

Delivering Information Technology

Most people in the field agree that information technology (IT) has the potential to dramatically improve the quality, safety and efficiency of health care delivery in RI.

But what exactly is IT?

As it pertains to health care, IT is the integration of current and emerging information technologies to create a dynamic and interactive communication system among the many components of a provider system.

A fully developed IT system has the ca-

pability of connecting all parts of a health care organization including billing, patient registration and monitoring, electronic health records, filmless imaging, laboratory results reporting, prescription drug fulfillment, document management and much more.

And perhaps most important, the cumulative access to real time data from multiple sources will provide an unprecedented decision support resource for physicians and

all health care professionals.

RIMS will feature ongoing articles and website resources pertaining to advances in information technology as it affects physicians and health care professionals.



The Language Of Information Technology

Electronic Health Record (EHR)

Part of an automated order-entry and patient-tracking system providing real-time data access.

Computerized Provider Order Entry (CPOE)

Typically an ordering and fulfillment system. More advanced versions will include lab orders, radiology studies, procedures, discharges, transfers and referrals.

Clinical Decision Support System (CDSS)

Provides doctors nurses with real-time diagnostic and treatment recommendations.

Bar Coding

Similar to bar coding in other environments. An optical scanner is used to capture data encoded on a variety of items.

Radio Frequency Identification (RFID)

Tracks patients throughout the hospital, and links labs and medication tracking via a wireless communications system.

Automated Dispensing Machines (ADMs)

Controls distribution of medication doses

Interoperability

Refers to electronic communication among

organizations so that the data in one IT system can be incorporated into another. **Picture Archiving Communication (PACS)** Technology saves and disseminates diagnostic and radiological images from various devices including x-ray and MRI. **Electronic Materials Management (EMM)** Used to track and manage inventory of medical supplies, pharmaceuticals and other materials.

Source: MedPac Report to the Congress: New Approaches in Medicare June 2004

RIMS Interview

RI's Quality Institute steering information technology initiatives

The Quality Institute was incorporated in 2002 as an organization with a clear cut mission: to improve the quality, safety and efficiency of health care in Rhode Island. CEO Laura Adams had been a longtime faculty member with the Institute for Healthcare Improvement in Boston before being hired to help launch the Quality Institute in RI. Laura Adams talked with RIMS recently about the QI, and its role in implementing information technology in the state's health care industry.



Quality Institute CEO
Laura Adams

RIMS: Is QI a technology organization?

Laura Adams: We did not start out as an information technology organization. But, we feel very strongly that one of the fundamental elements in our mission is to move away from the current paper-based system, which makes it difficult to measure quality and effectiveness.

RIMS: Where do you see information technology having the biggest impact on Rhode Island health care in the near future?

Laura Adams: Clinical decision support is far and away the biggest gain. Doctors need the full picture of a patient's history, and the information must be electronically organized so that it can be accessed on demand. The decision support aspect will be very interactive and draw on many sources of real time data

RIMS: IT is a vast field. Where are you investing your time and resources today?

Laura Adams: We chose electronic prescribing as our first project. We began our pilot in June of 2003 with about 40 prescribers using a web-based system. The beta testing went extremely well. We saw a big reduction in the amount of clarification phone calls to doctors from the pharmacies.

RIMS: How does Rhode Island compare to other states in the

region or across the country in the use of IT in healthcare?

Laura Adams: In terms of electronic prescribing, we currently have the deepest penetration in the country of doctors connected into their pharmacies electronically. As for the overall deployment of healthcare IT, RI's size will give us a big advantage as we move forward in building the data sharing network.

RIMS: Is your work directed at physicians only?

Laura Adams: Currently, we are working with hospitals and physicians. But, eventually, all healthcare professionals in the state.

RIMS: Understanding the difficulties in getting multiple providers to agree to roles and responsibilities in a data sharing network, how do you plan to get people together?

Laura Adams: This will be the greatest challenge - getting people to agree; governance issues, who owns the data, and how the data travels around the network. These are key issues which are being mapped out and discussed with physicians in a very open forum. And, it isn't just about the technology. It is the incentive structure to help physicians use the system.

RIMS: What advice would you have for doctors who are currently looking to purchase IT-related equipment or systems?

Laura Adams: It is important that physicians understand how their equipment may (or may not) link up with the greater information exchange system. We encourage doctors to contact QI. Our clinical IT group is doing a tremendous amount of legwork - listening to physicians, and evaluating companies in the market. We are developing a short list of companies which meet the technology standards and criteria set up by the physicians.

The Quality Institute will be an important source of health care technology information and resource for RIMS members. Laura Adams invites interested physicians to contact her directly to get on the QI mailing list and clinical IT list serve for ongoing information. E-mail Laura Adams at: ladams@riqi.org.