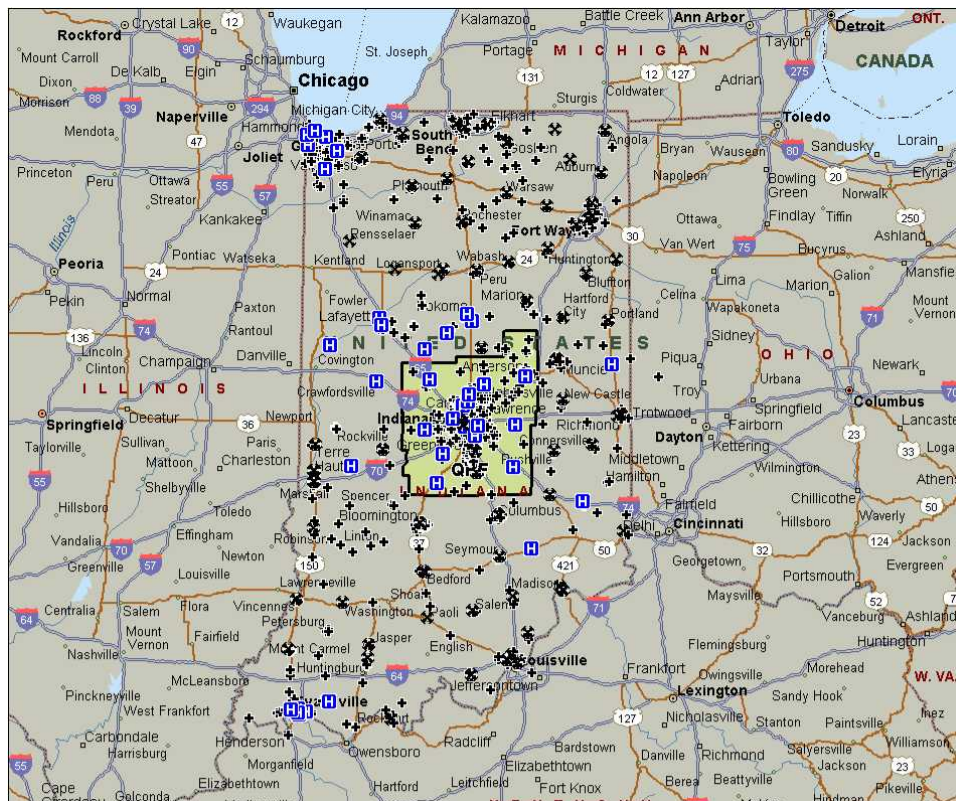


INDIANA UNIVERSITY / REGENSTRIEF INSTITUTE

Health information exchange services such as public health surveillance and clinical messaging serve the majority of Indiana residents (6.5 million patients). More extensive services, such as a shared clinical data repository and a quality improvement program serve a smaller portion of Central Indiana residents (1.7 million patients).

The health information exchange includes a broad array of participants and members including competing health systems, physician practices, public health agencies, payors, Indiana State Medicaid and researchers. The Regenstrief Institute, acting on behalf of the participants, created and operates the exchange and works with other partners, including the Indiana Health Information Exchange. The Institute is a not-for profit supporting organization of Indiana University.

Figure 1. The “H” designates hospitals, and crosses are provider practices (almost 10,000). The yellow area represents repository and quality improvement program service area.



Clinical Data Repository: Indiana Network for Patient Care (INPC)

The INPC is a 13-year old operational community-wide secure data exchange. It is a centrally managed federated clinical data repository that supports a variety of services, and is a long-term partnership among the major Indianapolis hospital systems. INPC is expanding to include the Evansville, Indiana area in 2009.

Today, it collects nearly 13 million HL7 messages per month from over 25 geographically separate hospitals, public health departments, and more than 100 clinics and imaging facilities, distributed across Indianapolis and its collar counties and continues to expand. The INPC repository carries over 1.5 billion pieces of clinical data, including 25 million text reports; over 80 million radiology images; and 750,000 EKG tracings and 16 million different patient registrations.

INPC participants deliver registration records (demographics), laboratory data, ED, inpatient and outpatient encounter data including free-text chief complaint, and coded diagnoses and procedures (including length of stay) for hospital admissions and emergency room visits. The information in the INPC follows the patient, not the physician or a specific health system, so physicians can view a patient's previous care information from all participating institutions as a single virtual record. The INPC serves as the backbone for a number of other services used in Indiana:

Public Health Electronic Syndromic Surveillance (PHESS) – Indiana passed a law to require hospitals with emergency departments to electronically provide a certain core set of data elements to the Indiana State Department of Health (ISDH) on a real-time or near real-time basis, such as chief complaint. Currently, Regenstrief connects to 76 hospitals (via the INPC) out of 114 in the state. Regenstrief sends ED chief complaint information from over 6,000 ED encounters to ISDH daily to monitor public health events, disease outbreaks, and bioterrorism.

Clinical Messaging: DOCS4DOCS® service (D4D) – This system, run by the Indiana Health Information Exchange in conjunction with Regenstrief, delivers laboratory and other clinical results from the participating data sources (e.g., a hospital's lab), to the intended responsible provider. The results can also be transmitted via HL7 directly to a practice's EMR system or via fax. D4D service delivers electronic copies of discharge summaries, operative notes, EKGs, and radiology reports from over 35 hospitals in Indiana, and more are being added. Over 36 million messages have been delivered to nearly 10,000 physicians throughout the state.

Quality Improvement: Quality Health First® program (QHF) – The QHF program is run by the Indiana Health Information Exchange, Inc. in conjunction with Regenstrief. It builds upon the INPC system by providing physicians with disease management and preventive health summaries to help them track their patients with chronic illnesses and take steps to proactively care for them. Participating health insurers provide financial incentives to physicians.

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