HIE Landscape in California

November 2017
Statewide HIE

There is no single statewide HIE in California
HIE (in California) takes place at the
– regional,
– state, and
– national level
Regional Exchange

High-fidelity exchange within a community or enterprise
Community HIOs

- Set the policies associated with data sharing
- Provide the technology that moves data
- Convene stakeholders to solve data sharing problems
- Establish collaboration and trust
HIE Coverage

More than 15 community HIEs in 39 of 58 counties statewide
HIE Volume

> 20,000,000 ATDs per month
> 22,000,000 in MPIs (> 56% of CA population)
Organizations Served by HIE

- Acute Care Hospitals
- County PH
- Primary Care
- Specialists
- Ancillary Services
- Payers
- EMS
- Home Health
- Mental Health
- SNF
- Long-Term Care
- Other local government
- Other outpatient
- Substance Use (inpatient)
- Other inpatient
- Social Services
- Substance Use (outpatient)
Services Provided by HIE

Percentage Offering this Service:

- Direct
- Longitudinal Records
- Alerts
- Text Reports
- PH Reporting
- PHR or Patient Portal
- Quality Measures
- Referrals
- CPOE
- E-prescribing

HIE Landscape in California
Data Exchanged through HIE

HIE Landscape in California
Statewide Exchange

Connecting communities
California Trusted Exchange Network

**Governance**
Single, multiparty data sharing agreement to govern exchange across organizational boundaries

*California Data Use and Reciprocal Services Agreement, or CalDURSA*

**Infrastructure**
Technical services to ensure trust among organizations and facilitate secure data sharing

*Find out more about the CalDURSA and CTEN at [http://www.ca-hie.org/projects/cten](http://www.ca-hie.org/projects/cten)*
What can you do on the CTEN?

- Query for information about a patient
- Send information about a patient to another user
- Support disaster response

Find out more about the growing set of transactions at http://www.ca-hie.org/initiatives/cten/specifications/
Parties to the CalDURSA

1. Axesson
2. CAHIE
3. California Emergency Medical Services Authority
4. Connect Healthcare
5. Dignity Health
6. Manifest MedEx
7. North Coast Health Information Network
8. OCPRHIO
9. RAIN - Live Oak HIE and Telemedicine Network
10. Redwood MedNet
11. San Diego Health Connect
12. Santa Cruz Health Information Organization
13. San Joaquin Community HIE
14. Sutter Health
15. UC Davis Health System

Participants on the CTEN

1. Axesson
2. California EMS Authority
3. Connect Healthcare
4. Manifest MedEx
5. OCPRHIO
6. RAIN Live Oak HIE and Telemedicine Network
7. San Diego Health Connect
8. San Joaquin Community HIE
9. Santa Cruz HIO

SacValley MedShare
Sutter Health
UC Davis Health System

Track new participants at http://www.ca-hie.org/projects/cten
Model Modular Participants Agreement

A model agreement between HIOs and their exchange participants

- Avoids unnecessary legal costs
- Compatible with the CalDURSA
- Common policies across organizations that use it

Find out more about the MMPA at http://www.ca-hie.org/resources/publications/
Nationwide Exchange

*Exchange beyond state lines and enterprise boundaries*
Sequoia Project Initiatives

**eHealth Exchange™**

A peer-to-peer network of federal agencies and HIOs enabling (primarily) query-based document exchange, governed by the DURSA

**carequality**

A (largely vendor-based) network-of-networks framework enabling query-based document exchange, governed by the CCA
Patient Centered Data Home

Cost-effective, scalable method of exchanging patient data among HIEs based on triggering episode alerts which notify providers a care event has occurred outside of the patient’s “home” HIE.
### National Networks

#### eHealth Exchange
- Provider-centric network

#### CommonWell
- Patient-centric network

#### Carequality
- Provider-centric network-to-network trust framework

#### DirectTrust
- Secure messaging network

#### CTEN
- Provider-centric network w/ person-centric tendencies

#### Community HIO
- Person-centric network

<table>
<thead>
<tr>
<th>Provider-centric network</th>
<th>Patient-centric network</th>
<th>Provider-centric network-to-network trust framework</th>
<th>Secure messaging network</th>
<th>Provider-centric network w/ person-centric tendencies</th>
<th>Person-centric network</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer-to-peer primarily query-based exchange</td>
<td>Query-based exchange based on centralized record location</td>
<td>Peer-to-peer query-based exchange</td>
<td>Peer-to-peer, content-agnostic secure messaging</td>
<td>Peer-to-peer transaction- and content-agnostic trust framework</td>
<td>Various use cases, including alerts, results delivery, order entry, query, public health reporting, longitudinal records, and analytics</td>
</tr>
<tr>
<td>Centralized CA and provider-organization directory</td>
<td>Centralized MPI and RLS</td>
<td>Centralized provider-organization directory</td>
<td>Enabling trust framework</td>
<td>Centralized provider-organization directory</td>
<td>Various levels of centralized resources necessary to meet participant needs</td>
</tr>
<tr>
<td>Federal agencies, hospital systems, HIEs</td>
<td>EHR vendors and networks</td>
<td>EHR vendors, networks, HIOs</td>
<td>Direct HISPs and certificate authorities</td>
<td>HIOs interested in inter-organizational exchange</td>
<td>Systems may include nearly any EHR, lab, pharmacy, or other HIT system</td>
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The score...

<table>
<thead>
<tr>
<th>Regional</th>
<th>Statewide</th>
<th>Nationwide</th>
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<tbody>
<tr>
<td>Community HIOs: 15</td>
<td>Parties to CalDURSA: 15 (+2)</td>
<td>eHealth Exchange: 8</td>
</tr>
<tr>
<td>Enterprise HIOs: 5</td>
<td>CTEN Participants: 9 (+3)</td>
<td>Carequality: 2</td>
</tr>
<tr>
<td></td>
<td>MMPA-based PA: 10</td>
<td>PCDH: 2</td>
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What did we learn?

HIE is alive and well in California
How do I keep informed?

Follow: http://www.ca-hie.org/join-our-mailing-list/