Successful Implementation of a Community Health Information Exchange

This factsheet is based on the experience of San Diego Health Connect (SDHC) and offers recommendations and lessons learned for those considering or implementing a community health information exchange (HIE).

1: Select a technical architecture that supports long-term goals.

The three main types of HIE architecture are:

- Federated (decentralized) model: Interconnected databases allow for data sharing and exchange, and enable users to access information only when needed through query and response. The information is stored within providers’ systems rather than centrally.
- Repository (centralized) model: Patient data are collected and stored in a central repository, data warehouse, or other database(s).
- Hybrid model: Federated and repository architectures are combined to capitalize on the strengths of both models.

Key Lesson Learned

A centralized data repository keeps normalized, standardized information more readily available to users compared to a federated model. An alternative would utilize a hybrid model with as much data as possible stored in a central repository.

2: Establish workgroups to enhance communication, collaboration and problem-solving.

Key Lesson Learned

Regardless of the workgroup structure, members must be able to communicate issues and accomplishments, and have a process for relaying that information to their Board. Workgroups are effective mechanisms for developing supported community-based standards.

3: Use a community-wide “opt-out” consent model to increase access to patient information.

The different consent models include:

- Opt-in: No patient data are available for electronic exchange until patients actively consent to share their data.
- Opt-out: Patient data are automatically added to the HIE unless patients indicate they do not want to participate, in which case their data are removed.
- Source patient consent: Every organization responsible for patient data provides a separate consent form, and only organizations that have obtained a patient’s consent can share their information with the HIE.
- Community-wide patient consent: A multi-provider consent allows all the patient’s providers in the HIE to access their information.

Key Lesson Learned

To assure the highest HIE adoption and utilization rates possible, HIEs should start with an opt-out, community-wide patient consent model.
4: Improve patient matching by being vigilant about data quality, establishing a strong master patient index (MPI) and record locator service (RLS), and working with a patient matching management company.

Key Lesson Learned
One way to increase accuracy in patient matching is to use an identity referential matching management company.

5: Leverage patient matching capability with community partners.

Key Lesson Learned
Patient matching is an integral – but often costly – function of an HIE. When possible, look to leverage the HIE’s patient matching capability with community partners.

6: Know your region’s community information technology assets and build trust with potential partners

Key Lesson Learned
As community information technology assets continually evolve, healthcare organizations should be open to opportunities for different interoperability schemes. This would include the ability for disparate HIEs to connect and share information to improve patient care.

7: Help healthcare providers achieve Meaningful Use; establish electronic transmission of reportable events to the County Public Health Department.

Key Lesson Learned
Submitting electronic data to the County Public Health Department via the HIE improves public health responsiveness and helps participant organizations meet Meaningful Use requirements for immunization records, reportable lab studies, and syndromic surveillance. This will also provide a foundation for greater public health to primary care communications.

8: When working with community partners on population health, start small with a defined condition or population.

Key Lesson Learned
An incremental, collaborative approach makes it possible to design an HIE plan that is achievable while leaving room to identify challenges and solve them on a smaller scale.