**Clinical Engagement with FHIR Resources (Clinical Connectathon)**

Friday October 9, 2015

Expected Attendees = XX

**Goals**

* Test existing resources for clinical applicability
* Advance clinician’s expertise in FHIR so they can support development, testing and implementation of FHIR resources and profiles

**Needs**

* Clinical Usability/Applicability of FHIR resources is unclear to many clinicians in HL7
* Clinicians have a varied level of competency regarding FHIR Resources and Profiles
  + What are the resources available?
  + When/How are they used w.r.t. interoperability and workflow?
  + What information is conveyed by a resource?
  + Where are the gaps?
* Clinicians have varied levels of competency in standard terminologies and information modeling
* Clinicians have varied experience in different clinical, administrative domains

**Objectives**

Following the Clinical Connectathon:

FHIR Developers will:

* Have examined how well the FHIR resources are meeting clinical needs.

Clinicians will..

* Have a general approach to FHIR – Where do I start?
* Explain how resources fit into clinical and administrative workflows – How do I use FHIR resources to … (e.g. document a patient’s conditions)?
* Understand the FHIR data model and terminology
* Recognize how FHIR resources reference one another

**Method**

* Participants are expected to have a basic understanding of FHIR based on review of the specification or tutorials
* Using a historic use case (Viet’s), describe how a clinical informaticist worked with a development team to create sample FHIR data for HIMSS demonstration
* Introduce and give short tutorial to participants to David Hay’s ClinFHIR.com
* Using a small group format, each group will use the ClinFHIR to discover and demonstrate how a small set of data might be created in FHIR
* **Approach**
  + Break into 2-3 small groups. 4-6 participants each group
  + Each team has - FHIR core team member, facilitator, and then the team members...
  + Pick 2-3 resources (one per group)
    - Clinical Impression
    - Care Plan
    - Procedure

The schedule:

* 8:30-9:30  (1 hour,) Run through the specific example of 3 meds in place and want to add 2 more and resource (medication prescription) and walk through what is expected of each group with their assigned resource.
* 9:30-11:00 (1.5 hours) breakout into groups of 4-6 have them focus on clinical impression, Care Plan, and Procedure
  + Provide in advance very specific things we want to include in the care plan, it is too much to provide a whole clinical scenario),
  + Instruct to to not argue about all the components of the care plan - just add the items listed/Requested (i.e. med, activity, diet, preference, goal),
  + how would each of these be used in the resource of study?
  + What interconnections are needed? reference resource vs codable concept?
  + Ask -
    - Does FHIR support or how would FHIR support….
    - What additional information is essential (80/20) to recording/sharing of this resource
    - How long has a patient been… (on a medication)
    - How long has a patient been… (on this dose?)
    - How would FHIR represent this data element? How is this FHIR data element supposed to be used?
    - How do I document a patient doesn’t tolerate or “like” a medication?
    - I create/gather this information in System A but I want to use it in System B… How does FHIR support this?
* 3= 11:00-12:30 (1.5 hours) Bring it together….
  + Come back together as a large group
  + Discuss how would we put all of the group work it into a common GUI? Workflow? ….
* 4 = 1:00-2:00  (1 hour) – Recap/ Discuss Plan for next time
  + What went well, what didn’t go well.

**Clinical Data to use:**

Terminology Browsers

http://bioportal.bioontology.org/

SNOMED-CT - <http://browser.ihtsdotools.org/>

RxNorm – <http://rxnav.nlm.nih.gov/RxNavDoc.html> (Requires plugin)

LOINC - <https://search.loinc.org/>

HL7 Valuesets - <http://hl7.org/fhir/2015May/terminologies-valuesets.html>

The required clinical data to test these resources purposely kept limited. Each group can elaborate, agree upon, and document any additional data/resources they believe is necessary to support the required data. The expectation in this approach is to discover complexity through the discovery/understanding of FHIR resources instead of forcing complex data into FHIR at the onset.

**Group 1 = Clinical Impression**

     Observation -

          (S) Patient has symptoms of increased thirst and urination

          (O) Lab - HgA1c of 7.4

1. Clinical Impression of ?
2. Diagnosis is - patient has diabetes.

**Group 2 = Care Plan**

     Diet - Sugar free (new) and low fat (for last 2 years)

     Activity - walk 1/2 mile/day (outside or on treadmill)

     Preference - Husband to be present at appointments

     Goal - diabetes in control.. HgA1c < 6.0, no insulin needed.

**Group 3 = Procedure**

     lab draw

     referral for eye exam at the ophthalmologist.

     Diabetic education

     Follow up visit.

**Group 4 = Condition**

**Group 5 = Family History**

Two first-degree relatives under age of 25 with….

Risk assessment: Blood draw for genome testing

Action plan: Referral for genetic counseling

**Group 6 = Medication**

**Group 7 = Allergy**

**Group 8 = Negation**