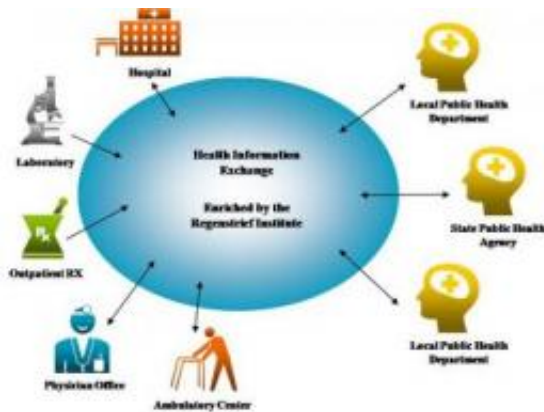


Fighting disease outbreaks with two-way health information exchange

September 21 2009



Bi-directional flow of evidence-based medical information between clinical sources and public health organizations is made possible by pioneering new public health informatics tools developed by the Regenstrief Institute. Credit: Regenstrief Institute.

Building upon four decades of research and real world operation of electronic medical records and health information exchange, Regenstrief Institute researchers have developed, tested and are now operating innovative technologies to allow for the bi-directional flow of evidence-based medical information between clinical sources and public health organizations.

A demonstration of the pioneering new tools developed by the Regenstrief Institute that make two-way exchange between healthcare

providers and public health agencies possible takes place on Capitol Hill in Washington, D.C. on September 24, 2009, from 10:00 am to 2:30 pm in the Russell Senate Office Building.

Rapid, secure two-way exchange of health information between medical care providers and public health officials is critical to dealing with [disease outbreaks](#), bioterrorism incidents, illness from food borne contaminants, and other threats. Doctors, medical laboratories, and hospitals need efficient ways to inform public health agencies about emerging risks, and public health officials need effective approaches to monitoring, detecting, and informing medical providers about outbreaks.

Regenstrief's ground-breaking Notifiable Condition Detector (NCD) uses advanced computing techniques to examine electronically reported laboratory results for the detection of notifiable conditions such as novel H1N1 influenza, sexually transmitted diseases, lead poisoning, or salmonella. The NCD, now operational in Indiana, automatically detects positive cases of indicated conditions and forwards alerts to local and state health departments for review and possible follow up. These alerts assist public health agencies to perform population health monitoring more efficiently and effectively.

To enable instant delivery of alerts from public health agencies to healthcare providers, Regenstrief researchers and technology professionals have created, with funding from the U.S. Centers for Disease Control and Prevention (CDC), a web application that interfaces with the Regenstrief DOCS4DOCS® service, operated by the Indiana Health Information Exchange (IHIE), one of the nation's most respected health information exchange organizations.

DOCS4DOCS is a clinical messaging service that delivers more than five million messages with information, such as laboratory or other test results, critical to patient care to health care providers each day

throughout much of Indiana. The public health department of the largest county by population in Indiana (Marion County) is now able to create a message and securely send that message via DOCS4DOCS to clinicians when and where they are likely to utilize the information to improve patient care rather than by much less efficient fax or mail with their delays and need to keep up with address changes.

"Our public health broadcast messaging initiative leverages Regenstrief's core standards-based health information exchange infrastructure in novel ways to improve the health of our community. By building on existing proven technology already used for clinical health care, we minimize development costs and rapidly implement technology that delivers real-world value to public health," said Shaun Grannis, M.D., Regenstrief Institute investigator and Indiana University School of Medicine assistant professor of family medicine. Dr. Grannis is the director of the new Indiana Center of Excellence in Public Health Informatics, supported by the CDC.

Source: Indiana University ([news](#) : [web](#))

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