Improving Healthcare Access in Rural Areas

1. Sustainable Development Goal (SDG)

SDG 3: Good Health and Well-being

2. Problem Overview

Access to healthcare is a fundamental aspect of public health, yet millions in rural areas lack adequate facilities. This disparity in healthcare access often leads to higher mortality rates, delayed treatment, and lower overall health outcomes for rural populations. Addressing this issue aligns with SDG 3, which seeks to ensure healthy lives and promote well-being for all at all ages.

3. Specific Problem Definition

The project focuses on identifying gaps in healthcare access in rural areas, specifically looking at:

- **Availability of healthcare facilities** in rural regions.
- **Patient demographics** in underserved areas.
- **Frequency of visits** to healthcare facilities in these areas.

Using data, we aim to analyze and understand where healthcare access is limited, enabling targeted interventions to improve accessibility for rural communities.

4. Data-Driven Approach

To address this problem, we will:

1. **Design a Relational Database** to store information about healthcare facilities, patient demographics, and visit frequencies.
2. **Analyze Patient and Facility Data** to identify underserved locations and areas with high patient demand but low facility availability.
3. **Visualize Key Findings in Excel** to provide insights into healthcare access disparities.

5. Data Requirements

The data for this analysis will include:

- **Healthcare Facilities**: Facility type, location (urban vs. rural), available services.
- **Patient Demographics**: Age, gender, residential area (urban vs. rural).
- **Visit Records**: Date, facility visited, patient ID, treatment type.

6. Goals and Objectives

The goal of this project is to provide actionable insights into healthcare access in rural areas by:

- Highlighting rural areas with limited healthcare facilities.
- Understanding the demographics most affected by healthcare access disparities.
- Recommending data-driven solutions for policymakers to improve healthcare access.

7. Expected Outcome

The outcome of this project is an interactive Excel dashboard that visualizes:

- The geographic distribution of healthcare facilities.
- Demographic insights into rural healthcare access.
- Frequency and types of treatments sought by rural populations.

This will aid in identifying high-need areas and inform strategies to improve healthcare services in underserved regions.