

Sustainable Development Goal 3

Tracking and Improving Maternal Health in Rural Areas

*A Data-Driven Approach to Addressing Maternal Health
DisparitiesHealth in Rural Areas*



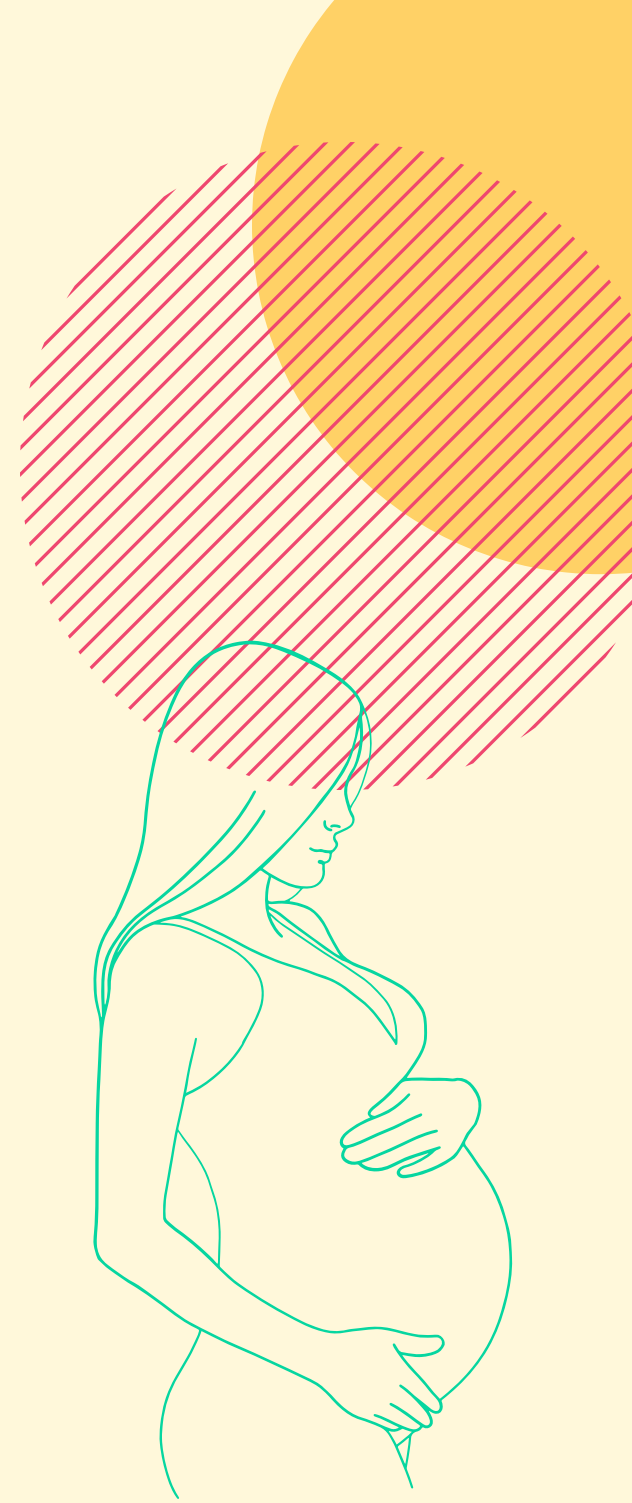
ITUMELENG MPHUTI 25 AUGUST 2024

The Maternal Health Challenge in Rural Areas

Problem Overview: Maternal health outcomes in rural areas are often poorer due to limited access to healthcare facilities, inadequate resources, and a lack of continuous monitoring.

Impact: This leads to higher maternal and neonatal mortality rates, complications during pregnancy, and insufficient postnatal care.

Objective: To improve maternal health outcomes by leveraging data to optimize healthcare resource allocation and service delivery.





Alignment with Sustainable Development Goal 3

SDG 3: Ensure healthy lives and promote well-being for all at all ages.

Focus Area: Reduce the global maternal mortality ratio to less than 70 per 100,000 live births by 2030.

Project Contribution: Using data to track and improve maternal health in rural areas, directly supporting SDG 3 targets.

Project Overview and Objectives

Goal: To create a data-driven solution that tracks maternal health in rural areas, identifies gaps in healthcare delivery, and suggests improvements.

Key Features:

- Centralized database of maternal health data.
- Analytical tools for assessing health outcomes.
- Visual dashboard for monitoring and decision-making.



Database Design and Structure



ERD Overview:

A relational database schema designed to capture key aspects of maternal health tracking.

Key Tables

Patients, Health Records, Facilities, Health Workers, Programs.

Functionality

Designed to store, retrieve, and analyze maternal health data effectively.

SQL Programming and Data Analysis



Data Retrieval:

- Key SQL queries were developed to extract critical data on maternal health, including patient visits, health conditions, and outcomes. These queries were designed to filter and sort data based on various parameters such as facility type, visit dates, and specific health conditions.

Data Insights:

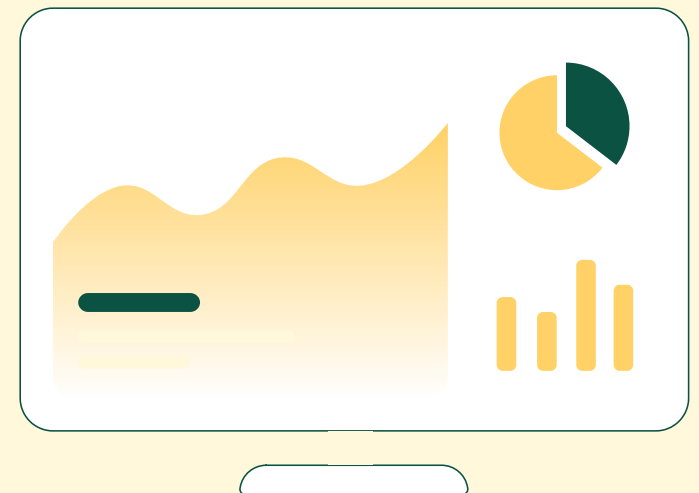
- The analysis of the retrieved data revealed significant trends in visit frequency, health outcomes, and facility utilization. For instance, it was observed that certain facilities, particularly rural clinics, had higher patient loads, and specific conditions like complications in pregnancy were more prevalent in certain areas.

Impact:

- These insights are crucial for identifying trends and highlighting areas requiring intervention. The data suggests that targeted support is needed in underperforming facilities, and resources should be allocated to improve outcomes in regions with higher complication rates.

Interactive Data Dashboard

- **Dashboard Features:** Scorecards, pie charts, bar graphs, scatter plots, and pivot tables.
- **Visual Insights:** Displays key metrics such as total patients, outcomes by condition, and visit count by facility.
- **User Interface:** Intuitive and easy to navigate for healthcare providers and policymakers.




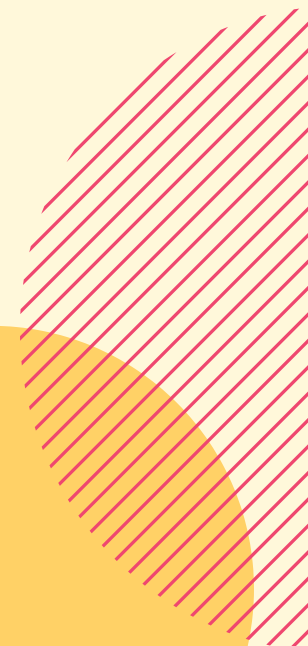


Making Informed Decisions

Actionable Insights: How the dashboard helps identify critical issues, like underperforming facilities or high-risk patient groups.

Decision-Making: Facilitates resource allocation, policy adjustments, and targeted interventions.

Outcome Improvement: Data-driven strategies to enhance maternal health outcomes in rural areas.





Conclusion and Next Steps

Summary:

In addressing the challenges of maternal health in rural areas, this project focuses on utilizing data to identify gaps in healthcare delivery. The goal is to improve maternal health outcomes by analyzing patient visit patterns, health conditions, and the performance of healthcare facilities.

Call to Action:

Invite stakeholders, such as healthcare providers and policymakers, to collaborate and implement the proposed solution.



Thank You

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