Our team has decided to use the Fast Healthcare Interoperability Resources (FHIR) Clinical Information Model to implement our application. This is the ideal model for our project for several reasons.

The data has already been structured in FHIR, so we feel this is the natural implementation to continue to use. Although the data has also begun to be implemented in the Reference Information Model (RIM) as well, it is a bit intricate, and less practical to work with. According to our stakeholder and domain expert, Dr. Peter Li, the values and types in FHIR work well with the data we will be using.

In addition, according to the FHIR documentation, FHIR can satisfy the needs covered by all of the previous primary HL7 interoperability standards (V2, V3 and CDA). In many cases, it also provides additional benefits in terms of ease of interoperability.

The flat, intuitive structure of FHIR is ideal for the novice skill level of our team. The relative simplicity of this information model will expedite the initial learning curve. As a result, we can effectively and efficiently learn to utilize FHIR to build a knowledge model for our project.

Furthermore, we are all novices, and FHIR has a flat and relatively intuitive structure that may be easiest for us to work with as we learn to use standards models in general.

By opting for simplicity, we risk sacrificing the functionality of other models, such as RIM. This tradeoff imposes limitations that need to be considered in the context of each project. In the context of our project, time and skill level are limiting factors. If we do encounter the need to use a feature of RIM, FHIR provides mappings to other models that we can implement. Thus, FHIR is the most feasible option for our project.

Another benefit of fire is it's superior ability to interact with EMRs, which is a feature that we will very likely be implementing In order to query and retrieve patient data.

Finally, FHIR has largely been adopted by the medical informatics community, and will thus have large community support for any speed bumps we hit along the way.

For these reasons, our group has elected to utilize the FHIR standards Model for our project.

Michelle Winerip

Matthew Halbert

Tara Salehpour