**Research Project Journal**

Scope & intent of project: The goal of the project is to combine multiple data sources into a usable data modeling tool. Using Tableau, data can be manipulated and then used to create visuals that help with decision making. Dashboards containing multiple clinical metrics combined reduces manual efforts to analyze information in order to identify high risk patients. Utilization of visual tools helps to identify data entry errors in addition to the clinical benefits to patients.

Data & Clinical metrics: The data being used is a mockup of information that clinical leaders would use to rank patients to identify and treat high risk patients quickly. Patients that have chronic kidney disease (CKD) are measured by 6 stages indicating the severity of the disease. By adding additional health metrics, clinical managers can further prioritize patients that need care quickly.

Patients are measured by their GFR lab score (lower is worse for patient) to determine CKD stage (higher is worse for patient). As patient CKD stage increases, the additional metrics for treatment are added to prepare the patient for the last stage of CKD which is end stage renal failure. At end stage renal failure, patients are treated in dialysis facilities that help to filter the patient’s blood multiple times a week.

Stakeholders: Clinical management, clinical case managers

**6/18/22**

* Created GitHub, Kaggle and Tableau accounts
* Completed the project scope documentation- submitted
* Created mock CKD population Excel document where I will create a sample patient population over the next few days with fake data

**6/21/22**

* <https://github.com/kimgeorgiou/NAU-Applied-IT-project>
  + Should be public
  + Added 3 tables with various mocked up patient related data – These will be combined in Tableau through unions to provide visuals that combine the data and tell the full story of the patient illness. These files would represent 3 files that were pulled out of different systems that contained certain information only.
    - Labs
    - Demographics
    - Referrals and access
* Added the files to Kaggle for initial review
  + <https://www.kaggle.com/datasets/kimberlygeorgiou/ckd-tables?select=referrals+and+access+table.csv>

**6/22/22**

* Created Power Point to document additional points of data
  + Planning to record video demonstration with audio details
* Added datasets to Tableau
* Created visual of data
  + Was not able to manipulate the data quickly in visuals and deploy to view what an end user would see.

**6/23/22**

* Added dataset to Power BI for visualization
* Created visuals
* Created slicers to drill into data quickly
* Recorded 2 audio presentations explaining the functionality and rationale behind the idea of the visuals improving decision making.
  + The media size is too large for GitHub to load.
    - Instead the files are in Kaggle (account above.)