases, senior university officials, members of the governing body, or patient advocates.

Arguably the longest established and best-known center for research, education, and innovation in health services delivery is at Dartmouth. John Wennberg established the Center for the Evaluative Clinical Sciences (CECS) in 1989. In 1996, a learning track for the improvement of quality in the Master’s degree program was established in the Center. This teaching and research arm of the medical school now includes a Ph.D. program. Most recently, a combined categorical and preventive medicine residency was developed—an integrated residency for the improvement of quality that is woven into the categorical training program. Graduates will be eligible for their boards in preventive medicine in addition to their medical specialty. Dartmouth is one of the Veterans Administration’s Quality Scholars Program hubs, a highly successful distance-learning program.

The interdisciplinary Patient Safety Center at the University of Miami was designed to “lead innovation in health services delivery, research, human factors, and health professions education.” Its mission includes research designed to influence regulation and public policy to better align regulation and policy with initiatives within the health care systems to improve care.

Vanderbilt elected a distributed approach to the monitoring and improvement of quality, with five centers each addressing specific goals—clinical improvement, patient and professional advocacy, patient safety, disease management, and community health. Senior representatives and team members from these centers meet monthly at the quality council, with the dean of the medical school and the executive vice president of the Vanderbilt University Medical Center.

Missouri established a Center for Health Care Quality, jointly funded by the medical school and hospital. It serves as a core resource for the broader health care enterprise and includes a health services research program that brings substantial scientific evidence to leaders who develop and manage complex health systems and processes.

The UMCA’s strategic priorities include improvement in population-based mortality indicators, creation of common report cards, identification and spread of best practices, improved value, and the teaching of performance improvement methods. The members share progress of improvement projects at monthly meetings. The two other hospital systems in Memphis that are not members of UMCA are now working together, using similar approaches.
At UConn’s interdisciplinary initiative, the Collaborative Center for Clinical Care Improvement, physicians, nurses, pharmacists, social workers, and patient advocates meet biweekly to monitor quality trends and develop strategies for improvement.

Oregon Health Sciences University (OHSU) established a Performance Coordinating Council, which includes members from the medical school, health system, and the university board.

At Hershey Medical Center, eight teams were created to share authority and engage the medical center more broadly. Their task was to unite the center, create a strategic vision, solve systems problems, and create a greater sense of ownership and accountability. The clinical team, for example, was charged with developing an environment of excellence in innovation, integration, and improvement of clinical care and health promotion throughout the health center, the community, and their professions. By its fourth year, the team had successfully addressed quality and safety from a systems perspective.

At most of the 10 schools, the medical center’s executive leadership conducted regularly scheduled reviews of measures of quality and sought opportunities for improvement. Most of the schools pursued a strategy of sharing information among medical school departments, school and hospital, and between hospitals.

**Faculty Recruitment and Assignment.** “Seven years ago, we held a managed care college. One of the people I brought in was an authority on the use of evidence-based practice to decrease morbidity and mortality and reduce costs. His talk was so outstanding that I decided to recruit him.”

The deans of five of the schools appointed faculty with recognized expertise in quality/safety to positions of authority in the medical school, and often the hospital as well. At Vanderbilt, this included previous physician astronauts. When schools had not recruited new faculty to oversee the quality agenda, authority for the curriculum was usually entrusted to the most influential member of the dean’s staff—who, in many cases, had attended programs in improvement methods.

Mayo’s faculty development program included QI science as one area of scholarship. A core clinical faculty conduct research in areas such as medical decision making, evidence-based practice, and outcomes. These faculty serve as role models for students and residents in the area of quality and safety. The scope of research projects required of all third-year medical students includes quality.

**Building the Culture.** “Having faculty leaders who are role models for other faculty and students has been most helpful in moving ahead with an agenda for quality.”

Approaches to empowering faculty took a number of forms. At all the schools, thought leaders who were considered effective clinical role models served as quality champions.

Timing was important. Newspaper accounts of serious medical errors were, of course, widespread. Department chairs and other faculty who had not yet read the *Quality Chasm* report were encouraged to do so. According to the deans, this publication and many presentations by the deans and visiting authorities on QI helped faculty to understand that quality meant more than individual responsibility.

Strong management leadership in hospitals is strongly associated with greater clinical involvement with QI. Each dean, whether from one of the five entities that were under common ownership or one of the five that were under separate governance, confirmed shared goals among the leadership of the medical schools and hospital/health systems. Five of the 10 teaching-hospital chief executive officers (CEOs) were physicians, and one was recruited specifically for his background in quality and safety. At four academic medical centers, operating agreements (involving the teaching hospital, faculty practice, and medical school) were developed to ensure a shared approach to the improvement of care. These agreements usually included financial incentives for faculty, applying measures of process, outcome, and efficiency.

Many of the deans reported alignments with key external stakeholders. Penn State Hershey formed strategic alliances with health insurers and suppliers which were based on the belief that they have a long-term shared interest in improving quality. This approach was intended to align corporate interests and their expertise and capital investments with the medical center’s improvement initiatives.

At Vanderbilt, instruction in crew resource management (CRM) resonated with physicians, staff, and students in ways that conventional continuous QI methods adapted from industry had not.
Transparency in the sharing of information regarding mortality and morbidity was an important motivating factor. At Dartmouth, patient care outcomes are posted on the Internet. To our knowledge, no other medical center has moved to this level of transparency. It also sponsors a small-grants program for the improvement of quality, with technical and statistical support provided to applicants. Successes are recognized and celebrated, furthering the empowerment of faculty and staff.

A number of schools created incentives for faculty and staff to promote improvement in quality. At OHSU, operating agreements between the faculty practice organization and both the medical school and the university health system provide an opportunity to address priorities such as the improvement of care. At some schools, appointment letters state clearly that quality is a priority and that quality is both an individual and collective responsibility of the faculty and staff. At least one school uses the achievement of satisfactory clinical performance measures as a criterion for promotion. Financial incentives to promote improvement of quality were established at some schools for both faculty and staff.

At the University of Missouri-Columbia School of Medicine, empowerment was facilitated by an anonymous error-reporting system overseen by the Office of Clinical Effectiveness, an interdisciplinary program with faculty from all health professions schools participating. At a number of schools, faculty role models open their clinical databases to students and residents, showing where there are opportunities for improvement. Other faculty reinforce the importance of honesty and humility by sharing personal examples of substandard care with students. These approaches are seen as powerful tools for sparking interest among learners for the improvement of care.

**Education Reforms Across Health Professions.**

“We arrived, my agenda included the education of students in quality and safety as an interprofessional initiative. The hospital already had an effective improvement process in place. We then engaged the other health professions schools. Together with the hospital, the focus of our six schools on advancing interprofessional education led to the creation of shared educational facilities such as the Clinical Skills Center and the Simulation Center.”

Effective teams improve the quality of health care, but health professions students are not educated together, nor are they exposed to the skills needed for team based care. The IOM report *Health Professions Education: A Bridge to Quality* recommended that “all health professionals should be educated to deliver patient-centered care as members of an interdisciplinary team, emphasizing evidence-based practice, quality improvement approaches, and informatics.”

Within two years of the collaborative’s formation, the quality agenda was being pursued through strategies to promote educational reforms across all health professions.

At the University of Minnesota, the quality agenda is being pursued principally through strategies to promote educational reforms across all health professions. A focus on advancing interprofessional education among the six schools of the academic health center led to the creation of shared educational facilities, such as the Clinical Skills Center and the developing Simulation Center. The interprofessional student group CLARION was formed by students committed to improving health care through better understanding and collaboration among health professionals (http://www.chip.umn.edu/CHIP/committees/clarion.html).

**Progress in Meeting the Collaborative’s Goals**

The collaborative, now known as the IHI/Health Professions Education Collaborative, currently includes 48 schools (Table 2, page 68). Guest schools include faculties from the Karolinska Institute, Stockholm, and the University of Oslo.

Leadership initiatives for quality provide the platform for the work of the collaborative. At each semi-annual meeting, the deans discuss progress resulting from their leadership initiatives and successes, failures, and continuing challenges.*

The work of the collaborative is organized around themes considered essential to the goals of the collaborative such as interprofessional learning, exemplary clinical settings, student-initiated learning, and evaluation.

* At the collaborative’s early meetings, these discussions helped inform the content of the interviews of the 10 founding school deans, leading to this report. The deans’ discussions are shared with the full membership of the collaborative during the meeting.
Theme-focused work groups include faculty from medicine, nursing, pharmacy, and health administration/health related professions. Work groups develop an explicit charge and an annual agenda, meet monthly by conference call, post information on a dedicated extranet sponsored by IHI, and convene at the semiannual meetings.

Two case scenarios, prepared on the basis of information collected in 2006, two years after the interviews of the founding school deans, describe progress made in response to leadership initiatives (Sidebar 1, pages 69–70).

**Discussion**

The interviews conducted with the deans of the 10 founding schools in the collaborative revealed that although local circumstances may dictate the specific strategies used by deans and their academic medical center colleagues, the strategies tended to aggregate around common themes. These themes are among the strategies found in successful organizations—one of the leaders who are viewed as role models for the improvement of care; public forums that recognize and celebrate faculty, staff, and trainees; organizational structures that anchor the focus on quality; innovative approaches to learning; and broad engagement of the academic community in the affairs of the school.

With the growth in the number and diversity of medical schools participating in the collaborative from 10 medical schools to 49 health professions schools in three years, the schools are at different levels of development, which at times has slowed the founding schools’ progress. To address this issue and to maintain efficient communication and a desirable level of informality and congeniality, the collaborative recently elected to cap its membership at the current 20 university sites.

More time will be needed to measure the impact of the leadership initiatives in addressing the collaborative’s goals. The exemplary learning and interprofessional scenarios are examples of substantial progress. Intermediate outcomes being considered include trends in the numbers of students electing interprofessional learning opportunities, the numbers of faculty who systematically review their clinical performance, and numbers of redesigned clinical settings for exemplary care and learning. Longer-term outcome measures include comparisons, by the Accreditation Council for Graduate Medical Education, of the level of attainment of core competencies among graduates of medical schools in the collaborative and those from peer schools, evidence of a substantial research agenda for improvement of quality, and trends in hospitalwide quality performance measures.

Of the 10 founding schools that form the basis of this report, 7 remain committed and continue to serve as role models. The
Sidebar 1. Case Scenarios

Exemplary Clinical Settings

Learning objectives for improvement of care cannot be achieved without a receptive clinical environment and supportive faculty and staff. At seven medical schools, teams are partnering with colleagues from hospital administration, nursing, and pharmacy to develop exemplary clinical settings for learning and care. Competition between patient care and teaching objectives is being eliminated by redesigning clinical microsystems for optimal patient care and engaging learners as essential members of the patient care team.

At Dartmouth Medical Center, organizational restructuring has been an important step in facilitating change. The general internal medicine inpatient service is one of two pilot units being redesigned as an exemplary clinical setting. This unit already had an established culture of quality and safety, including an electronic error reporting system. The medical director of this service is now accountable directly to the health system, with budget and staffing authority in partnership with the nursing director. Stability in this partnership is seen as important in achieving the unit’s objectives. An internist colleague, accountable to the medical director, serves as an associate director of the internal medicine residency program to help coordinate clinical care initiatives and resident education experiences. Another internist colleague, appointed by the medical school, plans and directs medical students’ experiences in the unit. This administrative and management infrastructure should help ensure that goals in patient care and education are not only compatible but mutually interdependent.

This infrastructure has facilitated important initiatives in medical students’ learning. First-year students begin to understand the roles and skills of other members of the patient care team through an extensive orientation by the unit’s nurses. Fourth-year students who have elected internal medicine residencies take a subspecialty internship on the unit, where they work with clinical resource coordinators to gain an understanding of the requirements for effective posthospital care, particularly for management of patients with chronic illnesses.

At a site visit to the unit in May 2006, teams from the other six sites where exemplary clinical settings for learning and care are underway noted the Dartmouth unit’s collaborative structure and focus on quality and ability to “walk the talk” and the availability of performance data for monitoring quality. Objectives still to be achieved included greater involvement of nursing and pharmacy students, more time for the health care team to “huddle” (for example, to measure progress, address constraints, conduct ongoing planning), and a greater focus on patient-centered rounds. The other pilot unit at Dartmouth, the Pediatric Intensive Care Unit, has achieved a single set of rounds involving the entire patient care team, patients, and families. The team includes nursing, pharmacy, physical therapy, and social work students in addition to medical students. These observations suggest that the specific early steps in the evolution of an exemplary clinical setting may be determined largely by local environmental factors.

Interprofessional Learning

Interprofessional learning was a priority for the deans of 5 of the 10 founding schools, which led to the creation of the interprofessional learning work group of the collaborative, a group that now includes 19 members from 7 sites. The group created a matrix showing how one might measure levels of competence among students who are engaged in learning either team care, improvement skills, or both (Table, page 70). At the University of Minnesota, these competencies are being achieved through formal coursework, community-based improvement projects, and student-initiated learning. For example, the CLARION program is a student-run initiative whose primary goal is “for participants to develop an understanding and appreciation of the skills that each profession brings to the health care team and to develop positive relationships, which will extend into their professional careers.”* Students in medicine, nursing, pharmacy, health administration, and public health meet regularly during their first two years of training. The program includes “lessons in leadership, teamwork, communication, analytical reasoning, conflict-resolution, and business practices.”

* http://www.chip.umn.edu/CHIP/committees/clarion.html

continued
Each year, CLARION hosts a national competition among teams of health professions students, who present approaches to a case example that demonstrate opportunities for improvement of quality. In 2006, eight collaborative site teams presented, reflecting the collaborative's effectiveness in facilitating common goals across sites.

### Interprofessional Education Matrix

<table>
<thead>
<tr>
<th>Domain</th>
<th>Novice/Willing to Learn</th>
<th>Competent/Able to Contribute</th>
<th>Proficient/Expert</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teamwork</strong></td>
<td>1. Describe the education and roles of common health care professionals.</td>
<td>1. Demonstrate effective use of individuals' skills to complement the group.</td>
<td>1. Mediate a dysfunctional group.</td>
</tr>
<tr>
<td></td>
<td>2. List the stages of team formation.</td>
<td>2. Resolve conflict effectively.</td>
<td>2. Redefine care roles in a manner that best suits the patient and the situation.</td>
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<tr>
<td></td>
<td>3. Recognize the common dysfunctions of teams.</td>
<td>3. Participate effectively in an interprofessional team.</td>
<td>3. Lead an interprofessional team.</td>
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<tr>
<td></td>
<td>4. Recognize conflict.</td>
<td></td>
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<tr>
<td><strong>Communication</strong></td>
<td>1. Recognize the common vocabulary and language used by other professions.</td>
<td>1. Demonstrate effective interprofessional communication skills, both verbal and written.</td>
<td>1. Critique others' communication skills and suggest improvements.</td>
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<tr>
<td></td>
<td>2. Explain the critical role of communication in quality and safety.</td>
<td>2. Incorporate the patient's point of view.</td>
<td>2. Anticipate and ameliorate communication errors.</td>
</tr>
<tr>
<td></td>
<td>3. Discuss one's own value within a health care team.</td>
<td>3. Develop a care plan using all points of view.</td>
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<tr>
<td></td>
<td>4. Incorporate the views of other members of the health care team, where appropriate.</td>
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<tr>
<td><strong>Leadership/Change</strong></td>
<td>1. Describe the difficulties inherent in systems and behavioral change.</td>
<td>1. Demonstrate the ability to facilitate self-change and take part in a change process at a systems level.</td>
<td>1. Lead change at a systems level.</td>
</tr>
<tr>
<td><strong>Management</strong></td>
<td>2. List the stakeholders in a proposed change.</td>
<td>2. Conduct a stakeholder analysis.</td>
<td>2. Analyze a change in progress for potential barriers and develop a plan to address them.</td>
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<tr>
<td></td>
<td>3. Recognize the need for continual change and QI.</td>
<td>3. Demonstrate beginning situational leadership skills.</td>
<td>3. Create an evaluation plan to assess the results of a change process.</td>
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<tr>
<td></td>
<td>4. Be a good follower/team member.</td>
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<td></td>
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<tr>
<td><strong>Reflection/feedback</strong></td>
<td>1. Describe the role of reflection and feedback in quality improvement.</td>
<td>1. Demonstrate self-reflection in practice.</td>
<td>1. Demonstrate improvement on a continual basis.</td>
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<tr>
<td></td>
<td>2. List the process of self-reflection.</td>
<td>2. Receive constructive feedback in a professional manner.</td>
<td>2. Teach others to give and receive feedback.</td>
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<tr>
<td></td>
<td>3. Describe one method of nonthreatening feedback.</td>
<td>3. Develop a plan for individual improvement based on feedback.</td>
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<tr>
<td><strong>Systems factors</strong></td>
<td>1. Describe the PDSA cycle.</td>
<td>1. Recognize latent system errors.</td>
<td>1. Propose system redesigns to address errors.</td>
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<td></td>
<td>2. Discuss the importance of systems as a role in patient error.</td>
<td>2. Report errors and latent errors.</td>
<td>2. Develop a plan for change based upon root cause analysis results.</td>
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<tr>
<td></td>
<td>3. Recognize and distinguish between latent and active errors.</td>
<td>3. Discuss the issues involved in disclosing errors to patients and families.</td>
<td>3. Effectively disclose errors to patients and families in a real or simulated setting.</td>
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<td>4. Describe the process of root cause analysis.</td>
<td>4. Work on a well-defined QI project.</td>
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<td>5. Analyze an error using root cause analysis technique.</td>
<td>5. Develop an action plan based upon analysis of error or latent error.</td>
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<td></td>
<td>6. Describe how the QI process works.</td>
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*PDSA, Plan-Do-Study-Act; QI, quality improvement.*
models for newer members. The participation and contributions of the other three schools have been less consistent, the perceived consequence of the lack of a stable leadership team.

Although all 10 deans described substantive progress among the teaching, service, and research initiatives for the improvement of care, a number of continuing challenges remained. At some schools, faculty's acceptance of new ways of thinking about quality and safety was limited, particularly among older faculty and faculty in the basic sciences and the procedurally based clinical specialties. This was addressed, in part, by revising promotion guidelines, replacing retiring faculty with new faculty supportive of the school's initiatives in quality and safety, and repeating the message that seeking continuous improvement of care is a responsibility of all faculty. By May 2006, most deans agreed that faculty resistance to quality initiatives was no longer a significant issue.

Logistical and cultural challenges to interprofessional learning are substantial. Some schools are geographically separate from their colleague schools. Matching learning levels of students and addressing timing conflicts are ongoing issues, as are the achievement of learning objectives for team members' care on the one hand and improvement skills on the other.

Limitations of the study should be noted. The questions were designed with an expectation that most management strategies would fall into a limited number of categories, the result of prior, informal discussions with deans. It is thus possible that some potentially valuable information was missed by priming the deans with the content of the questions. This possibility was reduced by providing the opportunity for additional information through open-ended questions.

The reliability of the coding of responses was not a perceived issue since the categories were known, to some extent, in advance. The answers received were consistent with the categories built into the interview questions and matched the expectations, from previous discussions, of the strategies used by deans. It was relatively easy to decide into which category a response fell, and only a few responses did not fit any category. Unexpected responses such as new strategies were easily classified.

Conclusion

The IHI/Health Professions Education Collaborative is one example of how the preparation of the workforce for the 21st-century health system can be facilitated through leadership from the top and sharing of information among collaborators across schools. The approaches described in this article may help leaders of other health professions schools and clinical settings as they seek to achieve learning objectives for improving quality and safety in health care.

Medical school deans and their physician colleagues who contributed to this article and schools they represent were as follows: Paul Batalden, Dartmouth (http://www.dartmouth.edu); John Clarkson and Paul Barach, Miami (http://www.med.miami.edu); William Crist and Linda Headrick, Missouri-Columbia (http://www.muhealth.org); Peter Deckers, Connecticut (http://www.uuchc.edu); Steven Gabbe, Vanderbilt (http://www.mc.vanderbilt.edu); Henry Herrod, Tennessee-Memphis (http://www.utmem.edu); Edward Keenan and Joseph Robertson, Oregon (http://www.ohsu.edu); Darrell Kirch, Penn State (http://www.hmc.psu.edu); Deborah Powell, Minnesota (http://www.umn.edu/twincities/07_health.php); and Thomas Viggiano, Mayo (http://www.Mayo.edu). The authors thank Mark Splaine (Dartmouth) and Karyn Baum (Minnesota) for their contributions.

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References


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To make a difference.
That’s why Peminic provides them with information in harmony.