



FREQUENTLY ASKED QUESTIONS

EMERGENCY DEPARTMENT LINKING PROJECT JUNE, 2007

What is health IT? *

Health IT is "health information technology" - the use of computers and computer programs to store, protect, retrieve, and transfer clinical, administrative, and financial information electronically within health care settings. Key elements of health IT include:

- Electronic health records for patients, in place of paper records.
- Secure electronic networks to deliver up-to-date records whenever and wherever the patient or clinician may need them.
- Electronic transmittal of medical test results to speed and streamline processing of those results by health care providers.
- Confidential access for consumers to their own personal health information online, as well as reliable web-based health information for consumers.
- Electronic - and more efficient - communication between patients and health care providers, and among different providers.
- Electronic prescribing of medications, treatments, and tests, to help avoid medical errors.
- Decision support systems to provide clinicians with up-to-the-minute information on best practices and treatment options.
- Electronic devices like handheld computers to make information available at the point of care.

What type of health IT is the Wisconsin Health Information Exchange (WHIE)?

WHIE is an example of a Regional Health Information Exchange (also sometimes called a Regional Health Information Organization). Health information exchange (HIE) is a secure electronic network that allows the sharing of clinical information about individual patients between authorized users in different health care organizations. The primary sponsor for WHIE is the National Institute for Medical Informatics, a Wisconsin not for profit corporation established to pursue advanced health information networking in healthcare. WHIE is governed by an advisory board with broad based representation, including multiple health care organizations, primarily hospitals and medical practices, which care for patients across southeast Wisconsin.

What is the Emergency Department Linking (ED Linking) project?

The first WHIE project will allow emergency room professionals to obtain information from area hospitals about patients who have registered for emergency care. Physicians and nurses will be able to see when and where the patient previously received care, and in some cases review past diagnoses and medication lists. This can help physicians better understand what may be causing a patient's problem and identify and avoid potential dangers like toxic drug interactions. This is especially important in cases when patients are unable to communicate with emergency department staff, or when patients suffer several chronic conditions.

In the second phase of the project, information will also be exchanged with Federally-qualified health centers who provide primary care to many patients who also utilize emergency rooms. This can help



improve coordination and communication to be sure each patient receives the care they need. In addition, the ED Linking system will allow public health departments to monitor visit statistics to detect unusually high volumes of health problems that could indicate a disease outbreak or an episode of bioterrorism.

Why do WHIE members want to share clinical information about patients?

The primary goal of health information exchange is to improve the timeliness and completeness of information available to those treating each patient. Because almost every patient receives services from professionals across multiple organizations (doctors, specialists, hospitals, pharmacists, therapists, laboratories, etc.), important information about that patient is divided among many different information systems. Connecting these systems to provide more complete information to those caring for a patient can prevent injuries from medication interactions and allergies, reduce redundant and unneeded tests and therapies, increase the efficiency of care, and ensure better follow-up and coordination of care. These are all to the benefit of the patient.

Health information exchange can also provide valuable information to public health authorities to help them detect and manage disease outbreaks and other emergencies; to programs that measure and improve the quality and safety of medical care; and to researchers who want to study solutions to stubborn health problems. Most of these use statistical information, not information that can identify individual patients. Identifiable patient information is shared only when permitted by law or authorized by the patient.

Other potential users of health information exchange include patients themselves, who may in the future use it to access test results, communicate securely and confidentially with health care providers, and play a greater role in their own care.

Who is involved with the ED Linking project?

The Milwaukee Health Partnership is a primary sponsor of the project. This partnership is comprised of all of the five major hospital systems in Milwaukee County, along with representatives from the State of Wisconsin and Milwaukee County government, Milwaukee's Federally Qualified Health Centers and the Wisconsin Hospital Association. Emergency departments from all five hospital systems will participate, including Columbia-St. Mary's, Froedtert and Community Health, Children's Hospital and Health System, Wheaton Franciscan Healthcare and Aurora Health Care. If the first phase of the project meets its intended goals, additional plans call for expansion of the project throughout southeast Wisconsin.

What are the benefits of an electronic health record? *

The electronic health record (EHR) can make complete medical information about a patient available to the clinician at the point of care, without the patient having to fill out unnecessary forms or remember the details of his or her medical history. Typically, the EHR would include information on the patient's medication and immunization history, laboratory results, radiographs, family history, and other medical history.

The EHR will play a key role in improving care for people with chronic conditions, such as diabetes or asthma, who frequently see multiple providers, including specialists. An EHR would make important information about patients available to all their clinicians, so that clinicians can coordinate care without duplicative or conflicting actions.

Ultimately, the EHR will allow clinicians to spend more time caring for their patients, instead of conducting lengthy and sometimes frustrating searches for the information they need to provide good



care. And, in a fully networked system, a patient's record would be immediately available in an emergency, no matter where the emergency occurs.

Many use the term EHR distinctly from the Electronic Medical Records (EMRs) that many health care providers use today. The EMR creates a medico-legal record of the care provided by one provider or organization. On the other hand, the EHR contains information from all of the health professionals serving a patient from across multiple organizations (obtained using Health Information Exchange).

What local health or economic benefits that might be derived from the health information exchange in Milwaukee?

Extrapolating from national studies, fully-interoperable electronic information exchange among all providers could prevent between 50 and 525 deaths and nearly \$9 million annually in medical expenses in Southeastern Wisconsin from adverse drug events and medical errors; \$94 million in redundant medical tests; \$87 million in the costs of missed opportunities to prevent illness; and over \$500 million in paper record management costs.

Since the ED Linking project is only a first step in this direction, affecting a smaller number of providers and patients, its impact is likely to be smaller. Nevertheless, since total charges from Milwaukee emergency departments are over \$350 million yearly, even fractional savings may be significant. One emergency department in Indiana observed \$26 savings per patient from avoided redundant testing after implementing multi-hospital information exchange. If this result were replicated across all Milwaukee hospitals, annual savings to patients, hospitals and insurers would exceed \$9.5 million annually. If the system can ultimately lead to decreases in the number of emergency visits and hospital admissions, savings will be much higher.

Because the ED Linking project will help health professionals better understand and manage the care needs of patients visiting the emergency department, we hope to reduce costs associated with preventable repeat ED visits. For example, over 81,000 Medicaid patients alone make multiple emergency department visits each year in Milwaukee County. Preventing visits through better information and care benefits the patients, the hospitals, and Wisconsin taxpayers.

Where will patient information come from?

Records from payment sources like Medicaid will provide some information, while other information will be obtained from each of the participating hospitals and clinics from their own electronic records.

How will confidential information be protected in the ED Linking Project?

Initially information will only be provided for patients who are registered to receive care in Emergency Departments. Emergency care providers are already authorized under state and federal law to receive medical information from other providers about their patients receiving emergency care. The Electronic Information Exchange simply replaces slow and cumbersome paper based systems with electronic systems.

Because of the sensitive nature of health information, advanced measures will be used to prevent unauthorized access. Existing record systems will be accessed only after all requirements for authorized access have been satisfied, and a complete audit trail of information access will be maintained.

Thus this project creates no new sharing of information that is not already authorized by law; is carefully designed to prevent unauthorized use; and will be closely monitored to ensure reliability and security.

Who pays for this project?



Funding comes in part from the US Centers for Medicare and Medicaid, the Wisconsin Department of Health and Family Services and from participating hospital systems. Previous support for WHIE came from the US Health Resources and Services Administration, and the Wisconsin Department of Health and Family Services.

Is this project aligned with Governor Doyle's eHealth plans?

Yes. Members of the Wisconsin Health Information Exchange have been actively involved in the development of the state roadmap for eHealth in Wisconsin and with Governor Doyle's eHealth Care Quality and Patient Safety Board. The ED Linking project is being funded in part by the Wisconsin Department of Health and Family Services. For additional information on Wisconsin state initiatives please see www.ehealthboard.dhfs.wisconsin.gov.

How can health IT improve patient involvement? *

Imagine if every person in America had their personal health record (PHR) - with their medical histories and customized health education and guidance - available to them electronically. Such a breakthrough would dramatically increase consumers' participation in their own health maintenance and care - and possibly improve their satisfaction and even their outcomes.

What are the benefits of health IT? *

Health IT is crucial for improving the quality, safety, and effectiveness of health care. When health IT elements are brought together in interconnected systems, clinicians will have access to information that is more timely and comprehensive than the current paper-based model can provide. The information will be specific to the patient being treated, and available at the point of care. This will result in better treatment decisions and fewer medical errors. Health IT will provide a new information foundation for health care that will be complete and up-to-date. Health IT also encourages active involvement by patients themselves, resulting in more patient-specific and patient-centered care.

How can health IT improve health care? *

Overall, adults in the U.S. receive only about 55 percent of recommended care for a variety of common conditions. Clinical decision support systems can help ensure that physicians and others have the most current information about the condition they are treating and are not overlooking important treatment options. These systems can provide treatment reminders at the point of care that apply to the specific patient being treated. In this way, evidence-based findings about best practices can be put into effect quickly. With health IT widely in place, researchers could also learn much more quickly about the effectiveness of new therapies, adding rapidly to the body of evidence-based medical knowledge.

How can health IT help prevent medication errors? *

An estimated 7,000 people die each year from medication errors alone. More than one in five Americans reported that they or a family member has experienced a medical or prescription drug error. One out of every 12 physician visits involving an elderly patient results in an improper medication prescription.

Yet, according to one estimate, more than 2 million adverse drug events and 190,000 hospitalizations per year could be prevented through e-prescribing, the ordering of prescriptions via computer (report by the Center for Information Technology Leadership: "The Value of Computerized Provider Order Entry in Ambulatory Settings").



E-prescribing can help physicians match the most effective therapy with the immediate needs of a specific patient, and do so at the best price for the patient. For example, when a physician enters a prescription for a patient, a computer program can double-check the medication, the dosage, and dangers from possible interactions with other drugs that the patient is taking, as well as possible allergic reactions.

Computer systems can also refer to the patient's health plan to determine drug coverage, so that the most cost-effective medication can be ordered.

How can health IT improve safety? *

Tens of thousands of Americans die in hospitals each year as a result of medical errors. In fact, medical errors are the eighth leading cause of death in this country. Health IT holds the potential to reduce medical errors dramatically by maintaining and sharing accurate patient health records, as well as providing clinicians with current information and reminders about medications, prevention, and follow-up care. Many of the projects in AHRQ's health IT initiative are testing new health IT applications with the specific purpose of improving patient safety. Similarly, a large number of research projects in AHRQ's patient safety portfolio focus on IT as a way to improve patient safety.

How can health IT improve quality? *

Health IT can improve health care quality substantially by providing timely access to health care information. Health IT systems improve the quality of care by avoiding duplication and medical errors, and they have the potential to reduce costs. Patients can be much more directly involved in maintaining their health and participating in decisions about their own care. Health care providers can collaborate more effectively in treating their patients.

In addition, health IT systems can be used to measure the care delivered in a health care facility or health plan, supporting efforts to measure and improve quality of care. Health IT-generated data can also be used to support "pay-for-performance" programs that reward providers for high-quality care. And, at the same time, information about the quality of care delivered by different providers could become more available, giving consumers more opportunity to make informed decisions about their health care, and further motivating providers to focus on quality.

Finally, health IT holds important public health implications: New technology can help to quickly identify disease outbreaks and provide data to support improvements in health care.

Why is it important for America to adopt health IT? *

Good information is at the heart of good health care. This includes complete information about the patient, as well as reliable information about the best treatment options. This information should be available quickly and accurately, when and where it is needed. Unlike other business sectors, America's health care system has been slow to adopt information technology. We still rely primarily on paper-based models that impede effective information exchange. And because most Americans receive care from multiple health care providers, it is even more important to ensure efficient, coordinated, and secure exchange of information in all sectors of the health care system.

Is health IT being used in America today? *

The potential value of health IT is well-known, yet relatively few providers so far have made significant investments in health IT. By the end of 2002, an estimated 13 percent of hospitals used electronic health records. Among physician practices, the estimate ranged from 14 to 28 percent. Small physician



practices have been especially wary of investing in IT systems, fearing both the costs and workflow changes that could affect their practices.

*** Adopted from US Agency for Healthcare Research and Quality
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