

HEALTH INFORMATION
EXCHANGE IN EMS
GRANT
ADVISORY COMMITTEE



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

HIE Advisory Committee Agenda

Welcome and Phone Introductions

Dan Smiley

EMSA Report

Dan Smiley

ONC Grant Status Update

Jim Switzgable

CAHIE Report

Dr. Robert Cothren

Sub-Committee Reports

- Consumable Data and Transport
- Data Governance and Contracts

David Minch & Dr. Jay Goldman
Andrea Leeb and Scott Christman

HIE Summit

Adam Davis

Closing Comments

Questions

INTRODUCTIONS

DAN SMILEY
PULSE +EMS PROJECT DIRECTOR



EMSA REPORT

DAN SMILEY
PULSE +EMS PROJECT DIRECTOR

- Staffing changes
- New Statuses related to EMS Data Systems
- +EMS Grant Applications expected Jan 28 at 5 pm
- PULSE Grant expected soon
- Next Advisory Committee Mtg on April 18
- HIE in EMS Summit



EMERGENCY MEDICAL SERVICES AUTHORITY

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 RANCHO CORDOVA, CA 95670
 (916) 322-4336 FAX (916) 324-2875



DATE: January 5, 2016

TO: Local EMS Administrators
 EMS Medical Directors
 EMS Providers
 Other EMS System Stakeholders

FROM: Howard Backer, MD, MPH, FACEP
 Director

SUBJECT: New State EMS Data System Requirements

Recent legislation, in addition to multiple data initiatives, is driving rapid changes in EMS data systems at the local, state, and national levels. The EMS Authority is providing this guidance to local EMS agencies, EMS providers, and other stakeholders to clarify their responsibilities related to data and quality during 2016.

EMSA has made data quality and analysis a priority over the past 3 years. Stakeholders in the EMS system recently have engaged in discussions with EMSA regarding the strategy and changes around data collection and evaluation. In addition, EMSA recently formed a data advisory group consisting of three local EMS agency administrators and an equal number of medical directors to help determine a cooperative strategy for improving EMS data and its application. The continuation of funding from the Office of Traffic Safety for local data collection efforts and movement to NEMSIS 3.x, the development of EMS performance improvement measures (Core Measures) through one-time funding from the California HealthCare Foundation (CHCF), and the recent grant from the Office of the National Coordinator for Health Information Technology (ONC) to implement local health information exchange projects (Patient Unified Lookup System for Emergencies +EMS) have enhanced data and quality efforts.

In addition, four bills were passed by the legislature and signed by the Governor during 2015 related to data, quality, and the electronic movement of health information: AB503, AB1129, AB1223, and SB19.

EMSA plans to open the California Code of Regulation, Title 22, Division 9, Chapter 12, EMS System Quality Improvement regulations for amendments to implement the newly enacted sections of AB503, AB1129, AB1223 and SB19. This revision will update the regulations to appropriately address data and quality improvement. We will reach out to EMS stakeholder groups to establish a representative task force to assist us in this effort.

New State EMS Data System Requirements

January 5, 2016

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While the regulatory process is lengthy, the requirements of the legislation took effect January 1, 2016. Therefore, until the regulations are revised, the following information is provided to local EMS agencies and EMS providers to support the statutory requirements.

Implementation of AB1129 – Health and Safety Code 1797.227

AB 1129, effective January 1, 2016, requires among other provisions that:

1. Each emergency medical care provider uses an electronic health record;
2. The electronic record must be compliant with the current version of NEMSIS and CEMSIS.

For the purposes of this guidance, an *emergency medical care provider* is an entity that is authorized as part of an EMS system by the local EMS agency. At a minimum, every ambulance transport provider (both emergency and non-emergency, including BLS, LALS, and ALS) and every advanced or limited advanced life support entity would fit this definition. Some local EMS agencies also have specific local system design characteristics involving BLS non-transport first responder entities that also meet this definition.

For the purposes of interpreting the provisions of AB1129, EMSA recognizes that "electronic health record" means electronic Patient Care Report (ePCR). An *electronic health record (EHR)*, as defined by the Office of the National Coordinator for Health Information Technology (ONC), is a digital version of a patient's paper chart. Further, ONC notes:

"EHRs are real-time, patient-centered records that make information available instantly and securely to authorized users. One of the key features of an EHR is that health information can be created and managed by authorized providers in a digital format capable of being shared with other providers across more than one health care organization."

To meet this definition, the electronic health record must have the capability of mobile entry at the patient's bedside, and incorporate workflow for real-time entry of information. This also means that all EHR systems should be interoperable with other systems, including the functionality to exchange (send and receive) electronic patient health information with other entities, including hospitals, in an HL7 format, using ONC standards. NEMSIS 3 incorporates these format standards.

AB1129 requires that, electronic health record systems must be compliant with the "current version of NEMSIS". The current version of NEMSIS is version 3.3.4 or version 3.4. The sunset date for version 3.3.4 is August 31, 2016. Compliant means a system that has been tested and certified "compliant" by NEMSIS; this certification information is posted on the NEMSIS website at <http://www.nemsis.org/3/compliantSoftware.html>.

State EMS Data System Requirements

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A local EMS agency may not mandate that a provider use a specific EHR system, but the EMS provider must use a system that "can be integrated" with the LEMSA system. Therefore, the local EMS agency may require the EMS provider to demonstrate, test, and ensure that the proposed system is compatible with the local EMS agency system at the provider's cost without a heavy reliance on mapping. The specific system mandate prohibition does not affect agreements in place by January 1, 2016.

Compliance with CEMSIS is determined by meeting any additional requirements by EMSA or California specific criteria that expand or limit the responses for any NEMSIS elements. These will be specified in a subsequent memo or guidance anticipated to be released by April 1, 2016.

NEMSIS Version 3.4:

All EMS systems must have a NEMSIS 3.4 compliant system in operation no later than midnight on December 31, 2016. California will use the NEMSIS Version 3.4 as our base data standard effective January 1, 2017. This will allow California to be consistent with the most current version of the national data standard and with AB1129.

The National Highway Safety Administration (NHTSA) and University of Utah have put a final sunset date on the use of NEMSIS Version 2. The submission of NEMSIS Version 2 will conclude at midnight on December 31, 2016 with no further time extension allowed.

Implementation of AB 503 – Health and Safety Code 1797.122:

This bill authorizes a health facility to share patient-identifiable information with a defined EMS provider, local EMS agency, and EMSA. This clarifies the California health information privacy law to be consistent with HIPAA, which already allows sharing of treatment, payment, and operations information between covered entities, and also specifies that local EMS agencies and EMSA may receive this information for quality improvement. The intent is to share outcome information on patients to support quality evaluation and performance improvement and the use of health information exchange. This will also enhance the annual EMS Core Measure reporting.

As allowed in the bill, EMSA will set the "minimum standards for the implementation of data collection, including system operation, patient outcome, and performance quality improvement." These standards will be incorporated into revisions of Chapter 12.

Requirements

January 5, 2016

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Implementation of AB 1223 – Health and Safety Code 1797.120 and 1797.225:

This bill requires EMSA to adopt standards related to data collection for ambulance patient offload time.

Interim guidance will be developed by EMSA, in collaboration with local EMS agencies, on statewide standard methodology for the calculation and reporting of ambulance patient offload time. Regulation revisions will propose to incorporate the methodology found in the interim guidance.

Implementation of SB 19 – Probate Code 4788:

This bill enacts the California POLST eRegistry Pilot Act. The bill requires the Emergency Medical Services Authority to establish a pilot project, in consultation with stakeholders, to operate an electronic registry system on a pilot basis, to be known as the California POLST eRegistry Pilot, for the purpose of collecting POLST information received from a physician or physician's designee, if non-state funding is received.

The bill requires EMSA to coordinate the development of the POLST eRegistry Pilot, which would be operated by health information exchange networks, by an independent contractor, or by a combination thereof. The main model envisioned for the registry is dependent on use of electronic health records by EMS personnel (as required in AB 1129), and transition to a NEMSIS 3 platform, to link those records to electronic medical records within health systems to send, receive, find, and use POLST information.

Many individuals throughout our EMS system are excited about the potential for increased data quality and consistency, which will lead to new opportunities to evaluate, understand, and improve our EMS system at all levels.

Please contact either Tom McGinnis at Tom.mcginis@emsa.ca.gov 916-431-3695 or Kathleen Bissell at Kathy.bissell-benabides@emsa.ca.gov 916-431-3687 with any questions concerning this memo.

ONC GRANT STATUS UPDATE

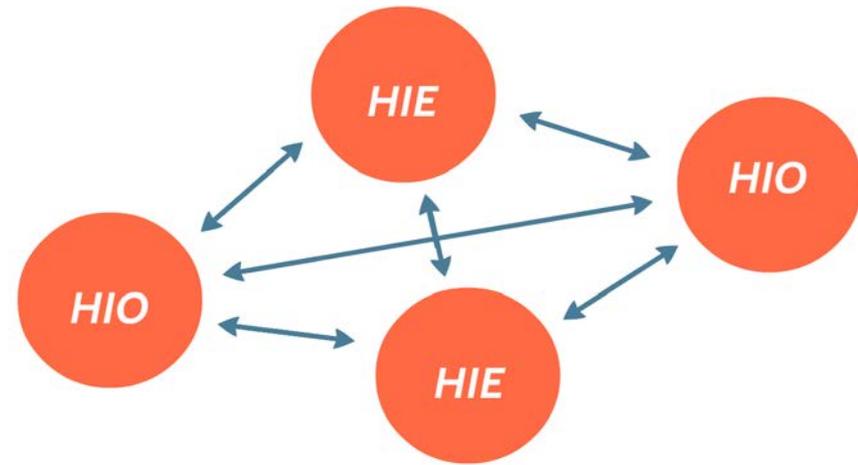
JIM SWITZGABLE

- + EMS Procurement
- PULSE Procurement
- Interoperability Broker Services
Procurement
- HIO Procurement
- Disaster Healthcare Volunteers

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**
- **Federated directory services**
- **Enabled by the California Trusted Exchange Network (CTEN) – Query Member**
- **Integrating the Healthcare Enterprise (IHE) standards**



+DHV

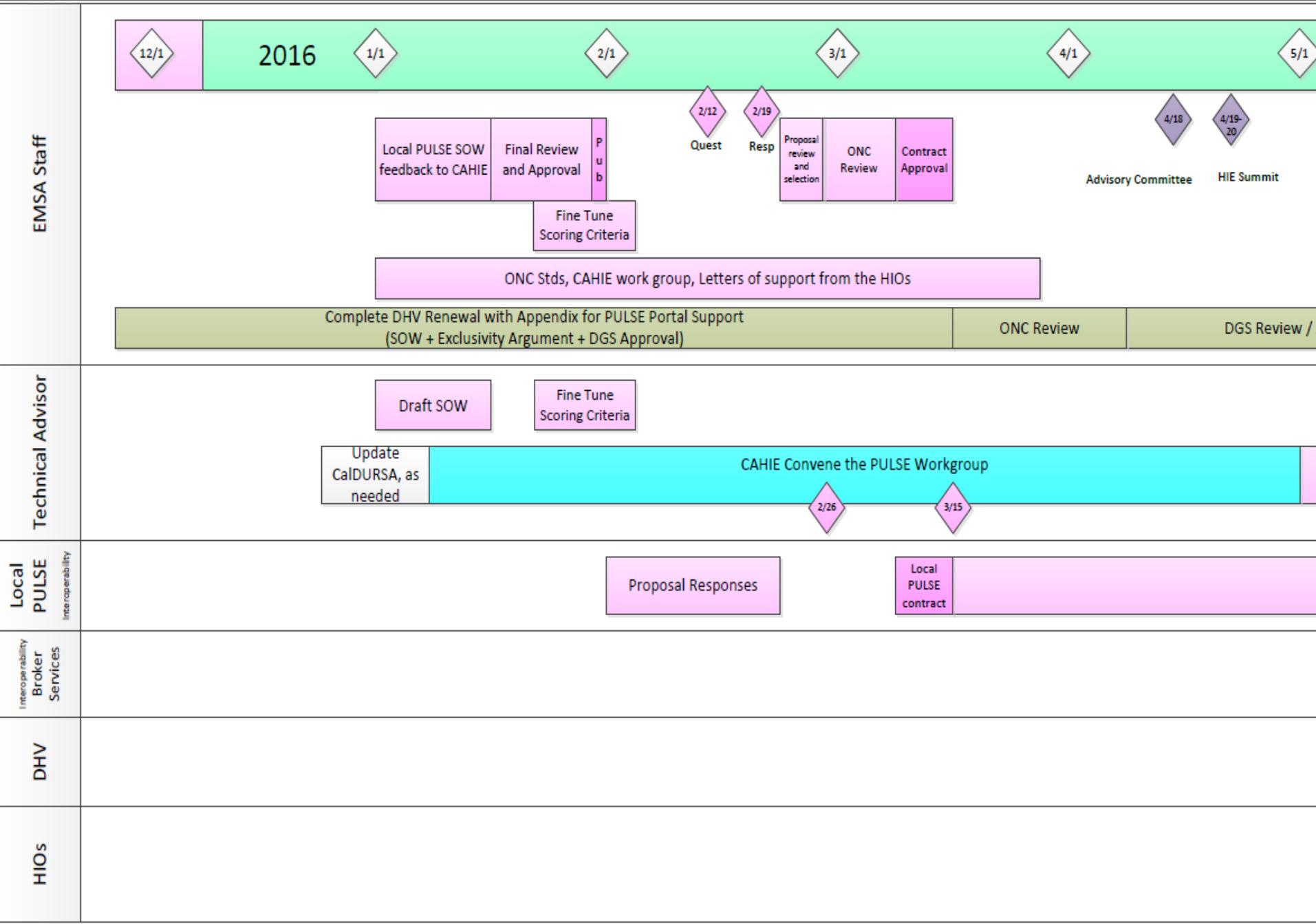
Access to web portal with CCD information on patients being treated in an alternate care site, shelter or field hospital

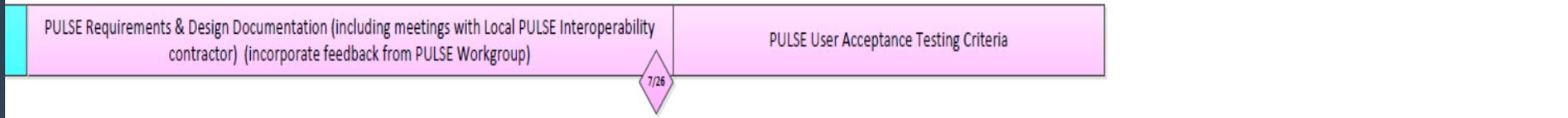
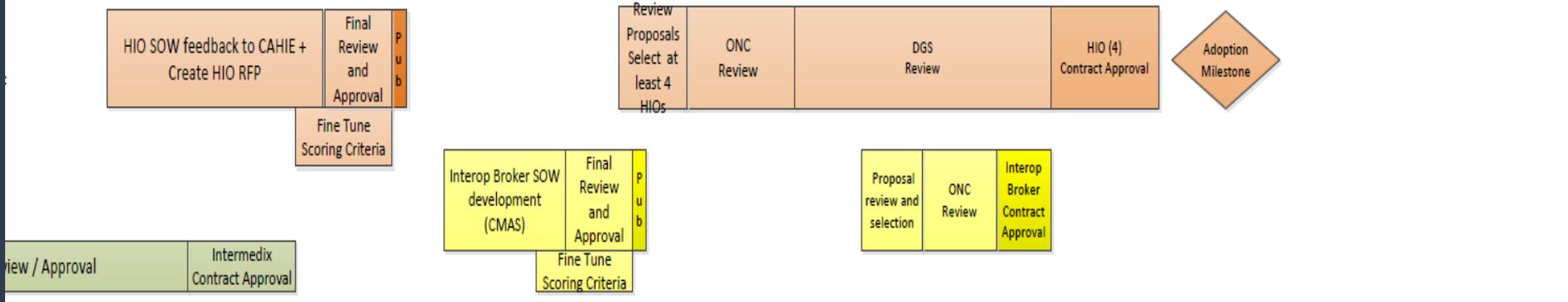


+EHR-link

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

Statewide
Intended for use during disaster response





1/1

2017

2/1

3/1

4/1

5/1

6/1

7/1

3/29

HIE Summit

Table Top Drill #1

Table Top Drill #2

Develop Final O

Activity Reporting

HIO & DHV User Acceptance Testing

Table Top Drill #1

Table Top Drill #2

Final Activity Reporting

contracted HIOs and DHV to successfully connecting and

Training and Support to HIOs / DHV

HIO & DHV User Acceptance Testing (incl Local PULSE Interop Contractor and Interop Broker)

Software Maintenance & Support

of PULSE System

Table Top Drill #1

Table Top Drill #2

Exchange Milestone

Table Top Drill #1

Table Top Drill #2

Exchange Milestone

face Development

HIO User Acceptance Testing

Table Top Drill #1

Table Top Drill #2

Final Activity Reporting

Exchange Milestone

Activity Reporting

CAHIE REPORT

DR. ROBERT COTHREN

SUB-COMMITTEE REPORTS

DAVID MINCH AND DR. JAY GOLDMAN

ANDREA LEEB AND SCOTT CHRISTMAN

- **Consumable Data and Transport**
- **Data Governance and Contracts**

HIE IN EMS SUMMIT

ADAM DAVIS



- Details
- April 18 Advisory Committee Meeting 10am – 3 pm
- Lunch Included
- Grant will Pay for Advisory Committee Member Travel Expenses for Meeting and Summit
- Speakers – Dr. Karen DeSalvo Invited for Keynote

Save the Date

April 19-20, 2016



3rd California HIE in EMS Summit

Hyatt Regency Garden Grove

www.HIEinEMSinCA.com



Hosted by the California Emergency Medical Services Authority

Funded by the Office of the National Coordinator for Health Information Technology,

U.S. Department of Health and Human Services Cooperative Agreement Grant #90IX0006/01-00

Other items?

MEETING SUMMARY

Action Items

Sub-Committees

Next Meeting

Questions?

And maybe answers . . .

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CALIFORNIA PULSE+EMS INITIATIVE TO ADVANCE HIE IN EMS



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U.S. Department of Health and Human Services,
Office of the National Coordinator for Health Information Technology

ONC GRANT STATUS UPDATE

Dan Smiley
Project Director

Jim Switzgable
Project Manager

Ryan Stanfield
Project Assistant

*Eventually
everything connects –
people, ideas, objects*

~Charles Eames

Contractual Services

- 1 Contract for Technical Advisor services (CAHIE)
- 2+ Contracts with LEMSA coalitions (local – SAFR)
- 1 Contract for PULSE contractor based upon Audacious Inquiry report posted at ONC website <http://wiki.ca-hie.org/file/view/PULSE%20Report%204-9-2015.pdf/570610863/PULSE%20Report%204-9-2015.pdf>
- 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*

+EMS Procurement: Key Action Dates

Key Actions	Dates	Time
Application Released to Prospective Applicants	December 11, 2015	5:00 p.m.
Bidders' Conference	December 18, 2015	10:00 a.m.
Written Questions Submittal Deadline	December 21, 2015	3:00 p.m.
Final Date for Proposal Submittal	January 28, 2016	5:00 p.m.
Evaluation Process	January 29, 2016 – February 9, 2016	
Notice of Intent to Award	February 9, 2016	TBD
Protest Period	February 10 – February 16, 2016	NA
Proposal Award Date	February 17, 2016	NA
Anticipated Contract Date	March 1, 2016	NA

PULSE Procurement: Key Action Dates

Key Actions	Dates	Time
RFO Available to Prospective Offerors	February 1, 2016	10:00 a.m.
Written Questions Submittal Deadline	February 12, 2016	2:00 p.m.
Response to Written Questions	February 19, 2016	2:00 p.m.
Final Date for Offer Submittal	February 26, 2016	2:00 p.m.
Evaluation Process	February 26, 2016 – March 8, 2016	2:00 p.m.
Notice of Intent to Award	March 8, 2016	TBD
Protest Period	March 9 – March 15, 2016	NA
Proposal Award Date	March 16, 2016	NA
Anticipated Contract Date	April 1, 2016	NA

HIO Procurement: Key Action Dates

Key Actions	Dates	Time
Application Released to Prospective Applicants	July 1, 2016	10:00 a.m.
Written Questions Submittal Deadline	July 15, 2016	2:00 p.m.
Response to Written Questions	July 22, 2016	2:00 p.m.
Final Date for Offer Submittal	August 1, 2016	2:00 p.m.
Evaluation Process	August 1, 2016 – September 15, 2016	2:00 p.m.
Notice of Intent to Award	September 15, 2016	TBD
Protest Period	September 16 – September 22, 2016	NA
Proposal Award Date	September 23, 2016	NA
Anticipated Contract Date	October 1, 2016	NA

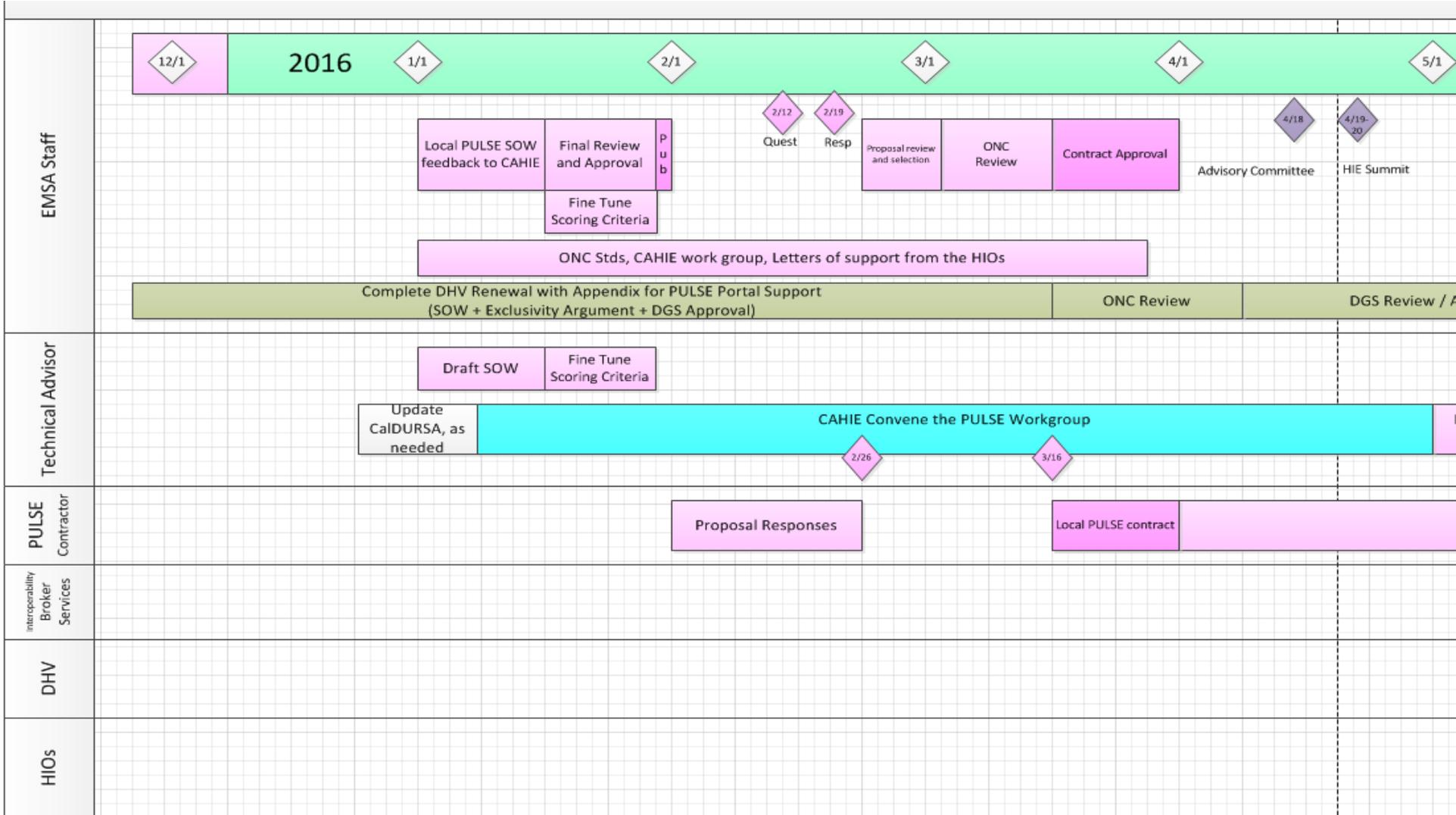
* Subject to modification

Interop Broker Services Procurement: Key Action Dates

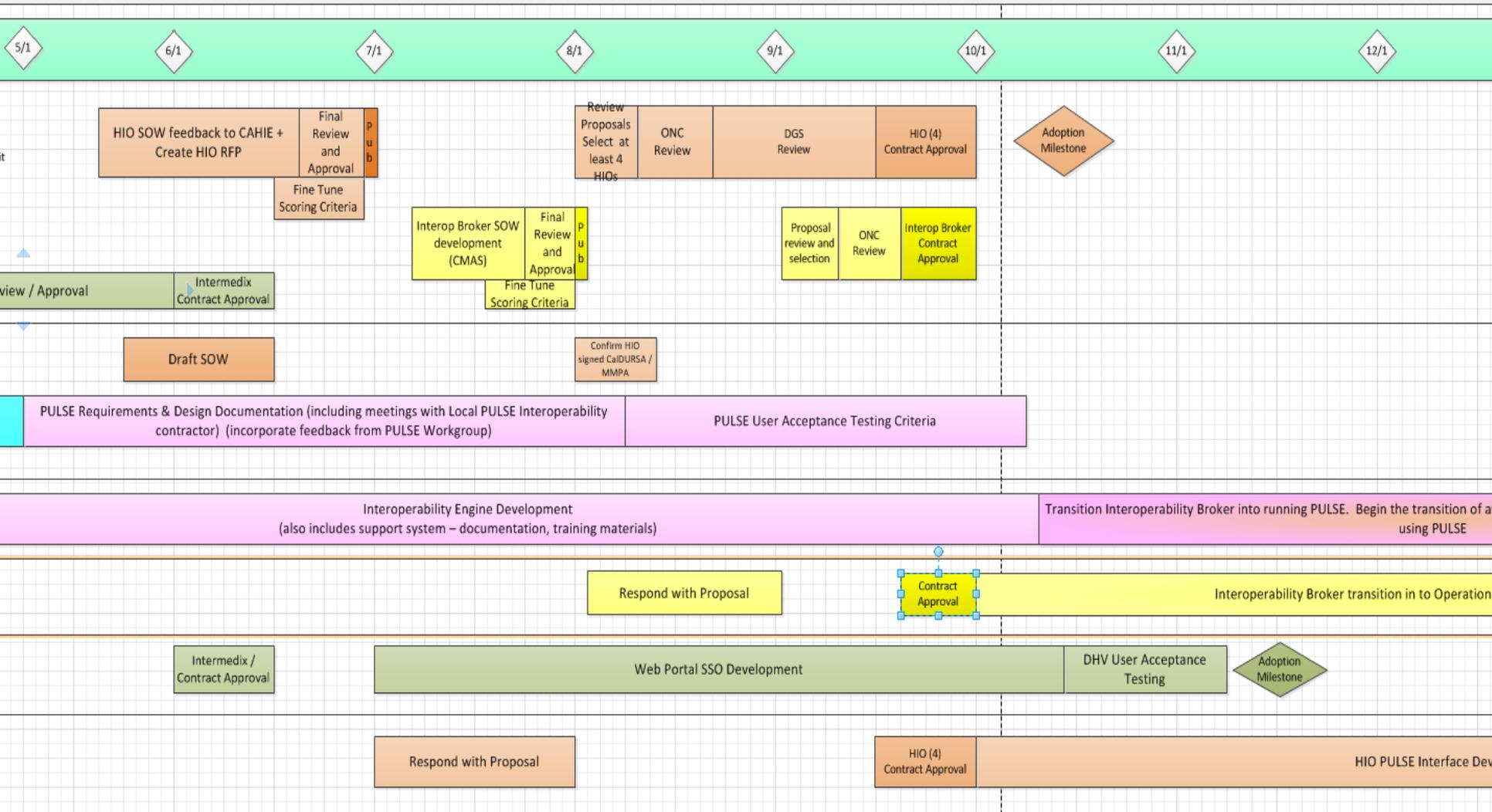
Key Actions	Dates	Time
Application Released to Prospective Applicants	August 5, 2016	10:00 a.m.
Written Questions Submittal Deadline	August 17, 2016	2:00 p.m.
Response To Written Questions	August 24, 2016	2:00 p.m.
Final Date for Proposal Submittal	September 2, 2016	2:00 p.m.
Evaluation Process	September 2, 2016 – September 15, 2016	
Notice of Intent to Award	September 15, 2016	TBD
Protest Period	September 16 – September 23, 2016	NA
Proposal Award Date	September 24, 2016	NA
Anticipated Contract Date	October 1, 2016	NA

* Subject to modification

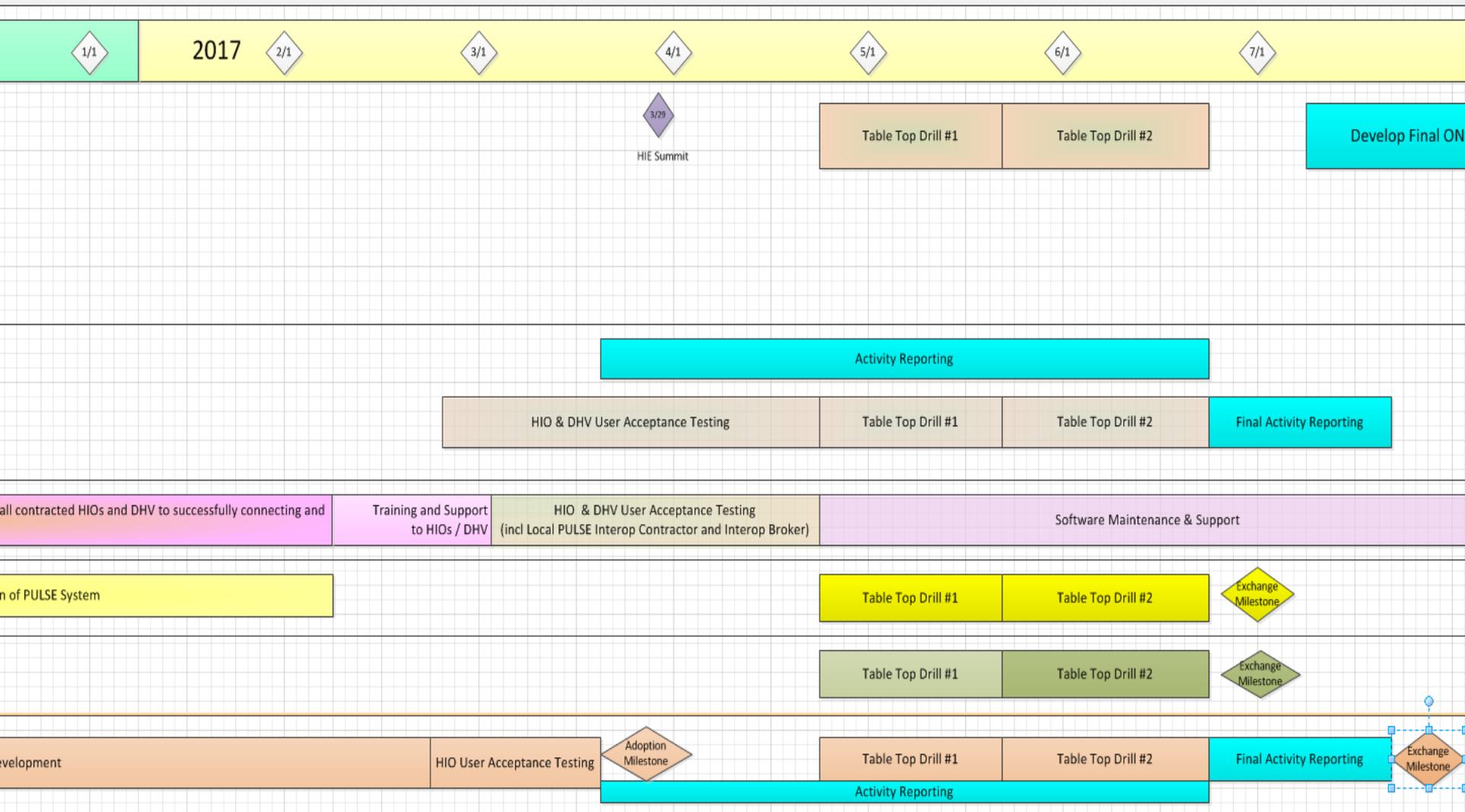
PULSE High Level Gantt Flow



PULSE High Level Gantt Flow (2)



PULSE High Level Gantt Flow (3)



Contact Information

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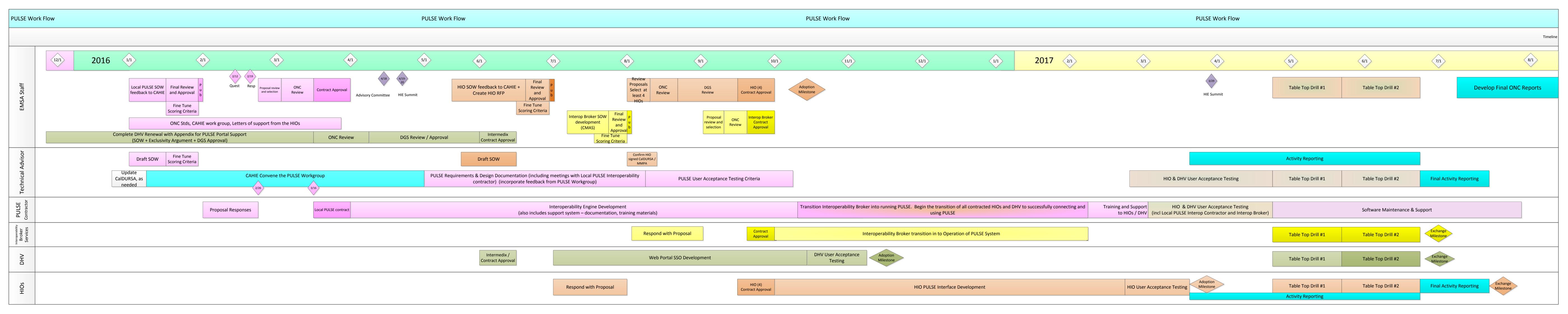
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HIE in EMS Advisory Committee CAHIE Update

Robert Cothren, PhD, Executive Director

January 26, 2016



What we've done...

- Established a working definition of HIO and HIE for the PULSE +EMS project
- Identified the activities for +EMS participants, and how they lead to achieving ONC milestones
- Worked with Patient Identification Workgroup to expand its charter to address patient matching requirements for EMS
- Developed the timeline for PULSE development, deployment, and the PULSE drill
- Reviewed and performed preliminary analysis of the CalDURSA to issues related to PULSE
- Convened the CalDURSA Workgroup to finalize changes
- Reviewed the architecture and standards for PULSE in the Ai Report
- Identified the activities for the PULSE system developer
- Convened the PULSE Workgroup to make recommendations on architecture and standards for PULSE
- Coordinated with CalOHII project to revise the MMPA to provide PULSE +EMS requirements



What we will be doing in the next quarter...

- Finalize changes to the CalDURSA to support PULSE, if necessary
- Provide input into the MMPA revision
- Begin to develop recommendations for patient matching for +EMS
- Develop recommendations for PULSE architecture and standards
- Identify the activities for HIOs interested in participating in PULSE



For more information...

- Patient Identification: <http://wiki.cahie.org/Patient+Identification>
- CaIDURSA: <http://wiki.cahie.org/Data+Sharing+PULSE>
- PULSE architecture and standards: <http://wiki.cahie.org/PULSE>



Consumable Data Content and Transport Workgroup

Co-Chairs:

Dr. Jay Goldman, MD, FACEP, Medical Director of EMS and Ambulance,
Kaiser Permanente NCAL

David Minch, Executive Director, HealthShare Bay Area



Agenda

- I. Call to Order
- II. Introduction of Participants
- III. Review of Workgroup Mission and Deliverables
- IV. Introduction and Brief Discussion of Strawman Deliverable (a place to start from)
- V. Suggestions and discussion of a “divide and conquer” approach to the deliverables
- VI. Suggested timeline
- VII. Scheduling of a Time Certain each week for workgroup / sub-workgroup meetings



Workgroup Mission Statement

The mission of the Consumable Data Content and Transport Workgroup is to identify the appropriate transmittable and display / consumable data content that coincides with California Emergency Medical Services Authority SAFR Model for EMS participation in Health Information Exchange and The Office of the National Coordinator priorities, requirements, and Interoperability Roadmap. HL7 and NEMESIS 3 standards will be utilized when possible.



Project Use Cases (SAFR)

- **Search**

- Identify the Recommended Elements from the ePCR that will result in the patient's unique identification when searched
- Identify Recommended Elements that are returned from an EHR in a query for patient data which are useful to the paramedics in treatment of the patient, including such concepts as problem list, medications, allergies, and POLST decisions.

- **Alert**

- Identify the Recommended Elements from the ePCR that will transmit the patient's health status to a receiving hospital emergency department's dashboard prior to the patient's arrival.



Project Use Cases (SAFR)

- **File**

- Identify the Recommended Elements from the ePCR that will provide value to treatment of the patient or evaluation of treatment provided to a patient and which are appropriate to be stored in association with a patient's EHR.

- **Reconcile**

- Recommended Elements from the EHR will be identified that will provide value to the EMS provider and EMS agencies in evaluating quality of care provided and that should be transmitted from the EHR at the treating facility back to the EMS transport service for consumption into that patient's encounter record in the ePCR.



Constructing the Deliverables

Content Area: Work Product:	Search	Alert	File	Reconcile
Identify Data Set to be Transported	Query: Result:	Query: Result:	Query: Result:	Query: Result:
Identify Data to be Displayed	Query: Result:	Query: Result:	Query: Result:	Query: Result:
Identify Data to be Discretely Stored	Query: Result:	Query: Result:	Query: Result:	Query: Result:
Identify Appropriate Protocols and Transport(s)	Query: Result:	Query: Result:	Query: Result:	Query: Result:



Workgroup Strawman Deliverable

- Distributed with the agenda and presentation
- Compiled from materials developed through meetings and discussions prior to the actual launch of the +EMS project
- Contains suggested material for each cell for the “SFR” functions, but not for the “A” function which needs a clear use case before development
- Based on Use Cases described in the +EMS Functionality SAFR Chart with use cases.doc document (presentation at the first Advisory Committee Meeting) and copied into the beginning of the strawman deliverables document

Workgroup Strawman Deliverable (cont'd)



- Data rows broken into the following subsets:
 - Dataset Transported
 - Query
 - Response / Result
 - Dataset Displayed
 - Dataset Discretely Stored
- Technology rows broken into the following:
 - IHE Profiles or Equivalent Data Exchange Standard
 - Transports
 - Security



Making the Workgroup Efficient

- Divide and Conquer:
 - Possible Data vs Needed Data
 - **Possible Data:** determine what data is possible to acquire or transmit – for example, in Search, there is a wealth of *possible* data in a patient’s EHR, but the CCD has been defined by the EHR industry as being the pertinent summary document for these types of encounters. Likewise, for File, while the EMS industry has defined the universe of data as being the NEMESIS v3.x specification, much of that data is not usually completed by EMS limiting the data that is *possible*.
 - **Needed Data:** defining the data that will actually be useful or *needed* from the larger set of data that is possible. Using the examples above, EMS / EMT need to define from the large amount of data in the CCD Demographic, Problem, Allergy, Prescriptions segments which data will actually be useful to them. Likewise, from the set of data actually coded into the ePCR, what data is useful to delivery of care in the ED and hospital (and discharge?).



Making the Workgroup Efficient

Function	Possible Data	Needed Data
Search	EHR Specialists (CCD)	EMS / EMT
Alert	ePCR Specialists + EMS	ED (MD + Triage?)
File	ePCR Specialists + EMS	ED (MD, QC) + Other Hospital Depts (may need use cases)
Reconcile	EHR Report Specialists + Legal	EMSA, LEMSA, FICEMS



Suggested Sub-Workgroups

- Possible Data Sub-Workgroup (1 group):
 - Vendors,
 - EMS Specialists (to provide information about what is typically coded into the ePCR and when),
 - Hospital EHR Reporting Specialists / Legal (determine what data is covered under the new CA law AB503 - Health and Safety Code 1797.122)
- Technical Standards Sub-Workgroup (1 group):
 - CAHIE
 - ePCR Vendors
 - EHR Vendors
 - Hospital EHR Technical Specialists



Suggested Sub-Workgroups

- Needed / Useful Data Sub-Workgroups (4 groups):
 - SEARCH: EMS Specialists and ePCR Vendors: focus on what data can be displayed in an ePCR window at the scene
 - ALERT: ED Specialists / Triage / Registration: Data that can be incorporated into the EHR and immediately used for registration/treatment planning in the ED
 - FILE: ED and Hospital QC Specialists and other Hospital Departments (e.g. Discharge Planning, Trauma, others)
 - RECONCILE: EMSA, LEMSA, FICEMS (Federal Interagency Committee on EMS)



Timeline

- Most of the sub-Workgroup work will be completed by email discussions – meetings will focus on gaining consensus on the content
- February:
 - Possible Sub-Workgroup completes work on all 4 functional areas (2 calls)
 - Technical Sub-Workgroup completes work on all 4 functional areas (2 calls)
 - S and A Sub-Workgroups kick off work (1 call)
- March:
 - S and A Sub-Workgroups complete first pass on Deliverables (3 calls)
 - F and R Sub-Workgroups kick off work (2 calls)
- April:
 - F and R Sub-Workgroups complete first pass on Deliverables (2 calls)
 - All Sub-Workgroups complete first pass on Deliverables by Friday, April 15 for presentation at the HIE in EMS Summit on 4/19-4/20.



Meeting Day/Time Selection – have your calendars ready – we will be counting “NO” votes!!

- Monday: 10-11 (), 11-12 (), 3-4 (), 4-5 ()
- Tuesday: 10-11 (), 11-12 (), 3-4 (), 4-5 ()
- Wednesday: 10-11 (), 11-12 (), 3-4 (), 4-5 ()
- Thursday: 10-11 (), 11-12 (), 3-4 (), 4-5 ()
- Friday: 10-11 (), 11-12 (), 3-4 (), 4-5 ()



Suggested Sub-Workgroups

- Possible Data Sub-Workgroup (1 group):
 - Vendors, EMS Specialists (to provide information about what is typically coded into the ePCR and when), Hospital EHR Reporting Specialists / Legal (determine what data is covered under the new CA law AB503 - Health and Safety Code 1797.122)
- Technical Standards Sub-Workgroup (1 group):
 - CAHIE, ePCR Vendors, EHR Vendors, Hospital EHR Technical Specialists
- Needed / Useful Data Sub-Workgroups (4 groups):
 - One group focusing on each of the 4 SAFR Functional Areas