



**Tutunze
Kakamega**

Service Delivery Redesign (SDR)



TUTUNZE KAKAMEGA AN APPROACH TO SERVICE DELIVERY REDESIGN

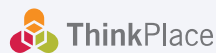


COUNTY GOVERNMENT OF KAKAMEGA
MINISTRY OF HEALTH



TUTUNZE KAKAMEGA

Assessing a Novel Approach to Improving Maternal and Newborn Survival through Service Delivery Redesign (SDR) in Kakamega County



The Challenge

Despite increased utilization of facilities for childbirth, decline in maternal and neonatal mortality and morbidity has stagnated in many low-and middle-income countries. A growing body of evidence suggests that this may be because facilities are unable to effectively manage delivery complications and sick newborns, which present without warning and require rapid, highly expert care.

Yet in many countries, 30-45% of facility deliveries occur below the level of a hospital; such facilities are unable to realistically handle complications. Delivery statistics in Kakamega County, Kenya exemplify these issues.

Only **37%**

of Kakamega county's births occur in a facility equipped to handle maternal emergencies

85%

of facilities conduct less than 30 deliveries per month meaning deliveries are sparsely distributed

99%

of women in Kakamega live within 1 hour of an advanced Level 4 / 5 facility

An Approach

Service Delivery Redesign, dubbed Tutunze Kakamega (Take care of us Kakamega), is a cross-sectoral strategy led by Kakamega County that tests how to improve maternal and newborn survival by shifting where and when mothers access care. Redesign focuses on improving the distribution of financing, staff, equipment, beds and medicines to ensure that women receive 'right place, high quality care' and mothers deliver in or as close as possible to well-functioning hospitals (CEmONC Level 4/5).

This involves expanding the capacity of delivery services in hospitals to attend to deliveries and MNH emergencies, whilst improving the quality of antenatal and postnatal care in Level 2 and 3 facilities, helping them focus on services such as screening, prevention and management of the growing burden of non-communicable diseases. The initiative is accompanied by investments in urgent and emergency transportation and community engagement, ensuring no mother or community is left behind in accessing high quality universal health care.

A feasibility assessment identified gaps across a mothers journey through the health system, including poor availability and coordination of affordable emergency transport options, limited maternity bed capacity and critical hospital infrastructure and shortages of skilled medical officers and obstetricians capable of delivering timely, advanced and dignified care to mothers.

Based on these results at, **Jacaranda Health** is collaborating with below partners to support Kakamega County implement a redesign process;

1. **Thinkwell** is supporting health financing activities, to ensure that investments in SDR have a pathway for sustainability, through revenue generation and cost-efficiency activities.

2. **Thinkplace** is a human centered design firm prototyping solutions targeting demand and supply barriers.

3. **Rescue.co** is leading the design and deployment of urgent/emergency transportation models.

4. **Partners at Harvard University**, Ipsos Synovate and KEMRI are leading impact evaluation.

5. **BuildX Studio** is a design and build firm overseeing infrastructural reorganization for quality care.



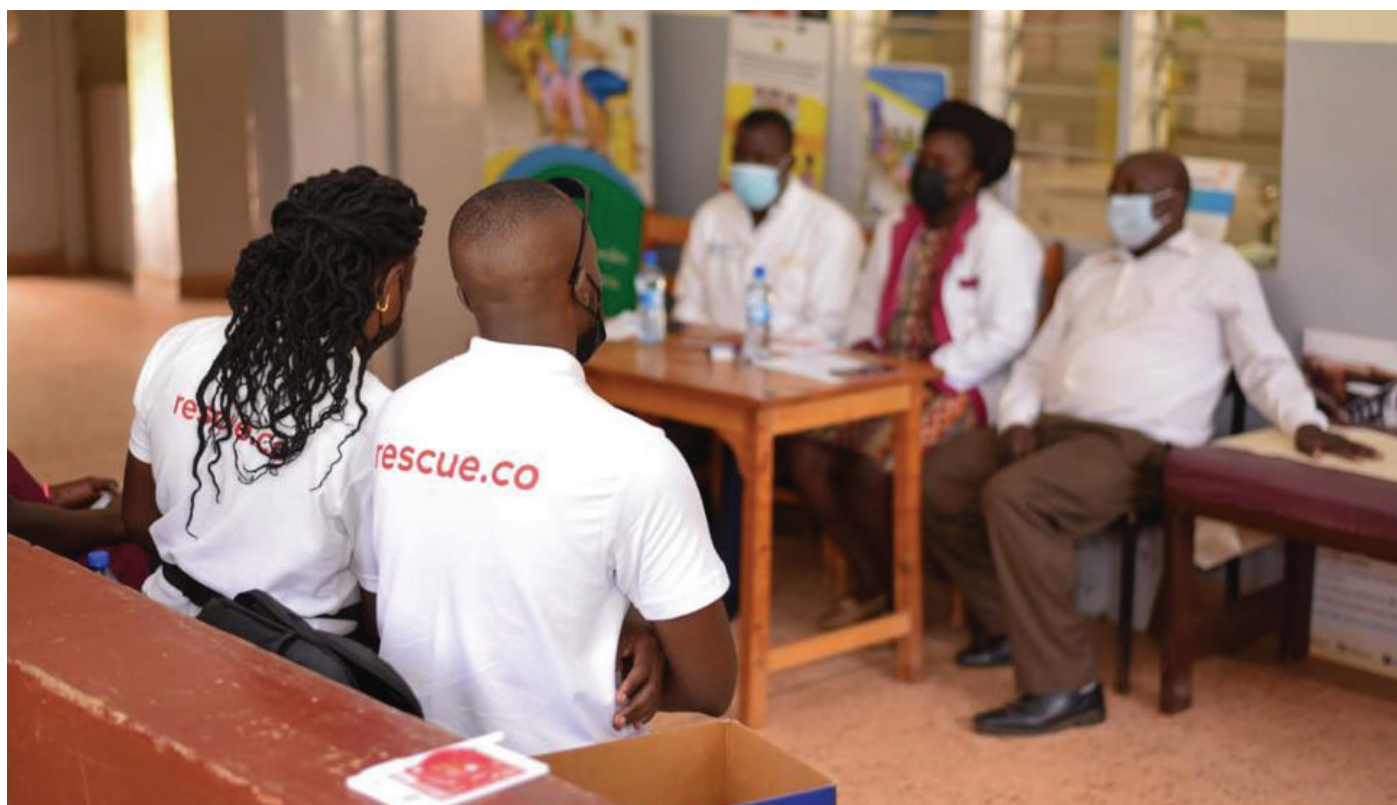
Together, the Kakamega County Government and a coalition of partners are making strides towards raising mothers' demand for health system quality, and generating replicable approaches and best practices for the provision of comprehensive, quality MNH care around the world.

Tutunze Kakamega: Current Project Status and Next Steps

The redesign process started with a feasibility assessment, which mapped out the existing health system capacity in Kakamega County and identified the major gaps to be addressed within redesign. This was followed by a design phase to generate the models and strategies to be implemented for redesign.

The improvement phase is currently underway, with critical facility improvements triggering a shift in demand generation activities. This offers a springboard to begin the implementation phase in June 2022, whereby facilities and care-support services, such as transportation and blood supply, are aligned with the new model of care.

Details of Improvements



Besides instituting a seamless referral mechanism to make care accessible to everyone in need, the redesign is working to ensure the network of care is well financed and adequately staffed with skilled, respectful care providers. Leveraging the combined expertise and experience of the coalition and leadership of Kakamega County, the key components of redesign are designed to comprehensively address the delays and gaps impacting the quality and sustainability of maternal health services across the county. This includes;

Increasing demand for high quality care by empowering over 70,000 mothers with SMS-based information through Jacaranda's digital health platform PROMPTS to safely navigate their pregnancies and connect to the appropriate level of care in the event of an emergency. Whilst mothers usually enroll to PROMPTS within public health facilities, Jacaranda is engaging Community Health Volunteers (CHVs) to support enrollment activities in Kakamega County and strengthen community linkages for effective community based MNH care.

Reducing delays in receipt of care by improving urgent and emergency referral systems through Rescue.co's ambulance dispatch service. In Kakamega, Rescue.co supports the continuous monitoring of location and distribution of public and private emergency vehicles. In addition, the team supported the County referral team to update existing guidelines around referral. To date, 500 mothers and babies in need of critical care have been evacuated via Rescue dispatches (over 4 months) and the average response time has dropped from 1-3 hours to 29 mins as a result of maximizing available resources and real-time tracking of ambulances.

Ensuring all mothers are supported by skilled providers by training 50 healthcare workers in EmONC (Emergency Obstetric and Neonatal Care) through Jacaranda's peer-to-peer mentorship program MENTORS. The program, which has been nationally accredited, incorporates simulation drills and lectures to empower government providers to train up providers in their respective facilities, alongside a digital learning platform to reinforce facility-based learning and monitor and address skill gaps. The program also works to improve referrals by training providers in lower level facilities to rapidly identify emergency cases in need of advanced care, as well as training 21 Emergency Medical Technicians (EMTs) and paramedics to provide better quality care en-route to hospital.

Ensuring mothers seek care in high quality facilities. Jacaranda is collaborating with the County to renovate Lumakanda Hospital in Lugari sub county and extend the maternity wing of Malava Hospital in Malava Sub county, with Kakamega County government constructing a brand new hospital in Butere Sub county spacious enough to offer quality care.

Ensuring all delivery hubs have uninterrupted access to blood and blood supplies through the deployment of Jacaranda's digital blood tracker across all 12 sub-counties in Kakamega. Dispatch data accrued by Rescue.co identifies the need for blood in 54% of emergency cases highlighting the need for a better coordinated mapping of blood availability across the county 12 facilities across Kakamega are already partnered with and actively using the blood tracker to request blood by unit, source, and type during obstetric emergencies.



Improving government health financing arrangements for quality health care services and project sustainability. Thinkwell are working closely with the Kakamega County government to improve planning and budgeting processes and strategic purchasing to ensure limited resources can be allocated in a way that achieves significant health outcomes for mothers and babies, and facilities can collect and spend their own revenue on priorities.



To ensure ownership and sustainability, all activities are implemented through existing government organs with the mother's voice deliberately embedded throughout the process.

Jacaranda and Thinkplace are working to apply human centered design approaches within every area of project implementation to ensure solutions are adopted by mothers, their supporting communities, and the health providers serving them.

This includes targeted design assessments to generate insights on challenges and opportunities (including access and demand for quality health care), the introduction of 'innovation labs; to prototype solutions, and the establishment of a Community of Practice for partners and County to generate learnings and best practices for improving quality of care.

The SDR initiative will be implemented in three phases to accrue learnings from a small cluster and iterate the model before scaling to the larger population.

PHASE 1 **64 Facilities**

across Butere, Lugari and Malava which will be targeted first for infrastructural improvements.

PHASE 2 **66 Facilities**

across Likuyani, Mumias West, Navakholo and Shinyalu.

PHASE 3 **75 Facilities**

across Ikolomani, Kwisero, Lurambi, Matungu, and Mumias East.

Expected Outcomes



The Kakamega investment is aimed at reducing County's maternal and neonatal mortality from 316/100,000 and 19/1000 live births respectively to progressively meet SDG targets of 70/100,000 and 12/1000 in 5 years.

The project's evaluation partners, Harvard and the John Hopkins University will determine changes in quality of care across partner facilities, and whether improvements to the referral chain results in better outcomes for mothers and their babies health system efficiency.

If successful, the ambition is to see SDR adopted - by both stakeholders and county leadership - as an evidence-based approach to resolving pain points across the health system, marrying health system change with increased internal resources, and increasing opportunities for legacy projects through capital expenditure.

