Case Study: Public Health Use of HIE

Enabling Community-Based Care in Southeast Minnesota

While healthcare providers are receiving CMS incentive funding for electronic health record (EHR) adoption and information exchange, most community partners – like health departments, mental health agencies and school nurses – are not. The SE Minnesota BEACON demonstration project sought transformation from a provider-centric model to one that is patient-driven and incorporates community partners, partly by finding technological solutions to this mismatch.

Leveraging Infrastructure Across Multiple Needs

Providers in the SE Minnesota region can request and send Continuity of Care Documents (CCDs) with patient consent, using standards-based, secure CONNECT protocols across a peer-to-peer network. This helps important clinical information to “follow the patient,” while creating a foundational community of practice in which stakeholders can create new systems of information exchange leveraging shared data exchange agreements, standards and protocols.

Infrastructure built for the CCD exchange – governance, technology, data use agreements and patient consent management – was further leveraged to create the Transitions of Care (TOC) system. TOC notifies public health, mental health and social service case managers when a participating hospital admits a member on their caseload. These case managers can then collaborate with inpatient staff on discharge planning and outpatient health needs.

Clinical Data Repository

The project also created a Clinical Data Repository (CDR) of standardized EHR patient summary data using Admission, Discharge and Transfer (ADT) and clinical data feeds. Public health providers were going to view patient data as authorized using either a specialized public health EHR or human-readable versions on a secure portal.

The repository was also intended for use in community health assessment, research and public health surveillance (like heat-wave associated illness) when appropriately authorized by a standard statewide research authorization signed by the patient. Unfortunately, these plans could not be achieved because their complexity exceeded available funding and the architectural capabilities of the CDR platform.

Working with Schools

A “cocoon of asthma care” enables school nursing personnel, utilizing a secure portal, to:

- review children’s Asthma Action Plans – documents that define triggers for early asthma intervention;
- review children’s immunization records; and
- communicate clinically relevant incidents and needs to a child’s healthcare provider using secure and confidential email.
These activities are enabled by prior parent consent. School personnel, clinicians, parents and children thus remain on the same page regarding personalized care plans. The portal supports population health management by providing school-level registry views at each school.

**Achieving Synergistic Community Care**

A more elaborate system of “synergistic community care” supports a higher degree of shared decision-making between patients with diabetes and their healthcare providers. Patients report quality of life concerns securely online, and can participate in choosing medications with their providers.

Evaluations of these projects are currently (June 2014) in process.

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| **Informants**| Dan Jensen, Olmsted County Public Health  
Christopher Chute and Lacey Hart, Mayo Clinic |
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