Developing Shared Electronic Health Records

RWHC has successfully competed for a one-year, $200,000 grant from the Agency for Healthcare Research and Quality (AHRQ) to assist healthcare entities in planning the implementation of health information technology (HIT) to promote and improve patient safety and quality. The goal of this program is to support community-wide planning processes across multiple healthcare organizations within a local or regional area; enabling the development of HIT infrastructure that provides for effective exchange of health information within the community.

It is anticipated that after a full year of planning activities, the project partners will be in a better position to compete for a three-year, $1.5 million implementation grant in fiscal year 2005. AHRQ sought applications from partnerships involving three or more organizations. To qualify for a “set a side” for rural communities, the lead partner had to be an acute care hospital and Reedsburg Area Medical Center (RAMC), an “early IT adopter,” volunteered for that role. RAMC, along with eleven other RWHC members and RWHC are partnering with the Madison Patient Safety Collaborative (MPSC) in this endeavor. MPSC includes two multi-specialty, clinic systems, a staff-model HMO, and all four Madison hospitals. The rural hospitals will serve as a bridge to dozens of rural primary care clinics as part of the planning process.

AHRQ is particularly interested in supporting community-wide collaborative partnerships that include acute care hospitals, clinics, health care providers, and other health delivery organizations (e.g., local health departments, community hospitals, university hospitals, outpatient clinics, community health centers, etc.) that will help provide effective HIT tools in diverse health care settings (e.g., ambulatory care, long-term care, home health, etc.). Through this initiative, AHRQ seeks to support collaborative planning that will result in standards-based data sharing across multiple care sites and lead to measurable and sustainable improvements in patient safety and quality of care.

Medicare Reform Must Protect Rural Access To Care

“It is absolutely critical that the Centers for Medicare & Medicaid Services strictly enforce existing requirements to assure local access to care consistent with local community patterns of care.” RWHC comments on the new Medicare Drug Benefit and the Medicare Advantage Program, 10/1/04 at <http://www.rwhc.com/new.html>.

“To solve a conflict, try saying ‘Yes, if …’ rather than ‘No, because…’ “ Anne Woodbury, Chief Health Advocate for Newt Gingrich’s Center for Health Transformation in her keynote address at the WHA 2004 Annual Conference.
**Demonstration of Need.** Over the past several decades there has been an exponential increase in the level of medical information necessary to provide the highest quality of medical care. The need to manage this information and rapidly bring it to the point-of-care has led the call for increased use of information technology in health care.

The Institute of Medicine 2000 Report “To Err is Human” highlighted patient safety as a problem and suggested the potential for information technology in meeting this challenge. Although increasingly recognized as a critical component in improving quality of care, computerized patient record systems are not widely employed in the U.S. By 2002, electronic record system use by primary care physicians was only 17%. Although many practice management software systems are available for individual practices, it is increasingly likely that physicians in the community will need to link their electronic record systems to hospitals in order for both to have access to a unified, and longitudinally complete, view of the patient’s care.

In a recent publication from The National Quality Forum it was stated, “Implementation of a coherent, interoperable technology infrastructure for healthcare information is one of the nation’s most urgent needs.” The IOM 2001 Report *Crossing the Quality Chasm* stated “[information technology] must play a central role in the redesign of the health care system.”

Rural providers are often faced with the need to provide a broad scope of practice with regards to medical condition, age, socioeconomic level, culture and gender. This occurs in an environment with far fewer specialty consultants and ancillary resources, and where a higher threshold for referral to larger centers may exist because of distance and economics. Rural patients with more significant health problems who need referrals are also likely to receive care through multiple organizations and in multiple settings. Central to this process is the need to maintain a patient record that is complete and readily accessible to all providers.

For most rural providers, the barriers to Electronic Health Records (EHR) implementation have included: the cost of purchasing and maintaining equipment, behavioral change management, and the ongoing personnel cost of supporting and developing the systems. EHR implementations are not static systems that go into place and simply tick away. They are constantly changing tools that allow a facility to adapt to new needs, regulations, JCAHO requirements and patient safety initiatives… they need to be cared for over time.

For example, point of care nurse charting and order entry requires the establishment of a team of nurses to be responsible for the setup and ongoing maintenance of all relevant functions. This team’s role, importance and workload grows with every new system update, and as a facility moves toward physician order entry, the requirements for ongoing support are multiplied. Physician order setup, order maintenance, and education are areas that may not have been addressed, and the responsibility for appropriate management of the CPOE functions cannot easily be subsumed into existing structures. This puts additional stress on rural hospitals that are already stretched to the limit in terms of staffing and resources.

Staff acceptance of new technology is another area where rural providers face challenges. Rural facilities that are about to implement EHR must understand this and identify “change agents” who will facilitate the adoption of computerized systems by coaching their peers. One key element that would support this process is statistically significant data. It is one thing to say to a nurse that computerized charting will reduce handwriting errors and allow for easy accessibility of patient information. It’s quite another thing to demonstrate that it is actually reducing those errors and helping the patient in specific and concrete ways.

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**The Rural Wisconsin Health Cooperative,**

begun in 1979, intends to be a catalyst for regional collaboration, an aggressive and creative force on behalf of rural communities and rural health. RWHC promotes the preservation and further development of a coordinated system of rural health care, which provides both quality and efficient care in settings that best meet the needs of rural residents in a manner consistent with their community values.

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If providers can be presented with data that computerized systems can improve patient outcomes, not simply anecdotally but quantifiably, then the likelihood of acceptance will be greatly enhanced.

Comprehensive EHR implementation is expensive; it has been estimated it could cost upwards of $50,000 per physician in the first year. Prevailing technology trends may reduce this figure significantly in coming years. Hospital-based EHR systems have evolved over the last 20 years from what were originally, administrative and financial management systems. There are now about 15 to 20 major corporations who produce electronic medical record systems that are enterprise wide. These systems are expensive. Despite the costs of acquisition and maintenance of EHRs, they have several advantages over traditional paper-based charts including: improved reliability in chart access, ability of multiple individuals to access the record simultaneously, the ability to integrate clinical decision support for clinicians, facilitating electronic communication between health care providers, improving data quality/completeness, providing efficient access to medical knowledge bases, and enabling population health measurements.

Even if sufficient funds are available to purchase a system, linking a wide range of providers (hospitals, clinics, tertiary centers) through a common EHR platform is extremely complex due to system offerings that vary significantly in terms of functionality and integration. There is also a lack of consensus within the health care community as to what functionality is needed from these systems. Within the group of eighteen rural and urban hospitals participating in this initiative, there is a lot of variability and disparity between hospital information systems and EHR capabilities.

Virtually all of our urban partners in this initiative are in the process of overhauling their clinical information systems and implementing CPOE, but it will be some time before it is all in place. They have all selected vendors, are putting the infrastructure in place, and initiating the various phases of upgrades. Selecting in-house information systems can be a daunting process by itself – creating the desired linkages between disparate systems can seem overwhelming.

Project Goals and Objectives. A more rational system of care can be significantly facilitated using currently available advanced information and telecommunication technology in a new process of care including electronic health records provision of health care services through these technologies is best viewed as a process involving many different people and information sources. Accordingly, it is successful and sustainable when there is a seamless merger between technological, human, and organizational factors.

As stated previously, medical errors have emerged as a national concern. Across the country, four in ten people report experiencing a medical error in their own care or that of a family member at some point in their life. Nearly six in ten are concerned about being given the wrong medication or being given two or more medicines that interact in a negative way.

Although a number of problem areas have been identified, most efforts have focused on medication ordering and administration. Computerization of prescription orders entry (CPOE), particularly if decision support functionality is included, can have a dramatic effect in reducing the rate of errors. It may follow that a EHR system that includes CPOE, if coupled with even modest decision support, can significantly benefit patient safety in the area of prescribing.

Given this information, twelve rural hospitals that are members of RWHC and seven urban hospitals/providers comprising MPSC have committed to a
partnership that would allow them to implement and integrate electronic health records or EHR systems within and between their respective facilities. Some of the rural hospitals have struggled with the basic concept of EHR, while others have already started to phase in some basic applications/modules (e.g., electronic charting, CPOE, bar coding, etc.). Those that are affiliated with larger health systems generally have more HIT resources available to them. Overall, full-scale implementation has been/will be challenging for rural hospitals due to the variety of ancillary systems (lab, radiology, pharmacy, etc.) that are difficult to integrate with an EHR platform.

The primary goal of this 12-month project is…

To assemble multiple healthcare providers within the region around Madison, Wisconsin, so they can plan for the implementation of common infrastructure for an integrated electronic health record (EHR) and computerized provider order entry (CPOE) that will enhance access to clinical data and lead to measurable and sustainable improvements in patient safety and quality of care.

The project objectives include…

1. Determine the “readiness” of the hospital partners to expand/enhance their EHR capabilities so they can be integrated with each other

2. Develop a workable model/plan for standards-based data sharing that would allow multiple providers using disparate information systems to access patient information via a common platform

3. Create a quality measurement and enhancement tool that would allow project partners to measure improvements in quality and patient care that are directly related to EHR/CPOE implementation

Most of the initial planning activities will concentrate on the twelve RWHC hospitals; assessing their readiness for EHR implementation and integration. The focus will then shift to the entire partnership—both rural and urban hospitals—as they attempt to develop common EHR infrastructure that would facilitate access to patient information and shared CPOE resources. The group is also very interested in measuring if improved outcomes result from this new technology.

This proposal is the natural extension of two successful networks, a rural cooperative and an urban collaborative, partnering with each other to address a regional priority. The long-term objectives of the partnership will be achieved through the development of viable assessment, planning and measurement tools that participants can use for individual or collaborative EHR implementation activities within 12-18 months.

U.S. Quality Agenda Neglects Excess Use

From “Practice Variations and Health Care Reform: Connecting the Dots” by John E. Wennberg. This is one of twenty related articles in a October 7th Health Affairs Web Exclusives, all of which can be found at:

http://www.healthaffairs.org/WebExclusives.php

“Several papers in this Health Affairs collection show once again that unwarranted variation—variation not explained by illness, patient preference, or the dictates of evidence-based medicine—is a ubiquitous feature of U.S. health care. As shown in several of these papers, health care systems fail to provide in full measure such simple life-saving, morbidity-sparing interventions as immunizations, diabetic glucose monitoring, and the use of drugs for those with heart attacks. Every region and every state exhibits under use of effective care, some more so than others.”

“James Weinstein and his colleagues provide further evidence that the incidence of discretionary surgery, the use of which should depend on patient preference, is unduly influenced by local physician opinion, which has resulted in striking long term variation in the risk of surgery among local regions—the ‘surgical signature’ phenomenon. Elliott Fisher and his colleagues show that among the chronically ill, the frequency of physician visits, diagnostic testing, and hospitalization and the chances of being admitted to an intensive care unit (ICU) depend largely on where patients live and the health care system they routinely use, independent of the illness they have or its severity. Katherine Baicker and her colleagues show that variation affects minority groups as it does white Americans, which clouds the interpretation of racial and ethnic disparities based on national average rates.”
“David Goodman shows that growth in aggregate supply does not ‘cure’ variations: In 1999 the per capita supply of generalist physicians varied more than twofold and that of medical specialists more than fivefold among regions. My colleagues and I document that Medicare spending varies more than twofold among regions, but more spending is not associated with better quality, as measured by reduced under use of effective care, or, surprisingly, with more major surgery. Greater per capita spending buys more intensive intervention among patients with chronic illness: Those who live in high-cost regions experience more visits to medical specialists, tests, hospitalizations, and ICU stays than their counterparts living in low-cost regions. And because of the way Medicare is financed, regions with low costs end up subsidizing a sizable proportion of the care for those living in high-cost regions.”

“The irony, as Fisher and his colleagues show, is that patients with similar chronic illnesses who live in high-cost regions, including those who receive most of their care from prominent academic medical centers (AMCs), do not have better health care outcomes than patients living in low-cost regions. In other words, the patterns of practice in managing chronic illness in low-cost regions do not appear to result in the withholding of valuable care (health care rationing); rather, systems of care serving high-cost regions are inefficient because they are wasting resources.”

Three needed reforms. “The opportunity to provide systematic remedy thus depends on three reforms. First, the quality agenda must be extended beyond effective care; the agenda should also address unwarranted variation in preference-sensitive treatments such as discretionary surgery and the overuse of physician and acute care hospital services in managing chronic illness. Second, reform of the payment system must be undertaken to enable providers to deal with the complicated and interrelated financial, organizational, and behavioral issues that need to be resolved if the quality of patient decision making is to be improved and inefficiencies and waste in the treatment of chronic illness remedied. Third, academic medical centers and the National Institutes of Health (NIH) must respond to the glaring weaknesses in the scientific basis for clinical decision making by undertaking the systematic evaluation of the everyday practices of medicine.”

“As discussed in the commentary by Paul Harrington, Section 646 of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 creates the opportunity to undertake a demonstration project to redesign health care, to address each of these barriers to progress. It asks participating provider organizations to address unwarranted variations in all three categories. It contains provisions for the reform of payment systems to promote the efforts of participating health care organizations to meet these goals. And it calls for the active involvement of the NIH and the Agency for Healthcare Research and Quality in helping participating providers undertake outcomes research to evaluate variations in their own patterns of practice and improve the scientific basis for clinical decision making.”

“I am hopeful that the provisions of Section 646 will lead to a redesign of clinical practice that will serve as a model for wide replication. Variations, however, are remarkably resistant to change. Ultimately, the opportunity for a broad-based reform is constrained by our beliefs and expectations. Our culture is embedded with a strong belief that more is better and that physicians know best. The study of practice variations uncovers a very different, more nuanced reality. Making the practice-pattern story real to Main Street would be a giant step forward in building the constituency for change.”
Mentoring Next Generation of Rural Nurses

Marquette University, in collaboration with RWHC and several health care organizations, has secured a major grant from the Department of Health and Human Services to establish the Wisconsin Nurse Residency Program—a statewide program for new graduates to promote successful transition into professional practice. “The national nursing shortage threatens the quality of America’s health care,” said HHS Secretary Tommy Thompson. “These grants will help us meet future demand for the essential health care services that nurses provide.” A report issued by HHS in 2002, Projected Supply, Demand, and Shortages of Registered Nurses: 2000-2020, predicted that the nursing shortage is expected to grow to 29 percent by 2020, compared to a 6 percent shortage in 2000. Special thanks to Marilyn Meyer Bratt, PhD, RN, at Marquette for championing this initiative in Wisconsin. The following is from a brochure describing the program to new graduates:

Program Overview.
“Transitioning from nursing school into your new role as a registered nurse can be a stressful and demanding experience. As a new graduate, you have a special opportunity to join other graduate nurses from across Wisconsin and participate in a unique program that facilitates your transition into practice. Participating in the Wisconsin Nurse Residency Program as a nurse resident, you will network with other new graduates beginning practice in various health care settings throughout the state. Begin the journey into practice with new friendships and colleagues. Expert nurses and fellow nurse residents will support you in meeting the challenges of your new role, assist you in problem solving common concerns, and build your confidence as you enter into the profession’s practice arena.”

Individualized Learning Plan. “In order to address your unique needs as a new practitioner, we will help you create an individualized plan to build your skills and develop competency. The plan will be tailored to your distinctive learning style and learning needs and outline specific activities and strategies to promote your development.”

Facilitated Learning Sessions. “In monthly all day sessions, nurse residents will engage in a highly interactive and enriching learning process. These sessions will provide you the opportunity to critically reflect on your nursing practice through a variety of learning experiences. Through such activities as journaling, case study analysis, and dialogue with advanced practice nurses and healthcare experts, you will be guided in the application of knowledge to advance your clinical judgment skills and ability to effectively problem solve. These learning sessions will address topics that new graduates frequently have difficulty mastering such as delegation, time management, and priority setting. In order to help you build competency in a focused area, the program will also promote specialty knowledge integration to provide a foundation for your eventual certification in areas such as medical-surgical nursing or operating room nursing.”

Clinical Coaches. When you enter the program, you will be assigned a clinical coach, an experienced nurse who will guide your learning and development over the 12 months. Your coach will take an active role to enhance your ability to function as a competent practitioner. Acting as a teacher, facilitator, counselor, guide, and role model, the clinical coach will help you reach your professional goals.

Program Outcomes. “At the conclusion of the program participants will have:
• Transitioned successfully to competent practitioner
• Enhanced ability to provide quality, evidenced based care
• Advanced critical thinking ability
• Improved skill in clinical decision-making
• Commitment to life-long learning
• Engagement in a clinical nurse leadership role”

For more information about the Program, contact Monica Seiler, Administrative Services Coordinator, at <mseiler@rwhc.com> or 608-643-2343.

For employment opportunities at RWHC member facilities, contact Dawn Johnson at <DJohnson@rwhc.com> or 608-643-2343. Dawn is the Healthcare Recruiter for RWHC, a collaborative program with the Wisconsin Office of Rural Health.

Obesity Hard to Cure: Prevention a Must

From “Obesity Among Mississippi’s Children” by Ginger Stevenson, PhD, & Renee Matich, MS, RD, LD, a Health Policy Fact Sheet from the Mississippi Health Policy Research Center, 12/03:

“The prevalence of obesity among children has dramatically increased since the early 1970s. The trend is continuing upward at an alarming rate. Many health professionals consider the problem of obesity to have reached epidemic proportions, contributing to a health crisis among children.”

“In general, the term obesity—an excess of body fat relative to lean muscle—is avoided when classifying children because of social stigmatization and measurement issues. Instead, children are grouped as ‘overweight’ or ‘at risk for overweight’ based on Body Mass Index (BMI), an indicator of body heaviness that correlates to some extent to body fat. Nationally, approximately 10% of children 2 to 5 years of age, 15% of children 6 to 11 years of age, and 15% of adolescents 12 to 19 years of age are overweight.”

Consequences. “The consequences of obesity are numerous. Being overweight during childhood is associated with adult morbidity and mortality. Overweight children are experiencing conditions previously considered to be chronic, obesity-related, adult diseases including orthopedic disorders, hypertension, abnormal blood lipids, and type 2 diabetes. Additionally, overweight children are more likely to be overweight or obese as adults. Adult obesity is associated with osteoarthritis, coronary heart diseases, certain cancers, hypertension, gall bladder disease, type 2 diabetes, and respiratory problems.”

“The social stigma associated with being overweight has a significant impact on psychosocial and emotional development and, potentially, on academic success. Overweight children and adolescents often have low self esteem, exhibit high levels of psychological stress, are withdrawn, are less likely to be accepted by their peers, and are more likely to smoke and drink alcohol. Furthermore, a recent study found that overweight students miss more school days than their normal-weight peers, suggesting that being overweight may hinder academic performance. Finally, overweight adolescents, especially those who are teased about their weight, are more likely to engage in unhealthy weight loss practices.”

“The economic consequences of overweight and obesity for the nation were estimated to be as much as $92.6 billion in 2002. Mississippi experiences this economic burden more than any other state. In 2001, Mississippi led the nation in rates of obesity among the general population as the only state to have more than 25% of its population classified as obese. With trends indicating increasing rates for youth, Mississippi will bear an even greater economic burden in the future.”
Contributing Factors. “Children’s diets are high in fat, sugar, and sodium, but low in certain nutrients. They are exposed to an environment in which high-calorie, low nutrient foods are heavily promoted, accessible, and convenient. Consequently, children typically do not consume enough fruits and vegetables, although their consumption of sweetened beverages and high-fat snack foods has risen. Dangerous neighborhoods, a lack of sidewalks and bike paths, fewer parks, and the elimination of physical education classes in schools are only a few of the barriers preventing healthful activity patterns. Children are increasingly occupied by sedentary activities like watching television and playing video games and, so, spending less time being physically active.”

Policies And Programs To Counter Obesity. “The obesity epidemic has a profound impact on the current and future health of our children as well as the economy of the state. Some argue childhood overweight is the result of poor parenting or personal decisions and, therefore, an individual’s responsibility. However, health behaviors of individuals are strongly influenced by social, economic, cultural, and environmental factors. Public policies and programs to prevent and manage overweight among children are being supported at the federal and state levels. The issues addressed include creating a healthier school environment by controlling the availability of foods with minimal nutritional value, setting policy on food and drink contracts, increasing physical education and activity, and improving school meals by offering fruits and non-fried vegetables.”

Conclusion. “Weight loss efforts are often unsuccessful over time. Sadly, a person has a greater chance of being cured of most forms of cancer over 5 years than an obese person has of achieving and maintaining a desirable weight for 5 years. Prevention of childhood overweight is essential for improving the overall health of our children. Promotion of healthy lifestyle changes will enable our children avoid the medical, economic, and psychosocial risks associated with overweight and obesity.”

The Fact Sheet “Preventing Obesity and Chronic Diseases Through Good Nutrition and Physical Activity” from the National Center for Chronic Disease Prevention and Health Promotion is available at: <www.cdc.gov/nccdphp/pe_factsheets/pe_pa.htm>.