**Introduction**

With the advent of Electronic Health Records (EHRs), there are tremendous opportunities to support public health surveillance and the delivery of public health information to clinical care. eCR can support more complete and timely possible case data, support disease and condition monitoring and trending, assist outbreak management and control, and improve relevant information delivery to clinicians in the context of jurisdictional disease trends and patient specifics.

eCR has an HL7 CDA STU implementation guide (the Electronic Initial Case Report - eICR) for all-jurisdiction, all-condition initial reporting to public health from EHRs. It also has an in-process HL7 CDA STU implementation guide (the “Reportability Response”).

With the advent of FHIR standards, eCR will also need appropriate FHIR resources, transactions, and implementation guidance to support this process. FHIR also offers opportunities to supplement eICR data and improve the ease of implementation and consistency of the automated triggering of eICRs and the decision logic needed to advance both reporting to public health and provision of public health information to clinical care.

Public Health electronic case reporting (eCR) is the principally automated, bidirectional exchange of information between clinical care and public health in the context of reportable conditions.

This project will build off of the C-CDA STU Public Health Case Report standards to support a number of activities related to electronic case reporting (eCR) through appropriate FHIR representations:

1. Reporting, investigation, and management - electronic transmission of clinical data from Electronic Health Records to Public Health - including; 1) the existing electronic initial case report (eICR) version 1.1, 2) new eICR data from all EHRs, 3) pushed and pulled, non-eICR, condition specific EHR data, and 4) supplemental data not found in EHRs. The management and processing of population cases including potentially a FHIR population case resource.
2. Bi-directional information exchange – the response to the eICR including the delivery of relevant public health information in the context of the patient and their possible relevant conditions – included in the Reportability Response transaction
3. Triggering and decision support – the automated initiation of an initial report in Electronic Health Records based on simple logic “triggers” from public health. A pathway to more complex logic distribution will be explored, as well as the opportunities in workflow to tie in contextualized public health information.

As with the initial electronic case report, the project will strive to minimize reporting burden and use data that are in EHRs because of the provision of care. It will, whenever possible, use existing FHIR resources so the data can be readily produced and delivered by EHRs.

The strategy undertaken by this project includes the use of a US Realm Standard for Trial Use (STU) for development and deployment. Following the STU period, for a period of two years, the standard will be published as Normative. It will also include the pursuit of a universal FHIR population case resource and the specification of documents, value sets, extensions and other resources as necessary to support these activities.

**Stakeholders**

* Regulatory Agencies
* Standards Development Organizations (SDOs)
* Vendors: EHR, PHR; Health Care IT; Clinical Decision Support Systems
* Providers: Healthcare Institutions (hospitals, long term care, home care, mental health)
* Local and State Public Health Agencies