Knowledge Network

January 22, 2016
Knowledge Network

What is the Knowledge Network?
- Peer assistance program and forum for collaboration
- Monthly webinars
  - Presentations by Members or guest speakers
  - Discussion on topics of importance to Members (past topics: cyber insurance, sharing sensitive information)
- Member meetings

Upcoming meetings
- TBD

Send topic ideas to Karen Boruff at karen.boruff@ca-hie.org

Reminder: webinars are recorded and made available

Visit www.ca-hie.org/resources/knowledge-network for more information including past recordings, and additional resources
– Today’s Topic: Patient Unified Lookup System for Emergencies (PULSE)

– Presenters:
  – Emergency Medical Services Authority
  – CAHIE
CALIFORNIA
PULSE+EMS INITIATIVE 
TO ADVANCE  HIE IN EMS

Funded by Cooperative Agreement Grant #90IX0006/01-00
U.S. Department of Health and Human Services,
Office of the National Coordinator for Health Information Technology
PATIENT UNIFIED LOOKUP SYSTEM FOR EMERGENCIES

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Project Assistant

Eventually everything connects – people, ideas, objects

~Charles Eames
ONC funded an initial study by Ai in 2014 that concluded that HIE can improve disaster medical response and daily EMS.

The result was the conceptualization of a disaster response medical history portal (PULSE).

HHS IDEA Lab Ventures Award to ASPR funded the PULSE architecture by Ai in 2015.

It also recommended exchange of patient health information for daily EMS use (+EMS).

The Project Team (ONC, ASPR, EMSA CAHIE, Ai) developed the use case for a pilot of PULSE in California.
PULSE+EMS Grant from ONC

Funded by Cooperative Agreement
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Office of the National Coordinator,
U.S. Department of Health and Human Services

- Total Project Budget: $3,668,904
- Federal Share: $2,751,678 (disbursed at milestones)
- Non-Federal Share: $917,226 (matching dollars)
- Contractual: $2,281,522
Contractual Services

- 1 Contract for Technical Advisor services (CAHIE)
- 1 Contract for Local PULSE Interoperability contractor based upon PULSE architecture (SSO, SAML2)
- Minimum of 4 HIO Contracts for PULSE Interoperability and Exchange
- 1 Contract for DHV Interface (SSO, SAML2)
- 1 Contract for Interoperability Broker Services

*All contracts will follow federal and state procurement policies and requirements*
PULSE +EMS is not a State IT Project

• It will be locally operated using existing health information exchange programs.
• It will allow for Peer-to-Peer connection, consistent with ONC grant goals.
• EMSA will only define functional endpoints.
• EMSA will not define specific software development requirements except to ensure connectivity with hospital-based EHRs and the Disaster HealthCare Volunteers system.
• CAHIE PULSE Workgroup
PULSE

- Multiple data sources
- Interoperability broker
- Search function for three use cases
- Direct secure messaging and federated directory services
- Enabled by the California Trusted Exchange Network (CTEN)
- Integrating the Healthcare Enterprise (IHE) standards
Access to web portal with CCD information on patients being treated in an alternate care site, shelter or field hospital

Access to EHRs on relocated patients from within existing hospital EHR system

Statewide
Intended for use during disaster response
Adoption
• Service level agreements, governance documents
• PULSE user testing of +DHV and +EHR-link

Exchange
• PULSE tabletop drill for +DHV and +EHR-link

Interoperability
• No identified metric
Ai Report PULSE Architecture
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What is PULSE?

CAHIE Knowledge Network

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The concept...

PULSE

Report prepared by Ai, for ONC

Use Cases

For use in obtaining medical records while responding to a disaster

1. Evacuees transported from non-functioning, over-burdened hospitals
2. Severely injured evacuees transported by emergency vehicles
3. Ambulatory injured evacuees transporting themselves
4. Minimally injured evacuees in need of urgent care
5. Uninjured evacuees requiring primary care

Not +EMS
Users

When the normal means of obtaining records fail

1. Providers receiving transfers of patients for whom they normally don’t provide care
2. Volunteer disaster healthcare workers using emergency medical systems
Architecture

Disaster Healthcare Volunteer
Provider
Portal
EHR

ESAR-VIP (DHV)
Portal Server
Message Broker
Directory Services
PULSE

Emergency Responders
HIE
Hospital
Provider Organization
Actors

Recipients of health information

1. Disaster Healthcare Volunteers, accessing PULSE through a portal (+DHV)
2. Other providers, accessing PULSE through their normal EHR and HIE solutions (+ EHR-link)
Actors

PULSE components

1. Message Broker, which processes a request for a patient or documents and returns results from participating systems
2. Directory Services, cataloging participants
3. Portal, providing volunteers with access
4. DHV, authenticating and authorizing volunteers
Actors

Participants

1. CTEN Participants, any HIE, hospital, provider organization, emergency service, etc., that supports CTEN and the PULSE standards
“Technical” issues...

- Patient identification
- Volunteer worker authorization to receive PHI
Technical standards...

1. IHE profiles for document query and retrieval within an affinity domain (PDQ and XDS.b)
2. IHE profiles for document query and retrieval between communities (XCPD and XCA)
3. eHealth Exchange specifications for Patient Discovery, Query for Documents, and Retrieve Documents
4. C-CDA CCD, discharge summary, or other document template

Are these enough? The right ones?

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Policy questions...

– Does disaster response represent a new use case not covered by the CalDURSA, common Participant Agreements, or other agreements?

– Does the use of additional standards expand transactions on the CTEN?

– Does authentication and authorization via DHV present special requirements?
Getting involved...

PULSE Workgroup

Helping define the architecture, standards, and priorities for PULSE

http://wiki.ca-hie.org/PULSE
Getting involved...

CalDURSA Workgroup

Investigating the impact of PULSE on the CalDURSA

http://wiki.ca-hie.org/Data+Sharing+PULSE
Questions?