**SDG Selection and Problem Definition**

**1. SDG Selection: Good Health and Well-being (SDG 3)**

SDG 3 aims to ensure healthy lives and promote well-being for all people of all ages. This goal encompasses a broad range of targets related to improving healthcare systems, reducing the burden of diseases, promoting mental health, and providing universal health coverage.

The core objective of SDG 3 is to ensure that everyone, regardless of income or geographical location, has access to quality healthcare services. This includes improving maternal health, reducing child mortality, and controlling the spread of communicable diseases.

**2. Problem Definition: Inequality in Healthcare Access and Disease Management**

While significant progress has been made in many areas of health, **inequality in healthcare access** continues to be a major issue, especially in rural or underserved areas. People in these areas often have limited access to healthcare services and resources, leading to disparities in health outcomes.

For example, many regions suffer from a shortage of healthcare professionals, limited healthcare facilities, or inadequate disease prevention and treatment programs. This lack of access leads to increased mortality rates, especially from preventable diseases.

**Specific Problem: Lack of Access to Healthcare in Rural Areas and the Impact on Disease Management**

**Problem Statement:**

* In rural areas, access to healthcare is limited due to insufficient healthcare facilities, a shortage of healthcare professionals, and long travel times to reach the nearest facility.
* As a result, rural populations face worse health outcomes, including higher rates of preventable diseases and delayed treatment.
* A specific focus is needed to address healthcare access for preventable diseases such as malaria, hypertension, and maternal health complications.

**Why is this problem significant?**

* Rural populations often face geographical and socio-economic barriers that prevent them from accessing quality healthcare. This is particularly evident in developing countries, where infrastructure and healthcare resources are strained.
* Preventable diseases such as malaria, hypertension, and maternal complications are major contributors to mortality and morbidity, yet they are preventable or treatable with proper healthcare.
* By addressing healthcare access and disease management in rural areas, we can reduce mortality rates, improve quality of life, and work towards achieving SDG 3 targets.

**3. Data-Driven Solution: Addressing Healthcare Inequality with Data**

The objective of this project is to develop a data-driven solution to address the inequality in healthcare access in rural areas. The approach involves using data to identify gaps in healthcare access, analyze healthcare outcomes, and propose ways to improve disease management in these areas.

**Proposed Solution:**

1. **Design a Database**: The database will track healthcare facilities, healthcare professionals, patient visits, disease diagnoses, and treatment records in rural areas. This will help understand the distribution of healthcare resources and identify regions in need of improvement.
2. **Data Analysis**: SQL queries will be used to analyze healthcare access, disease prevalence, and patient outcomes. Insights will be gathered on the number of healthcare visits, common diseases, and the availability of resources like healthcare professionals and facilities.
3. **Excel Dashboard**: An interactive Excel dashboard will visualize key insights, such as the number of healthcare visits by region, the distribution of diseases, and the availability of healthcare resources. This will support decision-making for improving healthcare access.

**Key Insights to be Generated:**

* **Access to Healthcare**: Analyzing the distribution of healthcare facilities and healthcare professionals in rural areas.
* **Disease Prevalence**: Identifying which diseases are most prevalent in rural areas and understanding which healthcare resources are needed to manage these diseases.
* **Healthcare Outcomes**: Examining the impact of healthcare access on disease management and patient outcomes in rural areas.

**4. Goal of the Project**

The ultimate goal is to develop a system that helps health officials and policymakers make informed decisions about where to allocate resources (e.g., healthcare professionals, clinics) to reduce health disparities in rural areas. This solution will directly contribute to SDG 3: Good Health and Well-being by:

* Ensuring more equitable access to healthcare services.
* Promoting better management of preventable diseases in rural areas.
* Enhancing the overall health and well-being of populations in underserved regions.