

Health IT Advisory Council

November 19, 2020



Agenda

Agenda Item	Time
Welcome and Call to Order	1:00 PM
Public Comment	1:05 PM
Review and Approval of Minutes – October 15, 2020	1:10 PM
Introduce Permanent Connie Executive Director	1:15 PM
Update on the Statewide Five-Year Information Technology Plan	1:25 PM
Electronic Case Reporting Discussion	1:35 PM
Announcements & General Discussion	2:00 PM
Wrap up and Meeting Adjournment	3:00 PM

Welcome and Call to Order

Public Comment

(2 minutes per commenter)

Review and Approval of:

October 15, 2020 Meeting Minutes

Introduce Permanent Connie Executive Director

Allan Hackney

Developing a Statewide Five-Year Information Technology Plan for Connecticut

*Vatsala Pathy, Senior Director
CedarBridge Group*

Health IT Plan Process



How will the HITAC be Engaged?

- Provide Input on Final Environmental Scan with Gap Analysis and Draft Recommendations
 - Summaries of Key Informant Interviews
 - Electronic Survey Analysis
 - Current State Summary
 - Desired Future State Summary
 - Gap Analysis
- Provide Input on Draft Recommendations for Five-Year Statewide Health IT Plan
- Provide Feedback Summary and Facilitate Discussion from Stakeholder Feedback
- Finalize and Publish Five-Year Health IT Plan

Stakeholder Interviews- Targets and Topics

Agency/ Stakeholder	Data Capture	Information Exchange	Healthcare Directory	eMPI	Cost of Care	Secure Exchange	Privacy	Alerts	Transitions of Care	Medication Management
DAS										
DCF										
DCP										
DOC										
DDS										
DMHAS										
DPH										
OHA										
OSC										
OHS										
DSS										
Providers										
Prescribers										
Hospitals										
BH										
LTPAC										
ACO / CIN										
SDOH (community organizations)										

Proposed Process for a HITAC Design Group

Validation and Prioritization of Draft Recommendations



Confirm Understandings

One Meeting to:

- Review Draft Recommendations
- Review Implementation Support Needs
- Confirm Process for Prioritizing the Draft Recommendations
- Confirm Known Risks



Consider

Two Meetings to:

- Review Potential Funding Models
- Prioritize Draft Recommendations
- Prioritize Implementation Supports
- Validate/Augment Mitigation Plans for Known Risks



Validate

One Meeting to:

- Confirm Readiness of Draft Recommendations for OHS and HITAC review
- Validate/Augment Stakeholder Feedback Process

Thank you!

CedarBridge Group

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Electronic Case Reporting

Nancy L Barrett, MS, MPH Infectious Disease Informatics Lead

Gary V Archambault, MS, CT Tracking Lead

Mike Banfield, MPH, Director of Regional Initiatives, CRISP

Who we are

- DPH Infectious Disease Section Informatics Program – formally est. 2018
 - Nancy Barrett, Epidemiologist 4 is lead
 - Responsible for the CDC Epidemiology and Laboratory Capacity (ELC) federal cooperative agreement cross-cutting project Health Information Systems (HIS).
 - ELC HIS has mandates including: electronic laboratory reporting, electronic case notification to CDC, electronic case reporting, electronic test ordering at State Lab
 - New Focus - Data Modernization Initiative – improving systems integration and data analysis and visualization capacity
- Connecticut Tracking Program (Environmental Health Section)
 - Gary Archambault, Epidemiologist 4 is lead
 - Responsible for Tracking efforts including presentation of data for various programs – hospitalization data, chronic diseases, infectious diseases, including dashboards and maps
 - Tracking grant funded under CDC cooperative agreement.
 - Assists ID Informatics on ELC Data Modernization Initiative

Disease Reporting in Connecticut

- Provider and Lab Reporting lists updated
 - >75 diseases and conditions
- Majority identified by lab reports
- Additional info from provider reports
 - PD-23, STD, TB, follow up letters
- Covid-19 and SARS-CoV-2 category 1 Feb



Connecticut Epidemiologist

Volume 40, No. 2	February 2020								
<p>Change to the List of Reportable Diseases, Emergency Illnesses and Health Conditions and the List of Reportable Laboratory Findings</p> <p>Effective February 5, 2020, Commissioner Renée D. Coleman-Mitchell, M.P.H. of the Connecticut Department of Public Health (DPH) amended the List of Reportable Diseases, Emergency Illnesses and Health Conditions and the List of Reportable Laboratory Findings by adding "2019 Novel Coronavirus" to such lists.</p> <p>This action was taken pursuant to Connecticut General Statutes Section 19a-2a and Section 19a-36-A7 of the Regulations of Connecticut State Agencies. This was done to assess and manage risk of potential exposures to 2019-nCoV and implement public health control actions based on a person's risk level and whether they have an illness consistent with the novel coronavirus.</p> <p>On February 11, 2020, the World Health Organization named the disease associated with this novel virus "coronavirus disease 2019" or "COVID-19." The International Committee on Taxonomy of Viruses (ICTV) has named the novel coronavirus virus "SARS-CoV-2." The DPH will use this new terminology.</p>	<table border="1"> <thead> <tr> <th>In this issue...</th> <th>Page No.</th> </tr> </thead> <tbody> <tr> <td>Change to the List of Reportable Diseases, Emergency Illnesses and Health Conditions</td> <td>5</td> </tr> <tr> <td>An Outbreak of Sapovirus Associated With the Consumption of Raw Oysters</td> <td>5</td> </tr> <tr> <td>Hepatitis A Case Investigation - Connecticut, 2018</td> <td>7</td> </tr> </tbody> </table>	In this issue...	Page No.	Change to the List of Reportable Diseases, Emergency Illnesses and Health Conditions	5	An Outbreak of Sapovirus Associated With the Consumption of Raw Oysters	5	Hepatitis A Case Investigation - Connecticut, 2018	7
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<p>An Outbreak of Sapovirus Associated With the Consumption of Raw Oysters</p> <p>In December 2018, the Connecticut Department of Public Health (DPH) was notified of a possible foodborne outbreak among a group of 7 persons who experienced gastrointestinal (GI) illness after dining at a local food service establishment (Restaurant A). The DPH Epidemiology and Emerging Infections Program (EEIP), Food Protection Program (FPP), local health department (LHD), and Department of Agriculture, Bureau of Aquaculture (DA/BA) conducted an investigation to determine the source of the outbreak, extent of illnesses, and implement control measures.</p> <p>Epidemiologic Investigation</p> <p>Staff of EEIP conducted telephone interviews with all 7 dinner attendees. A case was defined as an attendee who developed vomiting and/or diarrhea (~3 loose stools within 24 hours) within 3 days after</p>									

Modernization Efforts (pre-Covid-19)

- Standards based, flexible systems and processes
 - (2010) Web-based, secure, highly configurable surveillance system implemented
 - (2014) HL7 v2.5.1 Electronic Laboratory Reporting system initial production
 - (2018) HL7 v2.5.1 case notification to CDC started
 - 20?? CDC Data Submissions Standards – Message Mapping Guides
- In planning
 - Electronic case reporting
 - Improved, expanded data analysis and visualization

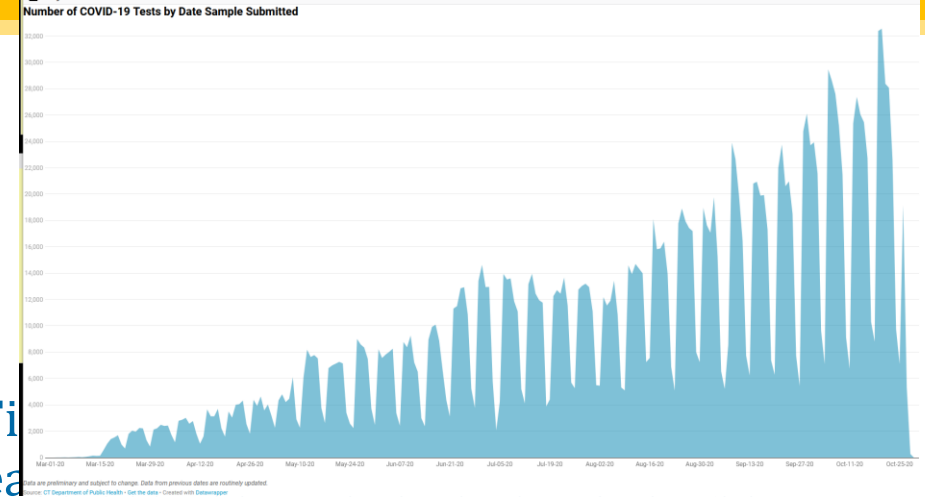
Our goal – merge many sources of data



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Covid-19 Pandemic Lab Test Results

- Expansion of lab reporting using flat files (csv) - EFile
 - 3M+ lab results received ELR (HL7) - 417X increase
 - >1 M results by Efile June to November
- Need to expand collection of test results from different testing locations
 - Labs – ‘traditional’ and newly performing covid-19 testing only
 - POC, schools, colleges, etc. locations – never thought of on-site tests as ‘lab report’
- CT has one of the highest testing rates in the U.S.
- Paper Reports for COVID-19 Lab Tests – Need to reduce or eliminate due to volume
- Reports on CT Open Data Portal – initial expansion of data visualization efforts



Covid-19 Pandemic Provider Reporting



- Providers to report Covid-19 cases with positive test results
- Majority still manually entered from paper/faxes/pdfs
- Online Covid-19 provider case report portal established
 - Only 1 case at a time
 - Some providers overwhelmed with positive cases – delays in reporting
 - Working to add some csv based reporting – tedious on-boarding process
- Need a better way

Electronic Case Reporting (eCR)

Why needed?

- Decrease public health burden
- Improve reporting timeliness and data completeness
- Receive more information
- Reduce records requests
- Expand surveillance efforts
- Fill the provider reporting gap while reducing burden on providers



**HL7 CDA® R2 Implementation Guide:
Public Health Case Report, Release 2
STU Release 1.1 – US Realm
the Electronic Initial Case Report (eICR)**

HL7 Standard for Trial Use

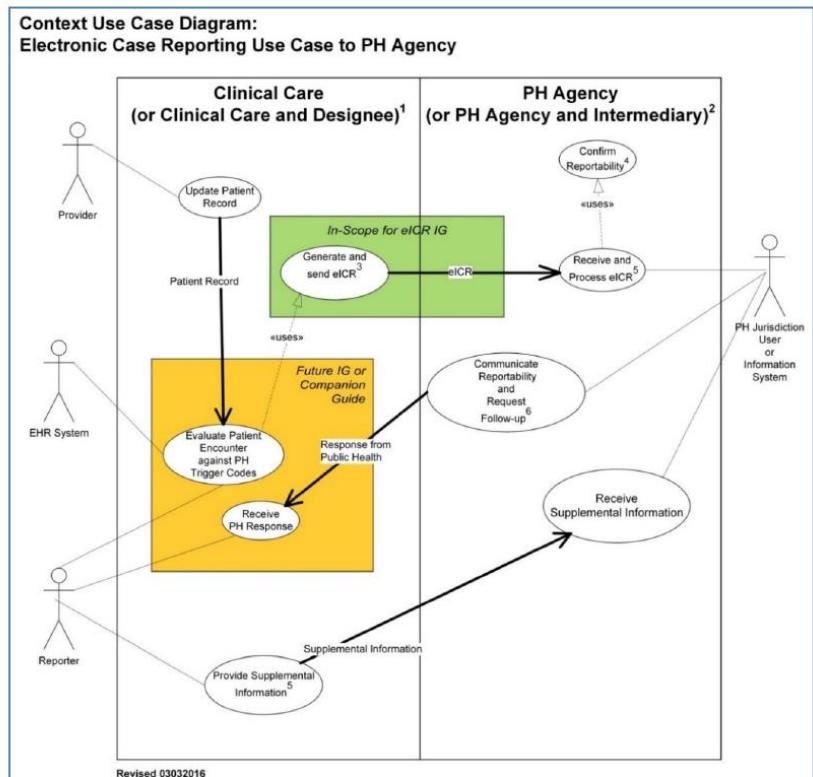
January 2017

Volume 1 – Introductory Material

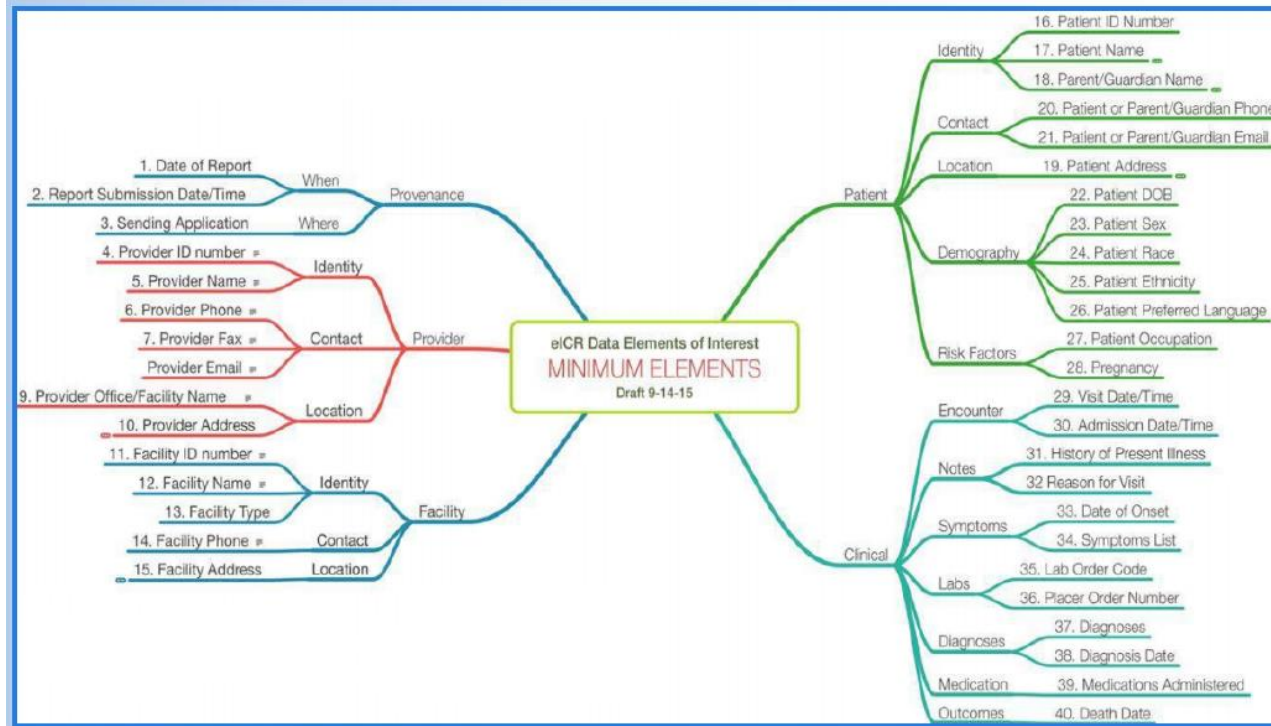
National Efforts

- HL7 Implementation Guide for Electronic Initial Case Report
- Describes public health use case for eICR
- Defines minimum public health data elements needed

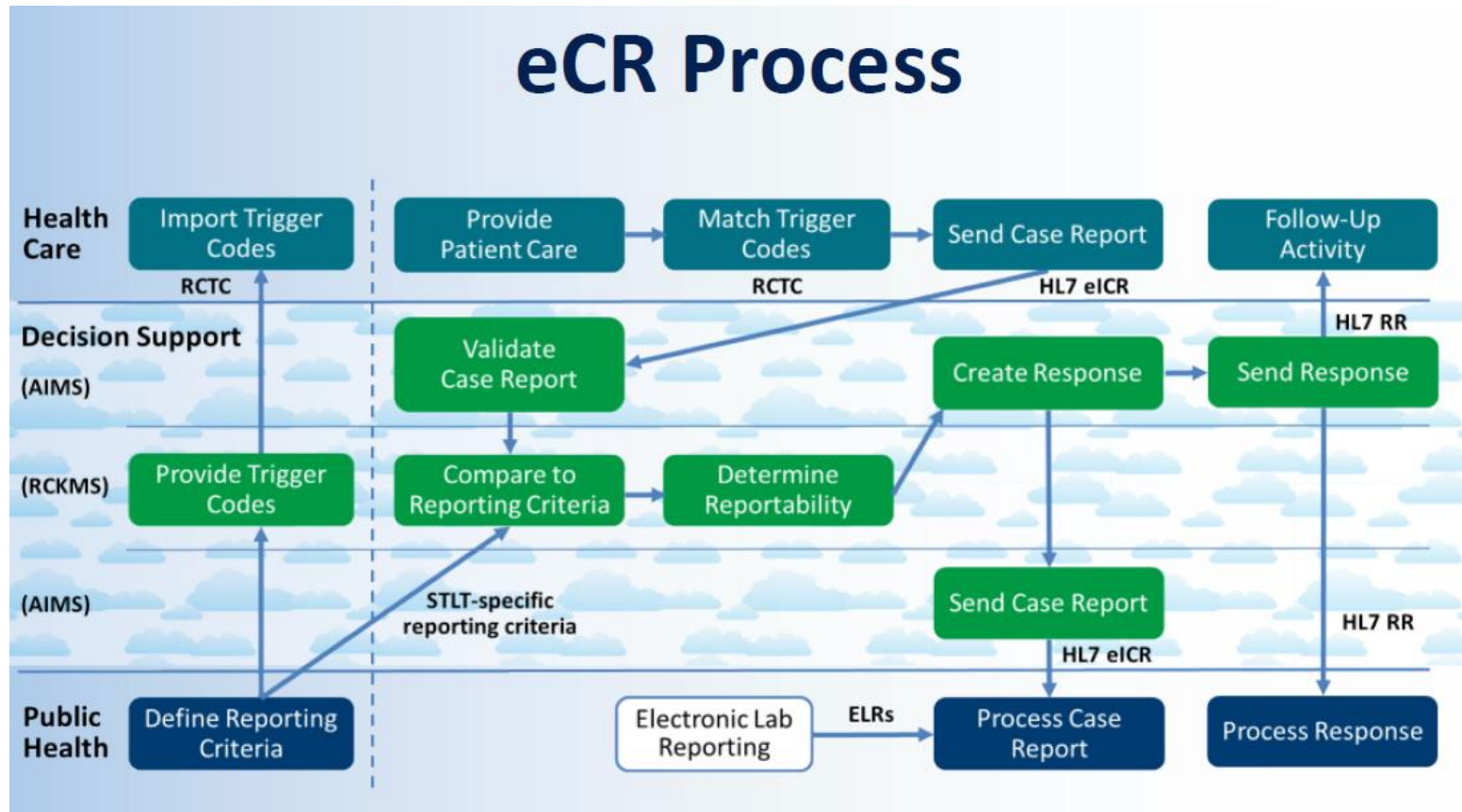
Figure 1: Context Use Case Diagram



Information in the eICR



eCR/eICR Process Overview



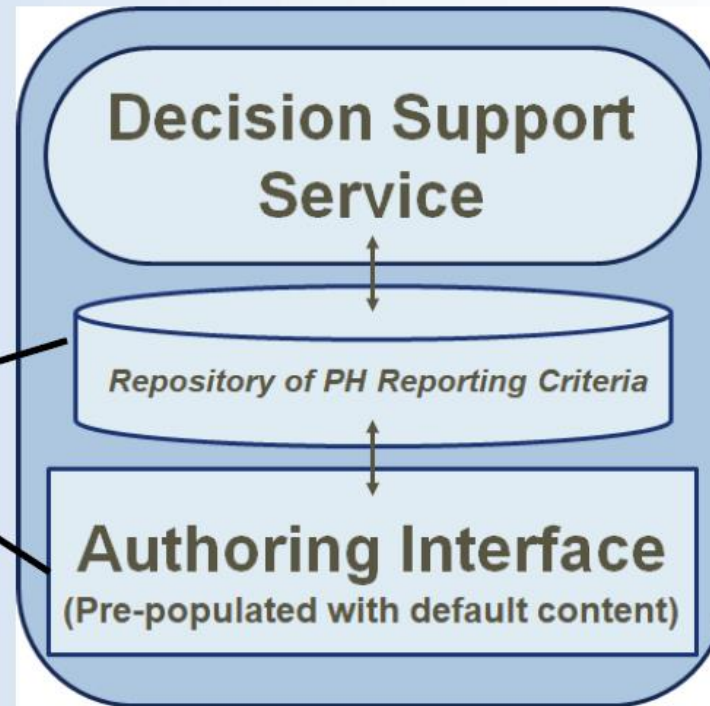
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What is RCKMS?

KNOWLEDGE

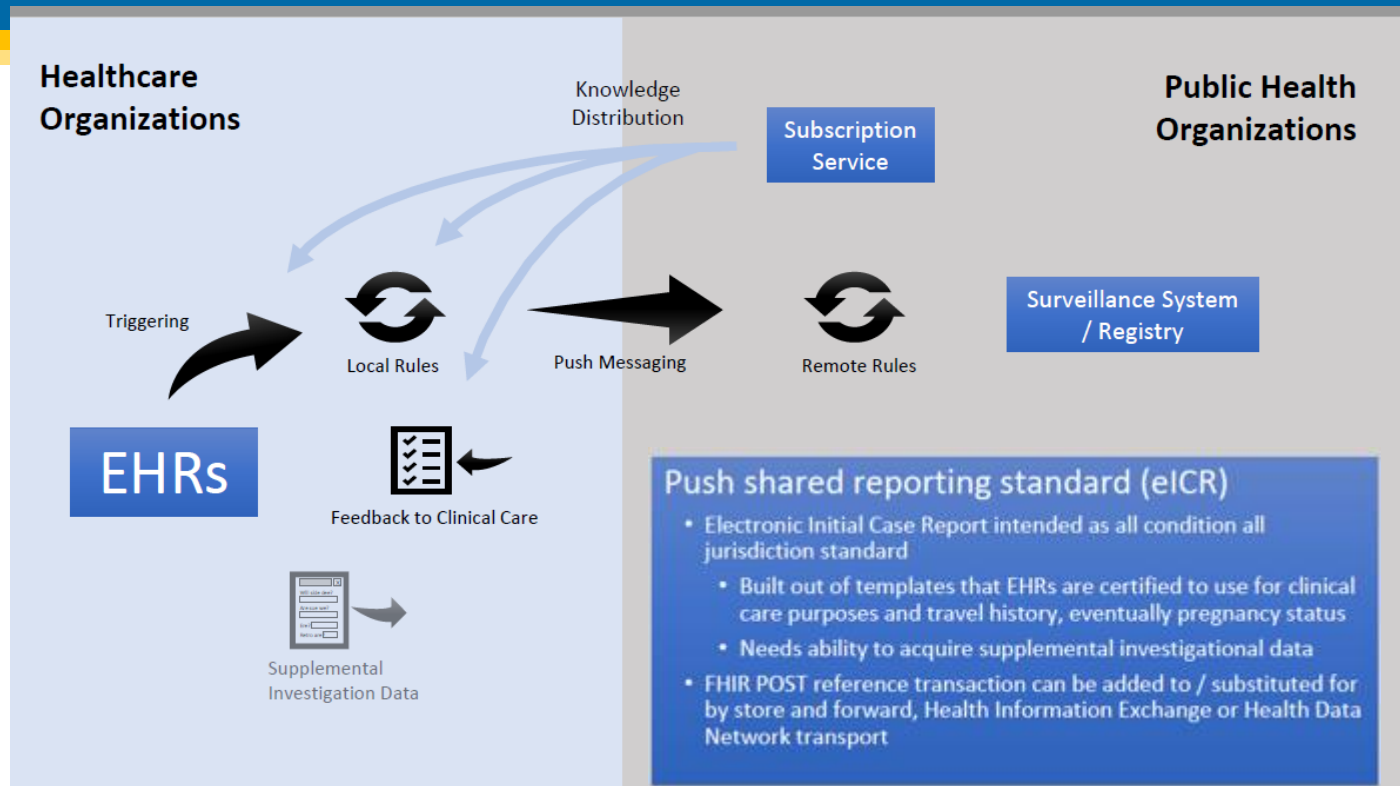
Content

- Reporting criteria
- Reporting logic
- Value sets
- Trigger codes



TOOL

- Authoring interface
- Decision support service



- Triggering to automate reporting**
- Reduce provider burden
 - Increase reporting compliance and yield
 - Simple trigger code mappings
 - Can trigger on data changes, workflow, time

- Feedback to clinical care (RR)**
- Reportability Response (HL7 CDA)
 - Bidirectional communications (notification of reportability, succinct guidance, regional status, connects supplemental forms)
 - Healthcare workflow sensitive (work queues, attach to patient chart for “reportable” and “may be reportable” conditions)

eCR – Two Parallel Paths

- CDC has developed with APHL-AIMS an eCR NOW project
 - FHIR app to be installed on provider EMR system
 - Fully implemented with EPIC EMR
 - Sends the eCR to the AIMS platform for conversion to CDA format file
 - AIMS send to the appropriate Public Health Agency
 - Implemented in 21 states from >30 locations
 - Once installed can be expanded to other diseases
- <https://ecr.aimsplatform.org/ecr-for-covid-19-reporting/>

← → ↻ 🏠 🔒 https://ecr.aimsplatform.org ☆ 🌐 ⚙️ 👤 ...

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eCR ELECTRONIC CASE REPORTING

Providers EHR Implementers PHAs HIEs & HINs eCR Now for COVID-19

What is eCR?

Electronic case reporting (eCR) is the automated generation and transmission of case reports from electronic health records to public health agencies for review and action.

See an overview of eCR and its many benefits for both healthcare providers and Public Health Agencies (PHAs) [here](#).

[eCR Now for COVID-19](#)

[eCR Now COVID-19 Challenge](#)

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eCR via HIE

- Other option is to leverage CONNIE to generate eCR messages
- Can work to determine how those messages would come to DPH and in what format (FHIR, CDA)

FHIR and CDA/C-CDA

Similarities	Differences
Clinical Document Focused	CDA is limited to clinical information about patients. FHIR has no limitation on their content and their subjects can be something other than patients.
Required Human readability	
Clinical Statement vs Resources	In CDA, you use RIM modeling and templates to express a clinical statement. In FHIR, you reference the existing resource definitions, or use the basic resources until an appropriate standard resource has been defined and published.
Templates & Profiles	CDA requires the use of templates in order to understand meaning of the instance. In FHIR, profiles are used to define extensions, but never to refine the meaning of a core element
Mark-up Language	CDA has its own XML syntax for narrative content, loosely based on HTML. FHIR use of a constrained XHTML. Conversions between the two need to take into consideration the constraints.

What Do We Hope to Gain?

- Improve Public Health Outcomes
 - Faster and more complete case reporting
 - Provide decision makers with better data
- Reduce the Burden
 - On the Health Care System
 - On the Public Health System



Connie

Connecting People for Better Health

HIEs and Support of Public Health

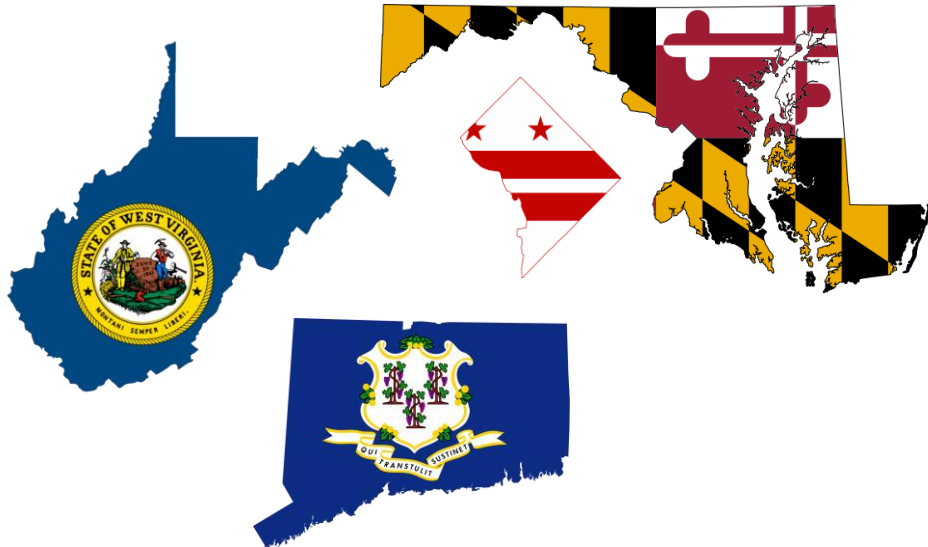
Agenda

1. Examples of HIEs supporting eCR
2. Examples of HIEs supporting Public Health



About CRISP

- **A Health Information Exchange (HIE)** serving Maryland, and West Virginia and the District of Columbia via affiliation.
- **Vision:** To advance health and wellness by deploying health information technology solutions adopted through cooperation and collaboration



Guiding Principles

1. **Begin with a manageable scope and remain incremental.**
2. Create opportunities to cooperate even while participating healthcare organizations still compete in other ways.
3. Affirm that competition and market-mechanisms spur innovation and improvement.
4. Promote and enable consumers' control over their own health information.
5. Use best practices and standards.
6. Serve our region's entire healthcare community—including public health.

Potential HIE Roles in Electronic Case Reporting

1. Non-technical coordinating entity
2. Technical Onboarding Support
3. “Last-mile” connectivity



Non-Technical Coordinating Entity

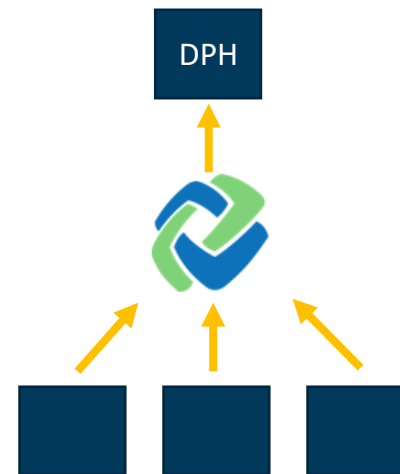
- ☞ The HIE can assist in socializing and communicating the value of a new service.
 - Maryland Care Alerts Collaborative
 - Care Redesign Coordination
 - Participation in various task forces, etc.



Technical Onboarding Support

➤ The HIE can serve as the central technical onboarding and orchestration point.

- Immunization registries
- Electronic Lab Reporting



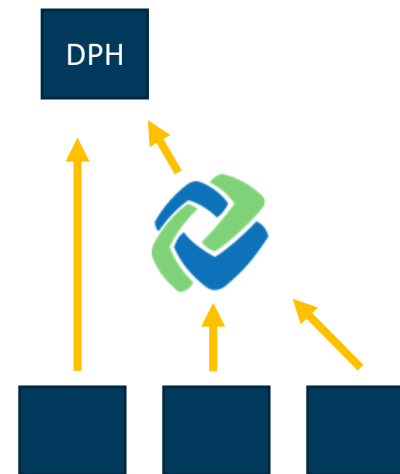
HIE Supports

- Secure transport
- Transformation
- Mapping
- Uptime/downtime monitoring & operational metrics
- Central Orchestration point
- Integrations



Last Mile Technical Support

- ☞ The HIE can support a subset of organizations with technical mapping as needed.



HIE Supports

- Secure transport
- Transformation
- Mapping
- Uptime/downtime monitoring & operational metrics
- Integrations

For a subset of organizations



Population Health Reports

- Geographic mapping for public health officials of hospital encounters and—when married—claims data—specific conditions

Meaningful Use

- CRISP facilitates public health reporting and attestation for hospitals and providers

Support of State Medical Examiner and Fatality Review Teams

- CRISP serves as a source of clinical information in death investigations

Family Reunification Portal

- In the event of an emergency, the family reunification portal can be activated for emergency personnel to locate individuals at participating facilities.

EMS Triage

- Use of the HIE to determine appropriate transportation methods and use of mobile integrated health teams

Disease Investigation

- Public Health Investigators utilize CRISP for Reportable Disease Investigation
 - Demonstrably more efficient and richer data source for hospital-reported conditions than previous methodology
- HIV Care Reengagement
 - Alert when HIV positive individuals encounter health system
 - Reconnect individuals to treatment and individuals who never learned status

Oz System

- Newborn alerting, to facilitate mandatory hearing screening

Immunization Registry

- Bi-directional immunization registry integrations

Support of State Medical Examiner and Fatality Review Teams

- CRISP serves as a source of clinical information in death investigations

Infection Control Alerts

- Informing providers of infection status at the point of care



Announcements and General Discussion

Allan Hackney, Council Members

Wrap up and Next Steps

Contact Information

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Adrian Texidor, HIT Program Manager, Adrian.Texidor@ct.gov

Tina Kumar, HIT Stakeholder Engagement, Tina.Kumar@ct.gov

General E-Mail, HITO@ct.gov

Health IT Advisory Council Website:

<https://portal.ct.gov/OHS/HIT-Work-Groups/Health-IT-Advisory-Council>

Appendix Slides for Health IT Plan

(If needed)

Phase One: Progress to Date

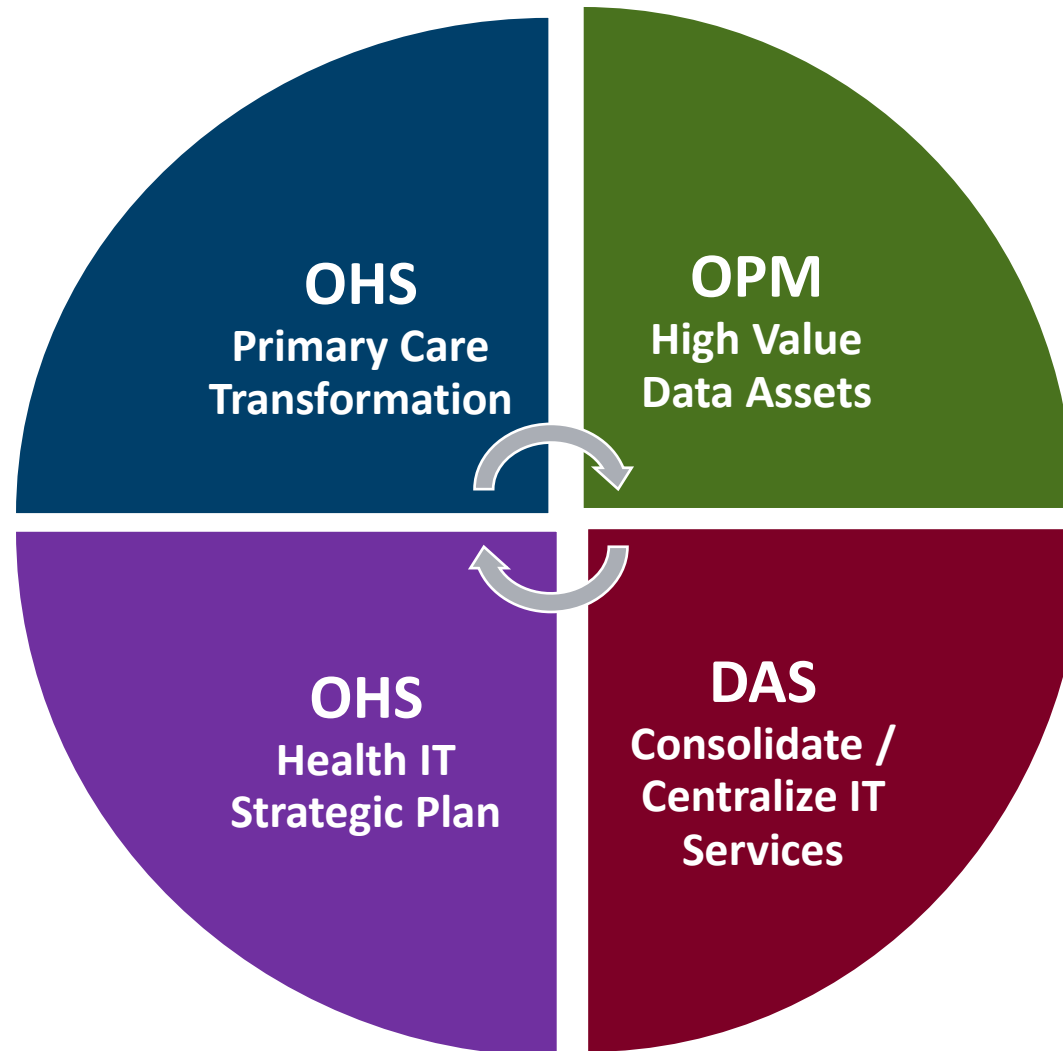
Engage & Discover

- Identified draft list of key stakeholders for discovery
- Received input from key state leadership to align efforts with other statewide data and information system planning efforts
- Developed draft input and governance framework and receiving input from state



HIT Strategic Plan Alignment with Other Initiatives

- Executive Order No. 5
- Cost growth and quality benchmarks
- Primary care spending targets
- Payment and Delivery Transformation
- Health Information Technology Officer
- Electronic Data Standards
- Facilitate integrated health information systems and Interoperability



- Chief Data Officer
- State Data Plan
- Catalog data assets
- Data sharing across agencies
- Data Analytics
- State CIO
- IT strategic plan
- IT consolidation
- IT centralization

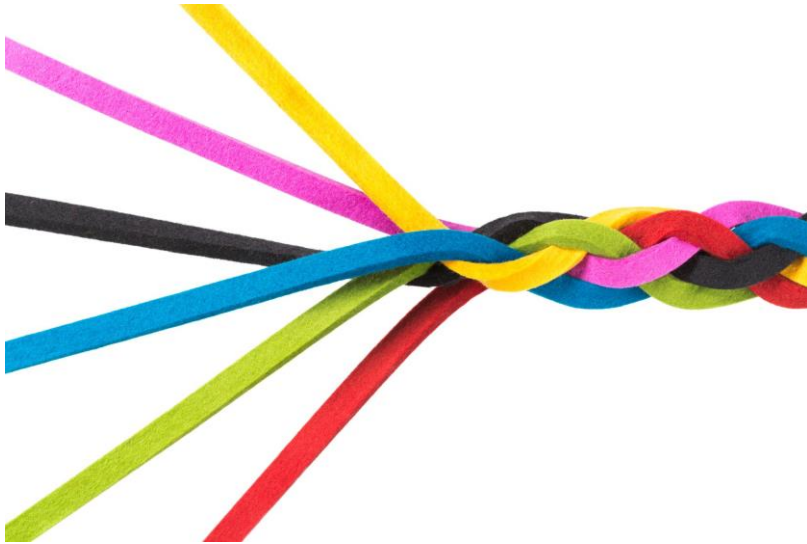
Phase One

Engage & Discover

- Key informant interviews– individuals and small groups
- Domain-specific electronic surveys, working with associations for dissemination to members
- Interactive webinars to inform, engage, and receive input from stakeholders
- Bi-directional communication pathways for informing and soliciting input



Phase Two



Analyze & Synthesize

- Develop a comprehensive environmental scan report from stakeholder and agency engagement with findings from the discovery process
 - Describe the Current State of health IT adoption and use across public and private sectors; HIE participation; inter-agency data sharing; system functionality and interoperability; governance; etc.
 - Describe the Desired Future State for health IT availability and functionality; HIE services; data needs; policy needs; governance; etc.
 - Develop a Gap Analysis between the Current State and Desired Future State to meet the needs / priorities of public and private sectors caring for Connecticut residents

Phase Three

Roadmap Recommendations

Develop recommendations for OHS and the Health IT Council; topic areas may include:

- Use case priorities
- Standards and shared services infrastructure recommendations
- Funding requirements and timelines
- Sustainability strategies
- Communication strategies
- Potential regulatory and legislative needs
- Implementation strategies
- Monitoring and measuring processes
- Governance structures to assist in continued success of new strategies



Phase Four

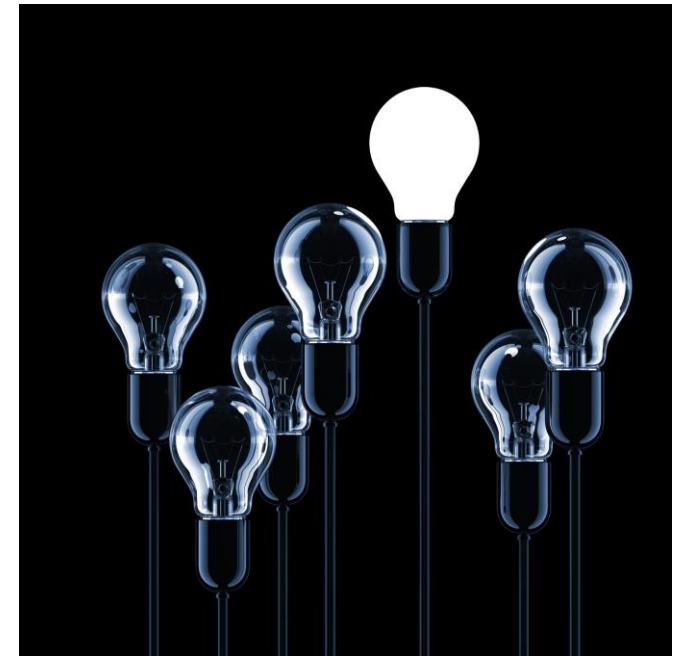
Validate, Revise & Finalize



- Hold feedback meetings with stakeholders to share draft recommendations
- Support OHS in posting draft recommendations for public comment period
- Collate and review public comments and stakeholder feedback with OHS team and Health IT Council
- Incorporate any changes from OHS and Council review
- Final approval by OHS and acceptance by Council

Project Management, Accountability & Oversight

- OHS will invite participation in a Roadmap Steering Committee with representation of state agencies and Council appointees
- CedarBridge will update Council on a monthly basis and develop a dashboard for tracking progress of the work
- Weekly project management meetings between OHS and CedarBridge
- Monthly written status reports
- Coordination with other initiatives underway



Health IT Strategic Plan - Background

Statute Requirement:

Implement and periodically revise the state-wide health information technology plan and establish electronic data standards to facilitate the development of integrated electronic health information systems, for use by health care providers and institutions receiving state funding.

Additional requirements:

- Include provisions relating to
 - Security and Privacy
 - Data content
 - Structures, Format, Vocabularies
 - Transmission protocols
- Social Security number restrictions
- Electronic audit trail
- Compatible with national data standards
- Permit collection of health information
- Compatible with requirements for an EHR
- Develop the plan
 - Implement it
 - Re-visit and revise as needed
- Emphasis of statute is on standards to support interoperability and support the collection of health information
- Additional emphasis will support Connecticut priorities including Primary Care Transformation, Public Health Modernization, Opioid Crisis, others

Anticipated Strategies

- Support and enhance efforts to address COVID-19 and opioid crisis
- Support primary care transformation
- Support health equity and address disparities
- Support public health modernization
- Align with CT-METS
- Align with consent management policy development
- Promote federated HIE model and continuing development of Connie
- Align with state data plan for agency systems
- Align with reorganization of state IT services
- Plan for sustainable funding
- Consider governance