The goal of this project was to create a plan for Depaul Community Health Center’s opening location in Harvey. The new health center will provide high-quality care and services for Medicare citizens located within ZIP code 70058 borders.

After receiving the project, I spent the first day reviewing all the data that was provided to me. I made notes about the topic, what each spreadsheet contained, and the size of the datasets. Having a better understanding of the project, I saved it to several labeled folders in my google drive. One folder held the original files for backup and references. The second folder held all edited or created files used in the analysis.

I used Google Sheets to begin the data-wrangling process. All redundant sheets were deleted before working on those that I had labeled important during planning. I filtered and replaced any missing data. Providers that were marked as terminated were deleted from the dataset. Placeholders were used for certain missing data, such as phone numbers and service descriptions if a pattern could not be found from cross validation. Once finished, the Google Sheets were exported as an excel workbook and imported into RStudio for further analysis.

Once in R, I separated the remaining providers into two groups. One set filtered into a dataset named Floater Providers. These medical providers are not stationed at specific locations and cannot be used in the final decisions. The remainder filtered into a dataset named Assigned Providers. This list is used to make more datasets and provider transfers. Column names were standardized for easier understanding and querying. Assigned Providers, DCHL Locations, and Patients by Zip Code tables were exported and then imported into a new project in BigQuery.

I queried four new data sets: Original Provider Per Site Count, Provider Demand, Medicare in Range, and Location Details. These tables contain information about the medical providers, established locations, and current patients. These tables were later exported as excel workbooks and then imported into our R project and Google Drive folder.

The analysis showed promising results supporting DCHC’s goal. I found that the average percentage of medicare patients to the volume of visits was over 300% while the average ratio was 154.29:3559.94 with the majority residing in the New Orleans area. Sites with high numbers of providers received higher visitation. I used the Zip Code Finder and Boundary Map to view the general area for each location and plan out where everyone would be moving to with the rules set that the location had to be adjacent or one Zip Code away.

In conclusion, I decided to move both of the medical doctors from Algiers and a Psychiatrist from Gretna. This leaves the new site’s FTE rating above one and won’t damage any of the other sites. If a patient chooses not to transfer with their doctor, there will be others to fill in and provide great service.