CS 6440 Student Project Proposal

Project Title: FHIR Interface to Directory of Clinicians	
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Project Background: UDOH is in the process of developing a directory of clinicians (DoC) for use in multiple health department information systems that require unique provider identification. The Vital Records electronic death registration system (EDRS) for example, requires the ability to look up and verify a physician's credentials when a system account is created. On an ongoing basis, the EDRS will query DoC to ensure physicians using EDEN to certify deaths have current licensure. UDOH has worked with Utah's Division of Occupational and Professional Licensing (DOPL) to obtain a view into the DOPL licensing database for healthcare providers. This database view is used to feed data to DoC. Unlike DOPL's database, DoC will link to a master person index to de-duplicate and update current name and address information. DoC will also maintain logical links between individual healthcare providers and the institutions for which they work. For this purpose, DoC will need to query Utah's Clinical Health Information Exchange (CHIE). CHIE is an external HIE that is managed by a non-profit organization called Utah Health Information Network (UHIN). CHIE maintains a master table of providers and their affiliated organizations used to facilitate electronic claims payments.

Project Objective(s): Develop a FHIR-based solution to look up and verify a physician's credentials **Description of the Solution:**

- 1) The DoC will obtain current provider information from CHIE using a FHIR interface.
- 2) DoC will send provider demographic information and will receive confirming or additional information from CHIE regarding the provider. DoC may also provide death notifications to CHIE per the use case described above.

Desired Student Skills/Background:

- Experience with RESTful interfaces, backend development, and webservers
- Interest in FHIR enabling existing systems.
- Interest in patient matching/entity resolution/data deduplication

Data Requirements and Potential Sources: Public or synthetic data can be used for these purposes

Other Comments:

The State of Utah is a very advanced public health partner. This project provides an excellent opportunity for students interested in patient matching/entity resolution/data deuplication or in gaining experience working with a HIE.