



# **In-Person Governance Body Meeting Summary**

January 24-25, 2018

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## Executive Summary

On January 24-25, 2018, the Digital Bridge governance body met at the Task Force for Global Health (Decatur, GA) to work toward a common vision for exchanging actionable information between public health and health care. Representatives from every governance body organization (except one<sup>1</sup>) and special guests from the Task Force for Global Health, the CDC Director's Office, and the HHS CIO's Office participated in the meeting.

Meeting presentations, discussions and work focused on determining action items to further ensure successful implementation and evaluation of the Digital Bridge electronic case reporting (eCR) approach. Participants learned about implementation progress, facilitators and challenges at each of the seven demonstration sites. Representatives from the Digital Bridge legal and regulatory workgroup also presented activities in progress, lessons learned and next steps in the legal approach. Finally, participants discussed eCR and Digital Bridge sustainability issues.

The meeting produced several key items that will be used to further develop Digital Bridge governance, implement and evaluate eCR, plan for eCR sustainability, and prioritize Digital Bridge sustainability work in 2018. These key items were documented:

- A. Interests and motives driving participation in Digital Bridge (Table 1)
- B. Facilitators and challenges to demonstrating and evaluating eCR (Table 2)
- C. Success factors for the Digital Bridge eCR demonstration (Figure 1)
- D. Actions that governance body members will take to further promote eCR demonstration success in 2018 (Table 3)
- E. Actions and interactions crucial to sustaining eCR beyond the demonstration work (Appendix 13)

In addition, the governance body voted to develop and submit a Digital Bridge commentary on the Office of the National Coordinator of Health Information Technology's Draft Trusted Exchange and Common Agreement Framework. Discussion of Digital Bridge sustainability issues was limited.

The purpose of this document is to provide the governance body and Digital Bridge stakeholders with a record of the information presented during the meeting and a summary of meeting conversations and work. This document will also be used by the Digital Bridge Project Management Office to enhance coordination work and develop a governance plan for the next 12-18 months.

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<sup>1</sup> Partners HealthCare (Massachusetts) was unable to send a representative

## Meeting Overview

Digital Bridge Governance Body In-Person Meeting, January 24-25, 2018

Task Force for Global Health (Decatur, GA)

### Objectives

1. Determine what Digital Bridge organizations will do, individually and collectively, to ensure a successful eCR demonstration in 2018
2. Identify issues or questions central to ensuring adequate eCR sustainability nationwide
3. Determine ways to advance Digital Bridge sustainability, both organizationally and fiscally, over the next 12 to 18 months
4. Identify and document what Digital Bridge founding organizations will do over the next 12 to 18 months to advance Digital Bridge strategic priorities

### Preparation

Meeting participants were asked to prepare for the meeting by completing the following tasks:

1. Describe your organization's top two or three reasons (i.e., interests or motives) for working on the Digital Bridge partnership. Express and write each reason as statements that complete the following sentence (use no more than 15 words): "Digital Bridge will enable me to \_\_\_\_." Note: You should have 2 different statements that complete the sentence. These responses will be used during the meeting to see where partnership interests overlap and complement each another.
2. Determine what you and your organization will be able to do to ensure a successful eCR demonstration over the next 12 to 18 months.
3. Review the meeting ground rules (see below) and come to the meeting with anything you'd like to change or add.

## Meeting Schedule

### Wednesday, January 24, 2018 - Day 1

Time	Item
9:00 AM	Meeting Start
9:15 AM	Welcome and Overview
9:45 AM	Refresh the Big Digital Bridge Picture
10:30 AM	Break (15 min)
10:45 AM	Digital Bridge eCR Demonstration: Progress and Outlook <ul style="list-style-type: none"> <li>• Implementation Task Force Progress Report</li> <li>• Site-by-site review</li> <li>• Decision support capacity and outlook</li> </ul>
2:00 PM	Digital Bridge eCR Demonstration: Ensuring Progress <ol style="list-style-type: none"> <li>1. Implementation strengths and challenges</li> <li>2. Defining demonstration success</li> <li>3. Identifying how governance body organizations will ensure demonstration success</li> </ol>
4:15 PM	HHS CTO Perspective (Bruce Greenstein)
5:00 PM	Meeting Recess
6:15 PM	Reception

### Thursday, January 25, 2018 - Day 2

Time	Item
9:00 AM	Reconvene
9:20 AM	Legal and Regulatory Environment for eCR Nationwide <ol style="list-style-type: none"> <li>1. Scalability assessment findings</li> <li>2. Digital Bridge legal counsel</li> <li>3. Draft TECA</li> </ol>
10:30 AM	Break (30 min)
11:00 AM	12 to 18-Month Success in Demonstration Picture
12:30 PM	Lunch
1:00 PM	eCR Sustainability Strategy
2:15 PM	Digital Bridge Sustainability Discussion
2:40 PM	Meeting Wrap-up
3:00 PM	Meeting Conclusion

# Digital Bridge Motivations and Interests: A Big Picture Refresh

## Objective

Identify the diversity of motives and interests that bring Digital Bridge governance organizations together for the initiative, and describe common or shared interests.

## Sequence

1. Digital Bridge timeline and in-kind contributions - Jim Jellison
2. Interests and motives exercise - Charlie Ishikawa
3. Discussion - Charlie Ishikawa

## Summary and Discussion

### Digital Bridge Timeline and In-kind Contributions

A summary timeline of Digital Bridge accomplishments (Appendix 2) and a calculation of in-kind contributions (Appendix 3) were presented. Especially notable was the estimate that 15,573 person-hours (nearly two full years) have been contributed in-kind since June 2016.

### Interests and Motives Exercise

Prior to the meeting, participants prepared for this exercise by noting their organization's top two or three reasons (i.e., interests or motives) for working on the Digital Bridge initiative. During the exercise, every governance body representative and ex officio member wrote their motivations as statements that complete the following sentence: "Digital Bridge will enable me to \_\_\_\_." Statements were written on post-it notes and shared aloud.

Meeting guests maneuvered the motives on a dry ease board to identify commonalities and differences. They shared observations and similarities and reflected on how their motivations have changed since June 2016.

### Notable Observations and Discussion of Interests and Motivations

- The end goal is to improve and protect population health and health security, while the focus is on improving efficiency, patient health and productivity.
  - The problem that Digital Bridge seems focused on isn't just about population health. Rather, it seems focused on doing three key things well (health security, efficiency improvements, and patient health) in order to have better population health.
  - There appears to be different levels of Digital Bridge: there's a level focused on increasing the efficiency; and another focused on the integration of public health and clinical care.
  - Trying to make our society happier and healthier is casting too wide a net and will prevent us from accomplishing anything. If we want to protect the health of the public through these mechanisms, we should be laser-focused on accomplishing those individual things. If we do that well, other benefits will follow.
  - This is about case reporting and taking the public's health very seriously.
  - We need true public health-health care integration.
    - Focus on the current use case, electronic case reporting (eCR), is critical
  - We need a prepared workforce, IT technical issues, and resolve—that's interoperability. The epidemiological workforce is unprepared to do this. They must be brought up to speed. The underlying part of all three components of the logic model is organizational effectiveness.
  - From the public health perspective, population-based health is the goal, but we can get distracted by the shiny things and lose focus on this 40-plus-year goal. A year and a half ago, I

started out excited and optimistic. Now, we're doing work on it, but it's hard work and I don't want to lose focus on the use cases.

- There's a significant need for focus; however, we don't want to develop siloes.
  - Expandability must also be developed as we proceed with eCR. How do we reconcile that need without developing yet another silo that doesn't have that interoperability?
- Contrasting interests and motivations among the three sectors
  - The mission and goal of a private health delivery system is serving clients. In public health, communities are served to make them healthy. Health IT vendors prioritize taking care of their clients' mission; this is where the public health mission can translate or connect to the health delivery system.
  - Developing a collaborative and consistent approach/strategy as an EHR vendor to make sure we can come up with something more consistent where we don't have to develop something unique for every use case—scalability is key.
- Interoperability has come up several times and will continue to be a priority.

Table 1: Governance body representatives' and ex officio members' responses to the statement, "The Digital Bridge will enable me to \_\_\_\_." (grouped into motivations and interests)

Grouping	Statements	Affiliation	Sector/Role
...form a partnership among health care, health IT, and public health to improve population health and assure the nation's health.	<i>connect public health and clinical settings to develop better health policy</i>	HHS	Ex Officio
	<i>support our customers' needs to collaborate with their partners in the public health community to provide better health to their current and future patients</i>	Epic	Health IT
	<i>achieve true integration of health care and public health</i>	CSTE	Public Health
	<i>better understand the legal landscape for eCR and data exchange more generally</i>	APHL	Public Health
	<i>support local health departments in the implementation and evaluation of a system that impacts their public health work</i>	NACCHO	Public Health
	<i>work more closely with the health care community</i>	APHL	Public Health
	<i>form a closer partnership with health care and health IT to improve population health</i>	CDC	Public Health
	<i>engage proactively with other partners (public health, EHR vendors, etc.) to solve public health reporting issues</i>	Kaiser Permanente	Health care
	<i>live in a healthier society</i>	RWJF	Ex Officio
	<i>more effectively protect the public's health</i>	CDC	Ex Officio
	<i>ensure the relevancy of the public health agencies' leadership role in assuring the nation's health</i>	PHII	Ex Officio
	<i>help modernize the practice of public health</i>	deBeaumont Foundation	Ex Officio
	<i>promote public and population health among our clients and in Cerner</i>	Cerner	Health IT
	<i>spend more time with patients</i>	Kaiser Permanente	Health care
	<i>contribute to improving the health of the citizenry</i>	Ex Officio	Ex Officio



Grouping	Statements	Affiliation	Sector/Role
	<i>participate in collaborative discussions to clarify and prioritize issues of importance to the public health community</i>	Allscripts	Health IT
	<i>represent the value and innovation of the applied use of technology, benefit of partnership from a local health department lens</i>	NACCHO	Public Health
	<i>participate in national policy direction to [up arrow] population health</i>	ASTHO	Public Health
	<i>advance the mission of HealthPartners and members to improve the health of our patients and the community</i>	HealthPartners	Health care
...finish a long journey of advancing public health surveillance and bringing the field into the 21st century.	<i>finish a journey I began 40 years ago</i>	Ex Officio	Ex Officio
	<i>reduce barriers to data interoperability</i>	CDC	Ex Officio
	<i>transform the way informatics is exchanged between health and public health</i>	PHII	Ex Officio
	<i>build the infrastructure to enable communities to have the data to make healthy choices</i>	RWJF	Ex Officio
	<i>be critical to the process of advancing public health/health care technology data exchanges</i>	ASTHO	Public Health
	<i>bring the field of applied public health epidemiology into the 21st century</i>	CSTE	Public Health
	<i>support state and local partners to receive case reports in a more complete, accurate and timely way for action</i>	CDC	Public Health
...tackle a difficult multi-sectoral challenge and provide a solution for nationwide interoperability.	<i>contribute to long-term strategy for public health and eliminate variances</i>	Meditech	Health IT
	<i>collaboratively specify and advocate for efficient, nationally consistent capabilities for key public health initiatives</i>	Allscripts	Health IT
	<i>provide a forum, platform and method to address future public and population health use cases</i>	Cerner	Health IT
	<i>provide a solution for our clients to implement the MU Stage 3 eCR measure rapidly</i>	Cerner	Health IT
	<i>the goal of advancing the nationwide interoperability which is incomplete without public health getting relevant data</i>	eClinicalWorks	Health IT
	<i>meet connectivity needs of customers who want to submit data to public health</i>	eClinicalWorks	Health IT
	<i>collaborate with all stakeholders ensuring solutions work beyond validation tools but more importantly in the real world</i>	Meditech	Health IT
	<i>tackle a difficult, multi-sectoral challenge through joint learning leading to a public benefit</i>	APHL	Public Health
	<i>explore new ideas to advance a more efficient/effective health system</i>	ASTHO	Public Health
	<i>achieve efficiencies, reduce burden, increase satisfaction</i>	Kaiser Permanente	Health care

## Ensuring eCR Demonstration Success

### Objective

Determine what governance body organizations will do, individually and collectively, to completely ensure a successful demonstration in the next 12 to 18 months.

### Sequence

1. Presentation of perspectives on eCR implementation progress and outlook
  - a. eCR implementation taskforce report - Laura Conn and Benson Chang
  - b. Site-by-site review - Rob Brown and Benson Chang
  - c. Decision support intermediary (DSI) capacity and outlook - Jeff Engel and Scott Becker
2. Discussion to ensure success - Moderated by Hoa Truong and Charlie Ishikawa
  - a. Observed successes/facilitators and challenges for implementation
  - b. Discussion and synthesis of demonstration success factors
  - c. Identification of governance body actions for implementation success

### Summary and Discussion

#### Implementation Accomplishments

Presented by: Laura Conn

An eCR implementation timeline developed with input from the implementation taskforce was presented to meeting attendees (Appendix 4). The first half of the timeline shows that a foundation and infrastructure, or tools to support eCR, were developed (i.e., RCKMS and AIMS development and testing). Highlights are as follows:

1. The test package, clinical narratives, eICR test data and sample eICR were developed and shared with sites.
2. Iterative performance testing is well underway, and technical needs are being identified.
3. AIMS and RCKMS integration testing is nearly complete. The hope is to move into a production environment by late January 2018.
4. The reportability response (RR) was published by HL7 on January 23, 2018.
5. Implementation sites have been engaged, and planning has progressed.
6. The Michigan site will be first for end-to-end testing and onboarding in January 2018. Utah and Kansas are in initial planning, and those sites did behind-the-scenes development work and have resumed planning a connectivity this month.
7. The taskforce is working with Epic to identify a new health care partner for the Massachusetts site.

#### Implementation Risks and Issues

Presented by: Benson Chang

Risks and issues discussed in prior governance body meetings were presented to meeting attendees (Appendix 5). Highlights are as follows:

1. Issue 1: Cerner and Intermountain foresee a production ready solution completed in March 2018.
2. Issue 2: Epic has identified an issue that may be widespread: an inability to provide coded laboratory result values in eICRs for suspect cases. Consequently, RCKMS will be limited in its ability to determine the reportability of such cases. The extent of the issue is under investigation by the PMO.
3. Risk 1: AIMS has real-time security monitoring and regular tests to address security risks. Furthermore, a third party security assessment will take place in 2018.

4. Risk 2: Work to address the need for point-to-point legal agreements are focused in the short-term on developing a template multi-party agreement. There is consensus on how to prioritize work on medium- and long-term strategies (see legal and regulatory discussion on page 25).
5. Risk 3: HL7 approved a reportability response (RR) guide for trial use on January 23, 2018.
6. Risk 4: Uncertainty in funding to APHL and CSTE for eCR work remains due to HHS budgetary constraints and a competition for their grant funding mechanism in 2018.

### Site-by-site Review

Presented by: Benson Chang and Rob Brown; Bob Harmon (Cerner); Shan He (Intermountain Health, Utah); and James Doyle (Epic)

The accomplishments, challenges and current status of implementation in each of the seven Digital Bridge sites were presented. The presented information and the discussion are summarized below.

### Site 1: Michigan

Presented by: Rob Brown



## Michigan Site

Provider, Vendor, HIE/HIN Activities	DHD10, Netsmart, MiHIN Status
AIMS Connectivity	Complete – MiHIN (Connectivity is in place, waiting to receive documentation from AIMS)
Implement and Test RCTC (Trigger Codes)	In progress – Netsmart
Implement and Test eICR 1.1 Template(s)	In progress – Netsmart
Install Vendor's eICR Functionality	In progress – DHD10
Test eICR structure with AIMS Online IG Validator	In progress – Netsmart
Receive Reportability Response	In progress – MiHIN, Netsmart, DHD10
Public Health Activities	MDHHS Status
AIMS Connectivity	N/A (MiHIN will be connected to AIMS)
Receive eICR	In progress
Ability to Receive Reportability Response	In progress

#### Key accomplishments:

- Provided analysis and feedback on trigger codes and reporting criteria.
- Pushed through the additional analysis and configuration prior to setup for VPN connectivity to successfully complete AIMS connectivity and testing.
- MiHIN connectivity to the provider/vendor and public health is progressing as well.
- Completed background checks for access to environments for testing.
- MiHIN is developing supplemental testing personas and eICRs.

#### Current Challenges:

- Netsmart is focusing on an implementation until Feb. 19 for DHD10 (Michigan site's local health department /provider); this work must occur prior to resuming Digital Bridge eCR implementation.
- Netsmart uses CPT codes for lab orders and test methods instead of LOINC, and mapping to the RCTC is required.

The Michigan site includes a HIE (MiHIN) and a local public health agency as the health care provider (DHD10), using a Netsmart electronic medical record system. Production is anticipated in March 2018.

#### Accomplishments include:

- Established connectivity between MiHIN and the AIMS platform
- On-going connectivity testing by AIMS and MiHIN teams

#### Challenges include:

- Netsmart is scheduled to start implementing their eCR solution at the health care provider's site on February 19. Key implementation tasks are:

- Key remaining Netsmart tasks are eICR generation and RCTC implantation, both of which require DHD10.
- Mapping lab codes to the RCTC is complex for Netsmart and DHD10. Public health is working with Netsmart on this effort.

### Discussion

Mapping lab codes and local codes to the RCTC is a challenge for health care providers and their vendors across all the implementation sites.

### Cerner Implementation Sites

Presentation by: Bob Harmon

Sites in Utah and Kansas have health care providers that are using Cerner Millennium products. Cerner, initially challenged to apply development resources, is working closely with Intermountain Healthcare to develop technology for eICR provisioning. In 2018, the Cerner eCR product will be based mainly on Intermountain's implementation. The initial product is expected to be complete in late 2018 and should have:

- A release limited to the Utah and Kansas implementations
- Full trigger code support
- eICR generation using available CDA sections when trigger code matches occur
- eICR transport using a XDR connection from the Intermountain Gateway (a component behind the Intermountain firewall) to the AIMS platform

### Discussion

- Current development work will result in a temporary solution, not a final product. Additional work will be needed to implement across all Cerner Millennium platforms
- The eICR lab coded value issue (see above issue #2) is a challenge that Intermountain and Cerner are working to address. There are differences between RCTC codes and the codes used by hospitals; it is not a one-to-one match. These will need to be carefully mapped.
  - This issue is not unexpected, because there is variability in how individual health care provider systems code lab orders and results using LONIC and other vocabularies.
  - Lessons learned by Intermountain and other demonstration sites should help subsequent adopters in their mapping work to save time and effort.

Intermountain initially anticipated production by October 2017. Unexpected delays occurred due to competing priorities. Work is now on track and progressing well for readiness in March 2018.

## Site 2: Utah

Presentation by: Shan He



Sharing data to improve clinical care and public health. [digitalbridge.us](http://digitalbridge.us)

## Utah Site

Provider/Vendor Activities	Intermountain, Cerner Status
AIMS Connectivity	In progress – Intermountain
Implement and Test RCTC (Trigger Codes)	In progress – Intermountain
Implement and Test eICR 1.1 Template(s)	In progress – Intermountain/Cerner
Install Vendor's eICR Functionality	N/A – Will occur when Cerner product for eICR generation is completed. For now, Intermountain is generating the eICR
Test eICR structure with AIMS Online IG Validator	In progress – Intermountain/Cerner
Receive Reportability Response	In progress – Intermountain
Public Health Activities	UDOH Status
AIMS Connectivity	Complete
Receive eICR	Complete
Ability to Receive Reportability Response	Complete

### Key accomplishments:

- In an effort to further eCR and the initial implementation, Intermountain and Cerner (Utah site) are sharing their solution with Lawrence Memorial Hospital (Kansas site).
- Provided feedback analysis on trigger codes within the RCTC.
- Competing priorities within Cerner during 2017 required a modified vendor/provider solution to generate the eICR. Additional Intermountain resources were brought to aid the Cerner implementation in late 2017.

### Current challenges:

- Mapping lab codes to the RCTC is complex – lab orders and results are coded with codes from Sunquest (Intermountain lab).

The Utah site includes the state public health agency and Intermountain Healthcare using in-house resources to develop an interim eICR solution that interfaces with a Cerner system.

- Intermountain Healthcare is sharing their solution with Lawrence Memorial (Site 3: Kansas).
- Technologies implemented for Meaningful Use are being leveraged by Intermountain; e.g., AIMS connectivity and document transfer using XPR.
- The RCTC code mapping is the most time consuming. Intermountain has a terminologist and other support staff helping.
- The interim solution-produced eICR is validated but it is missing an optional field that Cerner is helping to address.
- Intermountain plans to retire the interim solution once a Cerner module is ready in late 2018
- Receipt and processing of the reportability response will be developed.

## Discussion

- Cerner is looking into developing FHIR-based eCR solutions; they have a large team pursuing FHIR initiatives.
- CDC is sponsoring an initiative to develop eCR standards using FHIR within HL7.

### Site 3: Kansas

Presentation by: Rob Brown



Sharing data to improve clinical care and public health. [digitalbridge.us](https://digitalbridge.us)

## Kansas Site

Provider/Vendor Activities	Lawrence Memorial Hospital, Cerner Status
AIMS Connectivity	In progress – LMH
Implement and Test RCTC (Trigger Codes)	In progress – LMH
Implement and Test eICR 1.1 Template(s)	In progress – LMH/Cerner
Install Vendor's eICR Functionality	N/A – Will occur when Cerner product for eICR generation is completed. For now, LMH is generating the eICR
Test eICR structure with AIMS Online IG Validator	Not started – LMH/Cerner
Receive Reportability Response	Not started – LMH

Public Health Activities	KDHE Status
AIMS Connectivity	Complete
Receive eICR	Complete
Ability to Receive Reportability Response	In progress

#### Key accomplishments:

- In an effort to further eCR and the initial implementation, Intermountain and Cerner are sharing their solution with Lawrence Memorial Hospital.
- Provided analysis and feedback on trigger codes and reporting criteria.
- Competing priorities within Cerner required a modified vendor/provider solution to develop and generate the eICR. Lawrence Memorial Hospital will take a similar approach as Intermountain (Utah site) for eICR generation during the initial implementation.

#### Current challenges:

- There are no current challenges at this time.

The Kansas site includes the state public health agency, and Lawrence Memorial Hospital, using a Cerner system.

- Kansas is progressing slightly behind Utah site.
- There have been combined working sessions with Utah to reduce redundant work and facilitate peer-to-peer problem solving on critical activities.
- The public health agency is able to receive eICR.
- Senior leadership buy-in and support is a facilitator; i.e., Lawrence Memorial's point-of-contact is the CIO.

### Discussion

- The peer-to-peer interaction is a really great model that Cerner is helping to facilitate.
- Go-live date is not set; the third site implementation timeline is going through testing.
- Competing priorities is a common theme across the implementation work. For example, work on the third site was on pause and is now resuming. Regardless, Digital Bridge is a high priority for governance body vendors, because it is recognized as a system-wide solution.

### Epic Implementation Sites

Presentation by: James Doyle

Sites in California, Houston, Massachusetts and New York have health care providers that are using Epic product.

- eICR functionality was installed into Epic product and released to sites in Fall 2017.
- Coded results may not be included in the eICR, which is a potential concern for RCKMS functionality. Epic intends to add to future release.
- Partners Healthcare (Massachusetts) is unable to participate in the Digital Bridge eCR implementation until early 2019.
- Epic is working with Massachusetts to find another hospital. It has proved to be challenging.

- A reason that Partners Healthcare has delayed implementation is the absence of a firm project timeline; i.e., Epic/Digital Bridge sites do not have dates for when we are ready to start.
- Progress with Epic sites is attributable to PMO support. Dates and expectations for connecting with AIMS would help.

### Discussion

- The reason Partners Healthcare delayed their implementation seems to encapsulate a wider Digital Bridge challenge: setting firm timeline expectations. How can we describe the problem and understand its causes?
  - This needs to be a higher priority for the health care organizations. While there are providers who want to be on the leading edge of health information technology uses for population health, many physicians want to only focus on patient care. It is hard for vendors to commit their clients.
  - The DSI is challenged to work with more than one site at the same time.
    - This is a net result of DSI resources being stretched as priorities needed to be assessed at every step in the process thus far.
    - The need to repeatedly assess priorities may have been lessened with more technical SME involvement in the site selection process.
  - The need to coordinate multiple parties and communication challenges were also part of the problem. When important information was either delayed, overlooked or missed in receipt, avoidable misconceptions developed.
- Moving forward we can address this problem by:
  - Figuring out how to coordinate planning to support all the major players
  - Enroll additional health systems in Digital Bridge; should look to those places where there is a match between health care provider systems and their partners
  - More quickly addressing partner needs so we don't lose them along the way

### Site 4: California

Presentation by: Rob Brown

## California Site

Provider/Vendor Activities	UC Davis, Epic Status
AIMS Connectivity	Not started – UC Davis
Implement and Test RCTC (Trigger Codes)	Partially complete – Epic
Implement and Test eICR 1.1 Template(s)	Complete – Epic
Install Vendor's eICR Functionality	Not started – UC Davis
Test eICR structure with AIMS Online IG Validator	Complete – Epic
Receive Reportability Response	Not started – UC Davis

Public Health Activities	CDPH Status
AIMS Connectivity	Not started
Receive eICR	In progress
Ability to Receive Reportability Response	Not started

#### Key accomplishments:

- Provided analysis and feedback on trigger codes and reporting criteria.

#### Current challenges:

- Initial concerns with provider engagement. With leadership support, provider is able to continue participation with Digital Bridge eCR implementation. Continue outreach in order resume initial engagement with provider.



The California site includes the state public health agency, and UC Davis using an Epic product.

- The public health agency has been very engaged
- An initial challenge in engaging UC Davis has been overcome
- UC Davis does not have a lot of connectivity with AIMS. There is an AIMS Connection with CalRedi, a state public health information system
- Need to set a timeline

### Discussion

- PMO experience finds no difference in how work proceeds when the site has all state actors versus a mixture of private and public actors? It has not made a difference.

### Site 5: New York

Presentation by: Rob Brown



## New York Site (New York State and New York City)

Provider/Vendor Activities	IFH, Upstate, Epic Status
AIMS Connectivity	Not started – IFH, Upstate
Implement and Test RCTC (Trigger Codes)	Partially complete – Epic
Implement and Test eICR 1.1 Template(s)	Complete – Epic
Install Vendor's eICR Functionality	In progress – IFH, Upstate
Test eICR structure with AIMS Online IG Validator	Complete – Epic
Receive Reportability Response	In progress – IFH, Upstate

Public Health Activities	NYC DOHMH, NYSDOH Status
AIMS Connectivity	Not started
Receive eICR	Complete
Ability to Receive Reportability Response	In progress

#### Key accomplishments:

- Provided analysis and feedback on trigger codes and reporting criteria.
- Good progress and work towards receiving an eICR and RR.
- Resolved initial concerns from provider on the licensing and maintenance fees associated with Epic software for the initial implementation.

#### Current Challenges:

- Public health (NYC DOHMH and NYSDOH) requires the installation of a specific transport onto the AIMS platform. The transport is known as Universal Public Health Node (UPHN) Lite and is currently used by all clinical labs licensed by NYSDOH and some hospitals. There is no funding for AIMS to test and maintain UPHN Lite; analysis is pending on the extent of the effort.

The New York site includes the state public health agency, New York City Department of Health and Mental Hygiene, and Institute for Family Health (NYC) and New York Upstate using an Epic product.

- Public health agencies are very involved in the eCR implementation taskforce.
- There were initial concerns over a false report of fees to providers for the EPIC eCR module that have been settled.
- Unique challenge: Public health agencies require installation of a specific transport onto AIMS that requires APHL to run additional security tests for which there is no funding (i.e., Universal Public Health Node Lite (UPHN Lite), a legacy New York State system for statewide public health electronic laboratory results reporting). UPHN lite predates EHR technologies promoted under the HITECH Act.

### Discussion



- Centralized systems, such as that used in New York State with UPHN lite, will be found in other states. It is an approach that can streamline on-boarding and support interoperability.
- For APHL, whether UPHN capability is built on AIMS depends on funding availability.

The New York site also presents an interesting legal and regulatory environment that may be favorable for eCR reporting (i.e., ELR reporting requirements are enforced per lab certification practices).

## Site 6: Houston

Presentation by: Rob Brown


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## Houston Site

Provider/Vendor Activities	Houston Methodist, Epic Status
AIMS Connectivity	In progress – Initial connectivity completed with Houston Methodist
Implement and Test RCTC (Trigger Codes)	Partially complete – Epic
Implement and Test eICR 1.1 Template(s)	Complete – Epic
Install Vendor's eICR Functionality	Not started – Houston Methodist
Test eICR structure with AIMS Online IG Validator	Complete – Epic
Receive Reportability Response	Not started – Houston Methodist
Public Health Activities	HHD Status
AIMS Connectivity	In progress – Initial connectivity completed
Receive eICR	In progress
Ability to Receive Reportability Response	In progress

### Key accomplishments:

- Provided analysis and feedback on trigger codes and reporting criteria.
- Worked through initial concerns of not having the right folks from the provider side involved and their understanding of the Digital Bridge eCR Implementation. Completed initial connectivity with the provider and public health for Houston site.

### Current Challenges:

- At this time, there is no funding for AIMS to support the provider's desired connection type, direct messaging, for production data.

The Houston site includes the city public health agency and Houston Methodist using an Epic product.

- Connectivity with AIMS has been set up and tested
- Houston Methodist wants to use direct messaging for eICR transmission to AIMS. Cost of direct is a barrier that needs funding to overcome.

## Discussion

- For this implementation, direct messaging presents a per message cost for which there is no funding. There is concern that this may be an issue if, in the future, other providers want to use direct.
  - AIMS has direct capability. APHL is investigating ways to address this barrier; e.g., becoming a Health Information Service Provider (HISP).
  - APHL is aware of the workflow issues that complicate direct messaging that need to be addressed in implementation.
  - The Houston site is highly motivated to implement. Every effort should be made to move them up in the implementation queue.
  - APHL has every intention of doing this to extent that resources permit.

## Site 7: Massachusetts

Presentation by: Rob Brown

## Massachusetts Site

Provider/Vendor Activities	Partners, Epic Status
AIMS Connectivity	Not started – Partners
Implement and Test RCTC (Trigger Codes)	Partially complete – Epic
Implement and Test eICR 1.1 Template(s)	Complete - Epic
Install Vendor's eICR Functionality	Not started – Partners
Test eICR structure with AIMS Online IG Validator	Complete - Epic
Receive Reportability Response	Not started – Partners

Public Health Activities	MDPH Status
AIMS Connectivity	Not started
Receive eICR	Complete
Ability to Receive Reportability Response	In progress

### Key accomplishments:

- Provided analysis and feedback on trigger codes and reporting criteria.
- Good progress and work towards receiving an eICR and RR.

### Current challenges:

- Partners (MA site provider) is unable to participate in the Digital Bridge implementation until early 2019 because of timeline misalignment and competing priorities.
  - Partners remains committed to support Digital Bridge in other areas and in 2019 as an implementation site.
  - Currently, Epic and MDPH looking for a MA provider to participate during 2018.

The Massachusetts site includes the state public health agency and Partners Healthcare as the provider, who recently delayed implementation work until 2019.

- The public health agency has been very helpful in the eICR implementation taskforce.
- The public health agency is able to receive an eICR and is developing ability to receive reportability responses.
- APHL does not anticipate any problems in connecting with the public health agency.

## PMO and Taskforce Assessment of CY2018 Production Likelihood

Presented by: Rob Brown



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### Likelihood of Production in CY 2018

Implementation Sites	Notes
<b>Michigan:</b> DHD-10 NetSmart, MIHIN MDHHS	Implementation has made the most progress, AIMS connectivity testing is underway and preparations for onboarding have begun. Despite a two week pause from Netsmart and DHD-10, the Michigan site continues to strive forward.
<b>Utah:</b> Intermountain Cerner UDOH	Public Health has completed their critical activities, and the Vendor/Provider solution is expected to be ready for production in March 2018.
<b>Kansas:</b> LMH Cerner KDHE	Public Health is making progress to complete their critical activities, and the Vendor/Provider solution is expected to be ready for production in March 2018.
<b>California:</b> UC Davis Epic CDPH	Epic's eICR software updates are released. With leadership support, provider is able to continue participation with Digital Bridge eCR Implementation. There has not been full engagement, but no major challenges have been identified at this time.
<b>Houston:</b> Houston Methodist Epic HHD	Epic's eICR software updates are released. At this time, there is no funding for AIMS to support the provider's desired connection type for Production.
<b>New York:</b> IFH, Upstate Epic NYC, NYS	Epic's eICR software updates are released. Public Health requires the installation of a specific transport onto the AIMS platform. There is no funding for AIMS to test and maintain the transport.
<b>Massachusetts:</b> Partners/TBD Epic MDPH	Epic's eICR software updates are released. Partners is unable to participate in the Digital Bridge implementation until 2019 due to competing priorities. Epic and MDPH looking for a MA provider to participate during 2018.

### Discussion

- It is clear that Digital Bridge is attempting to do many things at the same time for the first time, and this is causing unforeseeable tensions that we are learning from; e.g., misalignments in delivery dates.
- Competing priorities is an issue across all sites. This is particularly evident with health care providers.
- As a whole, the seven sites are mainly state-based approaches—when you've seen one site, you've seen just one site. While this is to be expected in our federated public health system, we need to continue to push for system-wide solutions.
- The role that public health agencies play in advancing implementations at the seven sites will be a critical lesson to learn and share, because it will aid wider adoption.
- Digital Bridge needs to be more consistently set and enforce deadlines: even if they slip, having deadlines keeps collaborative activities from stalling.
- There can be more advocacy. Vendors can do more to seek out clients who would partner with Digital Bridge and demonstrate the eCR approach.

### Decision Support Intermediary Capacity and Outlook

The Digital Bridge eCR approach centralizes automation to determine the reportability of suspect case information and routes reports to appropriate public health jurisdictions. From their perspective, representatives from APHL and CSTE spoke about achievements, facilitators and challenges in their respective efforts to develop and implement decision support services.

## APHL/AIMS

Presentation by: Patina Zarcone

### Accomplishments

1. Technical implementation: Test server developed and providing eICR message validation and reportability response message production; the latest RCKMS build is working on AIMS; working with Epic and Cerner to prioritize sites for on-boarding
2. Standards development: APHL and CSTE sponsored development of the reportability response standard for trial use (STU) published by HL7 on January 23; eICR version 1.1 STU published by HL7 on January 4.
3. Legal: Aided by RWJF and DWT a draft, multilateral data use agreement (DUA) is under review with sites; Security-related legal issues are under review; and HIPAA policy guidelines have been stood up by APHL.

### Facilitators

1. Digital Bridge PMO: Improving communications; and extra hands to set up calls, coordinate and document meeting discussions and decisions.
2. Collaboration with CSTE: Many foundational elements that are critical for scaling eCR have been discovered and built.
3. An ability to manage many, diverse implementation projects simultaneously
4. Collaboration with all partners: Many lessons learned for setting up the DSI

### Challenges

1. This is a pilot effort: We don't know what we don't know
2. Communicating limitations: "Resources" means people, money, any other physical asset, and time; APHL is laboring to stretch funding from CDC for these implementations, and figuring out how to do that takes time in and of itself; moving forward, rather than using imprecise expressions like "limited bandwidth," the AIMS team will endeavor to be more precise.
3. Dealing with uncharted territory: All eICR components are crucial for full RCKMS functionality; as sites are presented with challenges to include some required eICR elements, it is challenging for the AIMS team to determine whether and when to move on-boarding forward.
4. Developing the reportability response: The RR is generated by pulling data elements from three different sources; it has taken considerable effort to make this work.
5. Time: As the platform for the DSI, AIMS staff had to be involved in almost every workgroup and on every Digital Bridge call—this was an enormous cost, and an important lesson to learn; the tech teams have found a more efficient approach that will better use the resources that come exclusively from the CDC through a cooperative agreement.
6. Foreseeable funding: As a federally funded effort, it is impossible to know with certainty what the next fiscal year's budget will be. This inhibits APHL's ability to commit to activities that would boost this eCR demonstration work (e.g., joining a trust network like e-health exchange)
7. Explaining Digital Bridge: In several instances, the AIMS team has had to explain Digital Bridge to site staff.

### Discussion

- Question: Going together takes time. Time is money. On the federal side, is Digital Bridge going to be a priority at CDC appropriations discussions?
  - There is a place for CDC to support Digital Bridge as robustly as possible. However, this is tempered by the need to determine where federal funding will have the greatest impact.
  - Recall that when Digital Bridge started, there were no funds, and everyone around the table pitched in to do what they could with what they had. That so much has been accomplished is huge; a real testament to the importance of Digital Bridge.
  - This is a priority that sits high in the CDC's surveillance strategy. Whether or not Digital Bridge is the right kind of project for congressional appropriations is up for debate.

## CSTE/RCKMS

Presentation by: Jeff Engel

### Background

1. CSTE works mainly on public money; 90 percent comes from the CDC.
2. The RCKMS was originally a public health tool for epidemiologists to get together and have everything in one place; it is a project intent on turning natural, human language into machine language—there are knowledge and technological components to the project.
3. From Jeff's perspective, the DSI concept is truly the integration of health care with public health because it puts reportable conditions reporting and surveillance into daily workflows.

### Accomplishments and Facilitators

- Successful community development effort for CSTE
- Progress along expected 2017-2018 timeline for the software tool and on track for all 74 notifiable conditions
- Working with HL7 standards development
- Involvement drives CSTE participation with sites, and in evaluation and legal activities
- In-person RCKMS training
- Support received for developing test materials

### Challenges or Risks

- The eICR does not currently contain SNOMED result values. This is a system issue that must be addressed in implementations, because without the SNOMED codes, RCKMS will miss a lot of cases. Mapping to local codes needs to take place, and lessons should be shared to help future implementations.
- Funding limitations: Uncertain how CSTE will support Digital Bridge after June 2018; there is a projected funding gap to take this to the finish line and implement this nationwide.

## Discussion

- Question: How much of the capability is to employ and keep the software running versus maintaining it?
  - States can maintain their reportable case definitions in the authoring tool that's already developed. CSTE will be better able to determine what the operating and maintenance needs for the software are as Digital Bridge evaluates the implementations.
  - For AIMS, maintenance is complicated. For example, there are considerable costs to APHL for AIMS cyber security alone; there are three full-time security people who constantly monitor AIMS in order to protect the personally identifiable health data hosted on the platform. On the other hand, efforts are taken to operate AIMS as leanly as possible; e.g., using a minimal amount of servers.
  - A challenge in this regard is that the scale is unknown. It is therefore difficult to budget.
- Question: Do you foresee a future ability for RCKMS to export its decision logic for implementation by local systems?
  - Yes
- As the governance body looks to set objectives for the future, let's focus on what — at a minimum — we must accomplish in 2018. To answer the resource question, we need to know what our targets are. Maybe it's not nationwide implementation for 2018; maybe that's later.
- What's happening in this effort is a repeat of the history of public health where we scrape together a little bit of this and that, and sub-optimize work into the ground.
  - What will it take to resource this very well; at a level that can give sites like Massachusetts the predictability they need to stick with the demonstration?

What would it take to move this up in priority for the vendors? An answer to this question needs to be part of our discussions. We need to drive demonstration quickly so we're able to say we have had private buy-in, and institutional-buy in, to make a credible and compelling argument for the resources needed to sustain this.

- A scalability issue is the legal changes that states will need to make for eCR. There will be an enormous number of codes that trigger an eCR. Many states will need to reference those codes in revised laws, regulations or rules. It will be an important facilitator for scaling to all states for CSTE to have a code set that can be referenced in state laws and regulations.
- We need to learn what it will take for CSTE and APHL to reach and maintain a steady state for these key services.

### Governance discussion to ensure demonstration success

Following the in-depth presentation and discussion of implementation work, meeting participants worked toward identifying actions that governance body organizations will take to help ensure success. This work proceeded as follows:

1. First, meeting participants listed what they observed to be the major facilitators (what's working) and challenges to implementation (Table 2).
2. With facilitators and challenges agreed on, meeting participants then brainstormed the factors of a successful demonstration that were later refined (Figure 1).
3. Finally, governance body representatives identified what they will do for implementation work using an affinity grouping exercise that expressed their intentions as responses to the following phrase: "I am going to \_\_\_\_\_ to ensure a successful eCR demonstration in the next 12 to 18 months." Responses were grouped into categories for future reference and tracking (Table 3). Later in the meeting, this work was used as a basis for pledges that individual governance body members made to support eCR implementation (Appendix 6).

Table 2: Major facilitators and challenges to eCR implementation identified by meeting participants based on the preceding meeting presentations and discussions.

Facilitators (Working well that should be continued)	Challenges
Motivation, commitment, and real work <ul style="list-style-type: none"> <li>• All parties are involved and contributing</li> <li>• There is commitment to the vision</li> <li>• People who have other day jobs have contributed real time and effort</li> </ul>	Lack of awareness, or compelling and differentiated value proposition <ul style="list-style-type: none"> <li>• Awareness and understanding of Digital Bridge and the value of eCR seems to contribute an impression that motivation and incentives for participation are low for health care providers and other stakeholders</li> </ul>
Effective advocacy <ul style="list-style-type: none"> <li>• It seems that success at a site has been tied to a single champion who drives things forward</li> </ul>	Under-funding <ul style="list-style-type: none"> <li>• Resource constraints, particularly for the DSI (i.e., CSTE and APHL), are limiting implementation progress along the desired timeline in early-2017</li> <li>• It is very difficult for the DSI to set multi-year timelines and development schedules when funding is unstable and varies from year-to-year</li> </ul>
Collaborations and partnerships <ul style="list-style-type: none"> <li>• For the entire initiative, partnerships have really been working</li> <li>• At one-to-one levels, new partnerships and collaborations have formed, and existing ones have been enhanced; for example, vendors working with APHL and the CSTE teams</li> <li>• This could be further enhanced by elevating such successes in national media</li> </ul>	Competing priorities for organizations <ul style="list-style-type: none"> <li>• Sites consist of organizations that—naturally—are working on multiple technology projects that take precedent over Digital Bridge implementations.</li> </ul>
Working technology <ul style="list-style-type: none"> <li>• Use existing tools and technology has been successful—we have used and amplified AIMS and RCKMS</li> </ul>	Interoperability <ul style="list-style-type: none"> <li>• There are discrepancies in how important eCR data elements are coded (i.e., labs) among sites, and between sites and RCKMS</li> </ul>

Figure 1: Factors of a successful Digital Bridge eCR demonstration brainstormed by meeting participants.





Table 3: Identifying what governance body organizations will do to support demonstration of eCR in 12 to 18 months

<p><b>"I am going to _____ to ensure a successful eCR demonstration in the next 12 to 18 months." Responses grouped by meeting participants</b></p> <p><b>Recruit</b></p> <ul style="list-style-type: none"> <li>Reach out to find more pilots (Chris Alban, Epic)</li> <li>Speak to customers and educate/make them aware of potential benefits of Digital Bridge (Tushar Malhotra, eClinicalWorks)</li> <li>Get ready, from a technology perspective, to deploy eCR (Tushar Malhotra, eClinicalWorks)</li> <li>Continue to work on standards to move development of our solution forward. We will seek out and educate early adopters. (Joe Wall, Meditech)</li> <li>Seek champions at state public health agencies to lead (Mary Ann Cooney, ASTHO)</li> <li>Search for a new Massachusetts provider to participate in the pilot (James Doyle, Epic)</li> <li>Recruit delivery systems (Andy Wiesenthal, Deloitte)</li> </ul> <p><b>Work</b></p> <ul style="list-style-type: none"> <li>Process improvements, receive feedback (PMO)</li> <li>Continue to participate (Richard Hornaday, Allscripts)</li> <li>I am going to continue to be actively engaged (Walter Suarez, Kaiser Permanente)</li> <li>Challenge expectations (Rich Paskach, HealthPartners)</li> <li>Be present (Rich Paskach, HealthPartners)</li> <li>Work (Rich Paskach, HealthPartners)</li> <li>Actively participate in Digital Bridge workgroups, both staff and membership (Mary Ann Cooney, ASTHO)</li> </ul> <p><b>Tech/Vocab/Standards Development</b></p> <ul style="list-style-type: none"> <li>Support further development of the DSI [*contingent on available funds] (Bill Mac Kenzie, CDC)</li> <li>Review ELR implementation for best practices to "map up" LOINC/SNOMED codes (and deal with local codes) (Jim Daniel, HHS)</li> <li>Investigate terminology (Chris Alban, Epic)</li> <li>Mitigate the coded results challenge (James Doyle, Epic)</li> <li>Analyze the expected volumes of incoming messages (Andy Wiesenthal, Deloitte)</li> <li>Review what other domains have issues with lab "local codes" (e.g., FDA has issues, experience here) (Jim Daniel, HHS)</li> </ul> <p><b>Learning</b></p> <ul style="list-style-type: none"> <li>Support learning through pilots to expand eCR to more jurisdictions (Bill Mac Kenzie, CDC)</li> <li>Establish learning community for "unengaged states" (Mary Ann Cooney, ASTHO)</li> <li>Develop cost benefit and ROI case (Walter Suarez, Kaiser Permanente)</li> <li>Examine ELR for examples of cost benefit at hospitals (Jim Daniel, HHS)</li> <li>Continue to get feedback on value and cost-benefit/ROI (feedback from clients) (Joe Wall, Meditech)</li> </ul> <p><b>Outreach Advocacy</b></p> <ul style="list-style-type: none"> <li>Advocate for nationwide DSI; this audience may include HL7 and HIMSS (Richard Hornaday, Allscripts)</li> <li>Maximize bully pulpit opportunities (Chesley Richards, CDC)</li> <li>Continue to host calls and webinars to keep the subject matter fresh with our stakeholders (Mary Ann Cooney, ASTHO)</li> <li>I am going to advance policy at the state level (e.g., California) (Walter Suarez, Kaiser Permanente)</li> <li>Advocate on the Hill, IRS, coordination between CSTE/ASTHO/APHL/NACCHO (Andy Wiesenthal, Deloitte)</li> <li>Leverage local health department network buy-in (Oscar Alleyne, NACCHO)</li> </ul>
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- Advocate harder for additional financial resources to accomplish the tasks (e.g., on the hill) (Scott Becker, APHL)

#### **HISP/Scalability Issues**

- Have the proposal/budget ready for AIMS to become a HISP to ensure a successful eCR demo in the next 12-18 months (Patina Zarcone, APHL)

#### **Implementation**

- Implement the evaluation plan at the implementation sites (Jeff Engel, CSTE)
- Drive completion of eICR development in remaining products (Richard Hornaday, Allscripts)
- Plan: get new dates on timeline (Andy Wiesenthal, Deloitte)
- Support local implementation in California (Walter Suarez, Kaiser Permanente)
- Encourage prioritization by pilot sites already in the process (James Doyle, Epic)

#### **Funding Advocacy**

- Advocate on the Hill for full funding for CDC to allocate to complete Digital Bridge (Jeff, Engel, CSTE)
- Provide funding (Chesley Richards, CDC)
- Pursue public-private partnership funding to support Digital Bridge (Oscar Alleyne, NACCHO)
- Continue to escalate efforts for eCR resources at Cerner and at client sites (Bob Harmon, Cerner)
- Support funds for governance process (John Lumpkin, RWJF)
- Support funds for legal analysis (John Lumpkin, RWJF)
- Consider providing additional funding, (Ed Hunter, deBeaumont)
- Continue to explore sustainability of our efforts (Mary Ann Cooney, ASTHO)
- Prioritize CDC commitments (Chesley Richards, CDC)

## HHS CTO Perspective

At the end of the meeting's first day, Bruce Greenstein shared some thoughts from his perspective as chief information technology officer of the U.S. Department of Health and Human Services:

- The Digital Bridge goal is exceptional, and the challenge is hard.
- You have to be careful to execute on what's in front of you today in order to get to what's needed in the future.
- Have a succinct value proposition that will be easy for decision makers to understand; something that compels both a health care organization's CMO and a CFO to advocate for Digital Bridge. Have answers to questions like:  
What's the business problem you're trying to solve? It should be an offering that addresses something burdensome or expensive to make it worth the investment.  
What differentiates you from what's already on the market?  
How does better data exchange between health care and public health agencies make a difference in someone's life? How does it relieve clinical burden?
- Within the last five years, there's been more and more assumption of risk on the provider side, including HMOs and provider-owned health plans. They're great examples of taking that value proposition of something providers don't do so well and making it better.
- The amount of horsepower you have in this room is incredible. It has to be an easier and nimbler way, however, for decisions to be made and for consensus to be reached. The process needs to be much more iterative; address what's not working and do it quickly.
- There's a difference between protecting health as the absence of death and the promotion of wellness. In areas where there is vulnerability, you get a market benefit. For example, Zika created turmoil and anxiety; there's the idea that you're leaving yourself open to other diseases. Use that! Delineate that as

public health's responsibility. When it comes to managing diabetes, for example, there's a saturation in the private vendor space. That's not where public health is seen as excelling (e.g., Apple is setting up a service that pulls EHR data into mobile devices). Also, UK mandates citizens have access to their National Health Service (NHS) records on their phones. Remember: the government is the only buyer of this. Do this very, very well before diving into the crowded market of managing chronic conditions. Some populations may get their chronic disease management from public health down the line, but others wouldn't know how to interface.

- With regard to leveraging the U.S. technology industry to advance chronic disease management in settings where local health departments are providers of primary health care: Technology is making a difference for administrative work, but for individual patients the problem is behavior change not technology; the vast majority of the population can't be bothered to monitor their own health, even if given incredibly advanced health tracking tools.

## Legal and Regulatory Environment for eCR

### Objective

Discuss and identify short-term, mid-term and long-term actions for Digital Bridge to promote a legal and regulatory environment that is favorable or promotes eCR adoption.

### Sequence

- Scalability Assessment Findings - Walter Suarez and Jim Jellison
- Remarks from Legal Counsel - Adam Greene
- Trusted Exchange and Common Agreement – Walter Suarez

### Summary and Discussion

#### Scalability Assessment Findings

Presentation by: Jim Jellison and Walter Suarez

It is important to keep in mind that work to develop electronic case reporting pre-dates Digital Bridge. As the Digital Bridge initiative attracted and coordinated stakeholders to work on a single, agreed-upon approach, concerns over the ability to scale the approach emerged. In October 2017, the governance body tasked the PMO to analyze the concerns and identify and assess the issues. Groups of technical and legal SMEs on the implementation taskforce and the legal and regulatory workgroup convened to inform the analysis and assessment. Assessment findings and a timeline to address potential issues were presented (Appendix 7-8).

### Discussion

- Three approaches are not mutually exclusive. In some places, it might be a combination of these.
- As we move forward, let's identify those areas that have to be the same for everybody and what can be flexible. For example, are we going to allow this modification that everything goes through HIE instead of DSI?
- There's an engineering reality. There are things that we need to control and determine the trade-offs of flexibility. We can't tell a state that they can't do certain things, but what we can tell them is the benefit of doing it this way versus another.
- It'll be important to describe the function. Once we describe the function, there are different forms that meet the function. That gets to the alternative routes. At the point that we get RCKMS on an API, it

wouldn't be ideal to preclude that if it has to stay on the AIMS platform. So we'll have to be careful with the requirements.

- As we go through this process, ensure that the technical group is involved in these conversations.

### Remarks from Legal Counsel

Presentation by: Adam Greene, DWT, LLP

Davis, Wright and Tremaine, LLP (DWT) is the legal counsel to PHII, RWJF, and APHL for the demonstration of eCR by Digital Bridge. During this session, Adam spoke with meeting participants about eCR legal issues and DWT's upcoming work:

- We started out by looking at how privacy laws, mostly HIPAA, apply to this project. HIPAA prevents covered entity from misusing protected information. HIPAA has permissions for public health, mainly three ways:
  - If reporting is required by law (e.g., if a state law dictates tuberculosis cases must be reported), HIPAA permits it as a required-by-law disclosure.
  - If reporting is authorized by law (e.g., if a state has a law that you may report any unusual cases that you believe raise a public health risk) if a physician or hospital sees a puzzling or alarming case, they then have discretion under HIPAA.
  - If consent is present (e.g., if you want to notify your public health agency about cases of diabetes), but it doesn't fall under either of the above two permissions, you need consent.
  - If none of the three requirements above are met, you may not share protected health information with a public health authority or its contractor.
- An important concept, and hypotheticals:
  - **Business associate:** A concept under HIPAA of someone acting on behalf of a covered entity like a hospital or physician's office. This is a fundamental part of Digital Bridge: What would be the role of the DSI (APHL) under Digital Bridge? Business associate? Covered health authority?

**Hypothetical scenario 1:** APHL is acting as a contractor to the public health authority in Georgia and something goes wrong. All of the case reports that have gone to APHL have been hacked. In that situation, legally speaking, you may not be required to notify Georgia residents. Lawsuits against Georgia are a possibility but won't have much success.

- Now, you're required by law to notify every impacted patient. Potential HIPAA violations are also possible, and the Office of Civil Rights can impose huge financial penalties if they believe security was negligent. Also, all entities that APHL has served as a contractor to are now open to lawsuits.
- In the pilot program, it makes sense for APHL to be a business associate; it's easier to enter into contracts with pilot sites than to enter into government contracts. Health care providers are comfortable working through business associates.
- Medium term, we think that's also going to be the case.
- Long term, we want to get to a point where the DSI is not acting as a business associate, but as an agent of public health. The issue: you may only disclose info to a public health authority or an agent if it's required or authorized. A clinician can't just report a case up to public health because they want to, if the three requirements aren't met (e.g., if, hypothetically, Zika is not reportable in Alaska, but it is in Florida, an Alaska clinician would have to take that into account and would have different public health considerations than a provider in Florida).

### Discussion

- In the case where a state permits public health to declare new reportable conditions (e.g., Georgia), the state would have the discretion to make a disease reportable, and then after that change, reporting those cases would meet the above requirements.

- There may be states that lack this sort of authorization power. Most states have public health laws with language providing for reporting of any other emerging or urgent diseases. DWT is looking at doing a state survey that takes into account what is required, what is authorized, etc.
- How do we handle cases that have left the state, when the two different states have different standards for what's reportable?
  - The concern is over the legality of false positives; e.g., I believe case X may be reportable in state Y, but ultimately that state Y does not have a law to make it reportable. This is the minority of cases. As a health care provider, you cannot report something in a state if reporting is not legally required. If APHL is your business associate, you can. That is not the case if APHL is a contractor.
  - The difference is also between "required" and "authorized:" if "required," then automating reporting seems permissible and a non-concern; if "authorized," or at a physician's discretion, then how do we set that up? If it is a prompt, physicians would likely ignore it since there's already so much going on with the EHR.
    - This is a Digital Bridge decision: If reporting is "authorized" by law, must that discretion remain, or are there some situations where it can or needs to be an automated process.
      - We're in a nascent segment of a future automation that will make a clinician's life easier. It does not and should not discourage a phone call from a clinician to public health. Clinical judgment still comes into play, and we don't want to take that out of the equation.
  - Local jurisdictions can go into RCKMS and add codes that are relevant to their local reporting laws; e.g., hemoglobin A1Cs are reportable in New York City (NYC), but not elsewhere. So now, that trigger code goes to the DSI, and for any jurisdiction other than NYC, the case goes away, whereas with NYC, it goes to the health department. With other jurisdictions, there's no requirement, no authorization, and probably no consent. How do we protect that info? The business associate agreement may protect it at first until we figure out which business cases fall in that category. We may restrict use of RCKMS, but we really need to learn from the initial sites.
    - Jumping off that example, when a physician in NYC working on a patient from another county sends that data, the receiving county expunges that info, because it's not reportable. It gets shredded. This is always how I've seen this play out. So are we looking for a problem that doesn't exist, because in practice, it hasn't been an issue?
    - The issue is, when it was someone else's problem, it wasn't our problem. But we've heard there's widespread violations of HIPAA in this area. If a patient ever complained about non-reportable conditions being reported and went to the Office of Civil Rights, that office could impose severe penalties. Widespread noncompliance exists, but that doesn't mean we can default to noncompliance—essentially automating HIPAA violations through Digital Bridge.
  - Across the country, we have insufficient reporting, which Digital Bridge should help with. We ultimately want reporting to go up. Also, most states include the suspect cases as reportable.
    - It's more about the legal false positives—something being reported in a jurisdiction where it's not reportable. We have no issue of suspected cases.
- We are trying to improve to a level where 95 percent of cases are reported. If we tried to create a 100 percent system, we'd be sitting here in this exact spot still in another 18 months trying to figure out how to get there. Let's solve the 95 and leave the five percent to be solved in some other fashion. Providers are not systematically violating HIPAA; they work very hard not to do that. Accidental disclosures happen, but it is not systematic neglect. Let's not incorporate that kind of situation in a systematic way through an automatic system.
- Since providers are the ones held accountable by HIPAA: what systems are we building to validate that RCKMS codes are what we feel are appropriate for reporting? Are we protecting the providers in this case?
  - The purpose of RCKMS is to protect the providers. It's a two-step process: does it meet the trigger codes and is it reportable in the jurisdiction? The first question is answered in the EHR, and the second is answered by the DSI. Ultimately, if we can embed both components of decision

making in an API, you're protected, because you have this system. We will protect providers through business partner agreements, and then with automated embedded systems.

- Let's also consider the risk associated with this hypothetical: An overzealous epidemiologist adds non-reportable conditions to the RCKMS logic. Then that logic is embedded in the RCKMS, and automated, and there's a greater risk of violations. Is permitting the possibility of such a hypothetical an acceptable risk, or should auditing occur to mitigate the risk?
- The impression from local public health experience is that no state attorney general would take a doctor to court over an issue like this.
  - Yes, but the enforcement body is the Office of Civil Rights for HIPAA, not necessarily the state attorney general. There is some precedent that they've gone after the state of Alaska, and some other entities, but not for public health.
- Advocating for a good Samaritan exception in the public health law may help. If a jurisdiction reports something in good faith, believing it represents a health risk, it should be exempt.
  - Physicians have reported non-reportable conditions just because they were very concerning, and never worried about being prosecuted. It was essential information that needed to be shared to protect public health.
- Let's also think through pursuing advocacy at the state level; for example, model regulation with provisions for good faith reporting, and even getting a letter of concurrence from the Office of Civil Rights.

#### Trusted Exchange and Common Agreement (TEFCA)

Following a brief presentation by Walter Suarez about the TEFCA, and a discussion of its relevance to the Digital Bridge mission, a governance body meeting was called to order by John Lumpkin (Chair) to consider development of a Digital Bridge commentary (Table 4).

Table 4: Record of Digital Bridge governance body meeting to consider producing a commentary on the draft TEFCA

<b>Date/Time</b>	January 25, 2016 at 10:15- 10:30 AM EST
<b>Chair</b>	John Lumpkin
<b>Attendance</b>	All governance body members and ex officio members present, except representative from Partners Healthcare
<b>Decision</b>	Motion: "The Digital Bridge PMO shall work with the legal and regulatory workgroup to draft commentary on ONC's draft TEFCA, and provide it to the governance body for submission consideration." Motion made by Walter Suarez, and seconded by Bill Mac Kenzie. Verbal vote taken with all ayes, and no dissenting votes or abstentions. Motion passes unanimously.
<b>Action Item</b>	The PMO will support the legal and regulatory workgroup in drafting commentary for governance body consideration, and a virtual approach by February 19, 2018.

# Promoting Nationwide eCR Adoption and Assuring Sustainability

## Objective

Identify issues or questions central to ensuring adequate eCR sustainability nationwide.

## Sequence

1. Contrasting/defining eCR vs. Digital Bridge - Alana Cheeks-Lomax
2. eCR sustainability Strategy - Ben Stratton
3. eCR demonstration commitments - Alana Cheeks-Lomax

## Summary and Discussion

### Contrasting and defining eCR versus Digital Bridge

Presentation and moderation by: Alana Cheeks-Lomax

Meeting participants contrasted what sustainability and scalability mean for eCR and Digital Bridge and reached developed definitions through a moderated discussion. Table 5 is the outcome of this work.

*Table 5: Distinctions and definitions for eCR and Digital Bridge scalability and sustainability developed by meeting participants*

	eCR	Digital Bridge
Scalability	<ul style="list-style-type: none"> <li>• Scalability refers to the infrastructure needed to support large-scale operations of eCR</li> <li>• Scalability of eCR includes the following: <ul style="list-style-type: none"> <li>○ Technology: What technical infrastructure does the DSI need in place to support eCR beyond the initial five reportable conditions?</li> <li>○ Additional Sites: How will the DSI support more than seven initial implementation sites for eCR?</li> <li>○ Legal: What legal agreements need to be in place to support exchange of data between the DSI and stakeholders?</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Scalability refers to the infrastructure needed to support operations of additional use cases beyond eCR</li> <li>• Scalability of Digital Bridge includes the following: <ul style="list-style-type: none"> <li>○ Technology: What technical infrastructure does the DSI need to support additional Digital Bridge use cases?</li> <li>○ Additional Use Cases: How will Digital Bridge select new use cases to develop and incubate beyond eCR?</li> <li>○ Legal: What legal agreements need to be in place to support exchange of different data types between the DSI and stakeholders?</li> </ul> </li> </ul>

Sustainability	<ul style="list-style-type: none"> <li>• Sustainability refers to the core business drivers needed to support overall operations of eCR</li> <li>• Sustainability of eCR includes the following: <ul style="list-style-type: none"> <li>○ Financials: Where will the DSI obtain funds to continue sustaining the eCR use case? What funds are needed to support the necessary technical infrastructure?</li> <li>○ People: Who are the people who will support DSI operations?</li> <li>○ Business Operations: What activities need to take place to support the day-to-day operations of eCR and successful demonstration?</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Sustainability refers to the core business drivers needed to support overall operations of Digital Bridge</li> <li>• Sustainability of Digital Bridge includes the following: <ul style="list-style-type: none"> <li>○ Governance: How is Digital Bridge running itself? How should it support use cases at every phase (from conception to incubation to national scale)?</li> <li>○ Financials: Where will Digital Bridge obtain funds to continue sustaining day-to-day operations?</li> <li>○ People: Who are the people who will support the day-to-day work of Digital Bridge? Who are the people who will participate in Digital Bridge?</li> <li>○ Business Operations: What activities need to take place to support the day-to-day operations of Digital Bridge and the launch of new use cases?</li> </ul> </li> </ul>
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### eCR Sustainability Strategy

Presented and moderated by: Ben Stratton

In this session, meeting participants documented the activities and interactions needed to sustain eCR nationwide. With initial concepts developed by the strategy workgroup (Appendix 13), they worked in small groups to:

- Document what activities, actions, infrastructure and support are needed to make eCR a success nationwide.
- Document what interactions, collaborations and organizations need to be considered and involved to make eCR a success nationwide.

The activities and interactions that meeting participants documented (Appendix 13) will be used to inform the eCR sustainability plan that the workgroup is developing.



## Digital Bridge Sustainability

### Objective

Determine ways to advance Digital Bridge sustainability, both organizationally and fiscally, over the next 12 to 18 months.

### Summary

Facilitated by: Alana Cheeks-Lomax

Meeting participants discussed how to advance Digital Bridge sustainability by considering the following scenario and question:

- Scenario: We have hit our success factors and built a strong foundation for Digital Bridge. We are all excited for the next thing.
- Question: What happens next? What milestones and actions do the strategy workgroup need to take to ensure that we can build on success for Digital Bridge?

### Discussion

- We will have the onboarding guide in the next 12 to 18 months. We have been identifying the sources of inefficiencies in that guide to make it more efficient.
- We could do a new use case, but we also have the other notifiable conditions.
- Thank you to our funders. Hope you feel that this is a good cause as our venture capital.
- I took this question as distinct from eCR, which I don't think we need to, because it's all part of the same goal. I don't think there are immediate goals on eCR content, but let's not dismiss eCR. Let's get a collective understanding on what value there would be on additional interchange. I think we're starting to get beyond "wouldn't it be nice if..."? No one is asking public health to manage diabetics as patients, but there are things at the community level we could expand on, and those aren't necessarily clinical. Beyond 12 to 18 months, we need to form a committee on the kinds of things on a granular level that both sides would benefit from. This is something beyond eCR, but without some background level of discussion about the value, we won't get to that next use case.
- It's really critical to get this use case right. The next use case will be opportunistic and might require other people—the ones in this room may not be right. Look at set of organizations that makes a similar kind of commitment like we did with eCR or otherwise, it'll be hard to find the right funders.
- We need a 317-like fund that pays for organizations. It's kind of a broad-use fund that states use for emergencies. It's core infrastructure. No such fund exists for surveillance writ large. That is what we're thinking about as what may be the only way forward. Bruce Greenstein talked about a Series A or Series B funder who will be there in the long term. States could have leeway in how to spend it, but it would be dedicated to surveillance and similar activities. The eCR use case will demonstrate that the way forward for all surveillance is interacting with the EHRs.
- Regarding next steps for sustainability conversations, e.g., Digital Bridge organizational and funding models:
  - A non-starter would be looking at financial models that involve membership dues.
  - It would be good to understand what goes into membership model, but the funding on the public health side is fairly limited. It comes from collaborative relationships with CDC. Vendor community would be building something for clients, so not sure if you would join.
  - We need to focus on solving the 95 percent in order to be in a much better position. Really want to emphasize that. There is a limited number of sources of funds that will all have challenges. When vendors put it in their product, who is going to pay?



- Looking at providers as a source is going to be a non-starter. If there's an expectation that providers will have to contribute, they will be looking at the cost benefit of this. They're going to be putting money in something that they don't see as a business case. Of course, there could be a mandate that may require this to be used, which changes things.
- We could consider this as utility-funded by taxpayers. The five percent is the little cases of jurisdictions that are not covered by RCTC.

## Appendix 1: January 2018 Governance Body In-Person Meeting Attendance

Day 1 Attendees	Day 2 Attendees
1. Christopher Alban	1. Christopher Alban
2. Oscar Alleyne	2. Oscar Alleyne
3. Scott Becker	3. Scott Becker
4. Mary Ann Cooney	4. Mary Ann Cooney
5. Laura Conn	5. Laura Conn
6. James Doyle	6. James Doyle
7. Jeff Engel	7. Jeff Engel
8. Bob Harmon	8. Bob Harmon
9. Richard Hornaday	9. Richard Hornaday
10. Bill MacKenzie	10. Michael Iademarco
11. Tushar Malhotra	11. Bill MacKenzie
12. Richard Paskach	12. Tushar Malhotra
13. Walter Suarez	13. Richard Paskach
14. Meredith Lichtenstein	14. Walter Suarez
15. Joe Wall	15. Meredith Lichtenstein
16. Patina Zarcone	16. Joe Wall
17. Jim Daniel	17. Patina Zarcone
18. Hilary Heishman	18. Jim Daniel
19. Ed Hunter	19. Ed Hunter
20. John Lumpkin	20. John Lumpkin
21. Chesley Richards	21. Chesley Richards
22. Vivian Singletary	22. Vivian Singletary
23. Andy Wiesenthal	23. Andy Wiesenthal
24. David Friedman	24. David Friedman
25. Adam Greene	25. Adam Greene
26. Bruce Greenstein	26. Shan He
27. Shan He	27. Jamie Howgate
28. Jamie Howgate	28. Jarrett Oakley
29. Jarrett Oakley	29. Patrick O'Carroll
30. Patrick O'Carroll	30. Rob Brown
31. Dave Ross	31. Benson Chang
32. Rob Brown	32. Alana Cheeks-Lomax
33. Benson Chang	33. Piper Hale
34. Alana Cheeks-Lomax	34. Charlie Ishikawa
35. Piper Hale	35. Jim Jellison
36. Charlie Ishikawa	36. Jelisa Lowe
37. Jim Jellison	37. Jim Mootrey
38. Jelisa Lowe	38. Sara Sanford
39. Jim Mootrey	39. John Stinn
40. Sara Sanford	40. Ben Stratton
41. John Stinn	41. Hoa Truong
42. Ben Stratton	42. Natalie Viator
43. Hoa Truong	
44. Natalie Viator	

## Appendix 2: Digital Bridge Timeline



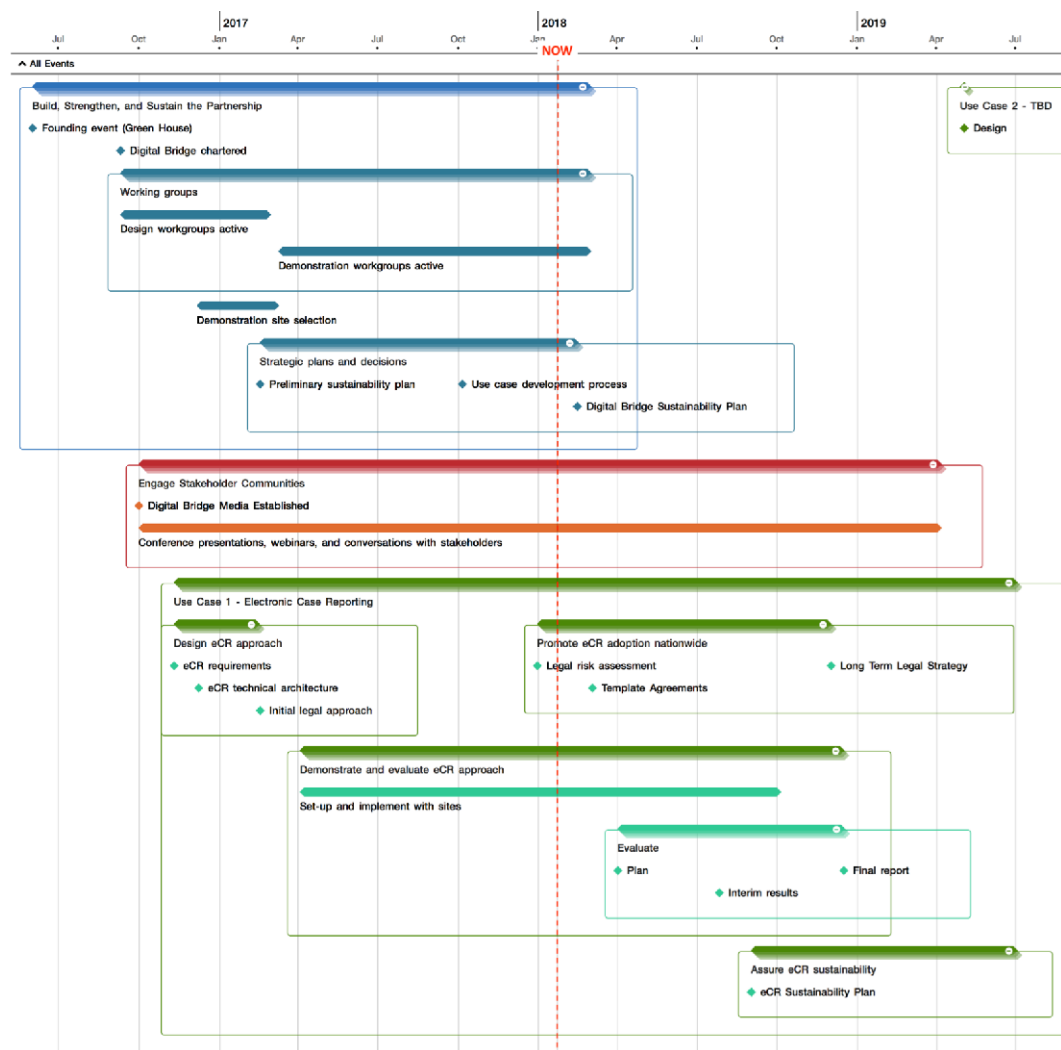
### Digital Bridge Timeline

#### Accomplishments

1. Governance
  - Chartered the partnership
  - Charged workgroups for eCR design and demonstration
  - Selected implementation sites
  - Developed use case selection process
2. Engagement
  - Established media
  - Multiple presentations, talks and engagements
3. Use Case #1: eCR
  - Designed
  - Demonstrating

#### Future Key Milestones

1. Demonstrate and evaluate eCR approach
2. Promote eCR adoption
3. Assure eCR sustainability
4. Determine Use Case #2
5. Digital Bridge Sustainability Plan



### Appendix 3: In-Kind Time Contributions

## In Kind Time Contributions

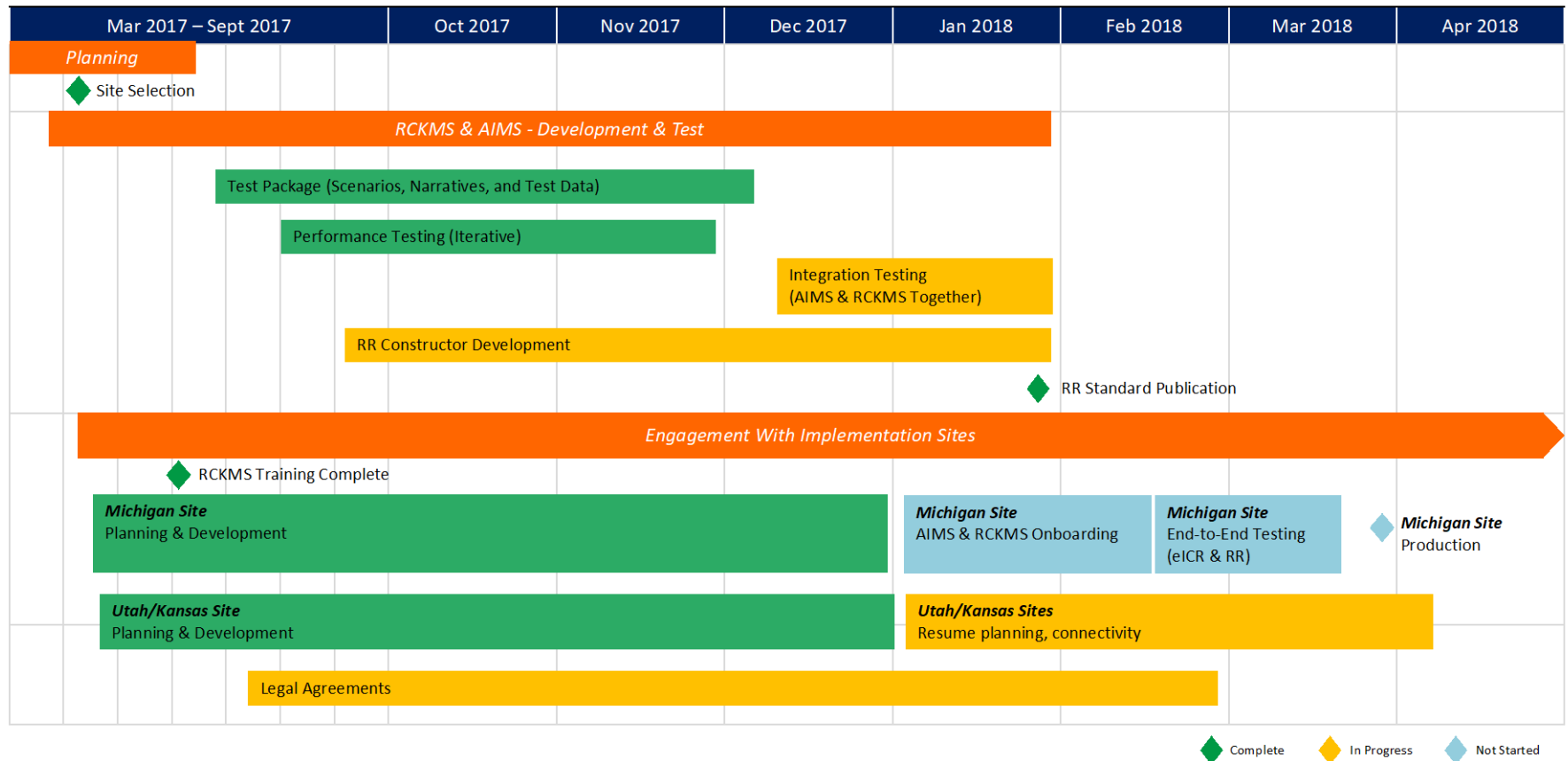
Workgroups/Calls/Taskforces	Number of Members	Meeting Time (hr.)	Number of Meetings	Time Outside Meetings	Total Hours
Strategy	30	1	12	1	720
Requirements	34	1.5	17	1.5	1,734
Technical Architecture	42	1	18	1	1,512
Sustainability	16	1	8	1	256
Governance Body	38	1.5	18	1	1,710
eCR Implementation Taskforce	36	1	40	2	4,320
Implementation Site Calls (MI, UT, KS)	12	1	79	1	1,896
Taskforce Co-Chair Calls	2	0.5	39	0.5	78
AIMS/RCKMS Call	7	1	200	1	2,800
Scalability	33	1.17	3	1.5	267.3
Legal	20	1	7	1	280

**15,573.3 total hours (almost two full years!) Contributed by strategic partners**

## Appendix 4: Implementation Timeline

### Implementation Timeline

**DRAFT**



## Appendix 5: eCR Implementation Risks & Issues

### eCR Implementation – Risks & Issues

#	Issue	Impact	Mitigation
1	Cerner implementation for eCR 1.1 support is delayed due to competing priorities	Medium	PMO presented the Cerner and Intermountain implementation brief vetted by the eCR Implementation Taskforce to the Governance Body at the October meeting. Cerner & Intermountain have also identified a resource and should have the solution production ready by March 2018.
2	Epic cannot provide coded values for lab test resulted for the initial implementation sites. This limits the ability for RCKMS to identify reportability of the eCRs. This issue may also be widespread and encountered by other sites as implementation progresses. Analysis is still evolving.	High	Epic intends to provide this as a standard functionality in the next version of Epic, but it poses an issue for the initial implementation. The group continues to conduct further analysis of the impact and potential workarounds (i.e. additional mapping).

#	Risk	Impact	Mitigation
1	Third party security assessment will not occur before initial implementations are in production	Medium	On eCR roadmap for 2018/2019. AIMS has real-time security monitoring and regular tests to assure this risk is mitigated. A third party security assessment to be scheduled in 2018 if funding is identified.
2	Legal agreements and data use agreements beyond initial implementation (risk for both Implementation and Strategy WG)	High	The Legal Workgroup is working on the creation of legal and data use agreements for the initial implementations and a eCR scalability assessment will occur for future implementations. The eCR Scalability Group and Legal Workgroup have come to preliminary consensus on approach for short, medium and long term and will be presented at 1/24-1/25 Gov Body meeting.
3	Reportability Response (RR) standard changing between balloting and December publication	Medium	HL7 RR ballot reconciliation process has completed. RR discussions scheduled with sites to address surfacing questions. Mitigated - RR publication expected in January 2018. The RR generated by AIMS will be compatible with the final release.
4	Technical Partners CSTE & APHL may have funding and sustainability shortfalls for FY18	High	CSTE (RCKMS team) has mitigated their contract gap in the short term and is actively looking into longer term solutions. APHL has expressed concerns about limited resources and funding for eCR. CSTE's cooperative agreement will be renewed in June 2018, which may bring additional uncertainty.

## Appendix 6: Commitments and Actions

First Name	Last Name	Organization	Commitment	Action 1	Action 2	Action 3	Action 4
Adam	Greene	DWT	I will negotiate legal agreements with the pilot sites	Discuss pilot agreement and BAA with Intermountain outside counsel	Determine whether to focus on Partners or bring Lawrence Memorial to the table	Coordinate sites' counsels' comments and negotiate revised agreement	
Adam	Greene	DWT	I will participate in the legal workgroup	Discuss with legal workgroup whether changes are warranted based on focus on uniform eCRs			
John	Stinn	PMO (Deloitte)	Process improvement	I will initiate the development of an onboarding/readiness playbook	I will lead the implementation plan across all sites, activity sequence/pilot sites		
Bill	Mac Kenzie	CDC	Support further development of the DSI*	Meet with APHL and CSTE to discuss financial needs for this next fiscal year	Seek funding resources through OPHSS and OD discussions		
Bill	Mac Kenzie	CDC	Expand/recruit jurisdictions for the future				
James	Doyle	Epic	Search for a new MA provider to participate in the pilot	Escalate to Epic leadership to speak with provider org leadership and encourage participation			
Walter	Suarez	Kaiser Permanente	Develop comments on TECCA	Develop draft	Facilitate completion of DB comments on TECCA		

First Name	Last Name	Organization	Commitment	Action 1	Action 2	Action 3	Action 4
Walter	Suarez	Kaiser Permanente	Input on evaluation plan for pilots	review evaluation plan	Provide input on changes based on new measures of success		
Walter	Suarez	Kaiser Permanente	Definition or business case/return on investment	Draft definition of business case/ROI to share with Group			
Walter	Suarez	Kaiser Permanente	Record testimony on VAWE or D6/eCR for providers	Done			
Jim	Jellison	PMO (PHII)		Facilitate TECCA activities	Move evaluation plan forward (Governance Body approval, pilot success criteria)	Improve DSI/site coordination (with input from DSI, site reps)	Reassess meeting pace and frequency
Mary Ann	Cooney	ASTHO	Seek champion	Host ASTHO call with all implementation site SHOs and SRDs	Continue with applications for the learning communities	Landscape assessment for all states' capabilities	
Patina	Zarcone	APHL	Scalability (becoming a HISP)	Finalize plan/proposal and budget with my tech team - [final draft]	Present final draft to SJB/leadership	Share with CDC	Shop around for funder
Richard	Paskach	HealthPartners	Encourage prioritization of eCR by MN care delivery, public health, and Epic	Work with my MDH contacts to determine if HP and MDH can act as a pilot site	Continue with my work on the Strategy WG and GB	Learn more from current pilot sites	Get my alternate (the CMIO) more engaged with Digital Bridge
Vivian	Singletary	PMO (PHII)	Learning and work	Continue to be actively engaged, better understand issues and find ways to move obstacles	As we move to the next phase, ensure we include in our deliverables and implementation playbook		



First Name	Last Name	Organization	Commitment	Action 1	Action 2	Action 3	Action 4
Chesley	Richards	CDC	Identify resource commitments	Prioritize this effort for CDC	Identify resource options		
Jeff	Engel	CSTE	Advocacy	Review with my board how to integrate Digital Bridge into our Hill Day advocacy for CDC	Work with APHL		
Jeff	Engel	CSTE	Evaluation	Continue to chair the evaluation committee to oversee eCR demonstration sites			
Ed	Hunter	de Beaumont Foundation	Consider additional funding for Digital Bridge	Further discussion with PMO about specific activities	Explore with de Beaumont board of directors their interest in adding funds beyond initial commitment		
Chris	Alban	Epic	Find and recruit more pilot sites	Identify best states (current and new)	Match those states with good candidate organizations	Contact CMO/CMIO/CIOs of those organizations to "sell" them on doing eCR	
Scott	Becker	APHL	Advocate for greater support	Develop detailed, realistic budget for next six months, then 12 months thereafter	Write requesting a "funders conference"	Research what it takes to be a HISP and join trust networks	Just say no
Laura	Conn	CDC	Support further development of the DSI	With APHL and CSTE, identify and prioritize key activities and associated costs in AIMS/RCKMS that require funding to achieve production for pilots	Investigate previous work of lab interoperability collaborative as possible	Solution to mapping codes	
James	Daniel	HHS/CTO		Help refine elevator pitch to address Bruce's four questions	Identify FDA contacts addressing similar local code set issues	Help Laura	

First Name	Last Name	Organization	Commitment	Action 1	Action 2	Action 3	Action 4
Bob	Harmon	Cerner	Continue to escalate for eCR resources at Cerner and client sites	Call and/or meet with Cerner development leaders about eICR and RCTC tools	Call and/or meet with Intermountain Informatics leaders about eCR project and assistance for Lawrence Memorial	Call and/or meet with Lawrence Memorial CIO and KS PHA about using Intermountain TA to implement eCR	Help write and edit updated eCR project plans for Intermountain and Lawrence Memorial
Jamie	Howgate	CDC	Ensure CDC staff have support from office of the director	Set up a debrief with CDC staff in attendance (in progress)	Brief director on proceedings	Figure out how to work Digital Bridge into outreach with administration and policymakers	
Andy	Wiesenthal	PMO (Deloitte)	Advocate	Advocate for investment with CDC Foundation and others	Advocate for investment with congress		
Andy	Wiesenthal	PMO (Deloitte)	Recruit	Recruit delivery systems			
Andy	Wiesenthal	PMO (Deloitte)	Set dates	Get dates set for initial pilots	Initiate development/ publication of master public project plan		
Joe	Wall	Meditech	Continue to develop a solution with current standards	Meeting with executive and development teams to discuss findings from this meeting	Discuss with our physician team and get feedback		
Joe	Wall	Meditech	To seek out potential early adopters	Have conversations with our strategic customers who would be willing to work with us			

## Appendix 7: Summary of Current Findings

### Summary of Current Findings

Sharing data to improve clinical care and public health. [digitalbridge.us](http://digitalbridge.us)

	Current eCR Approach	Scalability Issue(s)	Potential Modification(s)	Responses
1.	DSI acts as BA of provider (or HIE) sending case report.	Inherent privacy breach risks associated with role of BA; administrative costs of BAAs;	DSI acts on behalf of public health (potentially entails contract between APHL, public health agencies)	Public health agencies may not delegate authority to DSI; DSI taking on BA's risks could be "selling point" for eCR; Administrative costs of BAAs mitigated through trusted exchange frameworks; BA approach favored for short- and medium-term.
2.	Two levels of evaluation to identify a reportable event: <ul style="list-style-type: none"> <li>Preliminary event identification that is nationally consistent and implemented in provider's EHR (e.g., "trigger codes", "RCTC")</li> <li>Secondary event assessment that is jurisdiction-specific and implemented in DSI (e.g., "RCKMS")</li> </ul>	HIPAA risks associated with provider reporting non-reportable conditions to DSI (e.g., preliminary event identification may "over report" to DSI)	DSI distributes logic for both levels of evaluation for implementation at EHR, HIE.  (or)  Provider sends de-identified case report to DSI for secondary event assessment, then sends identified case report only if determined to be reportable.	Preliminary event identification (RCTC "trigger codes") and secondary event assessment (RCKMS "decision logic") together identify reports to send to public health; BA approach mitigates "over reporting" to DSI concern for short- and medium-term; At present, not technically feasible to distribute both levels of evaluation to EHRs, HIEs; At present, insufficient resources to re-engineer DSI for de-identified case reports;
3.	Emphasis on preliminary event identification and case report construction at point of care (e.g., in EHR)	Some potential implementers may be motivated to implement preliminary event identification and case report construction in an HIE (or similar) environment.	Preliminary event identification "trigger codes," secondary event assessment "decision logic" and case report construction is implementable in EHRs or HIEs (or environments accessible to EHRs and HIEs).	At present, not technically feasible to distribute both levels of evaluation to EHRs, HIEs.

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## Appendix 8: Consensus on Timeline for Addressing Scalability Issues

### Consensus on Timeline for Addressing Scalability Issues? Sharing data to improve clinical care and public health. [digitalbridge.us](https://digitalbridge.us)

	Current eCR Approach	Short-Term (current implementations)	Medium-Term (2019-2020*)	Long-Term (2021 and beyond*)
1.	DSI acts as BA of Provider (or HIE) sending case report.	No changes to current eCR approach.	Continue current eCR approach; learn from 2018 implementations.  Explore potential modifications (e.g., leverage Trusted Exchange Framework and Common Agreement; DSI acts on behalf of public health).	Be prepared if some eCR adopters (providers, public health, HIEs) prefer DSI acts on behalf of public health.
2.	Two levels of evaluation to identify a reportable event: <ul style="list-style-type: none"> <li>Preliminary event identification that is nationally consistent and implemented in provider's EHR (i.e., "trigger codes", "RCTC")</li> <li>Secondary event assessment that is jurisdiction-specific and implemented in DSI (i.e., "RCKMS")</li> </ul>	No changes to current eCR approach.	Continue current eCR approach; learn from 2018 implementations.  Add additional diseases to scope of eCR.  Improve distribution mechanism for preliminary event identification (i.e., trigger codes, RCTC); consider FHIR, CDS standards.  Secondary event assessment (i.e., RCKMS) remains at DSI. Begin exploring feasibility of distributing to EHRs, HIEs (emphasis on technical feasibility, i.e., <u>can</u> it be done?)	Be prepared if some eCR adopters (providers, public health, HIEs) prefer both levels of evaluation logic reside in EHR or HIE.
3.	Emphasis on preliminary event identification and case report construction at point of care (i.e., in EHR)	No changes to current eCR approach.	Continue current eCR approach; learn from 2018 implementations.  Secondary event assessment (i.e., RCKMS) remains at DSI. Begin exploring feasibility of distributing this logic to EHRs, HIEs (emphasis on social feasibility, i.e., <u>should</u> it be done, will data quality requirements be met?)	Be prepared if some eCR adopters (providers, public health, HIEs) prefer both levels of evaluation logic reside in EHR or HIE.

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\* Dates are tentative for discussion purposes only.

## Appendix 9: Digital Bridge and Partner Activities

# Digital Bridge and Partner Activities

## National Public Health Activities

- Develop RCTC and RCKMS Content
- AIMS & RCKMS Development, Test, and Prep Activities
- Validate EHR Vendor eICRs
- Conduct Integration Testing (AIMS & RCKMS Together)
- Prepare for DB Site End-to-End Testing
- Connection Establishment
- Standards Reviews
- Legal, Regulatory, & Policy
- Meetings and Coordination

### Groups

- APHL
- CSTE
- NACCHO
- ASTHO
- CDC

## Initial Implementation Site Activities

- Healthcare/Vendor Set Up
- AIMS Connectivity Setup and Testing
- Public Health Agency Setup
- Onboarding onto AIMS Onboarding
- Setup Reporting Specifications in RCKMS
- Conduct end-to-end testing for the 8 Scenarios
- Legal, Regulatory, & Policy
- Meetings and Coordination

### Groups

- Implementation Provider
- Implementation Vendor
- Implementation PHA

## Digital Bridge PMO Activities

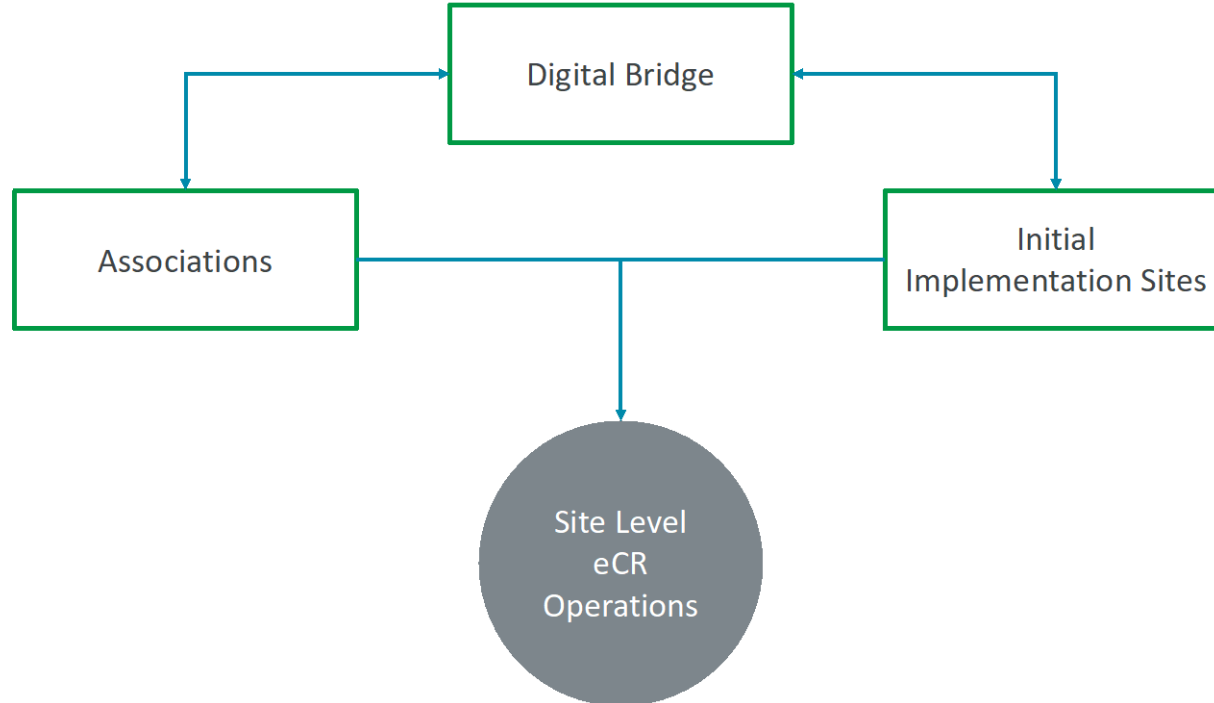
- Activities to Support Digital Bridge
- Board of Directors & Governance coordination
- Incubation and Hand-Off
- Trust and Legal
- Communications
- Program Management
- Funding
- Standards Management
- Administrative efforts
- Meetings and Coordination

### Groups

- Digital Bridge PMO
- Digital Bridge Governance Body

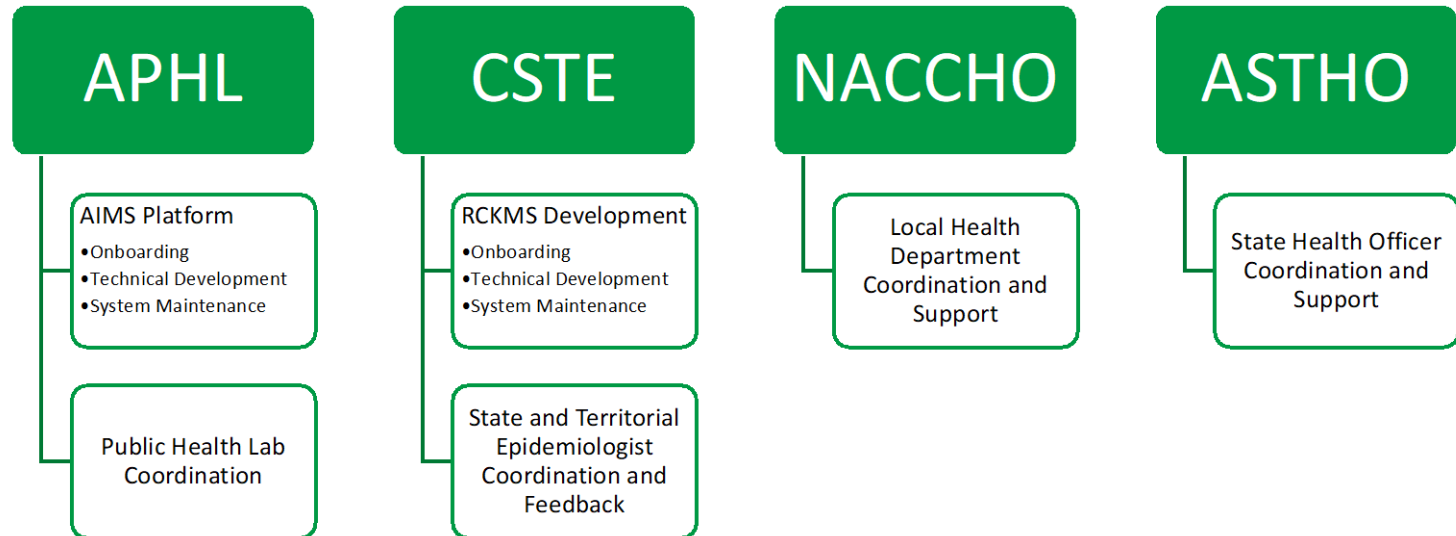
## Appendix 10: Digital Bridge and eCR Multiple Organization Structure

### Digital Bridge + eCR Multiple-Organization Structure



Appendix 11: Association eCR Super-Organization Structure

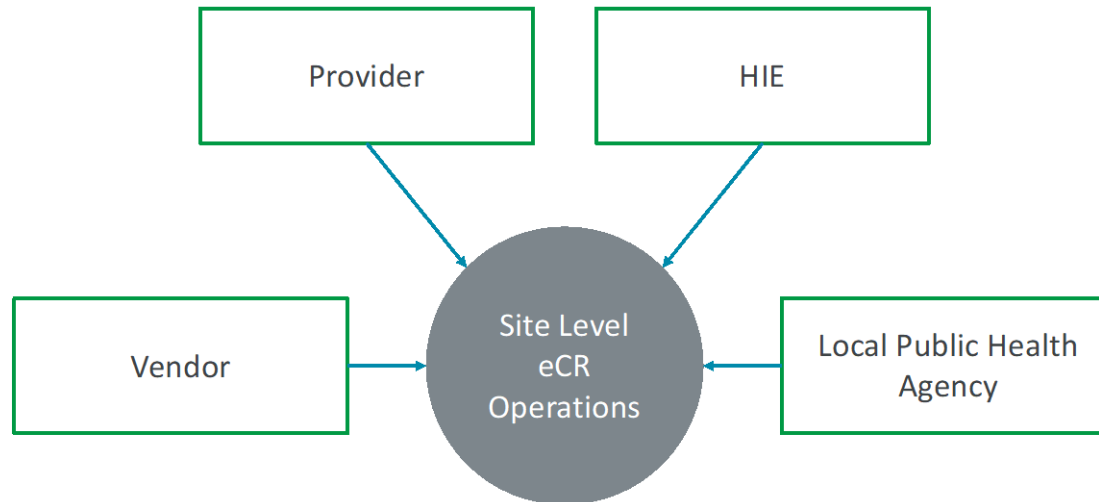
## Association eCR Super-Organization Structure





## Appendix 12: Initial Implementation Sites Organization Structure

# Initial Implementation Sites Organization Structure



## Appendix 13: Breakout Table Discussions

### Breakout Table 1:

- User Acceptance Testing
  - PHAS (eICRs, RRs, RCKMS tool)
  - Providers (eICRs, RRs, RCKMS tool)
- Revisit Executive Evaluation Testing
- How do we get to plug and play?
  - Onboarding guide: there are now 100s of steps, how do we get to 10s of steps?
- Maintenance of RCKMS and AIMS at scale
- Onboarding:
  - Provider/EHR → AIMS
  - PHA → AIMS
  - Epis → RCKMS

### Breakout Table 3:

- National Public Health
  - Standards development/implementation (forward thinking)
  - Publish/Develop/Distribution/Maintenance of code sets: RCTC/RCKMS
  - (remove validate EHR eICR from lists)
  - Readiness landscape
- Implementation Site
  - Mapping (not called out specifically) → Contribute to national tool
- PMO
  - Best Practices (domains) → coded value sets
  - Coordinate feedback/comments for standards
  - Advocate: Elevator pitch (Bruce's 4 questions)
  - Manage Site Initiation
    - Playbook, checklist, etc.
- Other Groups
  - CHIME
  - AMA
  - VA/DOD
  - CMS

<p><b>Breakout Table 2:</b></p> <ul style="list-style-type: none"> <li>• Sell to PHAs</li> <li>• Data collection/analytics <ul style="list-style-type: none"> <li>◦ Landscape/volume</li> </ul> </li> <li>• Process for local variations e.g. code mapping <ul style="list-style-type: none"> <li>◦ Easy/automated</li> <li>◦ What is local vs. common?</li> </ul> </li> <li>• Prioritization strategy</li> </ul>	<p><b>Breakout Table 4:</b></p> <ul style="list-style-type: none"> <li>• Standards review and development</li> <li>• Standard adherence to reduce variability</li> <li>• Onboarding, detailed project plan with a checklist and responsible parties</li> <li>• Need a site champion</li> <li>• PMO playing a large role in the implementation process, more project management role <ul style="list-style-type: none"> <li>◦ Coordinating between those sites</li> <li>◦ Project plans that don't conflict with each site</li> </ul> </li> <li>• Any future Digital Bridge governance board advisors should be engaged in eCR</li> </ul>
<p><b>Breakout Table 5:</b></p> <ul style="list-style-type: none"> <li>• Legal agreements, speeding this process up is key</li> <li>• Validating vendor eICRs being automated</li> <li>• DSI to join a healthcare network to speed up adoption and legal pieces</li> <li>• PHA setup, they need to build to the standard</li> </ul>	