June 22 CMS Quality Vendor Workgroup

June 22, 2017
12:00 – 1:30 p.m. ET
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<td>Mary Beth Kurilo&lt;br&gt;American Immunization Registry Association</td>
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<td>Larry Wolf&lt;br&gt;Strategic Health Network</td>
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Questions
Payment Adjustment & Hardship Information

Kathleen Johnson

Division of Health Information Technology, CMS
2018 Hardship Form Deadlines

- The deadline for Eligible Professionals (EPs) and Eligible Hospitals to submit Hardship forms for the 2018 payment adjustment, based on the 2016 EHR reporting period is July 1, 2017.

- Please visit the Payment Adjustments & Hardship Information webpage on the EHR Incentive Programs website for more information on how EPs and Eligible Hospitals can submit Hardship forms.
ACI Call for Measures
Kathleen Johnson
Division of Health Information Technology, CMS
Reminder: Submit New Measures for ACI Performance Category for MIPS by June 30

- CMS encourages clinicians, organizations, and other stakeholders to identify and propose measures to be considered for the ACI Performance Category of MIPS in 2019.

- Measures in the ACI Performance Category are tools that help measure and assess the use of certified electronic health record technology.

- For more information, read the [Call for Measures and Activities fact sheet](#) to learn more and to understand the process for submitting measures for the MIPS performance categories.
How to Submit Proposed Measures

• Send proposed measures to CMSCallforMeasuresACI@ketchum.com using the Advancing Care Information Submission Form.

• Completed forms should include the following:
  • Measure description
  • Measure type (if applicable)
  • Reporting requirement (numerator and numerator description, Yes/No state, exclusions)
  • Certified EHR technology (CEHRT) functionalities (if applicable)
  • Scoring type (base, performance, bonus)
Quality Data Model (QDM) v5.3 Release

Shanna Hartman

Division of Electronic and Clinician Quality, CMS

Floyd Eisenberg

ESAC, Inc.
Objective

• The Centers for Medicare & Medicaid Services (CMS) has released the latest changes to the Quality Data Model (QDM) specification, version 5.3, for use with Clinical Quality Language (CQL).

• Support for these features and modifications will be implemented in the production version of the Measure Authoring Tool (MAT) scheduled for release in Fall 2017 (version 5.4).
Background

- QDM is an information model that defines relationships between patients and clinical concepts in a standardized format to enable electronic quality performance measurement.

- Previously published versions of the QDM (through version 4.3) included the data model and logic.

- Beginning in the QDM v5.0 Draft for use with CQL testing, the QDM includes only the data model and requires the use of the CQL standard as a separate method for expressing logic.

- CQL is a high-level human readable authoring language that allows measure authors to express data criteria and represent it in a way that is suitable for language processing.
QDM v5.3

- QDM v5.02 and v5.03 included minor changes for use with CQL testing.

- QDM v5.3 represents a significant change from prior production versions as it no longer contains any logic expression.

- Version 5.3 is the production version for CQL-based eCQMs.
QDM v5.3 High-level Changes

- Added clarification and guidance to existing QDM categories and attributes
- Removed
  - Encounter, Active
  - Radiation Dose
  - Radiation Duration
  - Reason attribute for Encounter, Performed
- Remodeled Location attribute for Encounter, Performed
- Created a new QDM datatype for Participation (and attribute Participation Period)
- Assigned cardinality to all QDM attributes
Resources

- QDM v5.0, v5.01, v5.02, and v5.3 are located on the eCQI Resource Center CQL Space
  - [https://ecqi.healthit.gov/cql](https://ecqi.healthit.gov/cql)
- Past versions of QDM Specifications and QDM User Group meeting information can be found on the eCQI Resource Center QDM Space
  - [https://ecqi.healthit.gov/qdm](https://ecqi.healthit.gov/qdm)
- For questions or comments on the QDM, please contact the ESAC QDM team
  - qdm@esacinc.com
- To submit an issues ticket, please visit the ONC JIRA site
  - [https://oncprojecttracking.healthit.gov/support/projects/QDM/](https://oncprojecttracking.healthit.gov/support/projects/QDM/)
Technical Instructions for QRDA Category I Submissions for eCQM Reporting to the Hospital IQR and the Medicare EHR Incentive Programs

Shanna Hartman

*Division of Electronic and Clinician Quality, CMS*

Michael Holck

*ESAC, Inc.*
Background

• CMS is issuing technical instructions for Quality Reporting Document Architecture (QRDA) Category I template submissions for eCQM reporting for the following programs:
  • Hospital Inpatient Quality Reporting (IQR)
  • Medicare Electronic Health Record (EHR) Incentive Program for Eligible Hospitals (EH) and Critical Access Hospitals (CAHs)

• This guidance is for eCQM submissions for calendar year (CY) 2017 and QRDA Category I files only
The Issue

- For implementers to have their eCQMs calculated correctly by the measure engine, they must submit the proper QRDA templates for the QDM data types.
- Currently, there is no validation check to ensure that the QRDA template is contained within an Act template structure. The measure engine therefore cannot identify the datatype in the measure calculation because it looks for the act template separately.
- This issue applies to the EH eCQMs that use the following QDM data types in their measure specifications for the CY 2017 reporting period:
  - Diagnosis
  - Device, Order
  - Encounter, Order
  - Encounter, Performed
  - Transfer From
  - Transfer To
Resolution and Guidance

• In the HL7 QRDA Category I Release 1, STU Release 3.1, a new QRDA template that uses the Act class structure, which supports the negationInd attribute, was created and serves as a wrapper (referred to as “Act Wrapper”).

• Submitters are advised to actively ensure that data for the affected QDM data types are reported within the correct corresponding Act Wrapper template so that the data will be processed correctly.
Encounter Performed Example

Without Act Wrapper

```
<encounter classCode="ENC" moodCode="EVN">
  <!-- Conforms to C-DCA R2.1 Encounter Activity (V3) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.49"
     extension="2015-08-01"/>
  <!-- Encounter Performed (V3) templateId-->-
  <templateId root="2.16.840.1.113883.10.20.24.3.23"
     extension="2016-02-01"/>
  <!-- the encounter/id/@root -->
  <id root="12345678-9d11-439e-92b3-5d9815ff4de1"/>
  ...
</encounter>
```

With Act Wrapper

```
<act classCode="ACT" moodCode="EVN">
  <!-- Encounter performed Act -->
  <templateId root="2.16.840.1.113883.10.20.24.3.133"/>
  <id root="ec8a6ff8-e44b-4f7e-82c3-e98e58b45de7"/>
  <code code="ENC" codeSystem="2.16.840.1.113883.5.6"
     displayName="Encounter" codeSystemName="ActClass"/>
  <entryRelationship typeCode="SUBJ">
    <!-- Conforms to C-DCA R2.1 Encounter Activity (V3) -->
    <templateId root="2.16.840.1.113883.10.20.22.4.49"
       extension="2015-08-01"/>
    <!-- Encounter Performed (V3) templateId-->-
    <templateId root="2.16.840.1.113883.10.20.24.3.23"
       extension="2016-02-01"/>
    <!-- the encounter/id/@root -->
    <id root="12345678-9d11-439e-92b3-5d9815ff4de1"/>
    ...
  </entryRelationship>
</act>
```

Without the Act Wrapper, this will still pass schematron validation but the Encounter will not be included in the measure calculation.
Resources

• Detailed guidance and examples for proper submission of QRDA Category I templates are found on the Electronic Clinical Quality Improvement (eCQI) Resource Center QRDA Space.

• Current and past implementation guides - CMS eCQM Library and the eCQI Resource Center QRDA Space.

• For questions related to this guidance, the QRDA Implementation Guides or Schematrons, visit the ONC QRDA JIRA Issue Tracker.
Post-Acute Care Announcements

Amanda Barnes

DCPAC, CMS
Hospice QRP Provider Preview Reports Now Available

- CMS encourages Hospice providers to preview their Q4-2015 to Q3-2016 quality measure results via the Hospice Provider Preview Reports for the Hospice Item Set (HIS) prior to the release of Hospice Compare in Summer 2017.

- Hospice providers can access their reports via the Certification and Survey Provider Enhanced Reports (CASPER) application available on Hospices’ “Welcome to the CMS QIES Systems for Providers” page.

- **Providers have 30 days to preview their quality measure results (June 1, 2017 through June 30, 2017).**

- To access your reports visit the [Preview Report Access Instructions](#) and [Hospice Quality Public Reporting](#) webpage to learn more.
IRF and LTCH Provider Preview Reports Are Now Available

• CMS encourages providers to review their performance data on each quality measure based on Q4-2015 to Q3-2016 data prior to the September 2017 IRF and LTCH Compare refresh.

• Providers have until the end of the 30-day preview period (June 30, 2017) to review their data.

• To access your reports visit the Preview Report Access Instructions and IRF Quality Public Reporting and LTCH Quality Public Reporting webpages to learn more.
IRF and LTCH Compare Quarterly Refresh is Now Available

• The June 2017 quarterly IRF and LTCH Compare refresh, including quality measure results based on data submitted to CMS between Q3-2015 and Q2-2016 is now available.

• Visit [IRF Compare](#) and [LTCH Compare](#) to view the data.
OVERVIEW

What do Meaningful Use (MU) Stage 3 and MACRA/MIPS mean for Immunization Information Systems (IIS) and Electronic Health Record (EHR) vendors, and the providers who use them both?

How are IIS preparing for the transition?

What is AIURA doing to support them?
BRIEF BACKGROUND ON AIRA AND THE IIS COMMUNITY

AIRA is a 501c3 member organization with broad engagement from across the IIS community

We work with 64 IIS (most, but not all, are CDC awardees)
The primary goals of IIS or registries are to:
- consolidate records from ALL public and private providers in their jurisdiction
- share these consolidated records and forecasts with all interested parties

Information is used at the individual record level (clinical decision support) and at the aggregate record level (coverage rates, clinic performance)

Many (but not all) participating providers are interested in Medicaid (i.e., Meaningful Use) or Medicare (i.e., MACRA/MIPS) incentive program requirements

All communication between providers/EHRs and IIS is considered to be bi-directional (submissions ↔ acknowledgements)
- EHR-IIS Query and Response is especially emphasized in 2017 and forward, for its clinical value AND its role in MU/MACRA/MIPS rules
**ANTICIPATED SCENARIOS FOR MU3**

**New** Eligible Providers (EPs), Eligible Hospitals (EHs), or Critical Access Hospitals (CAHs) will initiate testing (aka active engagement) to interoperate with an IIS using 2015 Certified EHR Technology (CEHRT)
- This should include registration of intent to submit to/query an IIS

**Existing** EPs, EHs, or CAHs will enhance their current interfaces to meet 2015 CEHRT
- This will likely take place while IIS are actively rolling out enhancements to meet HL7 2.5.1 Release 1.5 functionality
- It will be important to limit disruption to current interfaces in production
EHRs are required to generate six VXU test messages to meet 2015 Certified EHR Technology (CEHRT) criteria. IIS should be prepared to accept messages that resemble these scenarios, which cover:

- Child administration
- Adult administration
- Patient does not consent
- Update to an immunization
- Deletion of an immunization
- Refusal of an immunization
ACCEPT NATIONAL DRUG CODES (NDC) FOR ADMINISTERED VACCINES

MU Stage 3 requires the use of NDC for administered vaccines

- Historical vaccines continue to use CVX codes
- IIS need to be able to accept and process NDC for administered vaccines
- IIS will likely need to accept and process both
  - Unit of Use (UoU, or vial/syringe)
  - Unit of Sale (UoS, or package/box) NDC codes
ACKNOWLEDGMENT MESSAGES (ACK) CONFORM TO HL7 2.5.1 RELEASE 1.5

**Conformance:** IIS must return conformant acknowledgment messages.

**Outcome of processing:** IIS must ensure the acknowledgment message returned to the EHR is representative of the processing performed by the IIS on the submitted VXU.

**Return to sender:** If an HIE (or some other intermediary) is in between the EHR and the IIS, it should return the IIS ACK to the EHR for parsing/reporting to the end user.
EHRs are required to generate four Query test messages. IIS should be prepared to accept messages that resemble these messages. They are all related to Query Profile (Z44) and cover the following scenarios for both Query and Response:

- Query for a child
- Query for an adult
- Query for a patient that does not exist in the IIS
- Query for a patient which matches to multiple patients

Note: IIS may choose to support non-vaccinating providers by offering query-only access. Query-response in accordance with standards can qualify for MU/MACRA/MIPS for non-vaccinating providers only.
RESPONSE MESSAGES, INCLUDING CLINICAL DECISION SUPPORT, CONFORM TO RELEASE 1.5

The Z42 profile is the response which must include the clinical decision support (e.g., forecaster). EHRs are required to display the response from the IIS including the clinical decision support.

- IIS must be returning conformant messages for EHRs to display.
- IIS should ensure that all consolidated data is returned per jurisdictional policy.
LIMIT CONSTRAINTS, ELIMINATE CONFLICTS TO RELEASE 1.5

Constraints – requiring something the National IG does not require – are allowed, but should be limited whenever possible. All constraints should be reviewed to determine if they are truly needed (e.g., required by local law/policy).

- Example: Requiring address

Conflicts – breaking the rules of the base HL7 standard – are not allowed. The IIS should work to fix these situations. For the most part, these conflicts are historical and simply need to be fixed.

- Example: Not accepting refusals, history of disease
SOAP/CDC WSDL

While not required for MU3, SOAP/Web Services and use of the CDC WSDL is an IIS community-selected standard for transport, and is strongly encouraged for MU.
OPERATIONAL ASPECTS
Must be declared publicly, typically on the jurisdiction’s website, no later than July 1, 2017 for the January 1, 2018 start of MU3

Since 2017 is an optional year for MU3, it is in the best interest of IIS to declare readiness as soon as possible.

The IIS may also choose to voluntarily list their registry on the CMS Centralized Repository (https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/CentralizedRepository-.html), but this should augment, not replace, the more detailed information posted on the jurisdiction’s website.
ONBOARDING

Create a procedure for “Re-Onboarding” as needed. Sites are not required by MU3 to re-register; however, IIS may opt to require re-registration to assist in tracking MU3-participating organizations.
PREPARATION FOR AUDITING

Determine what documentation is necessary for IIS to support future CMS audits of EP/EH/CAH participation for MU3, and create a procedure to track efficiently. At a minimum, IIS sites should track:

- A dated confirmation/receipt of intent to register for new registrants
- An EP/EH/CAH’s original registration date (noting that providers don’t need to re-register for MU3)
- The dates the IIS reached out to request action on the part of the EP/EH/CAH, and the dates the EP/EH/CAH responded (or didn’t)
- The date (if applicable) that the EP/EH/CAH started actively sending VXUs/QBPs into production
Transition to MU3, EHR-IIS Interfaces, V3

**Current State**

- **EHR Vendor**
  - EHR product certified for 2014 CEHRT

- **Provider**
  - Provider implements 2014 CEHRT
  - Provider upgrades to 2015 CEHRT

- **IIS**
  - IIS receives data in production meeting HL7 2.5.1 R1.4 standard

**Future State**

- **EHR Product**
  - EHR product gets certified for 2015 CEHRT

- **Provider**
  - Provider tests 2015 CEHRT
  - Provider notifies IIS that they are ready to test submission and query to IIS and upgrade existing administration interface with 2015 CEHRT

- **IIS**
  - IIS implements HL7 2.5.1 R1.5 standard
  - IIS tests with provider HL7 2.5.1 R1.5 standard

- **Provider and EHR coordinate transition to 2015 CEHRT interface with IIS**

**2015 CEHRT interface goes live, existing 2014 CEHRT interface is decommissioned**

**Note:** Current state should remain active state until all parties are ready to transition to new interface.
OPPORTUNITIES FOR IMPROVED EHR-IIS COLLABORATION

**Leverage**

Leverage guidance available on AIRA website ([www.immregistries.org](http://www.immregistries.org))
- HL7 Implementation Guide/Addendum
- Additional ACK guidance, etc.

**Attend**

Attend AIRA’s monthly Standards and Interoperability Steering Committee, Technical Working Group, or HL7 User Group

**Contact**

Contact us! AIRA offers broad Technical Assistance
PARTICIPATION IN IIS MEASUREMENT AND IMPROVEMENT INITIATIVE

53 IIS have participated

43 jurisdictions are connected ongoing

10 plan to connect in 2017

- Future enhancements
- IIS in transition
- Technical/policy issues with HIEs
- Contingencies on separate funding streams
# Progress — Phases and Stages of Measurement

## Stages

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ALL TEST RESULTS ARE AVAILABLE ONLINE

• The Aggregate Analysis Reporting Tool (AART) is a Central Testing Resource

• More than three quarters of the IIS community is currently connected for ongoing measurement

• To date, we’ve run **1.7 million** test messages through AART

  **51 IIS programs and 7 vendors/implementers are viewing their own data and results in AART; where selected, they can also share data in named or unnamed form.**
RESOURCES

MU3 Readiness Checklist

Tools – NIST testing tool and Aggregate Analysis Reporting Tool (AART)

AIRA Technical Assistance Team: http://www.immregistries.org/resources/technical-assistance
DISCUSSION/QUESTIONS
THANK YOU!

Further questions? Contact:

Mary Beth Kurilo - mbkurilo@immregistries.org

Visit the AIRA Website at www.immregistries.org for:
- MU3 Readiness Checklist
- Technical Assistance Requests
- AART Tool Videos
Public Health Task Force

Anne Fine, co-chair
Larry Wolf, co-chair

March 30, 2017 / June 22, 2017

https://www.healthit.gov/facas/calendar/2017/03/30/collaboration-health-it-policy-and-standards-committees
• Welcome
• Membership and charge
• Review principles
• Overview of recommendations
• Pregnancy Data Elements
• Links
• Additional Material
  » Presentation from March 30, 2017
# Public Health Task Force Membership

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<td>Larry Wolf</td>
<td>Strategic Health Network</td>
<td>Co-Chair</td>
</tr>
<tr>
<td>Anne Fine</td>
<td>New York City Department of Health and Mental Hygiene</td>
<td>Co-Chair</td>
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<tr>
<td>Andrew Wiesenthal</td>
<td>Deloitte Consulting, LLP</td>
<td>Member</td>
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<tr>
<td>Floyd Eisenberg</td>
<td>iParsimony, LLC</td>
<td>Member</td>
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<tr>
<td>J. Marc Overhage</td>
<td>Cerner Health Services</td>
<td>Member</td>
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<tr>
<td>Noam Arzt</td>
<td>HLN Consulting, LLC</td>
<td>Member</td>
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<tr>
<td>Susan McBride</td>
<td>Texas Tech University Health Sciences Center</td>
<td>Member</td>
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<tr>
<td>Richard Loomis</td>
<td>Practice Fusion</td>
<td>Member</td>
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<tr>
<td>Anjum Khurshid</td>
<td>Dell Medical School, University of Texas at Austin</td>
<td>Member</td>
</tr>
<tr>
<td>Janet Hamilton</td>
<td>Florida Department of Health</td>
<td>Member</td>
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<tr>
<td>Julia Gunn</td>
<td>Boston Public Health Commission</td>
<td>Member</td>
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<tr>
<td>Steve Hasley</td>
<td>American College of Obstetricians and Gynecologists</td>
<td>Member</td>
</tr>
<tr>
<td>Brian Anderson</td>
<td>athenahealth</td>
<td>Member</td>
</tr>
<tr>
<td>Riki Merrick</td>
<td>Association of Public Health Laboratories</td>
<td>Member</td>
</tr>
<tr>
<td>Chesley Richards</td>
<td>Centers for Disease Control and Prevention</td>
<td>Federal Ex Officio</td>
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<tr>
<td>Margaret Lampe</td>
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<tr>
<td>James Daniel</td>
<td>ONC/HHS</td>
<td>ONC Lead</td>
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Public Health Task Force Charge

- **Overarching charge:** The Public Health Task Force will make recommendations to help inform public health issues and challenges related to health IT.
- **Detailed charge:** Make specific recommendations to better assist in the standardization of pregnancy status data, clinical decision support in health IT systems, and case management in public health settings—which are important components to addressing many public health challenges. Zika will be used as the use case for these recommendations.

1. **Capture Pregnancy Status:** Identify the current challenges associated with the collection of pregnancy status when a Zika test is ordered. How could standardization help to resolve these challenges?
2. **Send and Share Pregnancy Status:** Identify best practices for sharing pregnancy status from the provider to both commercial labs and public health entities.
3. **Use of Clinical Decision Support:** Is there a need to automate the clinical decision support (CDS) process in order to identify risk and report timely information to public health? If so, what existing standards-based approaches for automating the CDS process are available as part of Zika response (i.e., Structure Data Capture (SDC), Clinical Quality Framework (CQF)) be used?
4. **The Electronic Initial Case Report (eICR)** Identify mechanisms for how to move electronic case reporting forward.
Public Health Task Force Principles

• Clarity of purpose – Understand the charge and ensure that it is addressed. Use the clinical and public health guidelines and processes to inform technology recommendations.

• Bright spots - Learn from examples of success. Build on existing capabilities.

• Engage Stakeholders – Ensure input and interaction with a wide range of stakeholders.

• Parsimony – Recommend the minimum necessary and sufficient to accomplish the goals.

• Generality – Recommendations should support the specific issue being addressed, in this case Zika, and should more broadly be applicable to a range of issues, including related information needs and preparing for future emerging public health needs.

• Pragmatic – Recommendations should be actionable and efficient, especially in the use of clinician time and effort.

• Balance Priorities – Stakeholders have many competing priorities and regulatory requirements. As much as possible, we should align and coordinate our efforts with other requirements.

• National Scale – Address the complexities of a nation-wide implementation.
Overview of Information Flow

- **Individual**
- **Healthcare Provider**
  - Outpatient
  - Inpatient
  - Infection Control Practitioner
- **Public Health**
  - CDC
  - Public Health Labs
  - State/Local Health Department
- **Laboratory**
  - CDC Lab
  - State/Local Public Health Lab
  - Commercial Lab
  - Healthcare Provider Lab

- Guide Health Data
- Order with Specimen
- Report (eCR)
- Report (ELR)
Charge 1: Capturing Pregnancy Status

Challenges:
- There is no standard to capture pregnancy status and associated data in an EHR
- There is no existing consensus on the minimum Public Health data elements for pregnancy. Our goal was to identify those priority elements.

Recommendations:
- Disseminate the prioritized data elements identified by the Task Force related to pregnancy status
- Promote “Ask on Order Entry” for transmission via ELR to capture pregnancy status for tests for reportable diseases where pregnancy status is relevant
- Publish pregnancy data standards in ONC’s Interoperability Standards Advisory (ISA)
- Explore ways for the patient (individual) to electronically self-report pregnancy status and other related data and electronically share that data with the provider’s EHR.
Charge 1 - Capturing Pregnancy Status
Data Elements Prioritized

Priority Data Elements

1. **Pregnancy status** (yes, no, possible, unknown)
2. Certainty status of pregnancy (i.e., ultrasound, lab test evidence)
3. **Pregnancy status date recorded**
4. Estimated Delivery Date
5. EDD determination method
6. **Gestational Age (alternate to EDD)**
7. **Date Gestational Age determined (alternate to EDD)**
8. **Method of Gestational Age determination (alternate to EDD)**
9. **LMP (alternate to EDD)**
10. Pregnancy Outcome
11. **Pregnancy Outcome date**
12. Postpartum status

*Green items – Identified as critical at hearing*
• **Charge 2: Sending and Sharing Pregnancy Status**

  » **Challenges:**
  
  – Public Health does not consistently obtain pregnancy status electronically
    
    • Electronic Laboratory Reporting (ELR) - Inconsistently provides pregnancy status information and, at times, only for certain diseases
    
    • Electronic Case Reporting from EHRs is not currently in place
  
  – Pregnancy status is needed not only for follow-up, but also is needed at the time a test is ordered for prioritization and to ensure pregnant women are being tested appropriately

  » **Recommendations:**
  
  – Promote that pregnancy status be transmitted for Zika and other reportable conditions (including chronic reportable conditions) where pregnancy status is relevant
  
  – In the short term, expand the use of ELR to transmit pregnancy status to public health for Zika and other reportable conditions; while Ask on Order Entry is the preferred method to capture pregnancy status, promote the use of specific prenatal Zika test to indicate pregnancy status
  
  – Publish the pregnancy data standards for transmission in the ONC Interoperability Standards Advisory (being vetted through public health and EHR vendors)
  
  – Encourage state and local jurisdictions to leverage existing public health authority to require transmission of pregnancy status in accordance with state and local laws
  
  – Promote the use of ONC's Interoperability Proving Ground (IPG) as a mechanism to share information on public health interoperability projects
Summary of Recommendations for Clinical Decision Support

• **Charge 3: Clinical Decision Support**
  
  » Challenges:
  
  – Guidelines for identification of patients at risk for emerging infectious disease can be complex and often change
  – State and local agencies may have variations on the guidelines
  – Guidelines for choosing the appropriate laboratory tests are complex (e.g., as noted in the hearing, over 300 of the wrong Zika lab tests were ordered in Texas) leading to missed or erroneous diagnoses
  – Guidelines for follow up and case management change during the course of an epidemic
  – CDS implementation in the EHR happens at the provider level

  » Recommendations:
  
  – Follow demonstration projects that have shown how CDS from Public Health can be incorporated into EHRs (e.g., RCKMS) to identify best practices for future recommendations
  
  – Explore sharing of CDS implementations across provider locations by promoting the use of Agency for Healthcare Research and Quality (AHRQ)’s CDS Connect, a web-based repository, as a mechanism to share information on public health interoperability projects related to CDS
  
  – In the short term, encourage the use of CDS to improve access to human readable guidance and to identify patients at risk
  
  – Explore mechanisms to enable consumers to identify and document their own risks including travel, pregnancy status and pregnancy intention and to share this data with their providers (e.g., myhealthfinder APIs)
  
  – Explore the use of open APIs for CDS (e.g., CDS Hooks to deliver CDS to EHRs)
Summary of Recommendations for the Electronic Initial Case Report

• **Charge 4: The Electronic Initial Case Report (eICR)**

  » **Challenges:**
    - Public health does not currently collect electronic case reporting information from EHRs
    - Digital Bridge and other eCR projects are in their infancy

  » **Recommendations:**
    - Incorporate Charge 1 recommendations for collection and sharing of pregnancy status into the eICR
    - Leverage current work from existing eCR projects (e.g. Digital Bridge) to promote best practices and standards for reporting pregnancy status with the initial case report as well as follow up and case management
    - Explore the use of new or maturing standards such as Structured Data Capture and SMART on FHIR as methods for eCR
    - Promote the use of ONC's Interoperability Proving Ground (IPG) as a mechanism to share information on public health interoperability projects related to eCR
Public Health Task Force Meeting Materials

- **Health IT Policy and Standards Joint Meeting – March 30, 2017**
  - Public Health Task Force (PHTF) Presentation:
    [https://www.healthit.gov/facas/sites/faca/files/HITJC_PHTF_Meeting_Slides_2017-03-30_0.pdf](https://www.healthit.gov/facas/sites/faca/files/HITJC_PHTF_Meeting_Slides_2017-03-30_0.pdf)
  - PHTF Data Element Mapping:
  - Audio (PHTF presentation begins at 15:40):

- **Letter of Transmittal – May 19, 2017**
  - Public Health Task Force (PHTF) Recommendations:

- **Past meetings of the PHTF (Dec 20, 2016 – March 29, 2017):**
  [https://www.healthit.gov/FACAS/meetings/past-meetings/1001](https://www.healthit.gov/FACAS/meetings/past-meetings/1001)
Public Health Task Force
Anne Fine, co-chair
Larry Wolf, co-chair

March 30, 2017
Agenda - Public Health Task Force, March 30, 2017

• Welcome
• Membership and charge
• Review principles
• Overview of recommendations
• Process for developing recommendations
• Deliberations related to each charge
• Summary of recommendations
• Public comment
• Adjourn
# Public Health Task Force Membership

<table>
<thead>
<tr>
<th>Member</th>
<th>Organization</th>
<th>Role</th>
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<tbody>
<tr>
<td>Larry Wolf</td>
<td>Strategic Health Network</td>
<td>Co-Chair</td>
</tr>
<tr>
<td>Anne Fine</td>
<td>New York City Department of Health and Mental Hygiene</td>
<td>Co-Chair</td>
</tr>
<tr>
<td>Andrew Wiesenthal</td>
<td>Deloitte Consulting, LLP</td>
<td>Member</td>
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<tr>
<td>Floyd Eisenberg</td>
<td>iParsimony, LLC</td>
<td>Member</td>
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<tr>
<td>J. Marc Overhage</td>
<td>Cerner Health Services</td>
<td>Member</td>
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<tr>
<td>Noam Arzt</td>
<td>HLN Consulting, LLC</td>
<td>Member</td>
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<tr>
<td>Susan Mcbride</td>
<td>Texas Tech University Health Sciences Center</td>
<td>Member</td>
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<tr>
<td>Richard Loomis</td>
<td>Practice Fusion</td>
<td>Member</td>
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<tr>
<td>Anjum Khurshid</td>
<td>Dell Medical School, University of Texas at Austin</td>
<td>Member</td>
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<tr>
<td>Janet Hamilton</td>
<td>Florida Department of Health</td>
<td>Member</td>
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<tr>
<td>Julia Gunn</td>
<td>Boston Public Health Commission</td>
<td>Member</td>
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<tr>
<td>Steve Hasley</td>
<td>American College of Obstetricians and Gynecologists</td>
<td>Member</td>
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<tr>
<td>Brian Anderson</td>
<td>athenahealth</td>
<td>Member</td>
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<tr>
<td>Riki Merrick</td>
<td>Association of Public Health Laboratories</td>
<td>Member</td>
</tr>
<tr>
<td>Chesley Richards</td>
<td>Centers for Disease Control and Prevention</td>
<td>Federal Ex Officio</td>
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<tr>
<td>Margaret Lampe</td>
<td>Centers for Disease Control and Prevention</td>
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<tr>
<td>James Daniel</td>
<td>ONC/HHS</td>
<td>ONC Lead</td>
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Public Health Task Force Charge

- **Overarching charge:** The Public Health Task Force will make recommendations to help inform public health issues and challenges related to health IT.
- **Detailed charge:** Make specific recommendations to better assist in the standardization of pregnancy status data, clinical decision support in health IT systems, and case management in public health settings—which are important components to addressing many public health challenges. Zika will be used as the use case for these recommendations.

1. **Capture Pregnancy Status:** Identify the current challenges associated with the collection of pregnancy status when a Zika test is ordered. How could standardization help to resolve these challenges?

2. **Send and Share Pregnancy Status:** Identify best practices for sharing pregnancy status from the provider to both commercial labs and public health entities.

3. **Use of Clinical Decision Support:** Is there a need to automate the clinical decision support (CDS) process in order to identify risk and report timely information to public health? If so, what existing standards-based approaches for automating the CDS process are available as part of Zika response (i.e., Structure Data Capture (SDC), Clinical Quality Framework (CQF)) be used?)

4. **The Electronic Initial Case Report (eICR)** Identify mechanisms for how to move electronic case reporting forward.
Public Health Task Force Principles

• Clarity of purpose – Understand the charge and ensure that it is addressed. Use the clinical and public health guidelines and processes to inform technology recommendations.

• Bright spots - Learn from examples of success. Build on existing capabilities.

• Engage Stakeholders – Ensure input and interaction with a wide range of stakeholders.

• Parsimony – Recommend the minimum necessary and sufficient to accomplish the goals.

• Generality – Recommendations should support the specific issue being addressed, in this case Zika, and should more broadly be applicable to a range of issues, including related information needs and preparing for future emerging public health needs.

• Pragmatic – Recommendations should be actionable and efficient, especially in the use of clinician time and effort.

• Balance Priorities – Stakeholders have many competing priorities and regulatory requirements. As much as possible, we should align and coordinate our efforts with other requirements.

• National Scale – Address the complexities of a nation-wide implementation.
Overview of Information Flow

- CDC
- Public Health Labs
- State/Local Health Department

- CDC Lab
- State/Local Public Health Lab
- Commercial Lab
- Healthcare Provider Lab

Guidance

Report (eCR)

Report (ELR)

Order with Specimen

Healthcare Provider
- Outpatient
- Inpatient
- Infection Control Practitioner

Public Health

Individual

Laboratory

Health Data
Summary of Recommendations for Capturing Pregnancy Status

• **Charge 1: Capturing Pregnancy Status**
  
  » **Challenges:**
  
  – There is no standard to capture pregnancy status and associated data in an EHR
  – There is no existing consensus on the minimum Public Health data elements for pregnancy. Our goal was to identify those priority elements.

  » **Recommendations:**
  
  – Disseminate the prioritized data elements identified by the Task Force related to pregnancy status
  – Promote “Ask on Order Entry” for transmission via ELR to capture pregnancy status for tests for reportable diseases where pregnancy status is relevant
  – Publish pregnancy data standards in ONC’s Interoperability Standards Advisory (ISA)
  – Explore ways for the patient (individual) to electronically self-report pregnancy status and other related data and electronically share that data with the provider’s EHR.
• **Charge 2: Sending and Sharing Pregnancy Status**

  » **Challenges:**
  
  – Public Health does not consistently obtain pregnancy status electronically
    
    • Electronic Laboratory Reporting (ELR) - Inconsistently provides pregnancy status information and, at times, only for certain diseases
    
    • Electronic Case Reporting from EHRs is not currently in place
  
  – Pregnancy status is needed not only for follow-up, but also is needed at the time a test is ordered for prioritization and to ensure pregnant women are being tested appropriately

  » **Recommendations:**
  
  – Promote that pregnancy status be transmitted for Zika and other reportable conditions (including chronic reportable conditions) where pregnancy status is relevant
  
  – In the short term, expand the use of ELR to transmit pregnancy status to public health for Zika and other reportable conditions; while Ask on Order Entry is the preferred method to capture pregnancy status, promote the use of specific prenatal Zika test to indicate pregnancy status
  
  – Publish the pregnancy data standards for transmission in the ONC Interoperability Standards Advisory (being vetted through public health and EHR vendors)
  
  – Encourage state and local jurisdictions to leverage existing public health authority to require transmission of pregnancy status in accordance with state and local laws
  
  – Promote the use of ONC's Interoperability Proving Ground (IPG) as a mechanism to share information on public health interoperability projects
Summary of Recommendations for Clinical Decision Support

• **Charge 3: Clinical Decision Support**
  » Challenges:
   - Guidelines for identification of patients at risk for emerging infectious disease can be complex and often change
   - State and local agencies may have variations on the guidelines
   - Guidelines for choosing the appropriate laboratory tests are complex (e.g., as noted in the hearing, over 300 of the wrong Zika lab tests were ordered in Texas) leading to missed or erroneous diagnoses
   - Guidelines for follow up and case management change during the course of an epidemic
   - CDS implementation in the EHR happens at the provider level
  » Recommendations:
   - Follow demonstration projects that have shown how CDS from Public Health can be incorporated into EHRs (e.g., RCKMS) to identify best practices for future recommendations
   - Explore sharing of CDS implementations across provider locations by promoting the use of Agency for Healthcare Research and Quality (AHRQ)’s CDS Connect, a web-based repository, as a mechanism to share information on public health interoperability projects related to CDS
   - In the short term, encourage the use of CDS to improve access to human readable guidance and to identify patients at risk
   - Explore mechanisms to enable consumers to identify and document their own risks including travel, pregnancy status and pregnancy intention and to share this data with their providers (e.g., myhealthfinder APIs)
   - Explore the use of open APIs for CDS (e.g., CDS Hooks to deliver CDS to EHRs)
• **Charge 4: The Electronic Initial Case Report (eICR)**

  » **Challenges:**
  
  – Public health does not currently collect electronic case reporting information from EHRs
  – Digital Bridge and other eCR projects are in their infancy

  » **Recommendations:**
  
  – Incorporate Charge 1 recommendations for collection and sharing of pregnancy status into the eICR
  – Leverage current work from existing eCR projects (e.g. Digital Bridge) to promote best practices and standards for reporting pregnancy status with the initial case report as well as follow up and case management
  – Explore the use of new or maturing standards such as Structured Data Capture and SMART on FHIR as methods for eCR
  – Promote the use of ONC's Interoperability Proving Ground (IPG) as a mechanism to share information on public health interoperability projects related to eCR
Process for Developing Recommendations
Process for Developing Recommendations

• **In-person hearing on February 8**
  - Panel 1: Public Health departments
  - Panel 2: Laboratory organizations
  - Panel 3: Clinical Decision Support (CDS) & Electronic Health Records (EHRs)
  - Panel 4: Clinical workflow

• **Additional Task Force deliberations and follow-up**
  - Case Reporting - Digital Bridge
  - U.S. Zika Pregnancy Registry
  - Data elements for capturing pregnancy status
  - Clinical Decision Support
  - Electronic Laboratory Reporting (ELR) of pregnancy related data
  - Feedback from draft recommendations
Deliberations Related to Each Charge:
Capturing and Sharing Pregnancy Status
(Charge 1 and 2)
Pregnancy status is critical for multiple infectious diseases of Public Health importance (e.g., Zika, Perinatal Hep B, Syphilis, HIV, Varicella, Listeria)

Lab-diagnosed cases for investigation should be prioritized (especially necessary for higher volume diseases or diseases where timely intervention is needed)

Testing of vulnerable pregnant women is critical

Follow-up on potentially exposed or infected infants is critical

Appropriate guidance to providers regarding test interpretation and case management is needed
Charge 1 - Capturing Pregnancy Status
Pregnancy Priority Data Elements

• Developed key priority data element specifications for Public Health (i.e., standards for collecting this information)

• Vetted recommendations concurrently through:
  » Health IT developers (e.g., EHRA and appropriate HL7 working groups)
  » Public Health
  » Health care providers (e.g., OB/GYNs, Pediatricians, health care systems)

• Recommended that the list of pregnancy data elements should be included in ONC’s Interoperability Standards Advisory
Priority Data Elements

1. **Pregnancy status** (yes, no, possible, unknown)
2. Certainty status of pregnancy (i.e., ultrasound, lab test evidence)
3. **Pregnancy status date recorded**
4. Estimated Delivery Date
5. EDD determination method
6. **Gestational Age (alternate to EDD)**
7. **Date Gestational Age determined (alternate to EDD)**
8. **Method of Gestational Age determination (alternate to EDD)**
9. **LMP (alternate to EDD)**
10. Pregnancy Outcome
11. Pregnancy Outcome date
12. Postpartum status

*Green items – Identified as critical at hearing*
Charge 1 - Capturing Pregnancy Status
Consumer Engagement Recommendation from Joint Committee

- Explored myhealthfinder
  - Created by the U.S. Department of Health and Human Services (https://healthfinder.gov/myhealthfinder/)
  - Tailors preventative services based on individual... age, sex, pregnancy status, etc.
    - Provides list of recommendations for the individual
    - Does not retain
    - Uses API, can be rebranded MyHealthFinder https://myhealthfinder.gov/FreeContent/ (i.e., CVS Health/Minute Clinic)

- Explore ways for the patient (individual) to electronically self-report pregnancy status and other related data and electronically share that data with the provider’s EHR.
Public Health Authority for Receipt of Pregnancy Data

• Public health has broad authority to collect data to prevent and control disease and protect public health; *(Whalen v. Roe (1977))*

• Health and Sanitary Codes authorize receipt and investigation of reportable disease data
  » Electronic Laboratory Reporting
  » Case reporting
  » Case and contact investigation and management
  » Outbreaks and “Unusual Manifestations of Disease”

• HIPAA permits PHI disclosure to public health without patient consent
  » ONC’s fact sheet: Permitted Uses and Disclosures: Exchange for Public Health Activities

• Confidentiality is rigorously protected by Public Health laws at all times; Information use is limited to the purpose for which it was collected (308(d)of the Public Health Service Act)

• Information that could result in the identification of an individual is not released

• Pregnancy related information may be required to be submitted when relevant
Charge 2 - Sharing Pregnancy Status
Review of Updates

• **Recommended Short Term Approach**

  » Promote Ask on Order Entry for Zika and other reportable conditions
    
    – ELR enables Ask on Order Entry data elements to flow to Public Health through existing infrastructure
    
    – ONC’s 2015 Edition supports Ask on Order Entry
    
    – Public Health labs require additional infrastructure to support Ask on Order Entry
    
    – Commercial labs require resources to reconfigure systems to support Ask on Order Entry

  » In the interim, promote the use of specific prenatal test name to indicate pregnancy status while Ask on Order Entry infrastructure is developed

• **Recommended Long Term Approach**

  » Promote the Electronic Case Report to enable Public Health to receive pregnancy status
Deliberations Related to Each Charge:
Charge 3: Clinical Decision Support (CDS)
Charge 3 – CDS
Background on Clinical Decision Support (CDS)

CDS provides value because guidelines are complicated
BRIGHT SPOTS
1) Vendors create logic in individual products and or
2) Local clinicians/hospitals implement algorithm in existing EHR implementations
3) Leverage innovative activities already in place (Utah, NYC, TX)

Pilots /Options:
(HL7 Connectathon = pilots are helping to harmonize the method)

Data Model – Quality Information Clinical Knowledge (QUICK)
Expression – Clinical Quality Language (CQL)
Structure – Clinical Quality Framework on FHIR (CQF on FHIR) – structure for CDS, Measure, Report

GEM Cutter II
CDS Hooks
InfoButton
RCKMS - Distributed management of CDS based knowledge
Charge 3 – CDS
Background Continued

Public Health: Supplier of guidelines

Developers: Technology platform

Providers: Workflow Integration

Charge 3 – CDS
Background Continued
CDS for Public Health and emerging risks should:

» Identify at risk individuals

» Ensure appropriate tests are ordered: for example, trigger points for particular actions (tests ordered for infant at time of delivery)

» Provide clinical management and patient education

» Provide guidelines for when to report to Public Health

» Provide stable URLs that can be embedded in an EHR which allows access to guidance from CDC and other public health sites (currently “pull”)

CDS 5 Rights

» Right channel/Right Information/Right intervention format/Right person/Right time = Where/What /How/Whom/When (Osheroff, 2012)
• Discussion with CDS Hook Experts
  » CDS Hooks is an open source project and is a model for describing how an EHR can use a remote decision support service. CDS Hooks uses FHIR and SMART.
    – Prototype implementations—4 EHR vendors and 30 CDS organizations and anticipated production by 2017
  » Argonaut Project has chosen CDS as a focus for 2017

• Recommendations for CDS charge
  » Explore the use of open APIs for CDS, such as CDS Hooks
  » Explore use of CDS for consumers to self-identify risks
• **Recommendations:**
  » Follow demonstration projects that have shown how CDS from Public Health can be incorporated into EHRs (e.g., RCKMS) to identify best practices for future recommendations
  » Explore sharing of CDS implementations across provider locations by promoting the use of Agency for Healthcare Research and Quality (AHRQ)’s CDS Connect, a web-based repository, as a mechanism to share information on public health interoperability projects related to CDS
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Deliberations Related to Each Charge:
Charge 4: The Electronic Initial Case Report (eICR)
Charge 4 – eICR
Background from Hearing - Value of the eICR

- More complete, critical and accurate clinical and demographic data beyond ELR in real time for action
- Directly links health care to population health
- Early detection of cases and the detection of pregnancy in existing cases allows earlier intervention and diminished transmission of disease
- Improves detection of outbreaks
- Responds directly to local and state partner needs
- Diminishes burden on healthcare provider to report
• Define the difference between the eICR and eCR*

  » eCR (electronic case reporting)—the fully or semi-automated generation and electronic transmission of reports of potential cases of reportable diseases and conditions from an electronic health record (EHR) or health information technology (IT) system to appropriate public health authorities, replacing the historically paper-based process.

  » eICR (the electronic initial case report)—The electronic initial case report (eICR) is a first step in implementation of eCR. The eICR will convey a standard set of data elements, vocabularies and value sets to Public Health Agencies (PHAs) for all reportable conditions in all jurisdictions. It is termed, initial as the report may be the first report made to public health from the clinical provider, containing just enough pertinent data for PHAs to initiate investigation or other appropriate public health activities as necessary.

• **Recommend Short Term Approach**
  » Incorporate Charge 1 recommendations for collection of pregnancy status into the eICR

• **Recommended Mid Term Approach**: Follow Digital Bridge using RCKMS* and other eCR projects for Zika case reporting
  » Leverage work from public health on the development of standards and best practices for the eICR through eCR projects (e.g., Digital Bridge)

• **Recommended Long Term Approach**: Move towards bi-directional data exchange with eCR, case management, and integrated CDS
  » Leverage eCR projects for the purpose of receiving follow up and case management information required for public health investigation (e.g., Digital Bridge)
  » Explore the use of Structured Data Capture and SMART on FHIR as methods for eCR

*Reportable Condition Knowledge Management System (RCKMS)*
Summary of Recommendations
Summary of Recommendations for Capturing Pregnancy Status

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## Public Health Task Force: Workplan

<table>
<thead>
<tr>
<th>Meeting Dates</th>
<th>Task</th>
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<tbody>
<tr>
<td><strong>Tuesday, December 20th 9:30am-11:00am</strong></td>
<td>• Kickoff Meeting</td>
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<tr>
<td>Thursday, January 12th 11:00am-12:30pm</td>
<td>• Case Reporting, Workflow Issues and hearing overview</td>
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<tr>
<td>Wednesday, January 18th 11:00am-12:30pm</td>
<td>• Administrative call to discuss upcoming hearing</td>
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<tr>
<td>Wednesday, January 25th 11:00am-12:30pm</td>
<td>• Overview of the US Zika Pregnancy Registry</td>
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<tr>
<td>Wednesday, February 8th 9:30am-4:15pm</td>
<td>• In-Person Hearing</td>
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<tr>
<td>Thursday, February 9th 9:30am-12:30pm</td>
<td>• Hearing summary and recommendations strawman</td>
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<td>Monday, February 13th 11:00am-12:30pm</td>
<td>• Formulate and review draft recommendations</td>
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<tr>
<td>Wednesday, March 1st 11:00am-12:30pm</td>
<td>• Prepare draft recommendations for review</td>
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<tr>
<td><strong>Wednesday, March 8th – Joint Committee Meeting</strong></td>
<td>• <strong>Draft Recommendations Presented</strong></td>
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<tr>
<td>Wednesday, March 15th 11:00am-12:30pm</td>
<td>• Integrate feedback and update recommendations</td>
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<tr>
<td>Wednesday, March 22nd 11:00am-12:30pm</td>
<td>• Update recommendations</td>
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<tr>
<td>Wednesday, March 29th 11:00am-12:30pm</td>
<td>• Finalize recommendations</td>
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<tr>
<td><strong>Thursday, March 30th – Joint Committee Meeting</strong></td>
<td>• <strong>Final Recommendations Presented</strong></td>
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Public Health Task Force Meeting Materials

• Health IT Policy and Standards Joint Meeting – March 30, 2017
  » PHTF Data Element Mapping: https://www.healthit.gov/facas/sites/faca/files/HITJC_PHTF_DataElementMapping_FINAL_508FINAL.xlsx

• Letter of Transmittal – May 19, 2017

Collaboration of the Health IT Policy and Standards Committees
Policy and Standards Federal Advisory Committees on Health Information Technology to the National Coordinator

Public Health Task Force

Anne Fine, co-chair
Larry Wolf, co-chair
Appendix
Algorithms for developers

Pregnancy status required for CDS as well as reporting to Public Health

CDS complicated and changes

Contact Local Health Department for Guidance on Laboratory Testing
https://phinvads.cdc.gov/vads/SearchVocab.action
Non-pregnant women and all men. (P1)

- Recent travel to or lives in an area with active Zika transmission or had sex without condom with a partner who traveled to or lives in an area with active Zika transmission (D1)
  - Yes
  - Planned Travel To area with active Zika Transmission (D1)
    - No
      - Stop
    - Yes
      - No
        - Patients with > 1 symptoms (D3)
          - Yes
            • Advise against non-essential travel to areas with known Zika transmission if planning to conceive in the near future.
            • Mosquito Prevention & Contraception Advice (P2)
          - No
            - Supportive Care
              Rest, Fluids, Antipyretics, Analgesics (Avoid aspirin/NSAIDs in case of dengue) (P5)
            - Yes
              Contact Local Health Department for Guidance on Laboratory Testing

Contact Local Health Department for Guidance on Laboratory Testing
https://phinvads.cdc.gov/vads/SearchVocab.action
## Algorithms for developers (Information)

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<td></td>
<td>b. Advice for patients about which mosquito repellents are effective and safe to use in pregnancy. [DEET, IF3535 and Picardin are safe during] <a href="https://www.epa.gov/insect-repellents/find-insect-repellent-right-you">https://www.epa.gov/insect-repellents/find-insect-repellent-right-you</a></td>
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<td>5. Possible microcephaly association</td>
<td>Known information about association between Zika virus infection and microcephaly and other known complications. <a href="http://www.cdc.gov/ncbddd/birthdefects/microcephaly.html">http://www.cdc.gov/ncbddd/birthdefects/microcephaly.html</a></td>
</tr>
</tbody>
</table>
Algorithms for developers (Value Sets)

- **Public Health Information Network Vocabulary Access Distribution System (PHIN-VADS)**
  - [https://phinvads.cdc.gov/vads/SearchVocab.action](https://phinvads.cdc.gov/vads/SearchVocab.action)
  - PHIN VADS Hot Topics

- **Zika virus disease associated Lab Vocabulary (ELR)** - Includes value sets associated with lab testing algorithm for Zika, Chikungunya and Dengue
  - [FILE: Zika_Lab_Test_Information_20160517.pdf](FILE%3A%20Zika_Lab_Test_Information_20160517.pdf) - Testing algorithm information for Epidemiologist and Lab experts using standard vocabulary
  - [FILE: Zika_virus_codes_for_ELR_20160517.xlsx](FILE%3A%20Zika_virus_codes_for_ELR_20160517.xlsx) - Technical information for ELR IT staff - LOINC and SNOMED codes
  - [LINK: Information for State Public Health labs from CDC](LINK%3A%20Information%20for%20State%20Public%20Health%20labs%20from%20CDC)

- **Zika vocabulary for EHR and Health IT vendors** - Includes value sets for implementing the CDC's interim guidelines which could be used by EHR community for decision support or pick list.
  - [LINK: Zika affected areas](LINK%3A%20Zika%20affected%20areas)
  - [FILE: Zika related CPT procedure codes_04152016.pdf](FILE%3A%20Zika%20related%20CPT%20procedure%20codes_04152016.pdf) - CPT procedure codes associated with Zika lab tests and imaging.
Innovative Clinical Decision Support Work for Zika


Guideline Elements Model: [http://gem.med.yale.edu/default.htm](http://gem.med.yale.edu/default.htm)


Clinical Quality Framework - ONC Tech Lab: [https://www.healthit.gov/techlab/testing_and_utilities.html](https://www.healthit.gov/techlab/testing_and_utilities.html)

Reportable Condition Knowledge Management System (RCKMS): [http://www.cste.org/group/RCKMS](http://www.cste.org/group/RCKMS)
Bright Spots - Demos

- Utah: Automated Surveillance
- NYC: Structured Data Capture (Federal Health Architecture demo)
- Health Alert Network (HAN) - CDC's Health Alert Network (HAN) is CDC's primary method of sharing cleared information about urgent public health incidents with public information officers; federal, state, territorial, and local public health practitioners; clinicians; and public health laboratories.
- Clinical Outreach and Communication Activity (COCA) - COCA, via CDC, prepares clinicians to respond to emerging health threats and public health emergencies by communicating relevant, timely information related to disease outbreaks, disasters, terrorism events, and other health alerts.
Improving Outcomes with Clinical Decision Support: An Implementer’s Guide
By Jerome A. Osheroff, MD, FACP, FACMI

This is an example of a tool we can leverage as a framework for Public Health. It provides expanded and updated guidance on using CDS interventions to improve care delivery and outcomes in diverse care settings.

- **Health Care Provider**
  - Integrated EHR Desktop/Mobile
  - Integrated EHR Internal System/Backend
  - Duplication Abatement Engine
  - Aggregation Engine

- **Decision Support Intermediary**
  - AIMS Platform (AWS)
  - RCKMS**
  - Integration Engine
  - Sender Validation

- **Public Health Agencies**
  - PH Integration
  - * Secure Transport (e.g. Web Services, PHINMS, VPN, S3, SFTP, Direct)
  - Response message type are determined upon onboarding

* Secure Transport (E.g. DirectTrust, Sequoia, FHIR, and future developments)

** other possible solutions/services/components

** possible local and state solutions, NCD, ESP

* Secure Transport (e.g. Web Services, PHINMS, VPN, S3, SFTP, Direct)

[Further details of AIMS and RCKMS can be found in the Appendix]
Questions?

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Thank you!

CMS is in the process of restructuring the subject matter and format for future Vendor calls. As a result, this will be the last Vendor call using the current format. In fall 2017 we will begin using the new format. Please stay tuned for additional information.