

Sustainable Development Goal (SDG): SDG 3 - Good Health and Well-being

1. Introduction

Sustainable Development Goal 3 (SDG 3) aims to ensure healthy lives and promote well-being for all at all ages. Despite global progress, significant challenges remain, particularly in underserved and rural areas. One critical issue is **maternal mortality**, which remains unacceptably high in many regions due to inadequate healthcare infrastructure, lack of access to skilled healthcare professionals, and insufficient data-driven decision-making.

2. Problem Statement

High Maternal Mortality Rates in Rural Areas

Maternal mortality is a key indicator of healthcare system effectiveness. In rural areas, maternal mortality rates are significantly higher compared to urban areas due to:

- Limited access to healthcare facilities.
- Lack of skilled healthcare professionals.
- Poor infrastructure and transportation.
- Insufficient data to identify and address gaps in healthcare delivery.

This problem disproportionately affects women in low-income and rural communities, exacerbating inequalities and hindering progress toward SDG 3.

3. Significance of the Problem

- **Human Impact:** Maternal mortality devastates families and communities, leaving children without mothers and households without primary caregivers.
- **Economic Impact:** High maternal mortality rates reduce workforce participation and productivity, perpetuating cycles of poverty.
- **SDG Alignment:** Addressing maternal mortality is critical to achieving SDG 3 targets, particularly **Target 3.1**, which aims to reduce the global maternal mortality ratio to less than 70 per 100,000 live births by 2030.

4. Data-Driven Solution

To address this problem, a data-driven approach can be used to:

1. **Identify Gaps:** Analyze the distribution of healthcare facilities and maternal mortality rates across regions.
2. **Allocate Resources:** Use data to prioritize areas with the highest need for healthcare infrastructure and services.
3. **Monitor Progress:** Track improvements in maternal health outcomes over time.

5. Objectives

The objectives of this project are:

1. To design a relational database that captures data on healthcare facilities, maternal mortality rates, and population demographics.
2. To analyze the data to identify regions with high maternal mortality rates and insufficient healthcare infrastructure.
3. To create an interactive Excel dashboard for visualizing key insights and supporting decision-making.

6. Scope

This project focuses on:

- **Geographic Scope:** Rural and urban regions within a specific country or region.
- **Data Scope:** Healthcare facility data, maternal mortality rates, and population data.
- **Time Scope:** Data from the past 5 years to identify trends and patterns.

7. Expected Outcomes

- A comprehensive database that integrates healthcare, mortality, and population data.

- Insights into regions with the highest maternal mortality rates and inadequate healthcare infrastructure.
- Recommendations for targeted interventions to reduce maternal mortality and improve healthcare access.

8. Conclusion

By leveraging data to address maternal mortality, this project aligns with SDG 3 and contributes to the global effort to ensure healthy lives and well-being for all. The insights generated will empower policymakers and healthcare providers to make informed decisions and allocate resources effectively, ultimately saving lives and reducing inequalities.