

Public Health FHIR-Works:

Multi-Jurisdictional GitHub and FHIR Collaborations

WA Health Data Innovation Summit
August 18, 2023



Washington State Department of
HEALTH

Public Health
Seattle & King County



Agenda



Review of WA DOH FHIR Applications (production)



Review of WA Infrastructure Project



Review of WA FHIR Pilots

Situational Awareness
Death Data (PHSKC)



Discussion (share FHIR)

GitHub Demo

COSRI - Clinical Opioid Summary with Rx Integration

- Prior to COVID the biggest Public Health threat was opioids.
- DOH partnered with the University of WA to develop a FHIR app to not only bring PDMP data into clinical workflow but to use clinical decision support
 - This includes the CDC Guidelines
 - It also includes state level rules for opioid Rx
- Demo: <https://dashboard.cosri-demo.cirg.washington.edu/>

COSRI - Clinical Opioid Summary with Rx Integration

demo version - not for clinical use

COSRI
Clinical Opioid Summary with Rx Integration

Norman Osborn
DOB: 1964-JUL-29
MALE

New Patient Search

Clinical Opioid Summary with Rx Integration

LIMITATIONS Guidance not intended for palliative, inpatient, or active cancer care.

Patient Risk Overview

- Patient Risk Overview
- State PMP Prescriptions (3)
- Pertinent Medical History
- Risk Considerations (1)
- Urine Drug Toxicology Screen (1)
- Controlled Substance Agreement (1)
- Education Materials

Morphine Equivalent Dose (MED)

Class	# Rx	# Prescribers	# Pharmacies
Opioids	2	1	1
Benzodiazepines	0		
Non-Benzo Sedatives/Hypnotics	1	1	1
Muscle Relaxants	0		
Stimulants	0		
Anti-Convulsants	0		
Steroids	0		

Prescription Summary

Patient Risk Assessment

- Possible co-prescribing of sedatives with opioids.
- It has been more than 12 months since the last controlled substance agreement with this patient. (2021-Aug-06)

COSRI - Clinical Opioid Summary with Rx Integration

Risk Considerations (1)

Benzodiazepine Medications [more info](#)

no entries found

CDC Guideline #11: Avoid concurrent opioid and benzodiazepine prescribing.
WA AMDG Guideline: Washington State rules require that co-prescribing of opioids and benzodiazepine medications requires documentation, discussion of risks, and consideration of tapering medications.

Sedative Medications [more info](#)

<u>Drug Description</u>	<u>Quantity</u>	<u>Written Date</u>	<u>Dispensed</u>	<u>Prescriber</u>	<u>Pharmacy</u>
ZOLPIDEM TARTRATE 10 MG TABLET	30	2021-Oct-28	2021-Nov-06	Stan Lee	Central Manhattan, INC.

WA AMDG Guideline: Washington State rules require that co-prescribing of opioids and sedatives requires documentation, discussion of risks, and consideration of tapering medications.

Barbiturate Medications [more info](#)

no entries found

WA AMDG Guideline: Washington State rules require that co-prescribing of opioids and barbiturates requires documentation, discussion of risks, and consideration of tapering medications.

Carisoprodol Medications [more info](#)

no entries found

WA AMDG Guideline: Washington State rules require that co-prescribing of opioids and carisoprodol medications requires documentation, discussion of risks, and consideration of tapering medications.

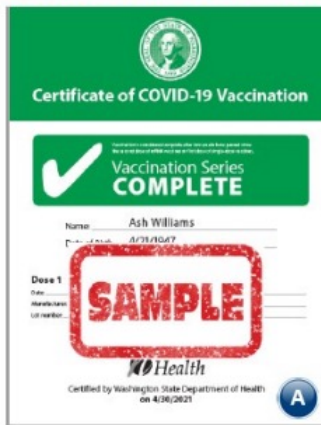
Visual Guide to Official Washington State Proof of COVID-19 Vaccination

CDC COVID-19 Vaccination Record Card

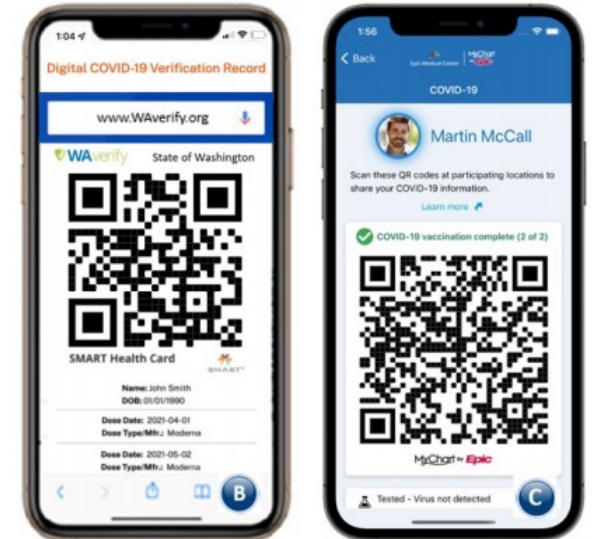


- Originals, copies or photographs on a mobile device are acceptable.
- Full vaccination is valid two weeks after last recorded dose:
 - Single dose for Johnson & Johnson (Janssen) vaccine.
 - Two doses of Pfizer-BioNTech/Comirnaty or Moderna vaccine.

Certificate of COVID-19 Vaccination or QR Codes



- **Sample A:** Certificate of COVID-19 Vaccination available from MyIRmobile.com.
- **Sample B:** WAverify.org SMART Health Card QR Code
- **Sample C:** QR Code displayed on an endorsed partner mobile app. (Apps may vary)






Digital COVID-19 Vaccine Record

First name *

Last name *

Date of birth * 

Provide a mobile phone or email that may be associated with your vaccine record. If you do not get a match using your mobile phone, try again using your email address.

Mobile Phone Email

Mobile Phone *

Create a 4-digit PIN number. You'll receive a link to enter the PIN number and access your digital vaccine record.
*

— — — —

Note: Your PIN is needed to securely access your digital record.

By checking this box, you are declaring under penalty of perjury under state and federal laws that you are the Patient or Parent/Guardian of the Patient and are therefore authorized to access the Patient's immunization record.

International Patient Summary

WA Verify⁺ International Patient Summary

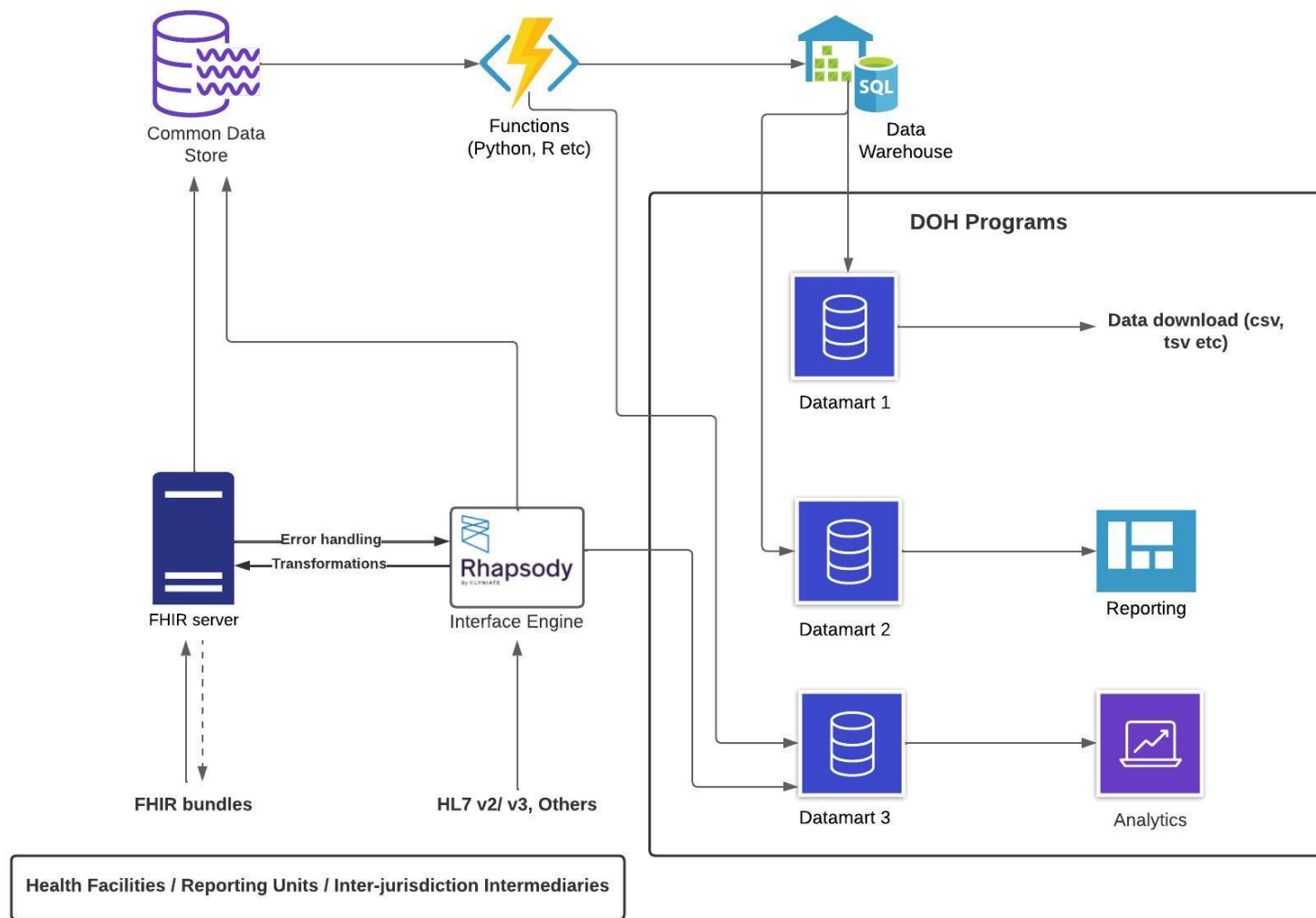
Welcome to a demonstration of WA State's ability to allow individuals in WA State to share their health data, including state immunization records.

The WA Verify⁺ system builds on the WA Verify vaccination verification system to allow people to access and share their own health data, stored for them by the Washington State Department of Health, including immunizations, advance directives, and other data specified by the International Patient Summary. This data may be helpful to those traveling away from home, to parents and caregivers, and to anyone who wants to be able to see their own records, or securely share their data with healthcare providers or others of their choosing.

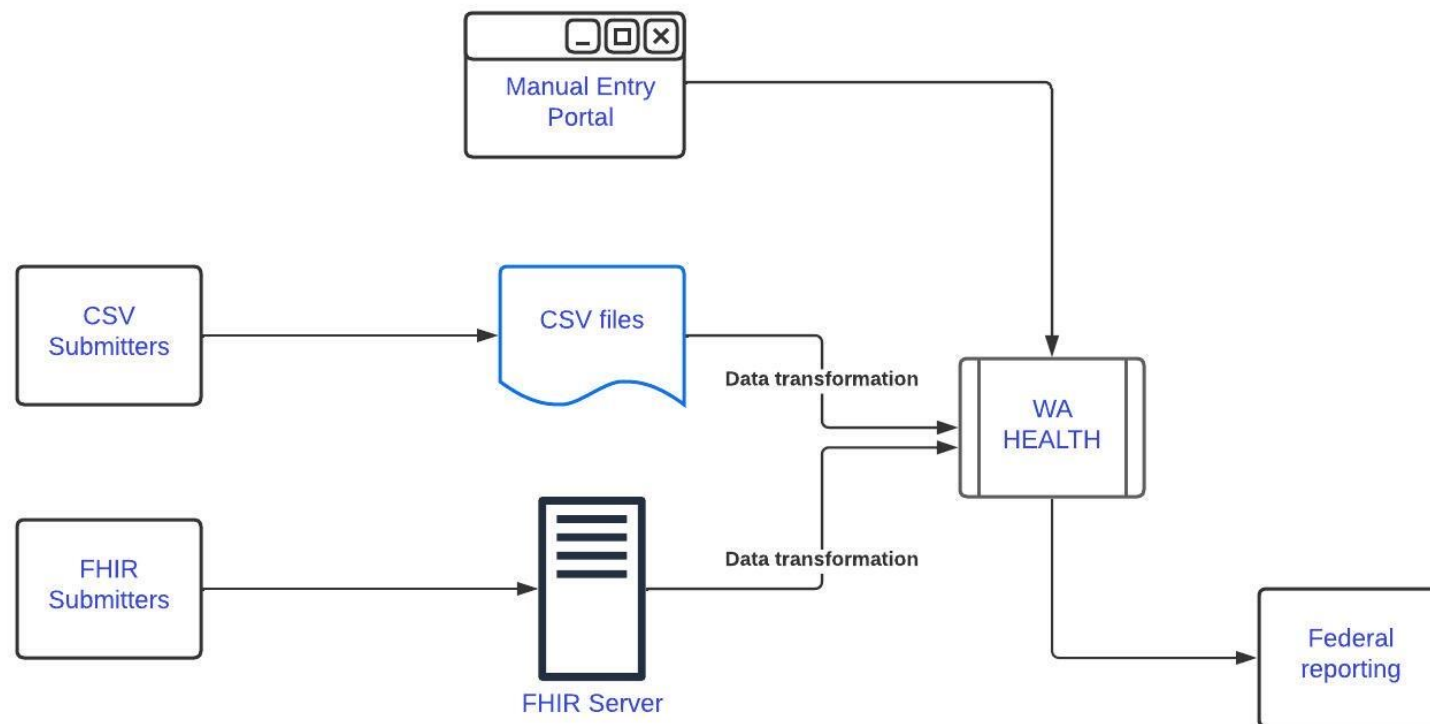
WA Verify⁺ uses the secure, patient-controlled SMART Health Link standard. If you would like to share your records, you may use either the electronic or a printed version of the QR Code you'll get from the system. We recommend waiting 3-7 days for any new immunization to show up in the State system, and therefore be available in this International Patient Summary.

You can start by entering a name, date of birth and cell phone number to generate a QR Code to access your records. You will receive a code on your cell phone which you will need to enter each time you sign in.

Interoperability Infrastructure: High Level Conceptual Model

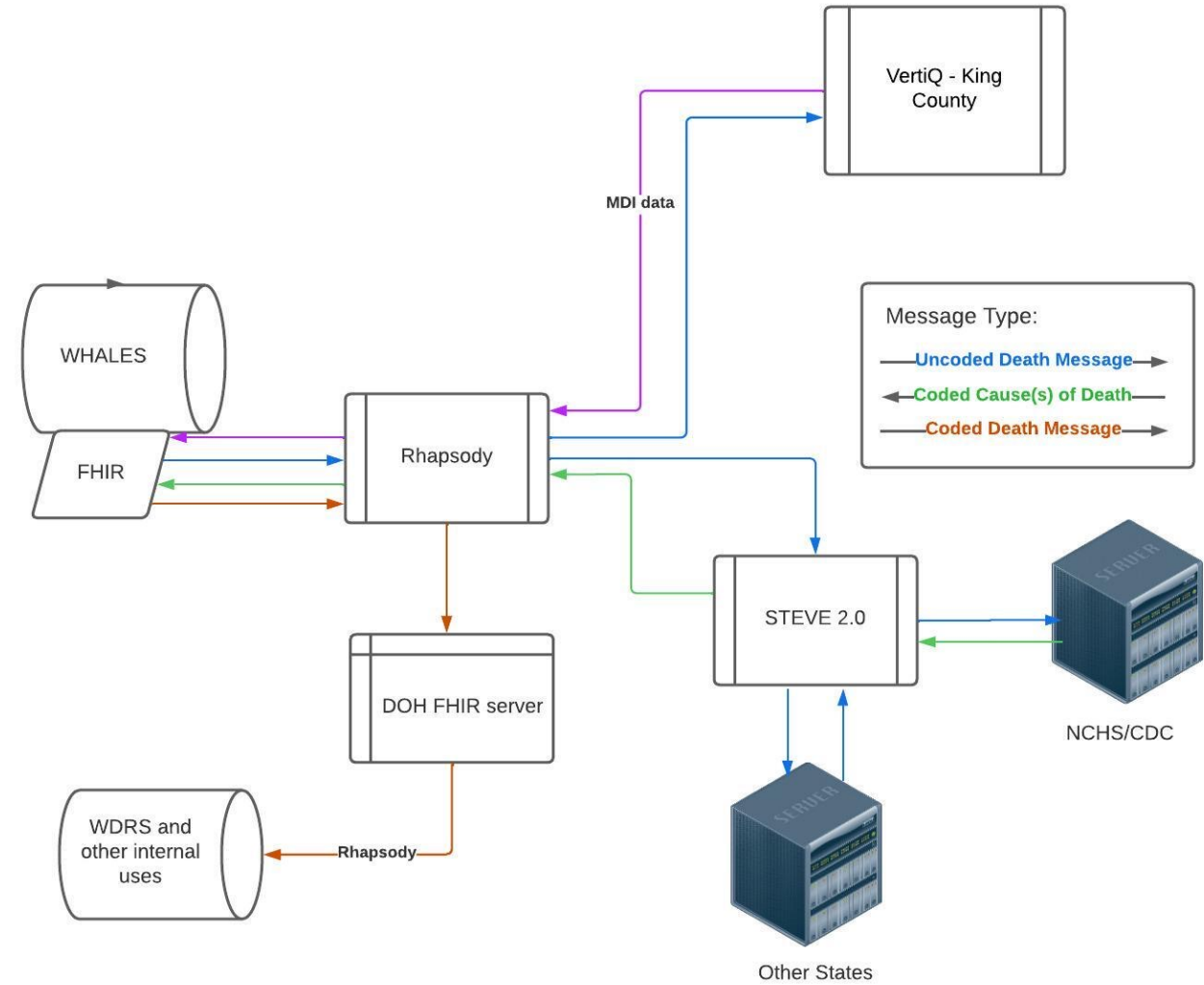


Helios: Situational Awareness/ Aggregate Data

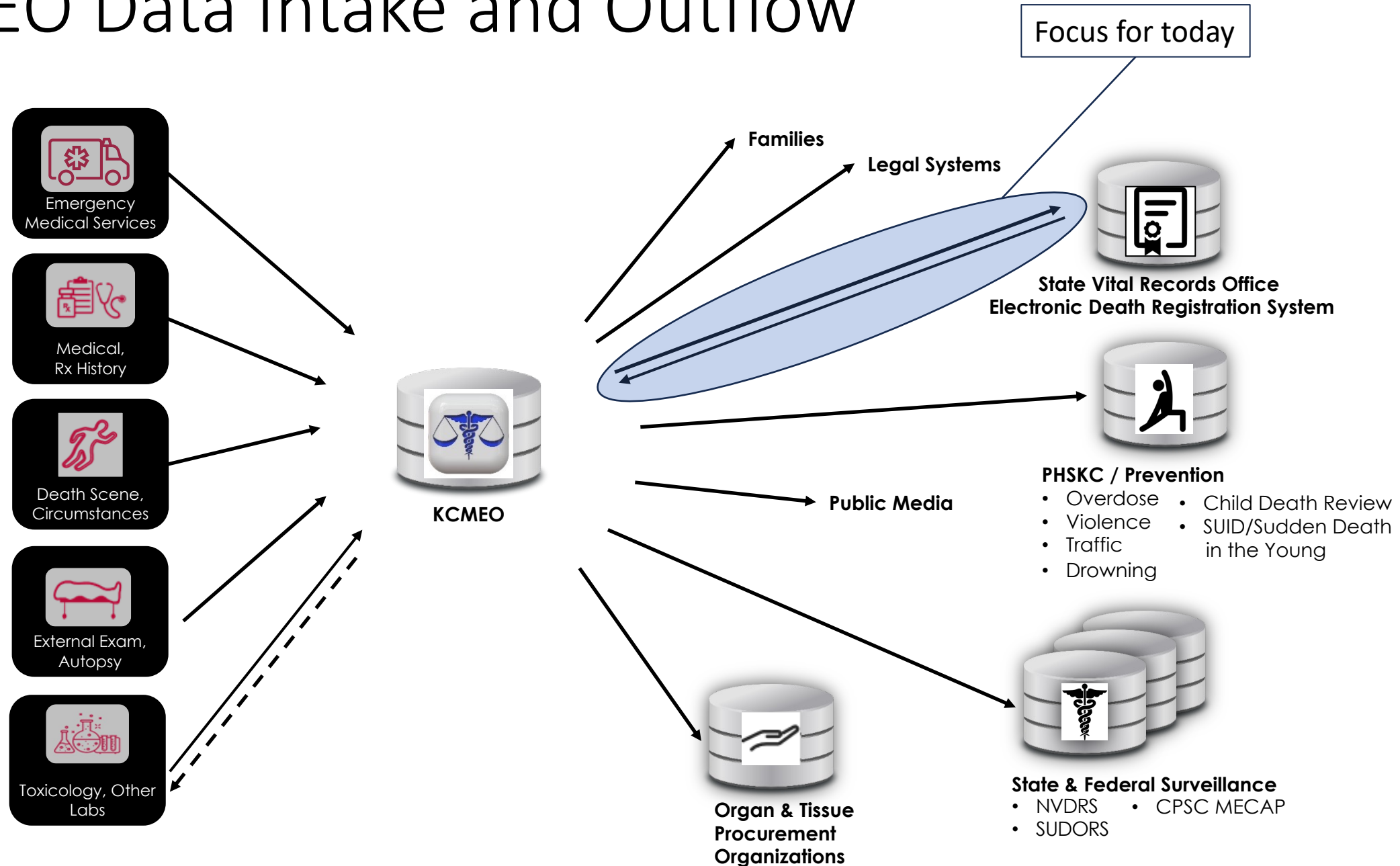


VRDR Interoperability

Vital Records Death Reporting Interoperability Draft



KCMEO Data Intake and Outflow



Why did we say yes to this?

- Informatics team
 - Chance to build knowledge of standards in the health department
 - Lay the groundwork for more efficient data transfer
- MEO team
 - Because the existing system (EDRS) is going away
 - Will have to re-connect anyway



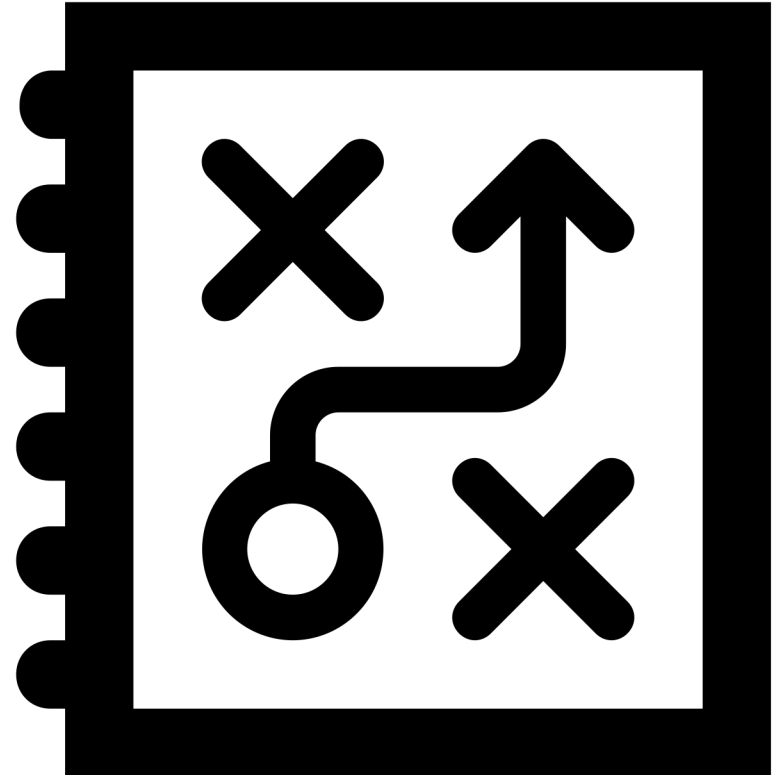
Barriers to taking part

- Concern from program team about changing workflow at critical time
- Understanding what the change would entail (“What is FHIR?”)
- Finding time to work on project



What did we need to do?

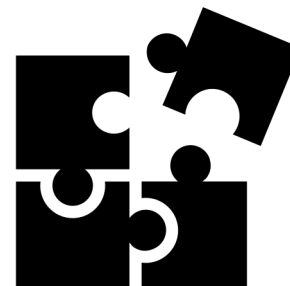
- Work with vendor to set up FHIR API in test environment
 - Map data fields in existing connection to FHIR
- Develop test data for DOH to send
 - Create dummy records
 - Ensure that DOH can connect to API
 - Check that data come through as expected
- Communicate often with DOH team



Experience so Far



Making good progress on moving to FHIR



No-one holds all the pieces (MEO data and system needs, VertiQ/CME functionality, FHIR)

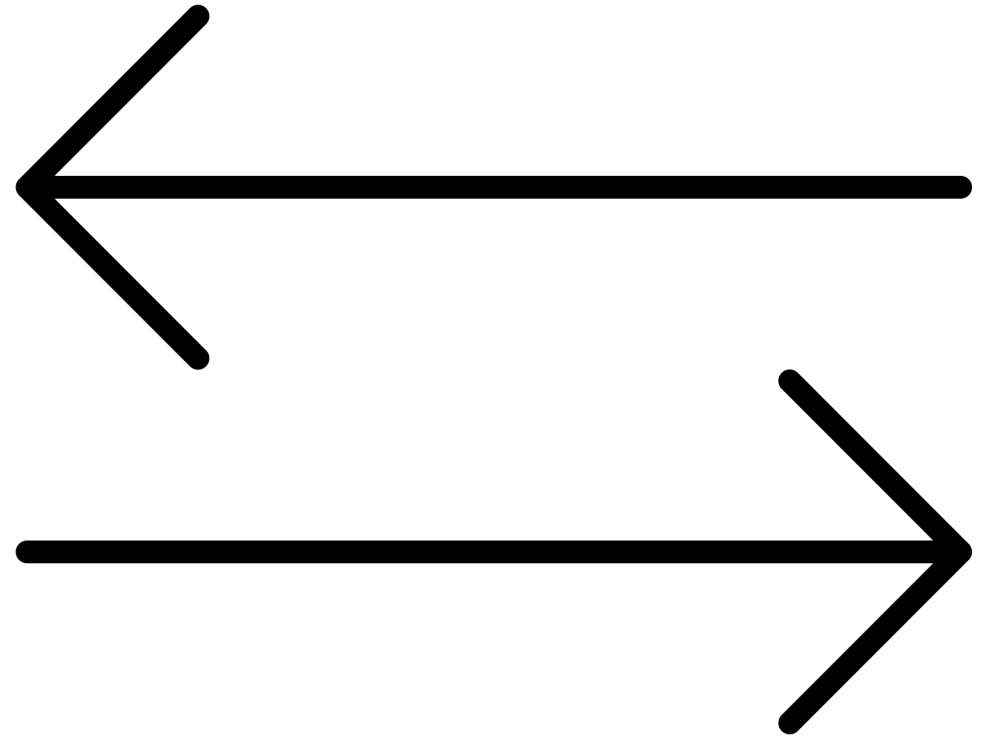
What next?

- Continue testing messages from DOH Rhapsody
- Flick the switch
- Develop bidirectional transfer (phase 2)



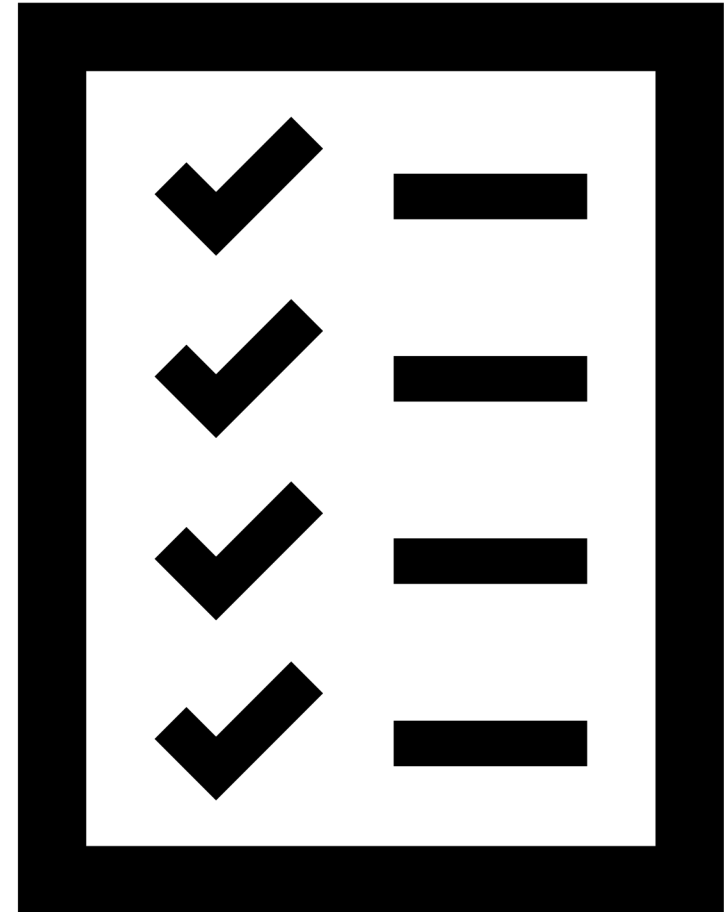
Why do a second round?

- Build on new FHIR capacity
- Reduce duplicate entry (into KCMEIO system and then DOH system)
- Make a more compelling example for other health jurisdictions



What is needed this time?

- PHSKC with vendor to set up FHIR client to send
- DOH set up FHIR server to receive
- Map data fields to FHIR
- Develop test data to send
 - Create dummy records
 - Ensure that we can connect to DOH
 - Check that data come through as expected
- Train KCMEO staff on new workflow
- Communicate often with DOH team



Other FHIR plans/dreams

- Use FHIR to receive toxicology lab results
- Set up a FHIR connection between DOH and PHSKC (and other LHJs) for vital records
- Send/receive data from healthcare providers



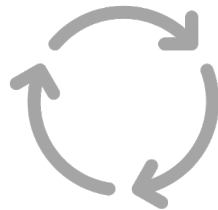
Acknowledgements

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- ASTHO
- UW CIRG & SOPH
- Altarum

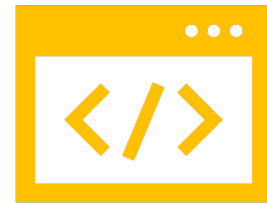
Sharing the FHIR



How do we collaborate on projects to be more efficient?



How can we share enhancements?



What systems/code could we share?

Thank You



Public Health
Seattle & King County



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