**Capstone Project: UC Davis Coursera**

**Analysis of Health Care Facilities within Ekiti State, Nigeria.**

**Background Information:**

***Essential health care*** *based on practical, scientifically sound and socially* ***acceptable*** *methods and technology made universally* ***accessible*** *to individuals and families in the* ***community*** *by means*

*acceptable to them, through their full* ***participation*** *and at a cost that community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination.*

**- Alma Ata.**

Health care forms an integral part of both the country’s and state’s health system, of which it is the

central function and the main focus of the overall social and economic development of the community, However, A large proportion of population reside in rural areas at considerable distances from basic health services.

An indicator of health service performance is the population’s proximity to PHC(Primary Health Care). Metric: proportion of population/settlements to PHC services.

**Analysis/Research Question**: ***Are there enough Primary Health Care facilities in the state*?**

In every Government Administration, The health sector is an essential aspect that is always being looked into for improvement because all people, everywhere, deserve the right care, right in their community. One important factor that can greatly help improve the health sector of any community is availability of health facilities and resources made readily available and easily affordable to the citizens. This project aims to help determine areas short of health facilities within the state (Ekiti) and hence serve as a suitability analysis for potential hospital site in order to help better direct the incoming resources to where they are most needed.

The purpose of this analysis is to carry out a study/survey based on available data to determine if there are enough primary health care facilities in the state.

Other questions also intended to be looked into is to identify area’s with low number of Health care facilities within the state when compared with other areas.

**Data Source:**

All the data sets used for the project will be gotten from Grid3 website@ grid3.gov.ng.

The following are the list of data sets required to complete the analysis:

* The state Local government boundaries (As a polygon/vector data type).
* The settlement/population within the state (As points/vector data type).
* The health care facilities within the state (As points/vector data type).

**Methodology/Workflow :**

After downloading the data sets from the site indicated above, the data sets was imported into mapshaper.org to convert to shapefiles (Grid3 gives datasets as json).

The shapefiles are the loaded into arcGis for the analysis.

The analysis involves the following steps:

* One to Many spatial join of All the health care facilities in the state to their respective Local government areas and also a One to Many spatial join of All the settlements in the state to their respective Local government areas, the merge rule was set as count to get the respective counts of each settlement and health care facilities per local government.
* Thereafter the proportion of health care facilities to settlement areas in each local government was calculated using the field calculator.
* The ouputs are plotted and graphs made for better visualization.

**Results:**

I expect that urban areas such as the Capital of the state will have adequate health care facilities/ settlements, where as the more rural areas will suffer of low adequate health care facilities/ settlements. On the general, number of health facilities/ settlements within the state is suspected to be of average value.