Health Information Exchange:
Better Communication for Better Healthcare

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DHIN: Our Story

1997
- Legislation established DHIN under DE Healthcare Commission

2005
- AHRQ Implementation Contract ($4.7 M) awarded

2007
- May 2007 Became operational with Results Delivery
- Data senders – 3 hospitals + Lab Corp
- Data receivers - 5 physician practices

2010
- Enabling legislation amended; DHIN is “an independent not-for-profit public instrumentality”

2011
- New board, new management team

2012
- Explosive growth in participation and functionality
- Financial sustainability achieved
DHIN’s Core Services:
Results Delivery and The Community Health Record

Data Senders

Community Health Record (can be queried)

Aggregates all known data about each patient
- Lab results
- Radiology reports
- Pathology reports
- Hospital ADTs
- Transcribed reports
- +/- Medication history

Results Delivery

Auto-print
or
Populate EMR (interface)
or
View data via in-box on web portal
Growth of DHIN: Provider Adoption
(as a percent of Delaware healthcare ordering providers – Dec 2012)
Current Membership in DHIN
(as of Oct 2013)

Hospitals (100% + 2 out of state)
- All DE acute care hosp
- Atlantic General (MD)
- Union Hospital (MD)

Labs (~99% of results)
- Lab Corp
- Quest
- Drs Pathology Svcs
- Accu Reference Labs
- Med Labs Diagnostics (NJ)
- Mercy Diagnostic Labs (NJ)
- Public Health Lab

Radiology Groups
- (~95% of studies)

Health Plans (~43% of DE residents)
- Medicaid
- State Employees
- Highmark BCBS DE

CRISP (Maryland State HIE)

Pharmacies (IZ update)
- CVS
- Walmart
- Sav-On
- Walgreens
- Target

Providers (~98%)
- FQHCs (100%)

Skilled Nursing (100%)
- Assisted Living (80%)
- Home Health (4)
- Hospice (3)

Division of Public Health

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Adoption & Relevance: Other Views

DHIN-Facilitated Immunization Reporting

Event Notifications/Alerts

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Independent Third Party Evaluation from 2009-2011 showed…

**Data Senders** (hospitals, labs, etc)
Over $2 million savings in costs of results delivery to providers who utilize DHIN

**Providers/Practices**
Estimated savings in EHR interface implementation costs of between $18,500 and $28,500 by each practice

**Payers/Health Plans**
Estimated 30-33% reduction in redundant ordering of high cost labs and radiology studies over 2 years
  - $6.5M savings based on Medicare reimbursement rates

**Public Health**
Real world outbreak of H1N1 flu detected in near real time

**Patients**
Numerous anecdotal reports

NOTE – “Meaningful Use” incentives not included in this analysis
Humana study in Wisconsin showed average cost of insured patients’ ER visits reduced by $29 when HIE was queried – a more than 2:1 ROI

- Primary factor influencing reduction in cost believed to be the avoidance of redundant diagnostic testing
- Use of HIE also associated with reductions in inpatient days and length of stay of patients not admitted through the ER (a corollary effect of the use of HIE)

HIE Stages of Development

Stage 1: Starting
• Recognition of the need for health information exchange among multiple stakeholders in your state, region or community.

Stage 2: Organizing
• Getting organized; defining shared vision, goals, and objectives; identifying funding sources, setting up legal and governance structures.

Stage 3: Planning
• Transferring vision, goals and objectives to tactics and business plan; defining your needs and requirements; securing funding.

Stage 4: Piloting
• Well under way with implementation—technical, financial and legal.

Stage 5: Operating
• Fully operational health information organization; transmitting data that is being used by healthcare stakeholders.

Stage 6: Sustaining
• Fully operational health information organization; transmitting data that is being used by healthcare stakeholders and have a sustainable business model.

Stage 7: Innovating
• Sustainable and fully operational health information organization. Demonstration of expansion of organization to provide value-add services, such as advanced analytics, quality reporting, clinical decision support, PACs reporting, EMS services.

Advanced HIEs

We are here:

Source: eHealth Initiative 2011 Report on Health Information Exchange – Sustainability Report
“The Once and Future DHIN”

**Current Development**

- Immunization reporting
- Event notification (health plans and practices)
- Care summary exchange
- Image viewing
- Newborn screening

**Future Development**

- Consumer-facing tools
- Expanded provider portal (payer-provider communications)
- All Payer Claims Database
- Clinical Quality Measure reporting
- Medical device data
- Analytics tools for population views and clinical research
Current Challenges

- Vendor capacity for added workload
- Sources of capital for future expansion (life after HITECH)
- HIPAA Omnibus – all participants are “spooked”
- Data ownership – much concern about secondary uses of data
- Framework for evaluation and selection of new opportunities and partnerships
Finishing the Puzzle…

If it were easy, anyone could do it!