

## **Inova Health System - Inova Translational Medicine Institute (ITMI) Candidate Use Case Concepts:**

### Clinical

ITMI is starting a clinical genomics lab in the fall, and will be building a pipeline of genomic tests, ranging from Pharmacogenomics panels to Cancer hotspot panels. We are integrated our ordering, billing and resultant data (both discrete and clinical reports) back into EPIC. How should the data be stored and reported for each individual test? What standards are there for storing and eventually sharing this data? What ethical and liability concerns are there with storing and reporting data?

### Research

ITMI has accumulated thousands of whole genome sequences for families (mother, father, infant) as part of two large research studies. One of those studies was to create a dataset to help predict the occurrence of a pre-term birth, based on EHR data, genomic and epigenetic markers of the family. If predictors are found, how could these predictions be used to improve the quality care given to expecting families? How would the predictive data and algorithm be stored and used within the EHR?