Agenda
• Welcome and Announcements
• LOINC Conference Report Out
• Safe Environment for Every Kid (SEEK) submission
• Intro to FHIR
Welcome and Announcements

• Welcome
• Announcements
LOINC Conference Fall 2019
Report Out

Jami Deckard, MS
Safe Environment for Every Kid (SEEK) LOINC Submission
Parent Questionnaire (PQ)

Dear Parent or Caregiver: Being a parent is not always an environment for kids. So, we're asking everyone these questions. If there's a problem, we'll try to help.

Please answer the questions about your child being seen by a child, please answer “yes” if it applies to any one of the questions you prefer not to.

Today’s Date: ___/___/____ Child’s Name: ________
Child’s Date of Birth: ___/___/____

PLEASE CHECK
- Yes □ No □ Do you need the phone number for Poison Control?
- Yes □ No □ Do you need a smoke detector for your home?
- Yes □ No □ Does anyone smoke tobacco at home?
- Yes □ No □ In the last year, did you worry that your food would run out before you got money or Food Stamps to buy more?
- Yes □ No □ In the last year, did the food you bought just not last and you didn’t have money to get more?
- Yes □ No □ Do you often feel your child is difficult to take care of?
- Yes □ No □ Do you sometimes find you need to hit/spank your child?
- Yes □ No □ Do you wish you had more help with your child?
- Yes □ No □ Do you often feel under extreme stress?
- Yes □ No □ In the past month, have you often felt down, depressed, or hopeless?
- Yes □ No □ In the past month, have you felt very little interest or pleasure in things you used to enjoy?
- Yes □ No □ In the past year, have you been afraid of your partner?
- Yes □ No □ In the past year, have you had a problem with drugs or alcohol?
- Yes □ No □ In the past year, have you felt the need to cut back on drinking or drug use?
- Yes □ No □ Are there any other problems you’d like help with today?

LOINC
from Regenstrief
<table>
<thead>
<tr>
<th>LOINC Code (If one exists)</th>
<th>Component</th>
<th>Property</th>
<th>Time Aspect</th>
<th>System</th>
<th>Scale</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>New</td>
<td>Safe Environment for Every Kid Panel</td>
<td></td>
<td></td>
<td>^Parent or Primary Ord Care Giver</td>
<td>SEEK</td>
<td></td>
</tr>
<tr>
<td>New</td>
<td>Would you like us to give you the phone number for Poison Control?</td>
<td>Find</td>
<td>Pt</td>
<td>^Parent or Primary Ord Care Giver</td>
<td>SEEK</td>
<td></td>
</tr>
<tr>
<td>New</td>
<td>Do you need to get a smoke detector for your home?</td>
<td>Find</td>
<td>Pt</td>
<td>^Parent or Primary Ord Care Giver</td>
<td>SEEK</td>
<td></td>
</tr>
<tr>
<td>New</td>
<td>Does anyone smoke at home?</td>
<td>Find</td>
<td>Pt</td>
<td>^Parent or Primary Ord Care Giver</td>
<td>SEEK</td>
<td></td>
</tr>
<tr>
<td>New</td>
<td>In the past 12 months, did you worry that your food would run out?</td>
<td>Find</td>
<td>12M</td>
<td>^Parent or Primary Ord Care Giver</td>
<td>SEEK</td>
<td></td>
</tr>
<tr>
<td>New</td>
<td>In the past 12 months, did the food you bought just not last?</td>
<td>Find</td>
<td>12M</td>
<td>^Parent or Primary Ord Care Giver</td>
<td>SEEK</td>
<td></td>
</tr>
<tr>
<td>New</td>
<td>Do you often feel your child is difficult to take care of?</td>
<td>Find</td>
<td>Pt</td>
<td>^Parent or Primary Ord Care Giver</td>
<td>SEEK</td>
<td></td>
</tr>
<tr>
<td>New</td>
<td>Do you sometimes find you need to slap or hit your child?</td>
<td>Find</td>
<td>Pt</td>
<td>^Parent or Primary Ord Care Giver</td>
<td>SEEK</td>
<td></td>
</tr>
<tr>
<td>New</td>
<td>Do you wish you had more help with your child?</td>
<td>Find</td>
<td>Pt</td>
<td>^Parent or Primary Ord Care Giver</td>
<td>SEEK</td>
<td></td>
</tr>
<tr>
<td>New</td>
<td>Do you often feel under extreme stress?</td>
<td>Find</td>
<td>Pt</td>
<td>^Parent or Primary Ord Care Giver</td>
<td>SEEK</td>
<td></td>
</tr>
<tr>
<td>New</td>
<td>Over the past 2 weeks, have you often felt down, depressed, or hopeless?</td>
<td>Find</td>
<td>2W</td>
<td>^Parent or Primary Ord Care Giver</td>
<td>SEEK</td>
<td></td>
</tr>
<tr>
<td>New</td>
<td>Over the past 2 weeks, have you felt little interest or pleasure?</td>
<td>Find</td>
<td>2W</td>
<td>^Parent or Primary Ord Care Giver</td>
<td>SEEK</td>
<td></td>
</tr>
<tr>
<td>New</td>
<td>Thinking about the last three months: Have you and a partner fought a lot?</td>
<td>Find</td>
<td>3M</td>
<td>^Parent or Primary Ord Care Giver</td>
<td>SEEK</td>
<td></td>
</tr>
</tbody>
</table>
Food Insecurity - Algorithm and Addressing Barriers

In the past 12 months, did you worry that your food would run out before you could buy more?

Yes

Reflect back on what parent disclosed
Empathize
Unfortunately, running out of food is a common

In the past 12 months, did the food you bought just not last and you didn’t have money to get more?

Yes

What do you do when you’re short on food?
Eg, get food from friends or family, food stamps, WIC, go to a free food store, food bank or food pantry, a soup kitchen

Do you want help or more help?

Yes

No, other reason

No
Intro to FHIR

Susan Matney

LOINC®
from Regenstrief
What is HL7 FHIR?

**Fast Health Interoperability Resources**

- A set of modular components called “Resources”
- Resources refer to each other using URLs
- Exchange resources between systems
- Using a RESTful API (e.g. web approach)
- As a bundle of resources (messages, documents)
- Resources are modified into Profiles
It’s All About the Resources . . .
FHIR Resources

• “Resources” are:
  • Small logically discrete units of exchange
  • Defined behaviour and meaning
  • Known identity / location
  • Smallest unit of transaction
  • “of interest” to healthcare

• V2: Sort of like Segments
• V3: Sort of like CMETs
## FHIR: Core Resources

- AdverseReaction
- Alert
- AllergyIntolerance
- CarePlan
- Composition
- ConceptMap
- Condition
- Conformance
- Device
- DeviceObservationReport
- DiagnosticOrder
- DiagnosticReport
- DocumentReference
- DocumentManifest
- **Encounter**
- FamilyHistory
- Group
- ImagingStudy
- Immunization
- ImmunizationRecommendation
- List
- Location
- Media
- Medication
- MedicationAdministration
- MedicationDispense
- MedicationPrescription
- MedicationStatement
- MessageHeader
- **Observation**
- OperationOutcome
- **Order**
- OrderResponse
- Organization
- Other
- **Patient**
- Practitioner
- Procedure
- Profile
- Provenance
- Query
- Questionnaire
- RelatedPerson
- SecurityEvent
- Specimen
- Substance
- Supply
- ValueSet
FHIR Resource Profile

- A conformance profile: a statement of how a resource is used in a particular context
- Describes constraints on resources (constraint)
- Also describes what is added (extension)
- Links to other resource profiles for resource references (composition)
- A mash-up: building on top of the base resources
- Multiple ways to author a resource profile
- Should be interconvertible
Observation Resource

Observation (DomainResource)

Observation

subject: Doe, John; #12345
code: 8480-6, Systolic BP
value: 120 mmHg
Profile for “Blood pressure”

**Observation = Blood Pressure**
- Subject.reference: Patient URL
- Coding: LOINC 55284-4

**Related:**
- type: has-component
  - target.reference: Observation URL

**Observation = Systolic BP**
- name: “Systolic”
- coding: LOINC 8480-6
- value.units: “mmHg”

**Observation = Diastolic BP**
- name: “Diastolic”
- coding: LOINC 8462-4
- value.units: “mmHg”
Fetch a systolic blood pressure

GET https://open-api.fhir.me/Observation/8567?_format=json

```json
{
  "resourceType": "Observation",
  "text": {
    "status": "generated",
    "div": "<div>1999-07-02: Systolic blood pressure = 109 mm[Hg]</div>"
  },
  "name": {
    "coding": [
      {
        "system": "http://loinc.org",
        "code": "8480-6",
        "display": "Systolic blood pressure"
      }
    ]
  },
  "valueQuantity": {
    "value": 109.0,
    "units": "mm[Hg]",
    "code": "mm[Hg]"
  },
  "appliesDateTime": "1999-07-02",
  "status": "final",
  "subject": {
    "reference": "Patient/1186747"
  }
}
```
Next Meetings

• Nursing LOINC Meeting December 2nd, 2019
• AMIA 2019
  • November 16-20
  • Lisa Presenting S76: Panel- Enabling Interoperable Electronic Quality Measurement using HL7 FHIR ® (Nov. 19 – 1:45-3:15 pm)
• ANI Governing Directors – Lisa and Susan attending
  • November 16
  • We will provide a report from this meeting next month