

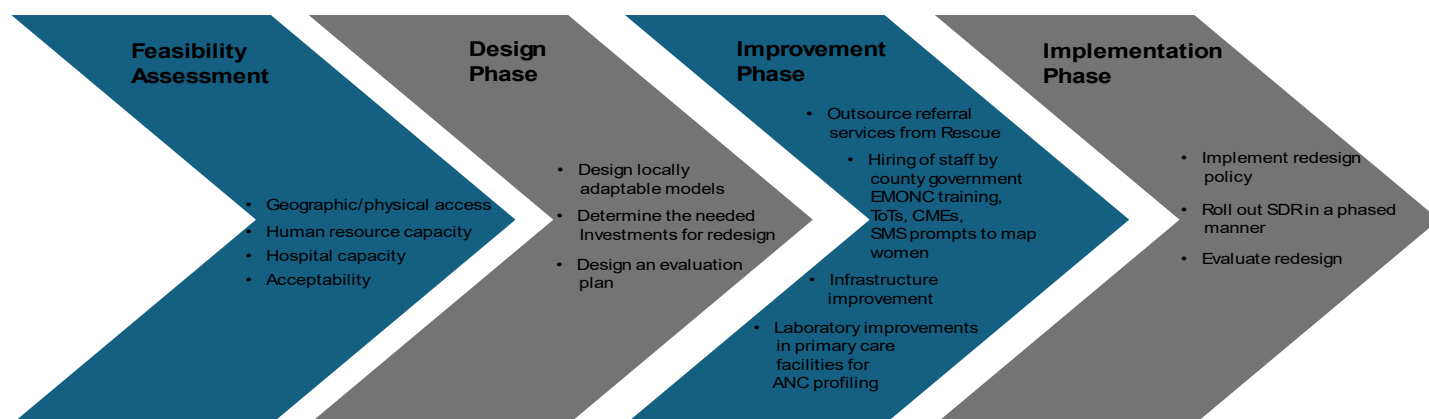
Navigated Change: Implementation of Health Service Delivery Redesign in Kakamega County

Introduction

Maternal and neonatal health disparities persist globally, with mortality rates in low-income countries significantly higher than in high-income nations. Despite improved access to care, these improvements have not translated proportionally to mortality reductions, suggesting the need for fundamental improvements in the quality and comprehensiveness of maternal and newborn care.

Service Delivery Redesign (SDR) represents an innovative approach to reorganizing health systems to ensure deliveries occur in facilities capable of providing definitive care during emergencies. Since 2021, Kakamega County in western Kenya has implemented SDR to improve maternal and newborn survival rates by shifting deliveries from dispersed lower-level facilities to adequately equipped higher-level hospitals.

SDR Journey



This brief summarizes findings from a process evaluation of SDR implementation in Kakamega County, examining implementation fidelity, effectiveness, and sustainability across multiple health system components.

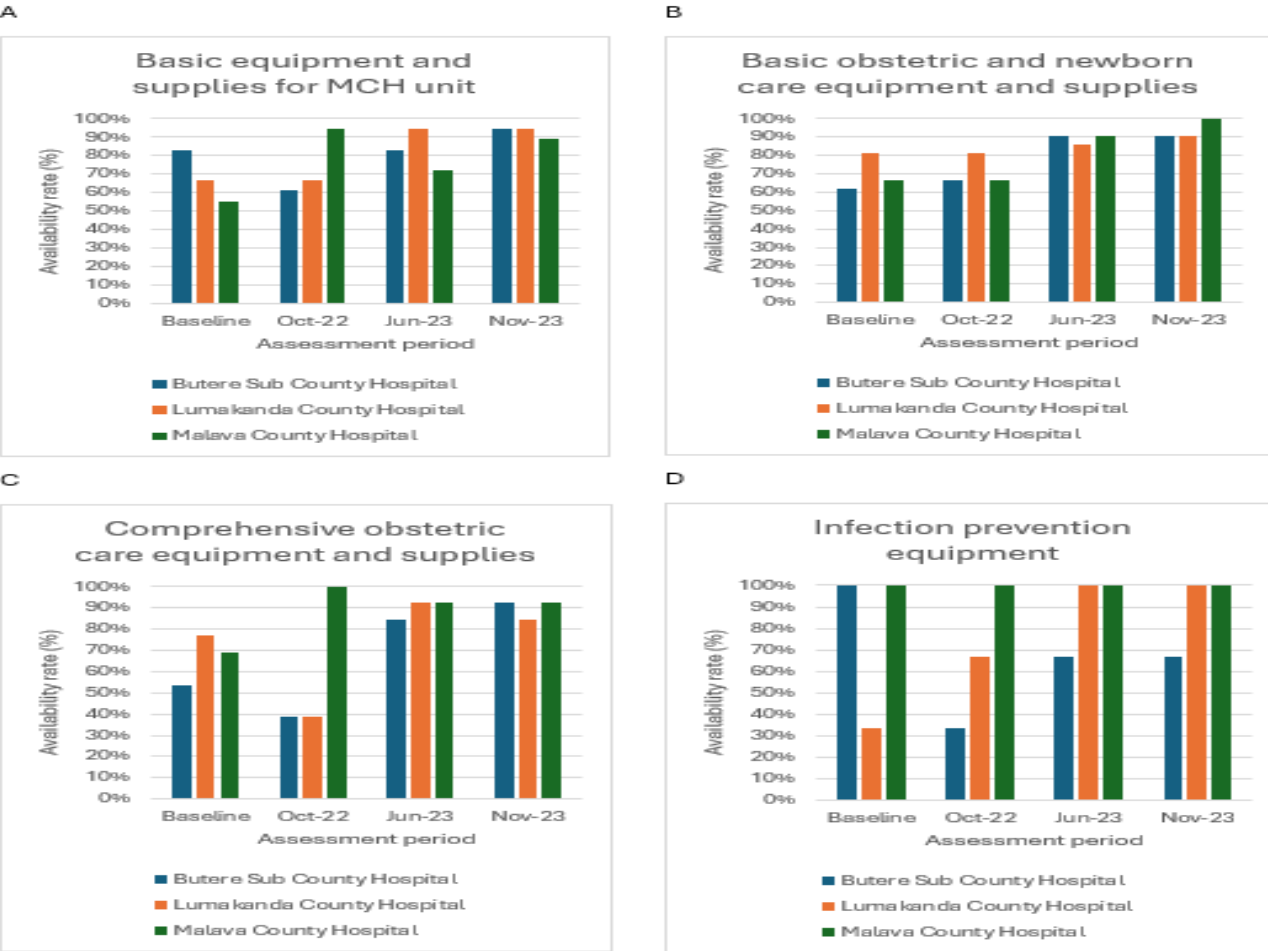
Key Findings

Implementation Achievements

Infrastructure Improvements

The project delivered infrastructure enhancements with the construction and renovation of maternity wings and theaters in Malava and Lumakanda Sub-County Hospitals. A new 10-bed capacity Newborn Unit was established in Malava Sub-County Hospital.

Equipment availability for maternal and newborn care was consistently maintained above 60%, ensuring healthcare providers had the necessary tools to deliver quality care.

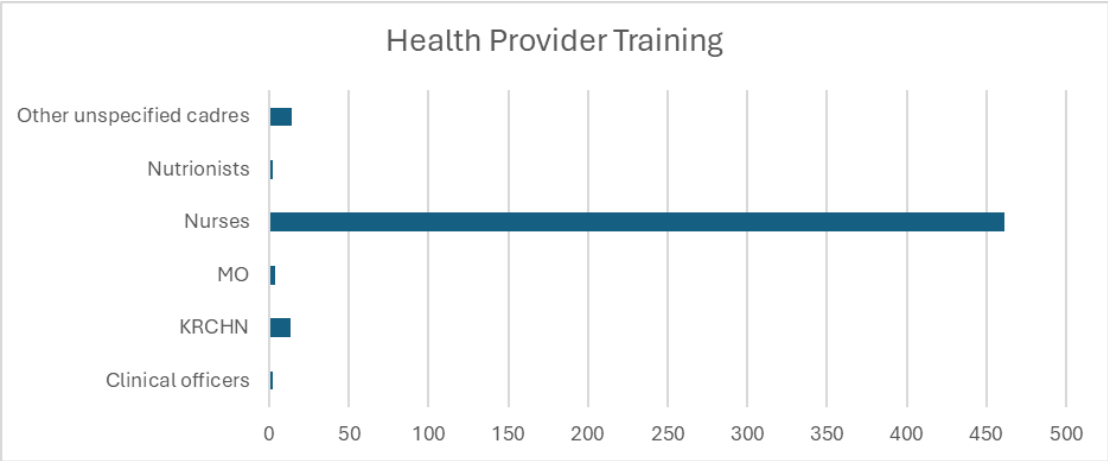


Emergency Transport System

The revamped emergency transport system dramatically improved response times to approximately 30 minutes, enabling rapid interventions during obstetric emergencies. With a 90.3% successful transport rate, the system demonstrated exceptional reliability in critical situations.

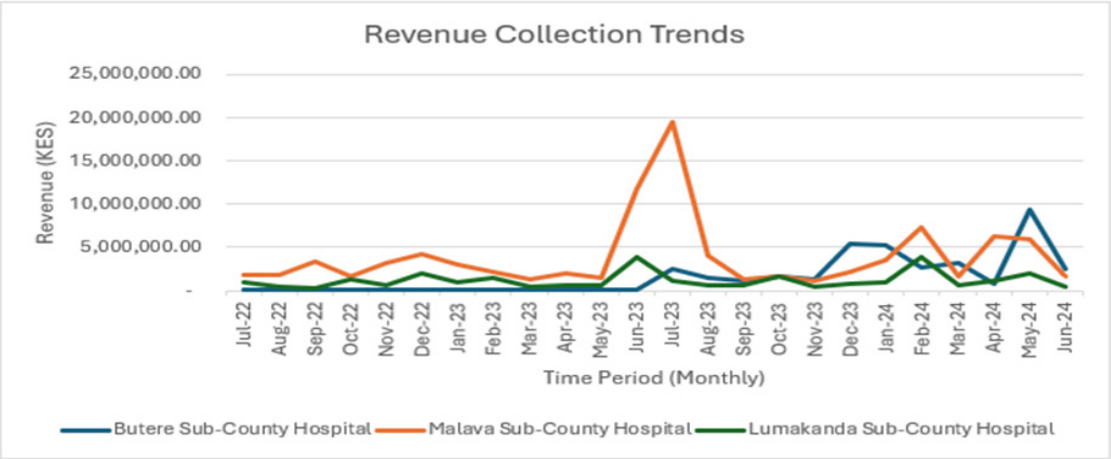
Human Resource Development

Clinical competency was enhanced through comprehensive training and mentorship programs, with approximately 450 nurses and healthcare providers receiving Emergency Obstetric Care training.



Financial Management

The development and implementation of the Facility Improvement Fund policy transformed financial administration in healthcare facilities. Level 4 facilities enjoyed increased financial autonomy, allowing for more responsive resource allocation. This reform produced immediate results, evidenced by a significant revenue spike in Malava Sub-County Hospital in June 2023 following the FIF policy launch, enabling improved resource allocation based on facility-specific needs.



Improved resource allocation based on facility-specific needs

Implementation Challenges

Infrastructure Limitations

Space constraints at Lumakanda Sub-County Hospital significantly restricted expansion capabilities, limiting the facility’s potential service capacity. The dedicated maternity theater in Malava remained non-operational due to persistent equipment issues, hampering the delivery of critical obstetric surgical services. Additionally, the planned upgrading of Butere Sub-County Hospital experienced substantial delays, postponing anticipated improvements in maternal healthcare access in that region.

Human Resource Constraints

Persistent staff shortages across facilities led to unsustainable workloads and consequent burnout among healthcare workers, compromising service quality. Facilities struggled to retain specialist medical staff on permanent terms, resulting in inconsistent availability of critical expertise.

Financial Sustainability

Revenue collection at hub facilities showed concerning fluctuations, creating financial instability and unpredictability. Following the exit of external partners, maintaining the emergency transport system presented significant funding challenges. Inadequate funding for operational costs undermined day-to-day service delivery and threatened the long-term viability of implemented improvements.

Unintended Consequences

Patient Behavior Adaptations

Some patients manipulated ambulance services through symptom exaggeration to secure transport, compromising the system’s prioritization capabilities. A concerning pattern emerged of deliberate delays in care-seeking until late labor stages to guarantee immediate attention, increasing risks to both mothers and newborns.

Financial Flow Disruptions

Lower-level facilities complained of reduced revenue from Linda Mama reimbursements as deliveries shifted to higher-level facilities. Unhealthy competition emerged between facility levels within the public health system, undermining collaborative care. Private facilities capitalized on the situation through incentivized referrals, further fragmenting the public healthcare system.

Trust Dynamics

Cultural resistance to ambulance use persisted due to community associations with severe illness or death. Lower-level facilities faced undermined community trust as patients increasingly bypassed them for higher-level care.

Policy Recommendations

Sustainable Financing

- Develop dedicated budget lines for SDR implementation components
- Reduce dependence on external donors through integrated financing within the county health budgets
- Strengthen the Facility Improvement Fund policy implementation

Human Resource Management

- Implement strategic staff deployment plans to balance workforce distribution
- Develop retention strategies for specialist medical staff at hub facilities
- Create continuous training programs to maintain skills at all facility levels

Infrastructure Development

- Prioritize completion of pending infrastructure projects
- Ensure functional equipment for all constructed or renovated facilities

- Develop innovative solutions for space-constrained facilities

Emergency Transport System

- Establish a county-managed sustainable transport model
- Integrate emergency transport into regular county health operations

Multi-stakeholder Engagement

- Continue community dialogue sessions
- Integrate Traditional Birth Attendants as formal birth companions
- Strengthen coordination between different facility levels

Monitoring and Evaluation

- Implement comprehensive monitoring systems tracking both health outcomes and implementation factors
- Regularly assess unintended consequences to enable timely mitigation strategies
- Develop transition plans for external partner exit to ensure sustainability

Conclusion

The Kakamega SDR implementation demonstrates both the potential and challenges of reorganizing maternal and newborn healthcare delivery in resource-limited settings. While infrastructure improvements and enhanced emergency transport showed promising results, sustainability challenges persist, particularly after external partner support ended.

This evaluation offers valuable insights for similar maternal health system strengthening interventions, highlighting the need for balanced approaches that anticipate both intended and unintended consequences of healthcare delivery reorganization and ensure long-term sustainability through integrated planning and resource allocation.

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