

We Didn't start the Fhir Project Plan to Alpha.

There are three separate pieces that need to be completed:

1. Referral decision logic. (lead Jamon)
2. Updated to the iOS app (lead Justin)
3. Updated to the Pediatrician Web App (Lead Zeyu, John)

There are also a few internal pieces that need to be completed:

1. FHIR server setup for iOS and Pediatrician Web App.
2. Connection from IOS simulator to FHIR instance
3. Connection from Web App to FHIR Instance.
4. Smart App interop for Web App validation. (Philip)

For the internal pieces I have done some research, but I'd like Philip to lead as getting these to work is going to be a big part of the testing.

Changes from Initial SOW

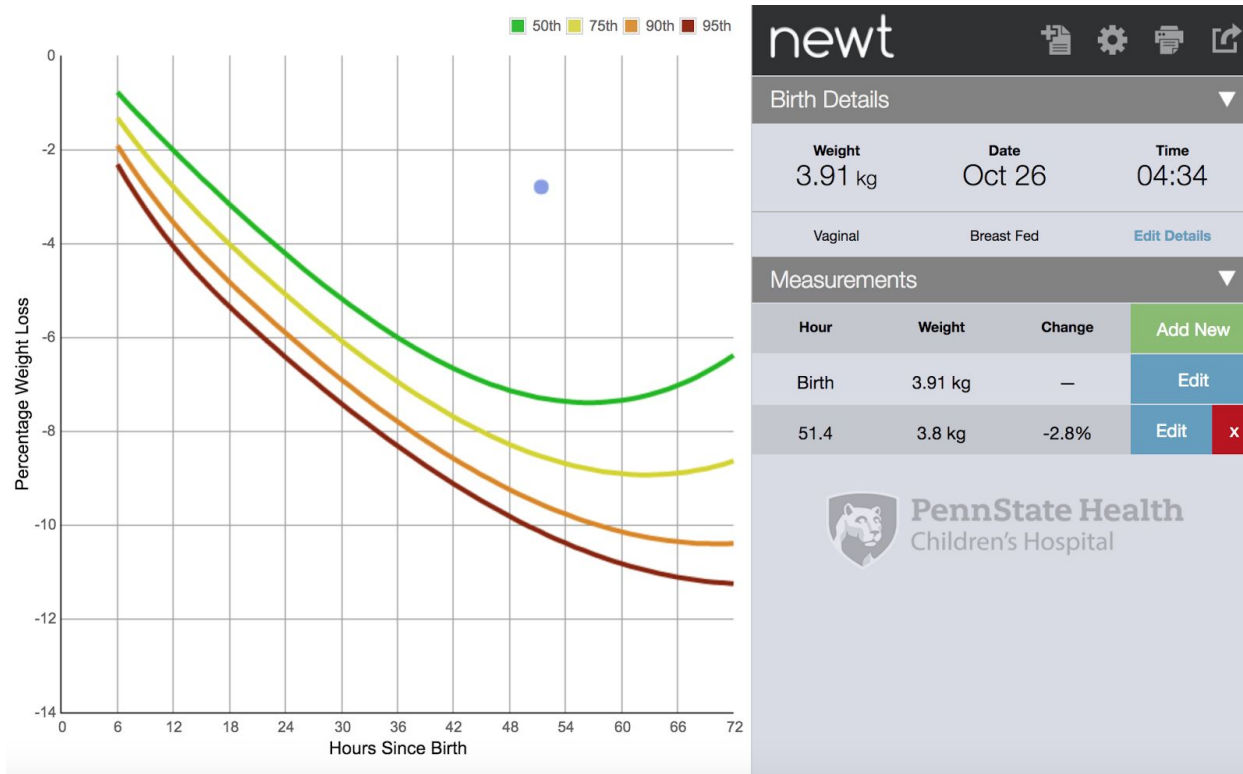
1. Hospital EHR data - our response - we will add a page to the patient app with this data to be viewed by the patient. We will have the FHIR resources defined, documented and populated in the docker fhir server instance. We will not actually connect to a different EHR and transmit to the pediatrician EHR, but will make the hooks for implementing that clear.
2. Patient Survey - Many questions will be reworked to be calculated from the app or recording a transition state to support the referral decision logic in a way that is more natural for the app user:
 - a. Wet diapers will be reported daily
 - b. User will be prompted daily (at first app use) one bowel transition to yellow and did milk come in until they answer yes. The date of this transition will be report to the fhir server.
 - c. The breastfeeding log will be used to answer the question on number of feeding and longest gap.
 - d. The patient can submit a "I am having concerns" at any time.

Status report 2

1. Pseudo code for referral logic -Jamon - **Complete**
<https://github.gatech.edu/gt-hit-fall2017/CDC-BREASTFEEDING-SUPPORT-INITIATIVE/blob/master/REFERRAL.md>
2. Justin - Updated views for iOS changes -**complete**
https://drive.google.com/file/d/0B_mX2A85848CWTVoUTd3cm1FZIU/view
3. Pediatrician connection to FHIR docker instance displaying something- Zeyu and John.
 - a. Basic connection to Docker instance - complete.
4. Consistent setup for full application (iOS ->FHIR<- Pediatrician web app) - Philip - Basics **complete**

Next two weeks:

1. iOS implementation improvements - close on FHIR level 3, resources coding standards, any summarization. **(Justin)**
 - a. The data sent to the FHIR server should be transmitted once per day as aggregate daily metrics as appropriate. I.e. number of Feedings, Median gap, average length, maximum gap. Number of daily wet diapers. Has milk come in (only once when true), Bowel movement transition. **Philip to define FHIR data types**
2. Pediatrician EHR alpha with the actual wireframe implementation for summary and referral. **(Zeyu and John)**
 - a. **John** - Create patient specific view with relevant graph of baby vs expectations. External sponsors are seeing if we can incorporate this or data from here:
<https://www.newbornweight.org/chart/>



- b. For now just use the the WHO data from 0-3 months based on baby's gender:
https://www.cdc.gov/growthcharts/who_charts.htm
- c. **Zeyu** - Implement the Referral Flagging logic using the FHIR resources types defined by **Philip**. This will involved getting the data from the FHIR server, implementing the logic, returning the Referral flag and a list of strings for why the referral was warranted. If the patient has been referred that should be tracked with the patient and accessible from FHIR and the web app. It should also be easy to see if a patent meets the referral rules at all times for "e". The logic should also be accessible for testing for 4.a.i.

- i. **NOTE** - ideally this logic would be in a class that either the iOS app or web portal could use. That way if we wanted to have the iOS app let the mother see the same clinical analysis that the pediatrician saw we could without risking the two getting out of sync. This is out of scope for now, but we should assume that future iterations will do this to make the app use more than just a reporting tool. This may be done via a way to launch the pediatrician app from the iOS app (that is one of the ideas of smart on fhir)
- d. To be assigned - View of Lactation referral form after pediatrician clicks on refer.
 - i. <https://docs.google.com/drawings/d/16zZn7NgZ2-vdoDUUFdq7TwjKb-fPvcErpCKdIJdgen4/edit>
- e. Maybe Implement, maybe just define - All patient list with a “on track”, “attention!”, “referred” list.
- 3. Verifying the Pediatrician app runs as a Smart App in the Smart on FHIR sandbox. (**Philip and Jamon**)
 - a. Largest unknown is the authorization token & whether the automatic FHIR startup we are developing for (4) will run here: <https://sandbox.smarthealthit.org/#/start>
 - i. **Jamon** to investigate
- 4. Automatic setup for test and running of full app. (Philip and Jamon)
 - a. **Philip** to define the FHIR resources and update the FHIR startup consistently.
 - i. Referral logic and listing test cases. Emulate iOS FHIR updates for various patient populations.
 - ii. Define the FHIR resource types for the Mother data - note - this is not used elsewhere except for the iOS app to view, but should be well defined with the external sponsors to make the app in the future be a useful tool for connecting to EHRs.
 - b. **Jamon** to updated documentation on the expected FHIR resources and how they are used. Will create more formal software arch document