

INSIDE EDGE

Innovation: R&D for Healthcare Delivery

Introduction

“Innovation” is such a buzzword in healthcare today that health systems are institutionalizing it in organizational charts and job titles. Which begs the question: If innovation can be institutionalized, be part of the bureaucratic fabric, can it still be called innovation? Can it disrupt the old order in the way health systems envision?

It can. First, disruptive innovation is already occurring widely in healthcare independent of traditional health systems. Just look at the explosive growth of retail care led by non-hospital giants like Walmart, Walgreens, CVS and Target.

Second, innovation as pursued by healthcare organizations is better understood if you swap it with the term *research and development*, or *R&D*. In that sense, by creating centers of innovation and job titles like chief innovation officer and chief transformation officer, health systems in essence are establishing R&D divisions, and that’s just another way to borrow best practices from industry. Companies that invest strongly in R&D typically do better than peers because they incorporate change and innovation in their very outlook.

This issue of *Inside Edge* highlights how two leading health systems, Geisinger Health System and Marshfield Clinic Health System, incorporate IT-enabled innovation in their patient care and operational processes both for the challenging present and the transformed future.

Three buckets of innovation

Steven Strongwater, MD, chief transformation officer at Geisinger Health System, describes three areas

of focus for innovation initiatives at the Danville, Pa.-based nine-hospital system, which serves three million people in central and northeastern Pennsylvania:

- patients
- cultural transformation, and
- systems reliability.

Within the patient focus is an Open Notes initiative launched two years ago with funding from the Robert Wood Johnson Foundation that gives patients full access to their medical records via the web. More than a traditional patient portal, Open Notes brings patients to the landing page of the complete medical record, allowing them to read physician notes and other documentation the same as any provider. [Geisinger will present an SI Teleconference on its experience with Open Notes Dec. 4, 2014. SI members can register at www.scottsdaleinstitute.org.]

“The fear with Open Notes was that a patient might see something in the record and sue the doc,” says Strongwater. “That fear at this point appears unfounded. When patients see an error with medication, for example, it can greatly improve the medication reconciliation process,” an important consideration, he says, given that nearly a third of patients are ‘primary non-adherent’ with their medications, meaning they never fill their prescription in the first place.

A survey done of the pilot, which involved 24 primary care physicians and 8,700 patients at Geisinger, found similar results to an earlier study at Beth Israel Deaconess:

- 82% of patients opened at least one note
- 99% of patients wanted to continue to see their notes after 1 year
- 85% would use this in selecting doctors and health plans in the future, and
- More than a third of patients shared a note with others to clarify meanings and other clinical questions.

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Texting, texting

Another patient-focused initiative sends text messages to patient smartphones for chronic disease management. Texted reminders prompt patients to take medications and comply with therapies to manage diabetes, pain, anti-coagulation or other chronic condition, ultimately avoiding catastrophic and costly visits to the ED. Medication therapy managers use the program to communicate with patients in conjunction with other technology like digital weight scales used by CHF patients at home.



Steven Strongwater, MD,
Chief Transformation
Officer, Geisinger
Health System

GEISINGER HEALTH SYSTEM

Strongwater considers Geisinger's mobile strategy for chronic disease management as part of a larger patient-engagement strategy that has been, well, transformed by Open Notes. "The novelty is Open Notes. It was an 'aha' moment for me in how it helps engage patients in their care and lead to better outcomes. Open Notes helps providers ensure their patients are adhering to their treatment and opens an ongoing dialog with patients."

One of the ways Geisinger changes the culture of care is through its creative "bundling" of care processes. These include the organization's ProvenCare Acute and ProvenCare Chronic, standardized bundles of care designed with best practices and high reliability in mind. Among the dozen ProvenCare Acute bundles is Geisinger's well-known coronary artery bypass graft (CABG) bundle but also bundles for other conditions like COPD and total joint replacement.

They have been effective. The CABG bundle reduced length of stay (LOS) by 16 percent,

30-day readmissions by 22 percent and mortality by 67 percent. A perinatal bundle reduced primary C-sections by 32 percent, neonatal intensive care unit (NICU) admissions by 23 percent and NICU LOS by 10 percent.

Closing the loop of care

A seven-component diabetes bundle features all-or-none measures. Over the course of a three year study of patients treated with Proven Care Diabetes, 305 myocardial infarctions, 140 strokes, and 166 cases of retinopathy were prevented.

In the area of systems reliability, Geisinger has launched *care gaps* and *close-the-loop* initiatives. "If you have certain preventive measures for example, a BP screen or a lipid screen that are not being done, we call these care gaps. Another example could be a patient with known congestive heart failure who is not prescribed a beta blocker. We've identified dozens of these kinds of care gaps," he says.

In close-the-loop initiatives a patient or a provider typically is aware of a gap—an enlarged abdominal aortic aneurism, for example, that may not be part of the patient's problem list. Geisinger uses natural language processing (NLP) software to analyze x-ray reports to identify patients with such aneurisms. Care coordinators then reach out to them for further screening and potentially surgery—a process that has saved lives.

"That's a dramatic example of how close-the-loop initiatives work," says Strongwater. "A lot of close-the-loop is simpler, such as identifying people with Hepatitis B or Hepatitis C who have not been treated."

Population health over the phone

Innovation need not involve gee-whiz technology. Sometimes it's about how you use old technology like the telephone. That's the case with the Marshfield Clinic Health System in Marshfield, Wisconsin.

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As the largest private medical group practice in Wisconsin with more than 700 physicians and 50 locations serving north, central and western Wisconsin, Marshfield Clinic has long used telehealth to connect with patients across its vast rural region, and

Security Health Plan has worked with Marshfield Clinic to support the service. Marshfield Clinic's 24-hour Nurse Line, for example, enables patients of Marshfield Clinic, as well as members of Security Health Plan, to call and talk to registered nurses on duty 24/7 who triage patients to seek care in the most appropriate environment to provide the level of care needed at the least possible cost to the patient.

Nurse Line has the capability to direct-appoint into provider schedules if needed. As a result of the service, more than 50 percent of all calls result in homecare advice at no cost to the patient. In 2013, Nurse Line triaged more than 110,000 calls. The innovative twist on this telephonic triage service is Care My Way, which piggybacks on Nurse Line but is much more focused to treat specific conditions with evidence-based protocols, engage patients in their own health and treat conditions safely over the phone, adding a level of convenience for patients while also delivering care at a significant cost reduction.

Security Health Plan worked with Marshfield Clinic to develop the Care My Way service for Plan members. "Care My Way is a patient satisfier. It's about directing patients to the most appropriate and most efficient site of service for the care they need," says Mark LePage, MD, CMO for Security Health Plan of Wisconsin.

"There are many times when you're able to handle patients' needs without having that patient come into the office for a traditional office visit," says Kori Krueger, MD, medical director at the Marshfield Clinic Institute for Quality, Innovation and Patient Safety, which seeks to develop innovative ways to do traditional office-based care.

Protocols for patient engagement

"In the future," he says, "office-based care will be only one way patients receive medical care. Other options will certainly be available to patients and patients are demanding those alternatives. Care My Way is one example of how Marshfield Clinic Health System is moving to meet those needs for alternative care options. The greater vision is to expand to web- and app-based care as well."

Staffed by RNs on the front end (Nurse Line), Care My Way was launched a year ago as a service of Security Health Plan to deliver care telephonically for about 20 common, well-defined conditions such as sinus and bladder infections, flu, pertussis (whooping cough) exposure, lice, poison ivy and tick bites.

Callers covered under Security Health Plan and exhibiting one or more of these conditions are put on a work list for nurse practitioners (NPs) to call back within 30 minutes between 7 am and 9 pm seven days a week. The NPs prep for the call by reviewing the patient's EMR and triage data. On the call they use best-practice protocols to counsel patients and prescribe medications or other therapy.

More than 50 percent of the callers to Nurse Line/Care My Way can be treated without having to leave their homes through the program. The remainder may speak to an on-call provider, have a visit scheduled with their primary care provider, or be referred to the most convenient urgent care/ED when medically indicated. The Care My Way interaction is documented in the EMR, like any other medical visit.



Kori Krueger, MD,
Medical Director,
Marshfield Clinic
Institute for Quality,
Innovation & Patient
Safety

"If a patient has been triaged with upper respiratory symptoms suspicious for a sinus infection, that patient can be provided with care through Care My Way instead of having a traditional office visit," says Krueger, who is board certified in internal medicine and pediatrics and practices at a small primary care clinic as well as functioning as medical director at the Institute. Unlike

other telemedicine advice services that typically charge \$40 to \$50 upfront, he says, individual Security Health Plan members can use Care My Way up to three times a year free of charge depending on their specific benefits package. When the patient is charged for the service, the service charge (\$40) compares favorably to the cost of an office visit, which is typically more than \$100.

Conclusion

In a time of transformation in health care, connecting the dots of innovation in health care is nearly impossible. However, as innovative strategies for patient-centered, coordinated care are researched and developed by health systems, IT will surely connect those dots for us. That just may be occurring faster than we realize.



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