An Update on HIE in California

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What is he talking about?

Definition

**Health Information Exchange (HIE)**

The electronic movement of health-related information among organizations according to nationally recognized standards.

– Office of the National Coordinator

Emerging effort to transform to access:
1. through lightweight FHIR standard, or
2. through “data access framework” (DAF).

*Something to watch for...*
What is he talking about?

**Definition**  
**Interoperability**

The ability of two or more systems or components to exchange information and to use the information that has been exchanged.

– *IEEE Standard Computer Dictionary*

Systems...

1. must **exchange information**, and
2. must be able to **use the information** that they exchange.

*Perhaps a bit pedantic...*
What is he talking about?

– Context for HIE (nationally and locally)
– Progress in California
– Innovation in California
  – Behavioral Health
  – Patient-Mediated Exchange
– Next Steps
Meaningful Use

**Stage 1** → capture structured information in EHRs

**Stage 2** → exchange structured information among providers and patients

**Stage 3** → improve outcomes through analytics

*Sounds like HIE and interoperability.*
Requirements for Meaningful Use

1. Computerized provider order entry
2. e-Prescribing
3. Record demographics
4. Record vitals
5. Record smoking status
6. Use clinical decision support
7. Patients view, download, transmit
8. Clinical summaries to patients
9. Protect electronic health information
10. Incorporate lab results
11. Generate patient lists
12. Reminders for follow-up care
13. Patient educational resources
14. Medication reconciliation
15. Transmit care summaries for transitions of care
16. Report immunizations
17. Secure messaging with patients
18. Report syndromic data
19. Record electronic notes
20. Imaging results
21. Record family history
22. Report cancer cases
23. Report other registry cases
HIE requirements for Meaningful Use

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20. Imaging results
21. Record family history
22. Report cancer cases
23. Report other registry cases
...plus menu items...
Really?

**No.** *Meaningful Use is not about health information exchange. Meaningful Use is about EHRs.*

– Health information exchange is about getting the right data to the right place at the right time.

– Health information exchange is about making informed decisions.
So what have we done?
What we know (or think)...

**Assumptions / Facts**

– Care is delivered locally.

– Different environments will have different information needs.

– Different exchange models are emerging.

– There is no new money.
What has been our strategy?

- Promote community / enterprise activities.
- Promote exchange among communities / enterprises.
- Make centralized infrastructure as light-weight as possible.
- Support access to government systems.
- Support access to national networks.
Models for HIE

Direct messaging

Provider → Hub → Hub → Provider

For the provider that has nothing...

Results Delivery

Lab → Hub → Provider

For the provider with an EHR...

Provider

Radiology

Community Record

Lab → Data → Provider

For providers in a community...

Virtual Record

Lab → Data → RLS → Provider

For providers that want to “own” the infrastructure...
Emerging shift to service delivery

From...

- HIOs which provide governance for exchange activities and technology to accomplish exchange.

...to a mix of...

- HIOs that may or may not provide technology, and
- HIE Service Providers that provide the technology alone.
Rural Options...

Direct Messaging

Free Rural Accounts | Pricing

Direct is well suited to rural, under-resourced, geographically dispersed providers who need an inexpensive, simple means of sharing data with specialists and hospitals in nearby urban and semi-urban areas. The California Direct service will offer a new channel for small practices, solo rural practitioners, and HCOs to connect with providers on their peripheries as a first step of health information exchange.

Free Rural Accounts

California Direct is available to all health care providers in California including clinicians, office staff, and ancillary service providers.
Resources

check out...

- [http://www.ucdmc.ucdavis.edu/ippi/Programs/cheq/](http://www.ucdmc.ucdavis.edu/ippi/Programs/cheq/)
- [http://www.ucdmc.ucdavis.edu/ippi/Programs/cheq/ExpansionAnimation.html](http://www.ucdmc.ucdavis.edu/ippi/Programs/cheq/ExpansionAnimation.html)
Resources

check out...

– http://cheqpoint.org/
So what’s new?
Behavioral Health

Conducted by OCPRHIO

Overall Objective:

– To see if the roadblocks of providing sensitive patient health care information in HIE still exist.
  – Are they legal or technical?
– If possible, integrate the information to make it available to others. If not, then identify the lessons learned.
What did they do?

1. **Environmental Scan and Requirements Review**
   Understood requirements for successful exchange of sensitive information.

2. **Integrate Behavioral Health Information within an HIO**
   Integrated behavioral health clinic into OCPRHIO to meet these requirements.

3. **Pilot Test Data Exchange**
   Exchanged BHI as pilot within environment so that this is reproducible in other community HIOs.
Patient-mediated Exchange

Conducted by Santa Cruz HIE, San Diego Health Connect (and others)

Sponsored by NATE, funded by ONC

Overall Objective:

- Establish and pilot test a means to establish trust between HIOs and Direct-enabled PHR.
- What are the requirements of the PHRs?
- How do providers assure identity of patients?
- What are provider’s responsibilities for “spam”?
What did they do?

1. **Established Qualification Criteria**
   Developed a set of policies voluntarily adopted by PHRs based upon which HIOs would exchange PHI.

2. **Create Technical Component**
   Create trust bundles, like those used for provider-to-provider exchange, that enabled trust between HIOs and PHRs.

3. **Pilot Test Data Exchange**
   Demonstrated exchange at HIMSS14. Continuing exchange in production through CA Direct.
Resources

check out...

– http://www.ucdmc.ucdavis.edu/iphí/Programs/cheq/cheqinnovations.html

– NATE report due to be released by ONC soon...

– http://www.californiadirect.org/personal-health-records/
And what’s next?
Complications...

- We started with immobile stovepipes of paper data.
- EHR Incentive Program created stovepipes of electronic data.
- California’s community HIE successes created regional stovepipes.
- ONC’s State HIE Cooperative Agreement Program created state stovepipes.

Now what?
Remember our strategy?

- Promote community / enterprise activities.
- Promote exchange among communities / enterprises.
- Make centralized infrastructure as light-weight as possible.
- Support access to government systems.
- Support access to national networks.
One complication...

– We started with immobile stovepipes of paper data.
– EHR Incentive Program created stovepipes of electronic data.

CAHIE ➔ California’s community HIE successes created regional stovepipes.
– ONC’s State HIE Cooperative Agreement Program created state stovepipes.
What is CAHIE?

California Association of Health Information Exchanges

In the beginning...
- Thought leaders in California HIE convened by CalOHII.
- Charged with “figuring it out”...

Now...
- A collection of community and enterprise HIOs, service providers, payers, state agencies...
- Promote inter-organizational exchange through voluntary self-governance.
CAHIE Members

Members

– CHHS (CalOHII)
– Dignity Health
– HealthShare Bay Area
– Inland Empire HIE
– Kaiser Permanente
– North Coast Health Information Network (NCHIN)
– Orange County Partnership Regional HIO (OCPRHIO)
– RAIN-Live Oak HIE and Telemedicine Network
– Redwood MedNet
– San Diego Health Connect
– Santa Cruz HIE
– Sutter Health
– UC Davis Health Systems
– Veterans Administration

Affiliate Members

– 2311, LLC
– California Emergency Medical Services Authority
– California Hospital Association
– California Telehealth Network
– Central Valley Health Information Exchange
– Connect Healthcare
– Health Services Advisory Group
– Sac Valley MedShare
– Sharp Health Care
– United Healthcare Community Plan of California
– Vigilance Health
What does CAHIE do?

1. Represents California interests in HIE
2. Operates California Trusted Exchange Network (CTEN)

*Using...*
- Multiparty data sharing agreement
- Policies for transaction patterns
- Trust bundles
- Directory services
Another complication...

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*NATE* ➡️ ONC’s State HIE Cooperative Agreement Program created state stovepipes.
What is NATE?

National Association for Trusted Exchange

– Collaboration of states
  (formerly the Western States Consortium)

_In the beginning..._

– Establishing exchange of PHI and provider information across state lines.

_Expanded to..._

– Establishing exchange among large organizations with differing regulatory requirements.
What does NATE do?

1. Interstate exchange between providers for treatment purposes.
2. Patient-mediated exchange using Direct-enabled PHRs.
3. Exchange between organizations and federal agencies.

Using...
- Policies for trusted exchange
- State qualification of organizations
- Trust bundles
- Provider directories
Resources

check out...

http://www.ca-hie.org/

http://nate-trust.org/
What should I remember?

– California has come a very long way in developing regional HIE.

– HIE is maturing from “meeting meaningful use” to informing care.  
  *Mature enough for innovation.*

– There remains much to do post HITECH.  
  *But there are organizations working on it.*
Questions?
Contact Information

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