

Fast Forward for IT in Healthcare

Everywhere you look, data is in high demand. That fact is especially true in the health care field, where information literally has the power to save lives.

At St. Joseph's Healthcare System in Paterson, NJ, information technology (IT) – the use of computers and telecommunications to store, retrieve, and transmit information – has taken on a special role. With St. Joseph's Regional Medical Center, St. Joseph's Children's Hospital, St. Joseph's Wayne Hospital, and St. Vincent's Nursing Home, all seeing expanded importance in the community, St. Joseph's has identified IT as a key to improving health care while also lowering costs.

"We've long appreciated the value and benefits of what better systems can do to optimize health care," said Jim Cavanagh, past Vice President/Chief Information Officer for St. Joseph's Healthcare System. "At St. Joseph's and across the country, the population is aging, the number of patients and patient acuity is on the rise, and outpacing the overall amount of dollars being allocated to health care. Simultaneously, there are many changes coming that will impact the way that healthcare providers are paid.

"All of this presses us to do the most possible for our patients and staff, while being as efficient as possible in terms of funding and resources," continues Cavanagh. "That's why it's especially critical for us to make sure that each piece of information for a patient is available immediately, so there's no chance of a wrong diagnosis or any unnecessary duplication of services. Having the right information at our fingertips at the time of service is the goal."

At St. Joseph's Healthcare System there are many areas where advanced IT is making a positive impact: dispensing of medication, conversion from paper-based charts to electronic, long-distance consulting (telemedicine), and – of course – billing are just a few of the procedures that St. Joseph's has upgraded recently.

But with so many priorities, knowing where to focus their energies first is an important part of the job for St. Joseph's. "When it impacts patient safety, that's when an IT solution goes to the top of the list," Cavanagh explains. "When it impacts our ability to become economically sustainable is our next consideration. From there, we pick and choose what will be best for the patient and the organization overall, as we move towards a more patient-driven methodology for healthcare. As a result, we're becoming more proactive about identifying specific conditions and symptoms – rather than trying to react to things down the line."

As an example, Cavanagh points to SJRMC's new medication administration system, which has introduced a highly effective new computerized system of bedside barcoding to the medical center. Patients wear a barcoded wristband that nurses scan along with barcodes on the medication. The computer matches the medication order with the medicine, checks the patient database to ensure the dose is appropriate for the patient, confirms that there are no allergies or other medications that could cause an adverse reaction, and raises alerts if there are any discrepancies. These additional safety checks ensure that medication errors or reactions are minimized.

Successful systems such as the bedside barcodes can only be implemented as the result of ongoing communication between St. Joseph's various personnel, who meet on a regular basis to hone new IT solutions. "We've got a very collaborative environment," confirms Cavanagh. "There are strong partnerships between our physicians, nurses, and ancillary departments

(pharmacy, imaging, lab, etc.). St. Joseph's Healthcare System has an active IT steering committee, and our Executive team meets on a weekly basis to stay on top of the priorities and challenges within the system, which allows me to be at the ready when IT solutions are needed."

The ultimate goal is to enable patients to have an informed voice in IT planning, as well. "We see that coming down the line," Cavanagh says. "For example, we're developing a patient portal that streamlines patients' access to their health record information, in much the same way that you can book a flight or manage a trip from any Web-connected device in the world. When patients can access more information online, and more easily, we believe they'll get increasingly engaged in their own care."

Once a potential IT solution is identified, however, significant challenges must often be overcome to make the dream into a reality. Ensuring patient privacy while sharing information from hospital to hospital, or state to state, is one such concern, and prohibitive cost barriers can appear at every turn.

"Implementing the ideal solution is often easier said than done," notes Cavanagh. "There can be technology roadblocks, or new standards that must be adopted before a change can take place. In addition, the medical center's IT system needs have to be prioritized along with the latest medical technology, such as a new imaging system or other upgrades to the physical plant.

"There's a long list of things to support in a medical center, and they're all competing to achieve priority status. Since funding is always a challenge, we always have to be sure an investment is

benefiting where the system is going. The technologies that will have the biggest impact on quality healthcare and patient safety are the ones that resources will be dedicated to first."

From an IT perspective, St. Joseph's Healthcare System's mission statement is strikingly uncomplicated: ensure that medical information is available as readily as possible. For Cavanagh, that means speeding St. Joseph's transition from paper-based charts to a completely electronic system.

"If everything is available from any workstation in the hospital, it cuts down drastically on the amount of time people spend waiting to get their hands on a chart so they can review and sign it," he says. "That's a big shift, but it's the core of where St. Joseph's Healthcare System is going. This will also ensure that physician's orders go into the system correctly, and cut down drastically on possible errors of data entry – what the physician intended will be extremely clear throughout the system."

With so much at stake and such high expectations, the pressure for medical professionals to excel is at an all-time high -- precisely why mastering health care information technology is so important to St. Joseph's right now.

"It's certainly a time where the stars have aligned," St. Joseph's CIO Jim Cavanagh points out. "There's a real need for health care to evolve, so it becomes more effective, more efficient, and more financially sustainable over time. Meanwhile, computers are getting faster and smaller, with better battery life and an increased capacity to hold data -- today, it's as easy to stream a movie from Netflix into your living room as it is for a physician to download and review complex

medical images, no matter where they are. The people here are taking full advantage of those technologies."

St. Joseph's Healthcare System is recognized among the nation's 2012 MOST WIRED healthcare organizations, according to the MOST WIRED Survey released in the July 2012 issue of Hospitals & Health Networks magazine. The survey is conducted in cooperation with the American Hospital Association, McKesson Corporation, and the College of Healthcare Information Management Executives (CHIME).