Dear,

Thanks for registering for our kick-off meeting last week. This marked the beginning of the process of organizing the mixed HL7-OHDSI Working Group, which will develop the goals, plans and organizational structure of our move towards consolidating FHIR and the OMOP CDM.

Please find all presentations and recordings on the HL7 confluence page.

**A couple of resources for you.**

- The general OMOP on FHIR home HL7 confluence page
- The Updates on FHIR + OMOP collaboration HL7 Zulip page
- The General and CDM Builders OHDSI Forum Page

For the time being, we will publish all material and communication in all three places.

**What is going to happen next:**

1. We are planning a 2-hour workshop at the end of the month to start the Work Group. You will get an invitation to that event soon. That workshop should conclude on the following:
    a. The online home for the Working Group
    b. Mechanisms of communication
    c. Mechanisms of decision making
    d. Potential subgroups and mechanisms for induction
    e. Ownership and Open Source nature
2. We are going to get your input in the process and call for ideas and suggestions.
3. We are going to reach out to existing efforts, get them organized and their owners mobilized.

**Here are some questions and answers from the event:**

**Davera Gabriel:**
If one of the aims of this partnership is to eliminate maps... then what will happen to the map component of the OMOP Vocabulary?
*We think the idea is to eliminate maps that are caused by the FHIR-OMOP transformation. Maps inside the OMOP system are necessary for standardization*
**Vivian Neilley:**
What is the overlap with bulk FHIR access? Are we looking at combining forces? https://hl7.org/FHIR/uv/bulkdata/
*The role of FLAT FHIR remains to be seen but is likely helping with the first step of the ETL to OMOP.*
**Davera Gabriel:**
If one of the aims of this partnership is to eliminate maps, then what are the plans for promoting

adoption of the OMOP Vocabulary by EHR vendors?
… or other source systems?
*One of the ideas folks have brought up is to publish the OMOP Vocabulary system as a FHIR resource.*
**Fabiola Fernandez:**
If I have FHIR "database", in which scenarios would I want to have an OMOP database in addition?
*To employ OHDSI standardized tools and analytics, and to participate in federated network studies. OMOP standardization is sufficiently rigorous to better support such an endeavor.*
**Bob Milius:**
Is OMOP purely an analytical model? Is it designed to become a source-of-truth storage model?
*The former, with some generic provenance information to define confidence in a data item. But this could evolve in the context of this collaboration.*
**Bob Milius:**
So do we envision an interoperability workflow org-->FHIR-->org-->data store-->FHIR-->OMOP? Wondering what's the best practice?
*We should work this out. OMOP could be the data storage, but again, we need to look at the use cases.*
**Diego Bosca Tomas:**
So the final idea would be adding a FHIR wrapper over an OMOP data instance?
*That is one of the ideas.*
**Ward Weistra:**
Can you make wine from brandy? 😉
*The analogy was probably stretched too far. But hey, what if you pour the water back into the brandy? Doesn't that become wine?*
**Greg Robinson:**
OMOP does not have sequencing of data. There is need for an amendment of the OMOP model.
*Sequencing data? What do you mean by that? Something different than time sequences?*
**Chris Ortman:**
Has anyone made a Wardley map of these processes they would be willing to share?
*Sounds like a promising idea. After we discuss the processes.*
**Fabiola Fernandez:**
What are the advantages of having an OMOP database for real time analytics and predictive modelling instead of having just an interface for FHIR queries? Is it performance only? Long term storage? or what exactly?
*OMOP is an analytical model. The standardization is more rigorous, and the logical model allows high performance. Or makes performance possible.*
**Ronan Barrett:**
Is it a good idea to think of FHIR as the "pluripotent" data model?
*Could well be, but I think the vision for OMOP and FHIR is to get a higher level of integration than just a easy conversion.*
**Ben Hamlin:**
The call for participation the confluence page is a word document. How do we indicated our interest in the WG?
*You will be invited. And there will be a open mechanism for joining of people knocking on the door.*

**Vojtech Huser:**
The statement talks about a 3 year plan
*Every journey begins with a step, Vojtech. Please come to the upcoming workshop.*
**Bob Milius:**
We also need to understand how much can be done today re FHIR/OMOP? How much of this is aspirational vs practical today?
*Very true. Please come to the upcoming workshop.*

**Here are some statements and opinions from the protocol:**

On oncology
**May Terry:**
Nice to see that mCODE was already listed as an example for alignment. I'm pitching an mCODE-OMOP Oncology alignment as a use case for streamlining oncology data at the point of care for observational research. Reach out if you're interested!
Structurally there is some alignment, but in some use cases (e.g.: Oncology and Genomics) pre- and post-coordination of FHIR concepts to OMOP vocabularies are a challenge. Hence, the uphill but needed work among both HL7 and OHDSI.
@Josh and @Bob – Hence the pitch of mCODE to OMOP. A domain, a use case, and a FHIR IG. And part of a FHIR Accelerator with specific use cases to further explore.
@Mitra – Thanks for posting the latest build. Nice to see that oncology was a use case, but it's not deep enough to the level that mCODE and any of the OMOP Oncology work is in at this time. Also, the CDMH IG, even in that build version, is based on OMOP 5.2. The latest OMOP version is 5.3.1 with the core OMOP CDM changes underway for another release later this year.
Now with CDMH, BRIDG is fascinating in its logical model for Oncology, but we really don't want to boil the ocean on rosetta stones. For at least mCODE, we like to be targeted on a use case to demonstrate capability. The thinking that @Ward proposed is something that's crossed my mind as well.
**Mitra Rocca:**
@May – the CDM versioning has been a problem for our project. I am familiar with mCODE and we added the clinical research use case.

On CDMH and general FHIR implications
**Paul Denning:**
http://hl7.org/FHIR/us/cdmh/history.html
**Mitra Rocca:**
@May – The HL7 CDMH IG (https://build.FHIR.org/ig/HL7/cdmh/) final balloted version will be published on the FHIR website. Phase I actually focused on an oncology use case.
**Carlos Luis Parra Calderón:**
HL7 is working on a FHIR IG to apply the FAIR principles of open science (FHIR4FAIR), I propose to take this scope into account in this collaboration.
**Guoqian Jiang:**
I would think that we need to build a FHIR profile for OMOP CDM for harmonization.
**Bob Milius:**
Seems to me that FHIR<-->OMOP is missing the most important part of FHIR, i.e., Implementation Guides. It really should be FHIR Implementation Guide <--> OMOP

**May Terry:**
@BobM – OMOP was one of the models of focus in the HL7 CDMH IG. It's just that the IG wasn't well formed and had non-computable high-level structural maps from FHIR to OMOP. It's also outdated since its original release. So, if that is explored, it will be nice in principle and initial assumptions but definitely needs to go much deeper.
**Josh Mandel:**
And indeed, looking at existing projects (e.g., OMOP -> FHIR mappings) you'll see mappings that produce extensions defined in FHIR IGs like US Core.
**Bob Milius:**
I'm just a little dubious of mapping efforts between models (e.g., BRIDG, OMOP, FHIR) that don't involve specific IGs.
**Ward Weistra:**
I was thinking there could be a common layer of transformation from OMOP to OMOP in FHIR logical model format + FHIR Mapping Language transformations between that logical model format and specific FHIR IGs/specifications.
**Bob Milius:**
I should include "domain-specific IGs"

On existing efforts
**Melissa Haendel:**
The National COVID Cohort Collaborative, as an extension of the CDMH program and in partnership with OHDSI, has done quite a heavy lift on harmonizing the many CDMs to support integration of data from different sources
**Guoqian Jiang:**
This is the link for the FHIROntopOMOP project:
https://github.com/FHIRcat/FHIROntopOMOP
In the PhEMA consortium, we also have work on translating CQL to OMOP queries.
https://github.com/PheMA/cql-on-omop

On further needs and ideas:
**Seng Chan You:**
I do believe that OMOP-FHIR integration is a key for DevOps for Development of AI for patient-level prediction and deployment of AI. Especially, relatively low-resource countries including AP regions.
**Melissa Haendel:**
There is a lot of interest in supporting greater provenance and strategy for doing the terminology mapping within OMOP, which will be key to this initiative also
**Ronan Barrett:**
How about a version of Atlas phenotype definition that generates CQL?
**Ana Szarfman:**
One big problem that I see, by focusing on data exchange, we cannot reach to the original data facts
**Melissa Haendel:**
@Ana – agreed, and this is also where the provenance of the local maps as well as terminology/codeset maps to each other are critical to capture

**May Terry:**
Speaking of another interesting utility to add to the list…taking the output of USAGI mappings to create FHIR concept maps.
**Carlos Luis Parra Calderón:**
In my opinion, all major funding agencies and all biomedical research infrastructures are demanding compliance with FAIR principles. FAIR principles must always be present in these initiatives to be truly useful for the use of data for research.
**Melissa Haendel:**
There is a lot of work to be done to actually realize and understand how to make things FAIR. FAIR itself originally never focused on the methods or metrics for making things interoperable.
**Jeff Brown:**
I am an advocate of Ward's suggestion of "common layer of transformation from OMOP to OMOP in FHIR logical model format + FHIR Mapping Language transformations between that logical model format and specific FHIR IGs/specifications". The middle layer of a logical model construct provides a standardized bridge and that will be critical.

Best regards,
Ed, George, Wayne, Jon, Floyd, Sadhana, Melinda and Christian