

Building Better Government: Health



GOVERNMENT TECHNOLOGY

SOLUTIONS FOR STATE AND LOCAL GOVERNMENT IN THE INFORMATION AGE

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Diagnosis: Success

Despite the high-profile campaign to prod the health-care world to adopt information systems that share patient data, the adoption pace isn't exactly on the fast track.

In part, the slow pace is a natural byproduct of the task's enormity. The health-care sector is mired in paper, perhaps more so than any other sector of the U.S. economy. By the end of the 1990s, according to White House data, most American industries spent approximately \$8,000 per worker for IT. The health-care industry, however, spent only \$1,000 per worker.

Erasing that gap will require a lot of hard work and money. Perhaps most importantly, formerly competitive parts of the health-care system will have to work together to solve complex health-IT problems.

It's a formula that's worked well for the Indiana Health Information Exchange (IHIE), though only after considerable effort.

The IHIE is a nonprofit created by a cross-section of Indiana health-care entities, including the Regenstrief Institute, private hospitals, local and state health departments, and BioCrossroads, a public-private entity supporting Indiana's research and corporate strengths in life sciences.

Starting Small

The IHIE's success stems from taking incremental steps, said Dr. J. Marc Overhage, president and CEO of the IHIE.

"We're not trying to boil the ocean here, and DOCS4DOCS is an example of that approach," Overhage said.

DOCS4DOCS (D4D) is one of two services the IHIE offers to physicians and hospitals. D4D is a standards-based, electronic clinical messaging service that delivers test results and other clinical information securely and efficiently. More than 25 Indiana hospitals use the fee-based service, and sends approximately 1 million messages per month to 5,000 physicians.

D4D saves millions of dollars per year for the health-care entities that use it, Overhage said, by eliminating duplicate tests ordered by hospitals and associated administrative costs.

The focus on delivering basic services to health-care practitioners is deliberate, said Overhage.

"IHIE is not trying to replace physician-practice systems," he said. "We're trying to be the grease in the middle. We're not focused on applications. We're focused on moving the data."

It's an important distinction, Overhage said, because the IHIE isn't trying to create electronic health record (EHR) software. The vision of a national health information network in which EHRs freely interoperate between hospitals and physicians' offices will take years and hundreds of billions of dollars to build, he said, and the IHIE wants to focus on solving grass-roots problems in the here and now.

"Eighty-eight percent of health care in this country is delivered by physician practices of 10 physicians or less," he said. "These are the practices least able to afford EHR software packages. In the near term, we're delivering a 'poor man's' EHR that's starting to feel like it's a fairly complete picture of what's going on with a patient."

Second Service

The other part of that complete picture is the IHIE's new service, Quality Health First (QHF), which, unlike the D4D, is available to users at no charge.

The QHF combines medical and drug claims, patient drug information, and laboratory and radiology test results with clinical data from the Regenstrief Institute's Indiana Network for Patient Care.

The idea, Overhage said, is to create a high-level, clinical database of patient-specific sets of diagnoses and preventive care procedures for doctors to help them improve the quality, safety and efficiency of patient care.

To assemble that spectrum of data, the IHIE worked with the Employers Forum of Indiana, participating payers and health-care providers in the nine-county Indianapolis area.

But that was only half of the solution. Making the QHF attractive to physicians on a business level was equally important, Overhage said, and solving that problem required a diverse group of health-care payers to agree to one set of reimbursement dollar amounts to physicians using the QHF.

"We have a large group of payers who are providing incentives to help doctors follow up," he said. "By getting alignment across all payers, we are able to provide the physicians with incentives that are quality-based, rather than by volume. These incentives are over and above normal reimbursements for medical services."

By getting this alignment, he said, the IHIE can make a strong business case for doctors to incorporate the QHF into how they manage their practices. Even better, he continued, the QHF is a tool that can appeal to a large cross-section of physicians, thereby nudging more doctors' offices into the world of modern health IT.

Local Connection

Not only do doctors benefit from increased health IT use, so do public health departments.

Public health officials can tap new sources of health information to make health policy decisions, as well as public safety decisions, said Dr. Virginia Caine, director of the Marion County, Ind., Health Department (MCHD).

Caine, who sits on the IHIE's Board of Directors, has been involved with the IHIE from its beginning. What sets the IHIE apart, she said, is its grass-roots origins. The idea came from a group of physicians who sought to improve their patients' health care by reinventing how health-care entities in the Indianapolis region work and share data.

"We had physician representation from almost every major hospital, a number of large physician groups and different specialties, and people in private practice," Caine said. "That group became known as iCare Connect."

The Health and Hospital Corporation of Marion County - which operates the MCHD and the Wishard Memorial Hospital - was asked to provide the initial seed money for iCare Connect, Caine said, and iCare Connect evolved into the IHIE. One of the next steps was convincing hospitals to use the IHIE to exchange medical data.

The MCHD played a key role in pitching the IHIE to hospitals and hospital systems, Caine recalled, by creating formal proposals for hospital executives.

"We looked at all the costs they spent with their information systems, all the faxing and materials they had to send out, and reports they had to send out for their individual departments," she said.

The basic message was simple: If a hospital used the same data system to store medical information that other hospitals in the region use, health-care providers would have more patient information than would be possible from just accessing a single information system.

Caine said those efforts started in 1999, and the process is slow going because some hospitals, though stand-alone facilities, share information connections with other hospitals.

"You've got to know which one to hit first, second, third and fourth," she said. "Each hospital has different issues. Some hospitals are on an information system that's tied in the same system as their network of hospitals. So how do you get everybody to be on the same system?"

In practice, this information sharing helps the MCHD track public-health issues, such as immunization rates in the community. Caine outlined a scenario that happens more regularly than MCHD officials would like to see:

A parent takes an infant to a health-care provider for immunizations. The next year, perhaps because of a change in health insurance, the parent switches to another hospital provider or physician, or even decides to see a public-health facility for the second series of immunizations to avoid paying out-of-pocket expenses. Unfortunately the child's immunization history isn't known to the second health-care facility, and the child starts back at square one.

This is a significant problem, Caine said.

"Because the providers are not aware these immunizations have been given, they have to start all over," she explained. "They have to start at the beginning, and that can make that child more vulnerable."

The immunizations are supposed to be delivered in a progression, Caine explained, and immunizations that start over don't do their job because it increases the window of time in which the child is vulnerable to infection.

"You're really vulnerable to something called H Influenza infections by the time you're 2 years old and over," Caine said. "There's a lot of risk of meningitis during that time frame. If you're starting your shots over and over, you don't get the protection of those shots by the time you hit that age range, so you're still susceptible to those infections."

Neutral State

Sharing health information requires more than just technology; it requires diverse, often competing, entities to agree to play their part.

The Indiana State Department of Health (ISDH) is akin to a safe haven for those groups, said Roland Gamache, director of the ISDH Health Data Center.

The ISDH's role is to expand the interoperability of health-data exchange to other areas of the state because the IHIE primarily serves central Indiana.

"Northern Indiana and southern Indiana as well want to participate," Gamache said. "So we're looking for ways to help develop interoperability within our state and also nationally as we move forward. But we're more enabling the discussion - bringing partners together - because we're a neutral convening ground for a lot of businesses that are normally competitors."

The best example of this type of collaboration is a new medical error reporting system created by the ISDH, said Joe Hunt, assistant commissioner of Public Health Systems Development and Data for the ISDH, which produced its first report in March 2007.

"We're sort of a neutral party," Hunt said. "If we hold the data, and hold it to certain standards, and then make it available to everyone under the same circumstances - that relieves the burden of reporting this data to other people from some of the hospitals. It also provides some consistency on how the data are recorded and presented."

Addressing the complicated issues surrounding health information is never a quick process, Hunt said, and when iCare Connect first started discussing the concept, hospital leaders displayed an enlightened grasp of the importance of sharing health information.

"They recognized that what we were talking about, sharing data, didn't undermine competitive factors," he said, "but through an integrated sharing of data, it can lower the cost for everybody, and they could compete on the services and the value of services they offer."