Description of Services

Kevin Yeh of IntegralEMR will develop tools and documentation for the use of National Health and Nutrition Examination Survey (NHANES) in Health Informatics Education.

The first goal is to develop import tools to load NHANES survey data for demographics, examination, laboratory and questionnaire into appropriately mapped fields in the LibreEHR application database. The NHANES 2011-2012 datasets will be used initially; however, NHANES Continuous datasets from other time periods will also be supported.

Measurements identified in the NHANES 2011-2012 tables.pdf provided on the LibreHealth Community Forums by Dr. Bob Hoyt will be mapped to structures of the LibreEHR database schema. Fields that are missing from NHANES that are needed in LibreEHR will be generated programmatically. This includes data such as Patient First and Last Name, and Date of Birth, and time stamps for lab values from NHANES records. These values will be based on functions that use the NHANES sequence number rather than randomly creating values such that creating the records multiple times generates consistent results. This insures that individuals who generate the records independently can have the same data and therefore a common context for discussion. The functions will include a "seed value" that can be modified if distinct record sets are needed, but records generated with the same seed value will be consistent with each other.

After the LibreEHR data structures are populated, documentation explaining how to calculate CQM results from this dataset will be developed. NQF 0420 (BMI) and NQF 0059 (Diabetes/A1c) will be the initial measures handled. Documentation for additional CQM results will be handled as time permits.

Progress reports will be provided in the LibreHealth Community Forums and a public instance of LibreEHR will be provided for review.

Deliverables List

1. Code developed for importing NHANES data will be published to a public git repository
2. Setup of public instance of LibreEHR populated with NHANES 2011-2012
3. Documentation explaining the use of the import tool
4. Documentation on methods for calculating CQM results with this dataset

Schedule

The effort for this project is estimated at 50 hours to be worked part time over the course of 4 weeks.

Price and Acceptance

A fee of $5000 will be paid to IntegralEMR when the LibreEHR organization determines that the deliverables are suitable.