NETWORKING FOR RURAL HEALTH

Quality Improvement in Rural Hospitals: How Networking Can Help

Kerry Kemp

August 2002

ACADEMY
FOR HEALTH SERVICES RESEARCH
AND HEALTH POLICY

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About the Networking for Rural Health Project

This project is a three-year initiative of the Academy, with support from The Robert Wood Johnson Foundation. Its purpose is to strengthen the rural health care infrastructure by fostering the development of rural health networks. The project is led by Daniel Campion, M.B.A., senior manager at the Academy, and Ira Moscovice, Ph.D., director of the University of Minnesota's Rural Health Research Center. For more information, visit www.academyhealth.org.

About The Robert Wood Johnson Foundation

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INTRODUCTION

Every day brings new advances in medical science and technology. Unfortunately, the U.S. health care system is unable to translate this progress into best care practices for all Americans. Whether in rural or urban areas, in managed care or fee-for-service systems, quality problems have become pervasive.

Although a movement for quality improvement has been gathering momentum, it has rarely gone beyond urban areas. That's because urban hospitals face far more external pressures to improve health care quality. They also tend to be larger than rural hospitals and have more resources specifically earmarked for quality improvement.

One viable solution is either creating a rural health network or accessing an existing collaboration among rural hospitals. For the purposes of this document, a rural health network is defined as "a formal arrangement among rural health care providers (and possibly insurers, social service providers, and other entities) that uses the resources of more than one existing organization and specifies the objectives and methods by which various collaborative functions will be achieved." Networks can be an effective way for rural health care leaders to use limited resources to their fullest advantage.

Collaborating is a flexible option as well—it can involve partnerships solely among rural hospitals or between providers and other entities such as Medicare Peer Review Organizations/Quality Improvement Organizations (PRO/QIO), a state office of rural health, a state department of health, or a state hospital association.

"Ultimately, the rural hospitals that survive will be the ones that demonstrate that they are able to provide good quality care."

—Ira Moscovice, Ph.D., Professor, University of Minnesota, Minneapolis, Minnesota

In that light, we've identified four key quality-related areas that rural health networks can address:

1) ENSURING QUALITY IN LOCAL COMMUNITIES

Rural hospitals must demonstrate to the local community a standard of care that meets those offered by urban hospitals. In short, continued quality is the only way to counter the prevalent perception that "bigger is better." If local residents believe that the qual-

ity of care at a rural community hospital is inferior, they will seek care at the urban facility—even if they have to drive long distances to get there. Because the main drivers of quality in rural hospitals are likely to be local residents, the extent to which rural hospitals satisfy the community will determine whether a rural hospital's scope of services will grow or shrink. Moreover, the residents of rural communities have a right to high-quality health care. Therefore, motivating rural providers can also stem from a sense of professionalism and pride in doing the best for their patients and community.

2) OFFERING RELIABLE OPTIONS FOR LOCAL BUSINESSES

Improving health care quality can cause more local businesses to offer health insurance to their employees—which may in turn attract more and better workers to a community.

3) RECRUITING AND RETAINING HEALTH CARE PROFESSIONALS

Many rural hospitals face shortages of physicians, nurses, and other health care professionals. If these professionals believe that a rural hospital's care is inferior, they may be less likely to practice there. Assured high-quality care can be used as part of a rural hospital's strategy to attract and retain health care professionals.

4) ENSURING THAT RURAL AREAS ARE NOT LEFT BEHIND

Rural hospitals need to take steps to ensure that they are not left behind in the health care quality movement that is gaining momentum throughout the country. It is especially important that quality improvement initiatives and performance measures at state, regional, and national levels include the perspectives of rural providers. There are many challenges that rural community hospitals must face in mounting quality improvement initiatives. We've designed this technical assistance primer to discuss the opportunities and obstacles associated with using networks for rural hospitals to help meet these challenges.

The information for this document was obtained from a wide range of sources—from published literature to information on the Internet to discussions with rural policy experts, administrators, physicians, and others.

In addition, six individuals were interviewed in the fall of 2001 to obtain a variety of perspectives: (1) Kim Bateman, M.D., former rural medical director for Intermountain Health Care, and now associate medical director, HealthInsight, the PRO/QIO for Utah; (2) Stephen Blattner, M.D., senior consultant, Northland Health Group, Stroudwater NHG, in Maine; (3) William Golden, M.D., principal clinical coordinator, Arkansas Foundation for Medical Care, the PRO/QIO for Arkansas; (4) Ira Moscovice, Ph.D., professor, Division of Health Services Research and Policy, University of Minnesota; (5) Jon D. Rahman, M.D., vice president, Network Relationship Development, Central Indiana Health System; and (6) Tim Size, executive director, Rural Wisconsin Health Cooperative (RWHC).

WHERE DO RURAL HOSPITALS STAND?

In recent years, efforts to measure and improve the quality of U.S. health care have been gaining momentum. But up to this point, rural hospitals have been shielded from many of the external pressures to improve quality. And because of the costs and paperwork involved, many rural hospitals opt not to seek accreditation from the Joint Commission for the Accreditation of Healthcare Organizations (JCAHO) and instead choose to be regulated via state health departments.

The expansion of managed care has led a few *Fortune 500* companies to form health care purchasing coalitions and publish report cards on the quality of health plans, medical groups, and integrated care systems for their employees. In 1990, large employers and others established the National Committee for Quality Assurance (NCQA)—an independent, nonprofit organization that operates a voluntary accreditation program for managed care organizations.

But with low population density and virtually no large or medium-sized employers, rural areas have experienced relatively little penetration by managed care organizations. What's more, PRO/QIOs mainly focus on large, national urban projects because their contracts with the Centers for Medicare and Medicaid Services (CMS, formerly the Health Care Financing Administration) do not give them financial incentives to focus on rural issues.

"The energy around quality issues represents nothing less than a groundswell that health care providers will be forced to reckon with in the coming year."

—Ed Lovern, editor, Modern Healthcare

The external environment is finally starting to change. Rural hospitals can no longer remain immune to the mounting pressures for quality improvement from federal agencies, private employers, consumers, and health care professionals. Ultimately, the rural hospitals that survive are the ones that clearly demonstrate they are providing high-quality health care.

HOW TO DEFINE QUALITY IMPROVEMENT

Before a rural network embarks on activities focused on quality of care, it is essential to first define the ultimate goal—quality improvement. Traditionally, hospitals have relied on quality assurance, which involves retrospectively measuring quality in relation to a predetermined threshold. The problem with this approach is the perception that quality assurance is focused on finding violations of standards and punishing those who violate them, rather than proactively ensuring high-quality care.

> **"Patients are not getting what they need, but it is not a matter of skill or will. Doctors and nurses can't give the care they want to give. It's time for new systems. It's not about blame. It's about change."**
>
> **—Donald Berwick, M.D., M.P.P., Institute for Healthcare Improvement**

Quality improvement, in contrast, is a forward-looking process that allows health care providers to use a collaborative approach to strive for excellence. Quality improvement is based on the idea that problems in quality generally "arise not from negligence or recklessness on the part of individual workers but from the systems in which these individuals operate."

In mounting a successful effort, it is critical to create an institutional culture that values and supports a quality improvement program. This requires educating health care providers and consumers and creating a climate of trust and collaboration. The Institute for Healthcare Improvement (IHI) in Boston suggests the following four steps:

Step #1: Establish an Aim for Quality Improvement

Establishing a mutually agreed-upon aim for quality improvement is critical and can come from a variety of sources, such as critical or creative thinking within the organization or through a published study or scientific literature.

Step #2: Form a Quality Improvement Team

The composition of a quality improvement team varies depending on the aim, the system, and processes affected by the improvement. But effective quality improvement teams generally include people with the following three kinds of expertise:

A) ***System leadership*** by a person who has the authority to institute changes and overcome institutional barriers to change;

B) ***Technical expertise*** by a person who can help the team identify what to measure and how to design simple, effective measurement instruments, collect and display data, and interpret the data; and

C) ***Day-to-day leadership*** by a person who ensures that changes are being tested and data are being collected on a regular basis.

Step #3: Establish Measures of Quality Improvement

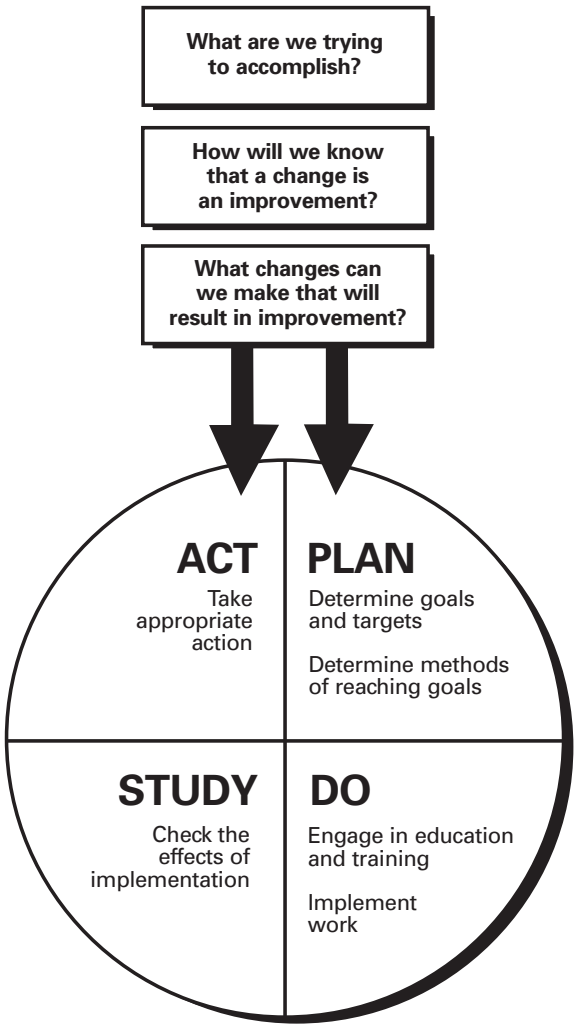
Data are often easily obtained without relying on complicated information systems. For example, several process-of-care measures scientifically shown to be linked to good outcomes were identified in the October 2000 *Journal of the American Medical Association* article "Quality of Medical Care Delivered to Medicare Beneficiaries."

One such measure is the percentage of heart attack victims who are given a beta-blocker within 24 hours of being hospitalized. It would be relatively easy for a rural hospital to collect such data. By tracking information on this or other pertinent quality measures over time, institutions could observe trends and then feed this information back into the quality improvement process.

Step #4: Develop and Test Changes

IHI's model for quality improvement in health care is depicted in Figure 1. The model includes three questions that can be asked in any order, plus a "Plan-Do-Study-Act" cycle in which a quality improvement team plans a change (e.g., applying a new treatment protocol), tries it out in a real-world setting, studies the results, and then uses the knowledge gained to refine the change and plan the next test. If a rural hospital implements a quality improvement program using a process-of-care measure that scientific evidence links to good outcomes, then extensive testing or modification of changes may not be necessary.

Figure 1. A Model for Continuous Quality Improvement in Health Care



SOURCE: Institute for Healthcare Improvement, "IHI Quality Improvement Resources: A Model for Accelerating Improvement," Boston, MA: available at www.ihi.org/resources/qi/.

HOW NETWORKING CAN IMPROVE QUALITY

Lack of resources is the single greatest challenge to quality improvement in rural health care. Although other factors may come into play as well, the limitations of staff, experience, and resources make quality improvement efforts an uphill climb. That's why creating or accessing an existing rural health network can help improve the odds of successfully implementing an improvement initiative. Networking activities can include the following:

- **A Formal Rural Health Network**
  This organizational arrangement among rural health care providers (and possibly insurers and social service providers) shares resources and agrees on specific objectives and methods. Each member of a network retains autonomy, as long as there is a prior written agreement and the members take joint action.

  A rural health network may take any of several institutional forms: an affiliation, an alliance, a consortium, or a cooperative. Horizontal networks are composed of the same types of members (e.g., hospitals); vertical networks are composed of different types (e.g., hospitals and other health care providers). Integrated health care systems, composed of doctors, hospitals, and other entities, differ from rural health networks because their members are owned by a single corporate entity.

- **Other Collaborations**
  Not all networks are formed solely as a collection of providers. A rural hospital can also partner with a Medicare PRO/QIO; a state office of rural health; a state department of health; a state hospital association; or other entity for technical assistance, financial support, or other resources.

There are many ways in which networks can help rural community hospitals undertake initiatives. We've outlined seven of the most important:

1. Developing a Culture of Quality Improvement

Mounting a quality improvement effort requires the creation of an institutional culture that facilitates and supports these efforts. This entails educating health care providers and consumers as well as creating a climate of trust and collaboration.

Rural health networks can encourage leadership development and learning by:

- Inviting people with experience to give presentations
- Sending people to conferences on quality improvement
- Offering educational sessions
- Maintaining a Web site with links to quality improvement information
- Collaborating with the state's PRO/QIO on quality improvement initiatives.

THE RURAL CONNECTION IN IDAHO: A NETWORKING SUCCESS STORY

Concerns about a nursing shortage in 1988 led The Robert Wood Johnson Foundation and Pew Charitable Trusts to jointly fund the Strengthening Hospital Nursing (SHN) project. This innovative initiative helps hospitals provide better patient care through hospital-wide restructuring that uses nursing resources optimally, improves care in a cost-effective manner, and provides satisfying services for patients. Twenty grantees were selected to receive five-year SHN implementation grants of up to $1 million each.

One of the grantees was The Rural Connection. This consortium included St. Luke's Regional Medical Center, a 252-bed hospital in Boise, Idaho, a rehabilitation hospital, three rural hospitals in Idaho, one rural hospital in Oregon, and a university. Considerable investment was made in the education, training, and empowerment of a team of people who could facilitate change.

To help the grantees acquire the tools for change, the national office of SHN sponsored educational workshops that required teams—including the CEO, the nurse executive, members of the board of trustees, a medical staff representative, and the SHN project director—to attend an educational conference and two-day workshop. The first step was to develop a five-year plan for restructuring the workplace to strengthen hospital nursing and improve patient care. Rather than concentrating on issues specific to an individual hospital, the members of the consortium began to look at broader issues.

The first consortium-wide project of The Rural Connection developed regional standards of care for patients experiencing a heart attack and requiring thrombolytic therapy to dissolve blood clots in the coronary artery. People involved in different aspects of care who had not previously collaborated—physicians, emergency medical services personnel, hospital nurses, and patient care staff at the rehabilitation hospital—were brought together to develop and implement regional standards for (1) identifying patients with chest pain who were candidates for thrombolytic therapy; (2) the timing of the administration of thrombolytic therapy; and (3) appropriate transfers and community-based follow-up care.

As of 2002, the Rural Connection network is not only still in operation, but its membership has expanded. The network has applied the same approach to improving care that was first used in the SHN project for other health conditions. Quality improvement efforts by network members have now become the norm.

RESOURCES AND TECHNICAL ASSISTANCE FROM PRO/QIOS

In some states—including Arkansas, Colorado, Iowa, Oklahoma, Minnesota, Missouri, and New York—resources and technical assistance provided by PRO/QIOs have enabled rural hospitals to implement successful quality improvement projects.

The Arkansas Foundation for Medical Care provides rural hospitals with templates for quality improvement projects and free consulting and data abstraction services. It also sponsors a free conference on quality improvement at which nurses get continuing education credits.

Iowa's PRO, the Iowa Foundation for Medical Care, provides similar technical assistance. It has developed a self-contained quality improvement toolbox–known as "Project in a Box"–which includes laminated clinical pathway cards, medical record stickers to show whether a patient has received a specific intervention (e.g., a flu shot or recommended vaccination), patient discharge instruction sheets, and other tools that hospitals can use to improve quality. Rural hospitals have found these tools easy to use and helpful in making simple, but important, system changes.

Source: William Golden, M.D., principal clinical coordinator, Arkansas Foundation for Medical Care, Little Rock, Ark.; Timothy F. Kresowik, M.D., principal clinical coordinator, Iowa Foundation for Medical Care, West Des Moines, Iowa.

2. Overcoming Fears that Quality Improvement Is Impossible

Networks and collaborative relationships with organizations such as PRO/QIOs or state hospital associations can help implement effective quality improvement initiatives that need not be burdensome.

According to Dr. William Golden of the Arkansas Foundation for Medical Care, Arkansas' PRO/QIO helps rural community hospitals overcome their fears by providing external assistance, including simple tools and data analysis.

Many PRO/QIOs employ physicians, nurses, health care quality professionals, epidemiologists, statisticians, and communication experts as useful resources for rural hospitals' quality improvement efforts. PRO/QIOs in several states offer hospitals technical support and resources that include turn-key projects, data abstraction services, and even access to a phone number for consulting.

3. Sharing Information, Expertise, and Resources

A groundwork of trust is essential for rural health networks to enhance the sharing of critical information, expertise, and resources related to quality improvement.

Upstate Health Partners is a rural health network in upstate New York that includes an academic medical center and two rural hospitals. With feedback from rural areas on how to improve day-to-day interactions, one of the hospitals—Strong Memorial—has set up a 24-hour patient transfer and consult center to facilitate patient transfers, doctor-to-doctor consults, and the exchange of information. The network is also working with the rural hospitals to improve their cardiac care and pharmacy practices.

The Upper Peninsula Health Care Network (UPHCN) is a network of 16 hospitals on Michigan's rural Upper Peninsula. In its six years of existence, UPHCN has sponsored a poison crisis network; developed a hospital home care network; established a network of cardiac servces; established a regional blood center; developed an integrated information systems network that allows its members to readily access patient information and streamline patient care delivery; established a mobile magnetic resonance imaging route; and developed teleradiology and teleconferencing networks.

4. Obtaining Education, Training, and Technical Assistance

A simple way for rural community hospitals to obtain essential education, training, and technical assistance related to quality improvement is by participating in a formal rural network or partnering with organizations such as a Medicare PRO/QIO or a state hospital association.

QUALITY IMPROVEMENT FOR CRITICAL ACCESS HOSPITALS IN MICHIGAN

In 2000, a subgroup of the Upper Peninsula Health Care Network (UPHCN) in Michigan's rural Upper Peninsula began addressing issues of quality and credentialing in Critical Access Hospitals (CAHs). Developed with a grant from the federal Office of Rural Health Policy, the new UPHCN CAH network includes six small CAHs, a tertiary care facility, and the Upper Peninsula Health Plan, which consists of Medicaid managed care providers.

The goal of the UPHCN CAH network is to "continually improve the quality and appropriateness of care while restraining administrative costs and duplication of efforts among network partners." To achieve this goal, the members of the network do the following:

- Develop and implement a collaborative, integrated quality improvement process focused on disease management of selected high-risk/high-cost/high-frequency diagnoses;
- Develop and implement clinical practice guidelines for the following identified disease states: congestive heart failure, stroke, pneumonia, acute myocardial infarction, and acute trauma;
- Continually involve providers and health care administrators in the development, acceptance, and feedback of clinical practice guidelines and quality measure results; and
- Develop and implement a regional credentialing verification service among network partners.

By the summer of 2001, the UPHCN CAH network had finished preparations for collecting baseline data on congestive heart failure. A consultant hired by the network had developed custom software for all disease monitoring. This software could potentially be used by other CAHs throughout the country.

Source: Strand, J., Upper Peninsula Health Care Network, "U.P. Health Network Services," 2002. Available at www.uphcn.org/uphcn/service.html; and Sally Davis, Marquette General Hospital, "Assuring Healthy Communities in Michigan's Upper Peninsula," grant proposal to the Office of Rural Health Policy.

The Arkansas PRO holds an annual statewide quality improvement meeting, including a recently held teleconference that was taped and sent to hospitals. According to Dr. William Golden, the Arkansas PRO expects to start offering continuing education credits for discussing and implementing quality improvement projects in the near future.

MedPAC's June 2001 report to Congress noted that rural hospitals in Oklahoma have achieved some notable quality improvements by working in collaboration with PRO/QIOs. The percentage of "ideal candidates" with a confirmed heart attack who received thrombolytics or percutaneous transluminal angioplasty within 12 hours of hospital arrival increased from 44 percent to 59 percent for small rural hospitals in Oklahoma. In addition, the percentage of "ideal candidates" with a confirmed heart attack who received daily aspirin during hospitalization increased from 78 percent to 84 percent.

5. Obtaining Financial Support for Improvement Initiatives

In addition to technical assistance, rural hospitals need financial support for quality improvement efforts. As collaborative entities, rural networks are more likely than individual institutions to be awarded grants from a variety of federal, state, county, and private sources. The Rural Information Center Health Service (RICHS) publishes numerous publications related to rural health grant opportunities from federal sources, along with a wealth of grant-seeking and grant-writing resources.

To continue their quality improvement projects over time, rural hospitals must develop alternative sources of funding. Hospitals participating in rural networks can combine their funds to undertake quality improvement efforts. At The Rural Connection, for example, dues collected from member hospitals range from about $2,000 to $33,000 a year, depending on the size of the hospital.

Nebraska recently set up a network called CAH Link that includes a tertiary care facility and six Critical Access Hospitals (CAHs). Each of the CAHs contributed $7,000 to finance the network's quality improvement projects, which include improving patient transfers, sharing best practices, revising the peer review process, standardizing credentialing for the network, and applying for grant funding for a telehealth network to facilitate communication and education.

Another possibility for some mature rural networks is to perform revenue-producing services and then use the funds to help pay for network-based quality improvement initiatives.

6. Collecting, Analyzing, and Reporting Data

One of the challenges that rural hospitals face in analyzing data is conducting studies that have statistical validity. Rural networks can help accomplish this by increasing the scale of studies, addressing volume issues, and aggregating data for groups of hospitals. The Rural Wisconsin Health Cooperative specializes in data collection for small to mid-sized hospitals, allowing them to benchmark their facilities against similar

ones. This network helps its hospital members select items to measure and then collects and analyzes the data. They use this data to evaluate their performance internally or compare their own performance to that of their peers. The cooperative similarly analyzes and reports data from patient satisfaction surveys.

7. Developing Rural Quality Indicators
Rural networks with sufficient pooled resources can develop measurable indicators of rural quality to be used for improvement efforts. By combining data from individual institutions, networks can begin to overcome the problem of low volume—which typically makes it difficult for rural hospitals to measure quality. The Rural Wisconsin Health Cooperative, for example, has developed a performance measurement system known as the RWHC Quality Indicators Program.

They began work on the system with a grant from The Robert Wood Johnson Foundation in 1988, and now specialize in data collection for small to mid-size health care organizations. This system is applicable to rural hospitals, long-term care facilities, home care agencies, and behavioral health care agencies. Hospital quality indicators are related to patient restraints, vaginal deliveries, cesarean deliveries, medication errors, unscheduled returns to the emergency room, and laparoscopic cholecystectomies.

As of early 2002, about 90 clients in 25 states were using the RWHC Quality Indicators Program. Hospitals and other organizations can transmit their data to the RWHC electronically or by other methods. The organizations receive easy-to-read quarterly reports to compare their performance with other rural-based facilities. Each organization's data are trended over time, so that clients can track changes in quality that result from specific interventions.

The fees for the RWHC Quality Indicators Program are considerably lower than those for other programs. Recently, JCAHO has accepted the RWHC Quality Indicators Program as a performance measurement system authorized for use in JCAHO's ORYX initiative, which focuses on outcome measurement as part of the accreditation process.

RURAL HOSPITALS: CHALLENGES AND OBSTACLES

When it comes to instituting programs for improved health care practices, rural community providers are generally the most in need—yet the least likely to forge ahead with plans. This paradox has created a significant obstacle for reducing the gap in quality care practices between urban and rural communities.

No one doubts that the health professionals in community rural hospitals are dedicated to providing the best possible care. However, a lack of resources and other challenges mean rural community hospitals still face many barriers in mounting and conducting quality improvement efforts. We've outlined 10 obstacles:

1. Lack of Leadership Putting Quality as Top Priority
Before any effective quality improvement plans are put in place, it is essential that organizations have leaders committed to quality improvement. Unfortunately, many rural hospitals do not currently have that leadership or organizational culture.

Senior managers are addressing competing priorities. Communities are fatalistic about problems. And corporate culture denies there are opportunities to make care better. What's more, fears of simply addressing the issue of quality may reinforce the stereotype that rural care means lower quality care. And at many rural hospitals, there may be a lack of understanding that quality improvement efforts focus on systemic remedies rather than point blame at particular individuals.

2. Feeling Overwhelmed by the Process
Small and isolated rural hospitals often do not know where to begin with quality improvement. The challenge can seem so daunting that it may seem easier to delay the entire prospect. And even if they want to, small hospitals may feel that undertaking quality improvement initiatives is beyond their already stretched capabilities.

3. A Focus on Short-Term Issues
With many rural hospitals operating on a limited budget, it may seem more important to deal with immediately pressing issues. Financial instability draws hospitals' focus to their economic woes rather than quality performance. Declining or

"A lack of institutional leadership undermines rural hospitals' ability to implement quality improvement initiatives."

—Tim Size, Executive Director, Rural Wisconsin Health Cooperative, Sauk City, Wisconsin

negative operating margins and poor access to capital make any investment difficult—especially for the less tangible nature of many quality improvement initiatives.

4. Lack of Personnel, Skills, and Experience

Because most rural community hospitals are small, they may not have personnel with experience or skills in quality improvement. With limited resources, many employees at a rural hospital are doing two or three jobs. The quality improvement point person is most likely a nurse, lab technician, or administrator—with little time or energy to commit to the effort.

In contrast, urban hospitals often have at least one full-time person with a continued focus on long-term quality improvement projects.

5. Lack of Infrastructure to Collect and Analyze Data

Once again, many rural settings lack even the most rudimentary data systems and have a limited ability to collect and analyze data. Without the resources for systematic collection and analysis of at least a minimum set of data, a quality improvement program has little chance of success. What's more, the limitation of their technical resources—such as the ability to collect electronic data and little statistical training of staff—will further hamper improvement efforts.

6. Data Problems Related to Quality Measurement

Quality measurement requires selecting items that occur frequently enough to ensure statistical reliability. A low population density means that health care providers serve relatively small numbers of patients—thus sample sizes are too small to ensure statistically valid studies.

In addition, claims data, the most readily accessible data, have substantial limitations for the purpose of measuring quality—some of which result from the lack of uniform implementation of existing coding guidelines.

7. Providers' Concerns about Objectivity and Confidentiality

Because of the insular nature of rural communities, providers are likely to have interconnected business or personal relationships. This may make their decisions related to peer review, credentialing, and other procedures lack objectivity. Help from outside sources might improve objectivity, but may not allay concerns about confidentiality.

8. A Limited Research Base

Few quality improvement research studies have been conducted in rural settings; therefore, the quality improvement data and evidence-based standards developed in urban areas are not always applicable. To allow rural providers to perform certain procedures without compromising quality, research on quality standards in settings with lower volumes is needed.

9. An Urban Bias

One of the hardest challenges for rural providers is that people are not fully informed about the unique needs of rural health care. In fact, a number of quality improvement initiatives at the national level have had limited involve-

ment of rural providers. The Leapfrog Group, for example, a nationwide consortium of employers whose goal is to initiate breakthroughs in the safety and quality of health care, has not yet addressed quality issues in rural hospitals.

PRO/QIOs are paid and evaluated by statewide outcomes and have financial disincentives to help small rural hospitals.

10. A Lack of Experience in Specific Medical Areas

For certain surgical procedures, there is evidence that low volumes are associated with poorer outcomes. These include procedures that small rural hospitals typically do not perform, such as coronary artery bypass graft/open heart surgery, total hip replacement, cardiac catheterization, and angiography. In order to reassure local communities and improve quality, rural hospitals must directly address the quality concerns related to the performance of surgical procedures completed at their facility.

WHAT'S BEING DONE TO CHANGE THINGS?

A new JCAHO accreditation program designed to meet the performance improvement needs of Critical Access Hospitals (CAHs) in rural areas was launched in December 2001. Furthermore, under an initiative known as ORYX: The Next Evolution in Accreditation, JCAHO has begun integrating performance measures into its accreditation process for hospitals and other organizations.

Small hospitals with an average daily census of less than 10 and outpatient visits of less than 150 per month are subject to modified ORYX requirements that allow them to use performance measures that are most relevant to their patient populations and strategic measurement objectives. JCAHO has accepted at least two performance measurement systems for use by small rural hospitals in ORYX.

In a recent recommendation from the Medicare Payment Advisory Commission (MedPAC), CMS has encouraged all PROs/QIOs to perform their quality improvement activities more extensively in rural areas. Rural beneficiaries are now explicitly named among the populations that PROs/QIOs can target in structuring projects to reduce health care disparities between medically underserved populations and general Medicare beneficiaries. The projects can focus on reducing systems failures for patients with cardiovascular disease and pneumonia, preventing surgical infections for patients in hospitals (including Critical Access Hospitals), and improving diabetes care, cancer screenings, or adult immunizations. The new provision takes effect as early as August 2002, as part of CMS's latest round of three-year contracts with the PROs/QIOs.

RURAL HOSPITALS: ASSETS AND ADVANTAGES

Although the challenges to creating an effective quality improvement program may seem great, rural hospitals also have many assets that they can use to their advantage.

The following assets can lead to successful networking among rural hospitals:

- **Small Scale**
  The small size of many rural community hospitals (often under 50 beds) can make quality improvement efforts easier since they generally have fewer levels of administration, less red tape, and less staff than large hospitals. This allows quicker movement in implementing and evaluating changes.

  Intermountain Health Care, an integrated health care system in Utah and Idaho, began developing and implementing a quality improvement effort related to the treatment of community-acquired pneumonia. New treatment protocols could be implemented and evaluated far more quickly in the system's rural hospitals than in its larger urban hospitals.

- **Support from the Local Community**
  Another important asset for quality improvement efforts is rural hospitals' closeness to and support from the local community. This helps facilitate collaboration and the development of initiatives tailored to the specific needs of the local community.

  The providers and consumers in a rural community generally know one another as family, friends, and neighbors and have long-standing relationships. Residents value quality and individual service and support rural hospitals in keeping services local.

"Rural hospitals' small size and closeness to the local community can be a significant advantage for quality improvement efforts."

—Tom Martin, CEO, Lincoln Hospital, Davenport, Washington

- **Access to Unique Sources of Technical Assistance and Support**
  Although in some ways rural hospitals are at a disadvantage in accessing resources, there are other sources of assistance that rural hospitals can find more easily than their urban counterparts.

  In some states, rural hospitals have turned to PRO/QIOs for technical assistance. Foundations also provide resources or support. Additional information can be obtained from the Rural Information Center Health Service (RICHS)—a joint project of the Office of Rural Health

Policy and the National Agricultural Library of the USDA.

RICHS offers numerous publications on rural health grant opportunities, performs free database searches on rural health topics, and refers users to organizaions or individuals for additional information.

- **Availability of Information through New Technology**
  Technological advances such as the Internet, teleradiology, and telemedicine make it possible for rural hospitals to have greater access to outside centers of expertise as well as to get immediate feedback.

  The Internet provides access to online sources of information such as the evidence-based clinical guidelines compiled by AHRQ at the National Guideline Clearinghouse. Telemedicine can be used to consult with medical specialists in urban areas via video links to an urban specialist hundreds of miles away. Telemedicine also includes sending X-rays, mammograms, microscopic images of tissue specimens, and electrocardiograms over the Internet from rural areas to specialists at major medical centers for help in diagnosis and therapeutic decision-making. What's more, telemedicine systems can be used for non-clinical applications such as continuing education, administrative meetings, and demonstrations to personnel.

- **Lack of External Pressures Allows for Creativity**
  Because many rural hospitals opt out of JCAHO accreditation and are not subject to the requirements of managed care organizations, they have a unique opportunity to be creative in selecting quality improvement projects that are most beneficial to their local community.

  Rural hospitals can perform community health assessments and use them to design or modify distinctive services in prevention, diagnosis, and treatment. For example, if the prevalence of heart disease is particularly high in the community, rural hospitals may want to focus their initial efforts on interventions pertaining to these ailments.

EXAMPLES OF QUALITY IMPROVEMENT PROJECTS

Given limited personnel and resources, many rural hospitals could benefit from network efforts to help focus quality improvement initiatives on issues of importance to the communities they serve. Ideally, efforts should be developed with input from local residents and by seeing what successes other rural hospitals have achieved.

The following are specific suggestions for quality improvement projects for rural hospitals:

- **Creating Projects for Leadership and Education**
  Good leadership is vital to the success of quality improvement efforts—as is a culture that values and supports these goals. By encouraging local leadership to strive for improvement and education, communities can help lay the groundwork for specific improvement projects.

  Gaining an understanding and appreciation of what quality improvement is, why projects should be implemented, and how to get started are the initial questions that local leadership may have. Therefore, reading the recent IOM reports and other materials on quality, attending conferences on quality improvement, discussing quality improvement with people who are knowledgeable, and collaborating with PRO/QIOs are excellent sources for gaining a broad understanding of the processes involved. Also, engaging patients in feedback will help build a foundation for consumer involvement.

- **Improving Processes for Credentialing and Peer Review/Quality Assurance**
  Rural hospital quality can be aided by bringing objectivity and confidentiality into the credentialing, peer review, and quality assurance process. But in a rural community, where local residents and providers all know each other, this may be difficult.

  The approach adopted by Lincoln Hospital, a Critical Access Hospital in Davenport, Iowa, is contracting with an outside facilitator to deal with credentialing and quality assurance. The Rural Wisconsin Health Cooperative has adopted a Peer Review Service that provides an objective, retrospective review of the medical/surgical management of cases. This has proven to be an effective, economic option in evaluating the quality and appropriateness of patient care.

- **Reducing Adverse Drug Events**
  Because of economic restraints, many rural hospitals cannot afford a 24-hour pharmacist on site. That's why it's

important for staff to follow a standard protocol when prescribing or administering medications.

The Institute for Safe Medication Practices is a nonprofit organization that works with health care practitioners and institutions, regulatory agencies, professional organizations, and others to provide education about adverse drug events and their prevention. It offers hospitals a medication safety self-assessment tool on its Web site (www.ismp.org).

- **Improving Referrals and Transfers**
  Quality improvement initiatives can be focused on systems that involve referrals and transfers, such as trauma transport and referral systems. Because the mortality rate from traumatic injuries in rural settings is much higher than in urban areas, the state of Utah has developed a trauma network with emergency medical services and multi-level hospitals that has greatly improved quality. This successful network shows that political arrangements that coordinate systems can improve quality by creating better referral patterns.

- **Gaining Results that Can Be Used for Marketing**
  Some rural hospitals in Utah and Idaho outperform their urban counterparts in terms of getting antibiotics to pneumonia patients. By using success stories to help lend credibility to marketing efforts, rural hospitals can expand their service throughout local communities.

- **Improving Outcomes for Medicare Beneficiaries**
  CMS recently completed a study of the quality of medical care delivered to fee-for-service Medicare beneficiaries. The study used 24 clinical process-of-care measures related to six medical conditions to evaluate the performance of Medicare fee-for-service providers in every state, Washington, D.C., and Puerto Rico.

  For all of these measures, shown in Table 1, "there is strong scientific evidence and professional consensus that the process of care either directly improves outcomes or is a necessary step in a chain of care that does so." Rural hospitals could then focus their efforts on improving their performance with respect to evidence-based clinical process measures that are relevant in their communities.

- **Adopting Practice Guidelines for Commonly Occurring Clinical Problems**
  Implementing automated practice protocols for commonly occurring clinical problems requires few resources—yet can have rapid payoffs. A pneumonia treatment guideline implemented by rural hospitals, and subsequently urban hospitals in the Intermountain Health Care system in Utah and Idaho, shows how this approach can achieve outstanding results.

  A broad range of evidence-based clinical practice guidelines is available at the National Guideline Clearinghouse Web site (www.guideline.gov).

TABLE 1

QUALITY OF CARE INDICATORS FOR MEDICARE BENEFICIARIES

Inpatient Setting	
Acute Myocardial Infarction (Heart Attack)	◆ Administration of aspirin within 24 hours of admission ◆ Aspirin prescribed at discharge ◆ Administration of beta-blocker within 24 hours of admission ◆ Beta-blocker prescribed at discharge ◆ Angiotensin-converting enzyme (ACE) inhibitor prescribed at discharge for patients with left ventricular ejection fraction <40 percent ◆ Smoking cessation counseling given during hospitalization ◆ Time to angioplasty, minutes ◆ Time to thrombolytic therapy, minutes
Heart Failure	◆ Evaluation of left ventricular ejection fraction ◆ ACE inhibitor prescribed at discharge for patients with left ventricular ejection fraction <40 percent
Stroke	◆ Warfarin prescribed for patients with atrial fibrillation ◆ Antithrombotic prescribed at discharge for patients with acute stroke or transient ischemic attack ◆ Avoidance of sublingual nifedipine for patients with acute stroke
Pneumonia	◆ Antibiotic within eight hours of arrival at hospital ◆ Antibiotic consistent with current recommendations ◆ Blood culture drawn (if done) before antibiotic given ◆ Patient screened for or given influenza vaccine ◆ Patient screened for or given pneumococcal vaccine
Any Setting	
Pneumonia	◆ Influenza immunization every year ◆ Pneumococcal immunization at least once ever
Breast Cancer	◆ Mammogram every two years
Diabetes	◆ Hemoglobin A1c at least every year ◆ Eye examination at least every two years ◆ Lipid profile at least every two years

SOURCE: Based on Jencks, S. et al., "Quality of Medical Care Delivered to Medicare Beneficiaries," *Journal of the American Medical Association*, Vol. 284, No. 13, Oct. 4, 2000, http://jama.ama-assn.org/issues/v284n13/fig_tab/joc01200_t1.html.

CONCLUSION

Across all aspects of our health care system, there are mounting pressures for quality improvement from purchasers, private employers, consumers, and health care professionals. Rural hospitals are not immune to these pressures. If they want to survive, they will have to demonstrate that they are providing good quality health care.

Rural health networks and other collaborations can help rural hospitals overcome many of the obstacles that stand in the way of quality improvement. By accessing outside resources, a rural hospital can foster the development of a culture of quality improvement, overcome fears that improvement efforts are impossible, and obtain financial support for quality initiatives.

Rural networks also ensure that national, regional, and state quality improvement efforts include a rural perspective. Additionally, rural hospitals have many assets for quality improvement initiatives including their small size, relatively uncomplicated administrative structure, closeness to the community, the availability of new information and communication technology, and access to sources of technical assistance and support.

Unless rural hospitals create an organizational culture that supports quality improvement efforts through rural health networks, change may never come. Some of the older and more successful rural health networks, including the Rural Wisconsin Health Cooperative, the Upper Peninsula Health Care Network in Michigan, and the Rural Connection in Idaho, have achieved notable successes. Less mature networks should start with relatively simple projects. One effective approach is to partner with PRO/QIOs to get quality improvement projects started.

Ultimately, it is critical that rural hospitals take steps toward developing and supporting continuous quality improvement programs. Rural hospital networks can help rural community residents have the assurance of high-quality health care.

KEY RESOURCES

REPORTS ON HEALTH CARE QUALITY

President's Advisory Commission on Consumer Protection and Quality in the Health Care Industry
This group released a report on consumer protection and health care quality in March 1998. They concluded that there are widespread quality problems in this country and made a series of recommendations.

- *Quality First: Better Health Care for All Americans* (March 1998): www.hcquality commission.gov/ and www.hcquality commission.gov/press/potus.html.

Institute of Medicine (IOM)
www.iom.edu
IOM provides authoritative information and advice concerning health and science policy to government, the corporate sector, professionals, and the public. It produces reports on a wide variety of topics. Two important IOM reports are:

- *To Err is Human: Building a Safer Health System* (1999) www.nap.edu/books/0309068371/html.

- *Crossing the Quality Chasm: A New Health System for the 21st Century* (2001) www.books.nap.edu/cataog/10027.html.

Quality Interagency Coordination Task Force (QuIC)
www.quic.gov
QuIC coordinates the activities of 12 federal agencies with respect to health care quality. They released a report on medical errors in February 2000.

- *Doing What Counts for Patient Safety: Federal Actions to Reduce Medical Errors and Their Impact* (February 2000): www.quic.gov/Report/.

Medicare Payment Advisory Commission (MedPAC)
www.medpac.gov
MedPAC is an independent federal body that advises Congress on issues affecting Medicare. The commission has 17 members and issues recommendations in reports in March and June of each year.

- MedPAC Report to the Congress: Medicare in Rural America (2001): www.medpac.gov/publications/generic_report_display.cfm?report Type id=1.

RURAL INFORMATION AND GRANT-SEEKING RESOURCES

American Academy of Family Physicians Rural Health Exchange
www.aafp.org/rural/index.html
This site has links to AAFP and outside resources related to rural health, including state, federal, and national resources and telemedicine.

National Rural Health Association
www.nrharural.org/pagefile/an.html
Headquartered in Kansas City, Mo., this nonprofit association is composed of individual and organizational members who share a common interest in rural health.

Rural Information Center Health Service (RICHS)
www.nal.usda.gov/ric/richs/ OR www.ruralhealth.hrsa.gov/richs.htm.
A joint project of the federal Office of Rural Health Policy and the National Agricultural Library, RICHS collects and disseminates information on rural health issues. It provides free customized database searches on rural health topics and funding resources, refers users to organizations or individuals for additional information, furnishes selected publications and posts funding resources, conference announcements, bibliographies, directories, and full-text documents. RICHS publishes numerous publications related to rural health grant opportunities—from federal sources and foundations. It also provides a wealth of grant-seeking and grant-writing resources.

- *Rural Information Center Health Service (RICHS) List of Rural Health Funding Resources*
  www.nal.usda.gov/ric/richs/funding.htm.

Rural Policy Research Institute (RUPRI)
www.rupri.org
RUPRI conducts policy-relevant research and facilitates public dialogue for policymakers in understanding the rural impacts of public policies and programs. It offers a comprehensive list of rural health care links and other resources.

The Foundation Center
www.fdncenter.org
The Foundation Center's Web site has a searchable database for various types of grant projects. It also offers a variety of publications for grant seekers, including a directory of private organizations that make grants and a guide to proposal writing.

STATE RESOURCES

State Health Departments
www.cdc.gov/other.htm

State Hospital Associations
www.medicalresourcesusa.com/hospassns.htm

State Offices of Rural Health
www.ruralcenter.org/nosorh/offices.html

State Rural Health Associations
www.nal.usda.gov/orhp/50sorh.htm#associations

EXAMPLES OF SUCCESSFUL RURAL NETWORKS

Rural Wisconsin Health Cooperative (RWHC)
www.rwhc.com

- RWHC Quality Indicators Program:
  www.rwhc.com/products.services/quality.html
  Tel: (800) 225-2531 Jessica Vande Hey
  E-mail: jvandehey@rwhc.com

Upper Peninsula (Michigan) Health Care Network
www.uphcn.org

- Upper Peninsula (Michigan) Network
  Jerry Messana, Executive Director
  Tel: (906) 884-4134

- Subgroup of six CAHs working to address quality, credentialing.
  Joy Strand, Director of Quality and Risk Management, CAH Network Grant, and Patient Advocate, Helen Joy Newbury Hospital, Newbury, Mich.
  Tel: (906) 293-9256
  E-mail: jstrand@hnjh.org.

The Rural Connection (Idaho/Oregon)
Connie Bryson, Rural Connection Coordinator, St. Luke's Medical Center, Boise, Idaho
Tel: (208) 893-5247
E-mail: brysonc@SLRMC.org

Upstate Health Partners (New York)
Karole Marciano, Director of Regional Development, University of Rochester Medical Center/Strong Health
Tel: (716) 275-6390 E-mail: Karol_Marciano@urmc.rochester.edu

CAH Link (Nebraska)

- Dick Waller, St. Elizabeth's Regional Medical Center, Lincoln, Neb.
  Tel: (402) 486-7320
  E-mail: dwaller@stez.org
- Dave Palm, Office of Rural Health, Nebraska Department of Health and Human Services, Lincoln, Neb.
  Tel: (402) 471-0146
  E-mail: david.palm@hhs.state.ne.us

EXAMPLES OF PROS/QIOS INVOLVED IN RURAL HOSPITAL QUALITY IMPROVEMENT

The American Health Quality Association (AHQA), the national association representing the nation's network of Medicare PRO/QIOs, supports the existing PRO contractor network in improving the quality of clinical care in rural settings. Examples of PRO/QIOs that have engaged in quality improvement with rural hospitals include:

Arkansas Foundation for Medical Care (AFMC)
www.uams.edu
Tel: (800) 272-5528

Stratis Health (Minnesota's PRO)
www.stratishealth.org/qiinitiatives/quality.html
Tel: (800) 444-3423

Iowa Foundation for Medical Care
www.ifmc.org
Tel: (800) 752-7014

Oklahoma Foundation for Medical Quality
Tel: (800) 522-3414

FEDERAL AGENCIES AND ORGANIZATIONS INVOLVED IN QUALITY IMPROVEMENT

Quality Interagency Coordination Task Force (QuIC)
www.quic.gov
Established in 1998 in response to a directive from the President, QuIC ensures that federal agencies involved in health care work in a coordinated manner to improve quality. QuIC also develops the infrastructure needed to improve the health care system. Federal agencies participating include the Departments of Health and Human Services, Labor, Defense, Veterans Affairs and Commerce. A major focus of QuIC has been medical errors.

- Doing What Counts for Patient Safety: Federal Actions to Reduce Medical Errors and Their Impact (February 2000): www.quic.gov/Report/.
- Research Agenda: Medical Errors and Patient Safety—National Summit on Medical Errors and Patient Safety Research (October 2000): www.quic.gov/summit/resagenda.htm.

Agency for Healthcare Research and Quality (AHRQ), U.S. Department of Health and Human Services
www.ahrq.gov
AHRQ coordinates, conducts, and supports research, demonstrations, and evaluations related to the measurement and improvement of health care quality. It also coordinates the activities of the 12 federal agencies participating in the Quality Interagency Coordination (QuIC) task force and sponsors the National Guideline Clearinghouse (NGC), a public resource for evidence-based clinical practice guidelines. It is the federal government's primary agency for patient safety research.

- About AHRQ: www.ahrq.gov/about/
- National Guideline Clearinghouse: www.guideline.gov/index.asp.

Centers for Medicare and Medicaid Services (CMS), U.S. Department of Health and Human Services
www.cms.gov
CMS (formerly known as the Health Care Financing Administration) administers Medicare, and in partnership with the states, administers Medicaid and the State Children's Health Insurance Program. It also oversees the Peer Review Organization/Quality Improvement Organization (PRO/QIO) program.

- CMS Quality of Care Home Page (includes information about Medicare PRO/QIOs): www.hcfa.gov/quality.
- Directory of PROs: www.hcfa.gov/quality/5b5.htm.
- Benchmark study of quality of care for Medicare beneficiaries: www.hcfa.gov/news/pr2000/pr001003.htm.

National Guideline Clearinghouse (NGC): A public resource for evidence-based clinical practice guidelines
www.guideline.gov/index.asp
The NGC, sponsored by the Agency for Healthcare Research and Quality (AHRQ) in partnership with the American Medical Association and the American Association of Health Plans, is a public resource for evidence-based clinical practice guidelines.

National Library of Medicine, National Institutes of Health, U.S. Department of Health and Human Services
www.nlm.nih.gov
The National Library of Medicine offers articles on health care via MEDLINE//PubMed, as well as various library services.

Office for the Advancement of Telehealth, Health Resources and Services Administration, U.S. Department of Health and Human Services
www.telehealth.hrsa.gov
This office promotes the use of telehealth technologies by administering telehealth grant programs and providing technical assistance.

Office of Rural Health Policy (ORHP), Health Resources and Services Administration, U.S. Department of Health and Human Services
www.ruralhealth.hrsa.gov/index.htm
ORHP helps America's rural communities build health care services by supporting state initiatives and partnerships in rural health development. ORHP also advises the U.S. Department of Health and Human Services on matters affecting rural hospitals and health care, coordinates activities relating to rural health care, and maintains a national information clearinghouse.

NATIONAL ORGANIZATIONS INVOLVED IN QUALITY IMPROVEMENT

American Health Quality Association (AHQA)
www.ahqa.org
AHQA is the national, not-for-profit membership association of independent, community-based Peer Review Organizations/Quality Improvement Organizations (PROs/QIOs).

American Heart Association
www.americanheart.org
- Fact Sheet: American Heart Association Quality Improvement Programs: www.216.185.112.5/presenter.jhtml?identifier=2417.

American Hospital Association
www.aha.org
With a section devoted to small or rural hospitals, the AHA is committed to working with members to identify and respond to patients' needs with improvements in care. The organization has developed an initiative to help members improve patient safety by reducing medication errors.
- AHA Section for Small or Rural Hospitals: www.aha.org/MemberRelations/smallrh.asp.
- AHA Quality and Patient Safety: www.aha.org/PatientSafety/Safe_home.asp.
- AHA Improving Patient Safety Initiative: www.aha.org/PatientSafety/CultureSafety.asp.
- Malcolm Baldridge Self-Assessment for Health Care Organizations: www.aha.org/PatientSafety/Baldrige.asp.

American Medical Association (AMA)
www.ama-assn.org
The AMA shares the IOM view that health care should be safe, effective, patient-centered, timely, and equitable. It is a sponsor of the National Patient Safety Foundation (NPSF) as well as the National Guideline Clearinghouse (NGC).

Consumer Coalition for Quality Health Care
www.consumers.org/new.htm
The Consumer Coalition for Quality Health Care is a nonprofit membership organization of consumer groups that seeks to ensure that the consumer viewpoint is heard in discussions that shape health care quality.

Foundation for Accountability (FACCT)
www.facct.org
A nonprofit organization that creates consumer-focused quality measures and information, supports public education about health care quality, and encourages health policy to empower consumers.

Institute for Healthcare Improvement (IHI)
www.ihi.org
IHI is an independent, nonprofit organization in Boston that seeks to accelerate improvement in health care systems by fostering collaboration, rather than competition, among health care organizations. It offers a variety of resources for quality improvement and publishes a free monthly e-newsletter on the subject.

Institute for Safe Medication Practices (ISMP)
www.ismp.org
ISMP is a nonprofit organization that works with health care practitioners and institutions, regulatory agencies, professional organizations, and others to provide education about adverse drug events and their prevention.

Joint Commission on the Accreditation of Healthcare Organizations (JCAHO)
www.jcaho.org
JCAHO is an independent, not-for-profit organization that evaluates and accredits hospitals and other health care organizations. It recently launched a new accreditation program for Critical Access Hospitals and an initiative to integrate performance measures into the accreditation process known as ORYX: The Next Evolution in Accreditation. ORYX has modified performance measurement requirements for small hospitals.

- Joint Commission Resources: www.jcrinc.com/.
- JCAHO Accreditation Information: www.jcaho.org/trkhco_frm.html.
- JCAHO Hospital Accreditation: www.jcaho.org/trkhco_frm.html.
- JCAHO's New Accreditation Process for Critical Access Hospitals: www.jcaho.org/news/nb349.html.
- ORYX: The Next Evolution in Accreditation (includes modified requirements for small hospitals): www.jcaho.org/perfmeas/oryx_qa.html and www.jcaho.org/trkhco_frm.html.
- ORYX Listed Performance Measurement Systems: www.jcaho.org/trkhco_frm.html.

The Leapfrog Group
www.leapfroggroup.org
Leapfrog is a consortium of more than 100 employers providing health benefits for more than 30 million Americans. It has initiated a plan to purchase health care from providers that meet specific quality expectations.

National Center for Quality Assurance
www.ncqa.org/about/about.htm
NCQA is an independent, nonprofit organization whose mission is to evaluate and report on the quality of the nation's managed care organizations.

National Forum for Health Care Quality Measurement and Reporting
www.qualityforum.org
This not-for-profit membership organization has broad participation from all parts of the health care system. It was created in 1999 to develop and implement a national strategy for health care quality measurement and reporting. It has a Consumer Council, a Provider and Health Plan Council, a Purchaser Council and a Research and Quality Improvement Council. It receives funding from foundations and corporations.

National Patient Safety Foundation (NPSF)
www.npsf.org
Sponsored by the American Medical Association, CAN/HealthPRO and 3M, NPSF seeks research and educational programs "to measurably improve patient safety in the delivery of health care." It works in partnership with local health care organizations to present regional forums on patient safety.

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