

Project Title:	Delaware Health Information Network (DHIN) State and Regional Demonstration Project
Principal Investigator:	Perez, Gina B., M.P.A.
Organization:	Delaware Health Information Network (DHIN)
Contract Number:	290-05-0012
Project Period:	9/05 – 9/10
AHRQ Funding Amount:	\$5,000,000
Summary Status as of:	December 2008

Strategic Goal: To develop and disseminate health IT evidence and evidence-based tools to support patient-centered care, the coordination of care across transitions in care settings, and the use of electronic exchange of health information to improve quality of care.

Business Goal: Implementation and Use

Summary: The Delaware Health Information Network (DHIN) is one of six AHRQ-sponsored State and regional demonstration (SRD) projects begun in late 2004 early 2005 to create non-profit health information exchange (HIE). Each of the SRDs is developed using a variety of approaches (e.g., technical, business, and governance models) in order to support data sharing and interoperability on a State or regional level; conduct analyses of the role of the Medicaid program; provide an evaluation of their project; and develop a sustainability model. The DHIN’s goal is to implement a real-time, electronic method for health care providers to receive and query appropriate health-related information for their patients. The DHIN is a statewide public/private partnership that received AHRQ funding in October 2005. Partners include consumers, physicians, hospitals, businesses, payers, and reference labs. The DHIN exchanges data among hospitals, reference laboratories, and physicians practices statewide.

The DHIN’s Public-Private Board of Directors comprises diverse organizations all representing the primary stakeholders of HIE. They include the Delaware Healthcare Association; the Medical Society of Delaware; Blue Cross Blue Shield of Delaware; Delaware Physicians Care, Inc.; Delaware State agencies such as the Delaware Health Care Commission, the Department of Insurance, the Department of Technology and Information, the Division of Public Health, and the Office of Management and Budget; the Delaware State Chamber of Commerce; large employers; and the University of Delaware.

The DHIN went live on May 1, 2007, becoming the first operational statewide clinical health information exchange.

Specific Aims

- Improve the care received by patients served by Delaware’s health care system, and reduce medical errors associated with the inaccurate and incomplete information available to providers of medical care. **(Ongoing)**
- Reduce the time and financial costs of HIE among providers and payers (necessary for patient care), by reducing the complexity of current distribution methods and drastically increasing use of electronic means. **(Ongoing)**
- Improve communication among health care providers and their patients to provide the right care at the right time based on the best available information. **(Ongoing)**
- Reduce the number of duplicative tests to afford specialists a better understanding of the patient upon referral from his/her primary physician and to expedite the reporting of consultant opinions and tests/treatments between specialists and the referring physicians. **(Ongoing)**

- Improve the efficiency and value of electronic health record (EHR) systems in the physician office and to assist physicians without an EHR in better organizing and retrieving test results. **(Ongoing)**

2008 Activities: Physician practices receive clinical results via two options: electronic inbox (which can be set to auto print) or interface to an EHR system. The DHIN is connected to six EHR vendors. By May 2008, the DHIN had achieved 100 percent interoperability among its core data receivers (55 core practices), 80 percent interoperability among its core data senders, and 25 percent interoperability of its core data elements. The DHIN plans to reach 100 percent by June 2009.

Other activities have included negotiating discounted interface contracts with EMR vendors to connect to the DHIN. Currently, six EMR vendors are connected to the DHIN or are in test, serving 158 physicians at 38 locations. The DHIN is beta testing its patient record search capability, including community master patient index (CMPI) and record locator service (RLS). Authorized users are able to query a patient's reports and results available in the DHIN.

The DHIN also provides for the electronic reporting of biosurveillance and reportable disease data from the connected hospital systems to the Division of Public Health's electronic reporting and surveillance system.

The DHIN was asked to continue its participation in Phase II of the Department of Health and Human Services (DHHS) Office of the National Coordinator (ONC)-funded National Health Information Network (NHIN) project. Having received funding a year after the other SRDs, the DHIN recently submitted its final evaluation plan to AHRQ and is working on its sustainability plan.

As of December 2008, the DHIN had 93 physician practices connected to the system (593 physicians and over 1,500 total users). The three DHIN participating hospital systems and LabCorp contribute more than 85 percent of laboratory tests and 81 percent of hospital admissions performed in the State of Delaware. Doctors Pathology Services, Quest Diagnostics, and St. Francis Hospital joined the DHIN in 2008 and are in varying stages of implementation.

DHIN expects to reach 50 percent of the State's practicing physicians by July 2009.

In 2009, the DHIN will offer fulfilled medication history query, transcribed reports (discharge summary, history and physicals, operative notes, etc.), electronic laboratory and radiology order capabilities, radiology image viewing, and bi-directional exchange with EHRs for lab order entry. In a future phase, the network will empower patients by introducing a patient portal that will enable consumers to access their health information and manage their care.

Preliminary Impact and Findings: An evaluation will begin in July 2009 to understand the value and benefit of the DHIN for each stakeholder group, including physician practices, hospitals, laboratories, payers, consumers, and State agencies. The evaluation will look at how the DHIN impacts efficiency, patient safety, and health care costs. To date, participating hospitals have determined that public health reporting through the DHIN saves time and resources. Anecdotally, the DHIN has been credited with improving workflow efficiencies in doctors' offices—in some cases reducing FTEs and redirecting personnel from administrative functions to patient care services.

Selected Outputs

In January and July 2008, this HIE participated in two in-person meetings with fellow AHRQ-sponsored SRDs to share lessons learned, share general information, and plan for upcoming project-specific deliverables such as plans for evaluation and developing a sustainability plan.

In late 2008 and onward, this HIE contributed to the AHRQ-sponsored manuscript entitled, *Liability for Regional Health Information Organizations: Lessons from the AHRQ-Funded State and Regional Demonstration Projects and Other Community Efforts*, [available online](http://www.healthit.ahrq.gov) at <http://www.healthit.ahrq.gov>.

Please see DHIN's Web site, <http://www.dhin.org/>.