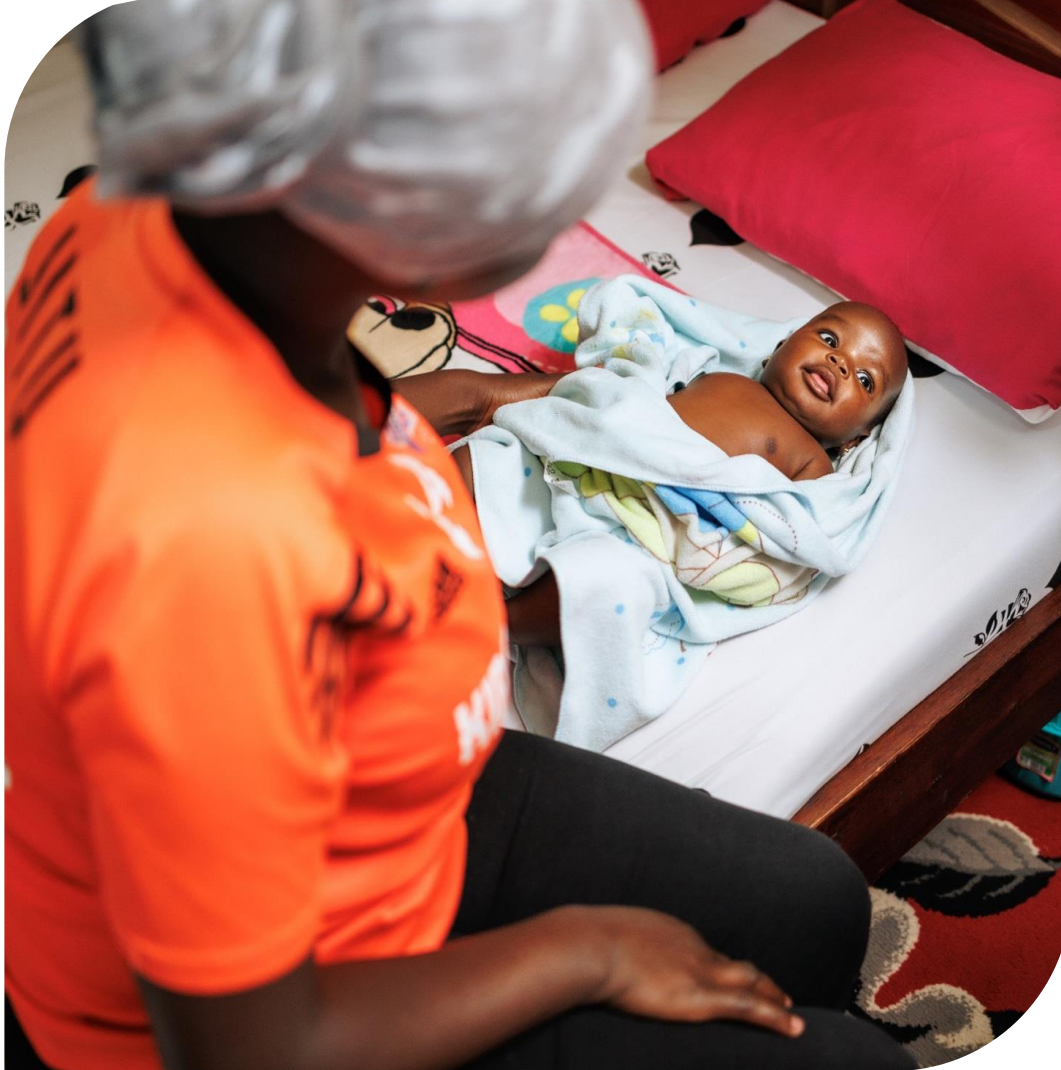




# Experiences and Lessons from SDR Implementation in Kakamega County, Kenya

9th July 2024





## Agenda

- ✓ SDR Background and Overview
- ✓ Experiences and Lessons Learnt
  - Feasibility Assessment
  - Design Phase
  - Improvement and Implementation
- ✓ Kakamega County Reflections
- ✓ Summary of Successes and Learnings

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# Service Delivery Redesign Background

# Kakamega 2021 Maternal and Newborn Health Statistics



**97.6%** 1st ANC Coverage

**56.5%** 4th ANC Coverage

**72.6%** Skilled Birth Attendance

**41.6%** WRA Receiving FP

**82.6%** Fully immunized children

# Overview for Redesign Model



Delivering care for **all** women in advanced facilities that offer definitive care for complications or in nearby affiliated birthing facilities.



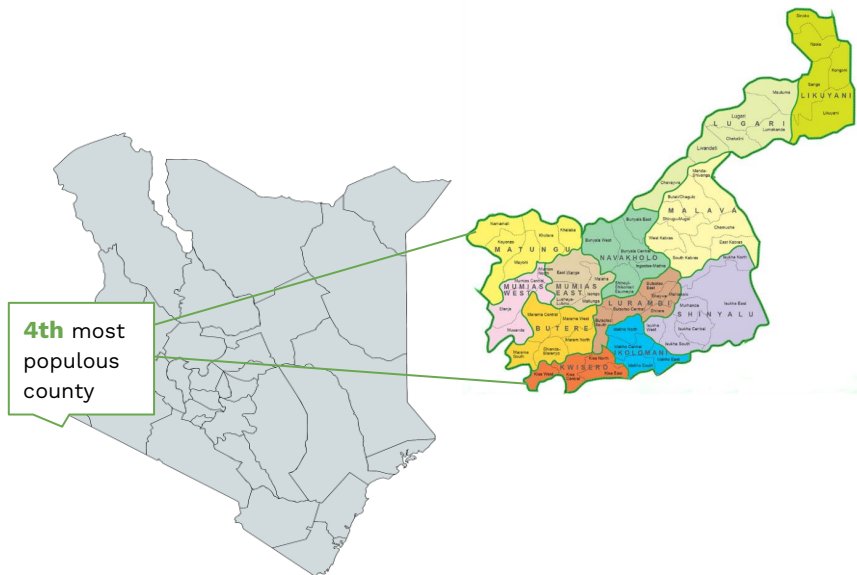
High-quality antenatal and postnatal care in health centers and dispensaries

**Our goal is to improve maternal and newborn outcomes in Kakamega county**

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# Feasibility Assessment

# Feasibility Assessment Results and the need for Service Delivery Redesign (SDR)



**85%**

of facilities (174/205) conduct less than 30 deliveries per month

**37%**

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

**99%**

of women in Kakamega live within 1 hour of an advanced hospital

**>80%**

(out of 151 respondents) supported Redesign

*\*Feasibility Assessment Results*

# The Plan for SDR Rollout in Kakamega

## Feasibility Assessment

Collect and analyze data to **assess current system capacity** and gaps to close for redesign

*Expected outcomes:*  
Health system capacity map

## Design Phase

**Design locally-specific models** and determine needed investments for redesign; design evaluation plan

*Expected outcomes:* Fully costed plan for redesign; evaluation plan

## Improvement Phase

Implement **facility, community + non-health sector improvements** in preparation for policy change

*Expected outcomes:*  
Health system ready for redesign implementation

## Implementation Phase

Implement redesign policy and roll out SDR in phased manner; evaluate redesign

*Expected outcomes:*  
Decreased maternal and newborn morbidity and mortality



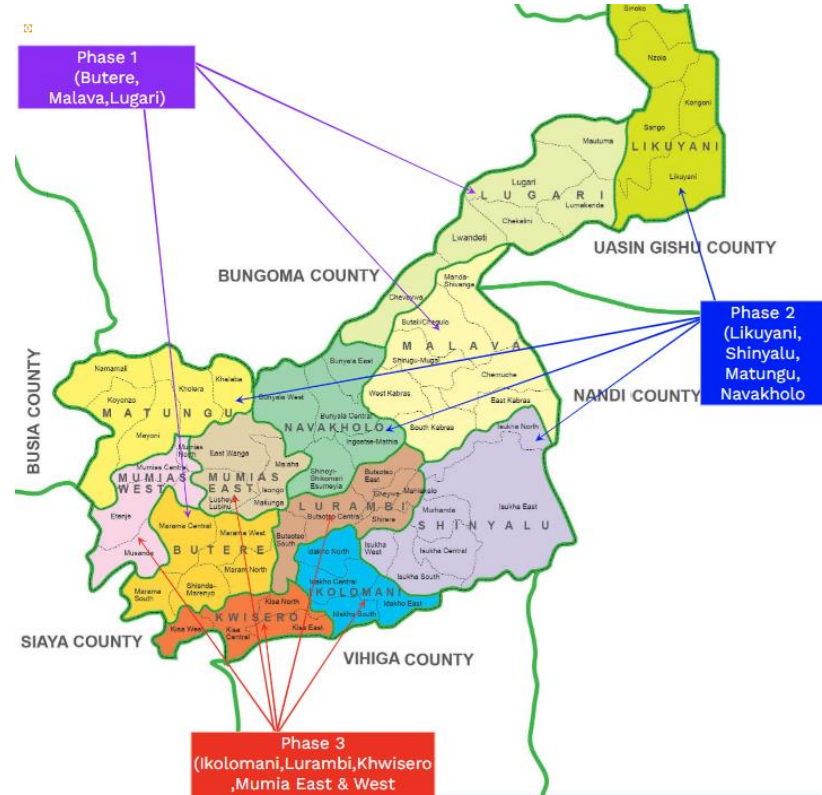
# SDR Phased Implementation

The SDR initiative is being implemented in three phases:

**PHASE 1** – Butere, Lugari and Malava Sub-Counties

**PHASE 2** – Likuyani, Shinyalu, Matungu, & Navakholo Sub-Counties

**PHASE 3** – across Ikolomani, Khwisero, Lurambi, Mumias West, and Mumias East Sub-Counties



# SDR requires a coalition of partners and strong coordination



- **Coalition Lead**
- Partner to 20 County Governments
- SMS digital health platform reaching 1.2M mothers
- EmONC mentorship program with 200+ mentors, 10,000 providers trained
- 50% Cost-Share with County governments

**rescue.co**

- Dispatch service that aggregates private and public ambulance network to respond to emergency services

**THINK  
WELL**

- Work with 30 county governments and national government
- Track record of increasing revenue for MNH services and improved utilization of funds

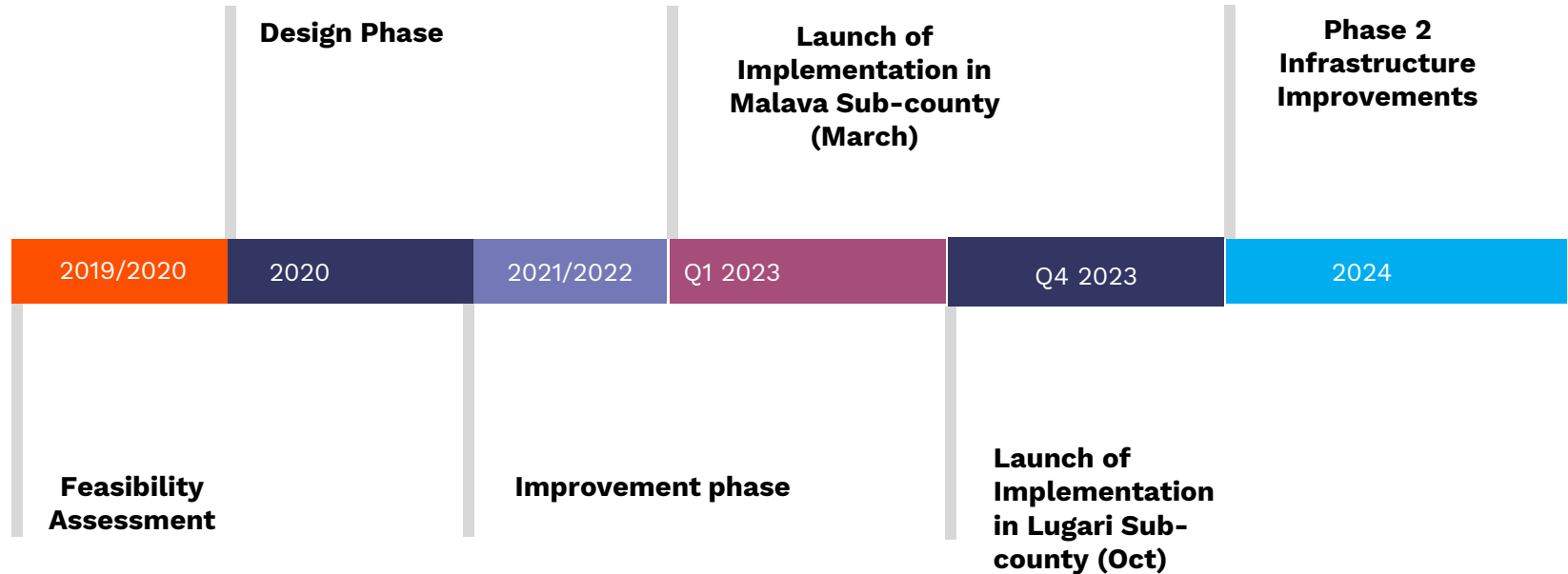
 **ThinkPlace**

- Human Centered Design expertise across a variety of domains
- Deep experience in SRH/MNH patient journeys and trust-building

**BUILD X MASS.**

- Expertise in construction and project management consulting
- Design with end-user in mind

# Timeline of the Service Delivery Redesign



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# Design Phase

*Design context - specific models and investments to reform the health system for definitive care*

# Incorporating the voice of health system stakeholders in redesign

## Stakeholder Engagement

Engaged County leadership, health managers and community members to craft a shared vision of SDR

## Research & Design

Targeted design research to identify potential levers and barriers to the system redesign and implementation

## Co-design & Prototyping

Elements related to patient and provider definitions of quality of care, communication, transportation and safety management

*ThinkPlace used Human Centered Design to gather insights to influence health reforms in Kakamega*

# Stakeholder Engagement: Experience and Insights

## Fears identified by stakeholders;

- Devaluing of L2/3 facilities
- Over-medicalisation of service accompanied with unnecessary c-sections
- Women already built trust in L2/3 care providers
- Increased workload

## SDR Champions;

- Novel idea towards attaining UHC
- Staff motivation guaranteed
- Increases accountability and rational resource allocation
- Will increase mother and child survival



*Stakeholders: Ministry of Health, Council of Governors, Kakamega County Health Management team  
Healthcare workers, Males and female of reproductive age, Local administrators, Political leaders, Masinde  
Muliro University*

# Lessons Learnt from Community Engagement



## **Multi-phased approach**

- In-person participatory workshops
- Team building event
- Community dialogue sessions

## **Community dialogue sessions**

- Address misconceptions
- Co-create messaging
- Build HCW relationships (hub-spoke)
- Increase ownership



# Improvement and Implementation Phase

*Facility, community and non-health sector  
improvements in preparation for policy change  
Redesign policy and roll out SDR in Phased Manner,  
evaluate Redesign*



# Solutions that span through a Mother's pregnancy and postpartum journey

## Improve prenatal/postnatal care

Scorecards  
Equipment/Supplies

## Infrastructure & Equipment, Provider skills improvement

Maternity construction/renovation  
Through In-facility Mentorship & Facility Assessments

## Appropriate resources across the system

Finances, Staffing, Equipment, Infrastructure



## Client engagement

SMS messaging + helpdesk service to empower mothers with information

## Emergency Transport

Upgrade public/private ambulances  
Train providers in referrals

## Blood Availability

Identify existing sources of blood in emergencies

# Increasing client engagement through digital health (PROMPTS)

**160K** expectant mums enrolled on PROMPTS

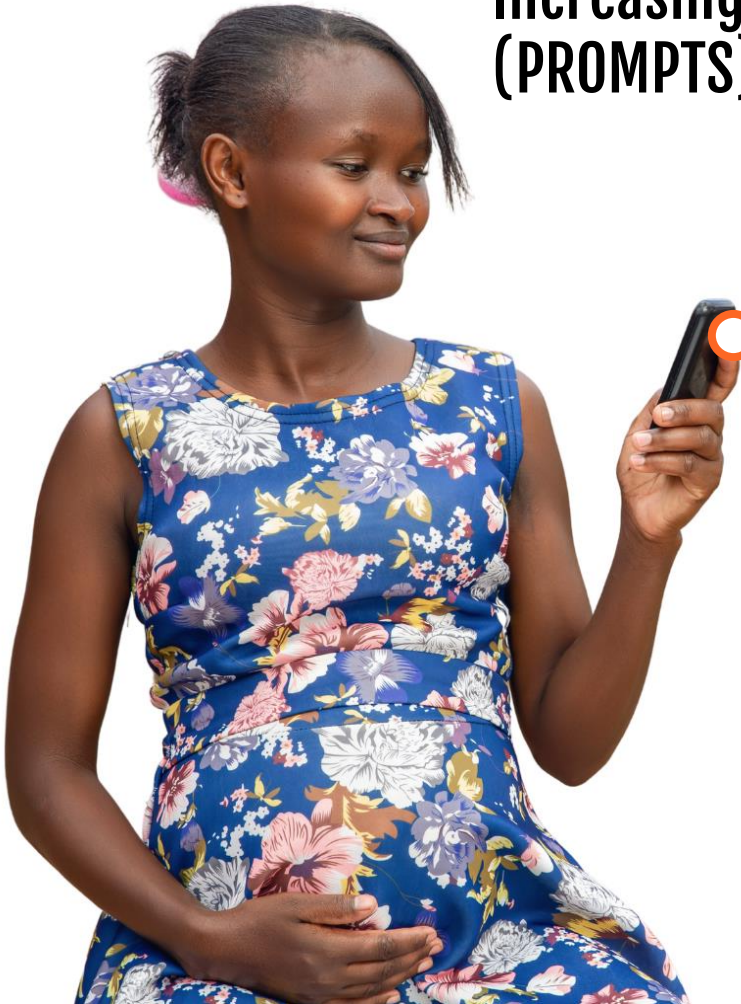
**85% of** mums in Malava Sub-county

**100,844** questions received through our helpdesk.

**4.8%** of the questions were classified as urgent and were resolved

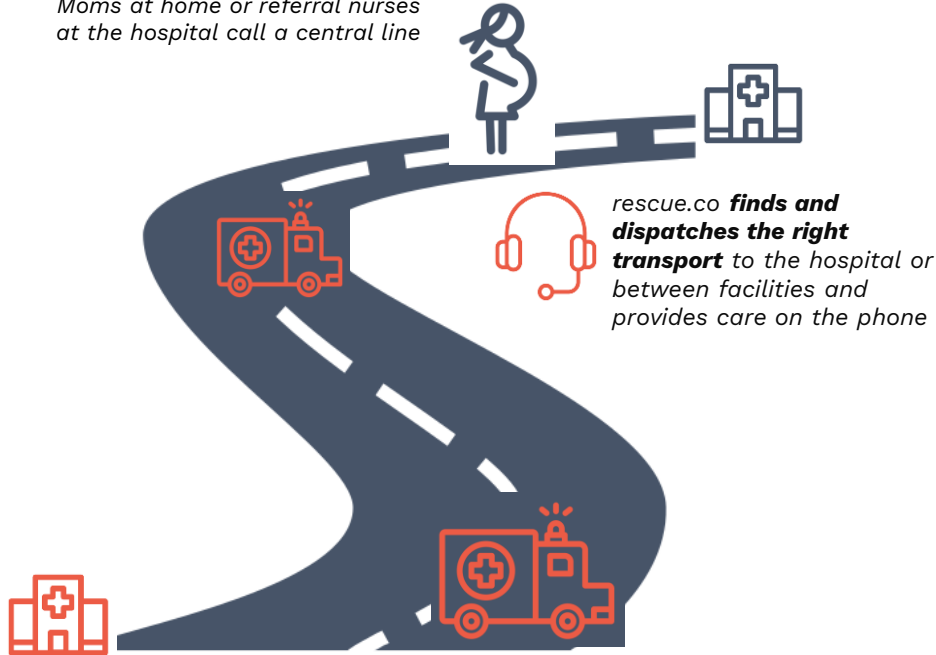
**2,400+** At-risk mums/babies evacuated

**13.2%** increase in PNC attendance from 33.4% in 2020



# Improving access to high quality care through emergency transportation

Moms at home or referral nurses at the hospital call a central line



## Approach

- Non-emergency network of boda boda riders & medical taxis
- Ambulances

## Access to toll free number:

- CHPs, Mamas & Babas, Healthcare workers
- PROMPTS to Ambulance service connection

Average response time reduced from **2 hrs to 27 mins**

**8,699** evacuations through Rescue

86% pregnant women and 14% neonates

The ambulance moves the mother or newborn to the **right health facility** based on capabilities and availability tracked via the Flare platform

# Ensure that all providers have life-saving skills

Leveraged Jacaranda's EmONC Mentorship program which provides continuous in-person, in-facility training through government midwife champions (mentors)



**100% EMONC curriculum completion** in phase 1 L4 facilities

Increased **knowledge retention** among healthcare providers from 73% in 2022 to **93%** in 2023

**5% decline** from 23% in 2022 **in complicated referrals** from Malava Level 4 to County General Hospital Level 5

# Ensuring Blood availability for Maternal emergencies

**Access to blood and blood supplies in an emergency situation is key to minimizing referral costs and saving lives**

Previously Kakamega Blood Bank only collected **50%** of its target

**Achievement:** Kakamega County moved from collecting **700 units/month to 1,200 units/month**

County lacked a blood inventory tool



# Strengthening Quality ANC/PNC and Level 2/3 facilities

## Building capacity and resourcing

- ANC/PNC management
- Adequate Equipment
- Data work planning and resource allocation
- Patient to staff ratio planning

## Innovation around ANC care

- Ticketing: Address wait times, overcrowding, improve person centered care
- Point of care test kits for ANC profiling - Ensures access to timely ANC tests





# High Quality People Centred Level 4 CEmONC Hospitals



*New Maternity Theatre at Malava Hospital*

- **HCD approach** in designing L4 facilities:  
Collaboration between designers, health managers, County engineers, contractors, health managers
- **Facility assessments** identified equipment gaps, quantities and specifications were provided
- HCWs trained on the use of the new equipment

# Adequate Staffing of Comprehensive CEmONC Sites

Change in staffing numbers at Malava Hospital - <b>2022 VS 2024</b>			
<b>Cadre</b>	<b>Target</b>	<b>Nov 2022</b>	<b>Feb 2024</b>
Medical officers	8	6	5
Clinical officers	6	4	8
Anesthesia Clinical Officers	2	3	3
Nurses	50	42	60
Nurse Anesthetist	2	1	2
OBGYN	1	0	1
Pediatrician	1	1	1
Lab_Tech	10	5	8
Radiographer	2	2	2

**30%** increase in staffing numbers in L4 Sub-County facilities

## Experience and Lessons Learnt

- Alignment and compliance with MoH staff norms and standards
- Negotiate with health managers to minimize rotation especially after recruitment or training.
- Staff motivation is equally critical to offer definitive care



# Health Financing: Increase funding and resource allocation for MNCH services

Technical support on evidence-based planning and budgeting

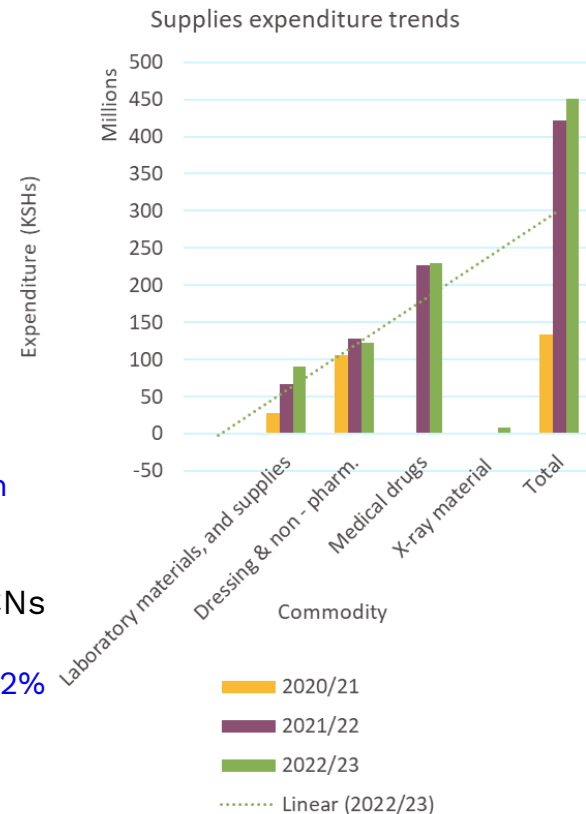
- Rational use of data to allocate key system inputs to improve delivery of MNCH services
- Allocation to essential supplies grew by 53% from FY 20/21 to FY 23/24

**Facilities could not use funds collected** → Institutionalization of facility autonomy → Resource allocation to improve the quality of MNCH services

- 7% revenue growth in year.
- Facilities used 27% of their own revenue to supplement plug in on commodity gaps

**L2/L3 Devalued?** → Alignment of SDR to the national reforms – PCNs and UHC reforms

- Increased direct financing to PHC facilities in the FY 2023/24 by 62% & 23% in L2 and L3 improving delivery of PHC services
- Increased proportion of poor women enrolled into NHIF's UHC scheme to reduce OOP while accessing PHC services



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# Post-Implementation

*1 year after SDR Launch in Malava Sub-County*

# Progress Summary by Dec 2023

**87%**

of providers now pass their neonatal resuscitation tests (baseline 64%)

**2x**

bed capacity, from 40 to 84 beds in hospitals

**50%**

cost-share from government



**85%**

new and expectant mothers in phase 1 sub counties enrolled into PROMPTS



**8,699+**

mums/babies in need of critical care evacuated via emergency dispatch



**25 mins**

time to reach facilities in emergencies



**90%**

fulfillment of blood needs through a tracker that locates blood across the county

# High Quality People Centred Hospitals – Progress and Lessons



Approximately a **10%** increase in hospital deliveries in Malava hospital with a reduction of home deliveries

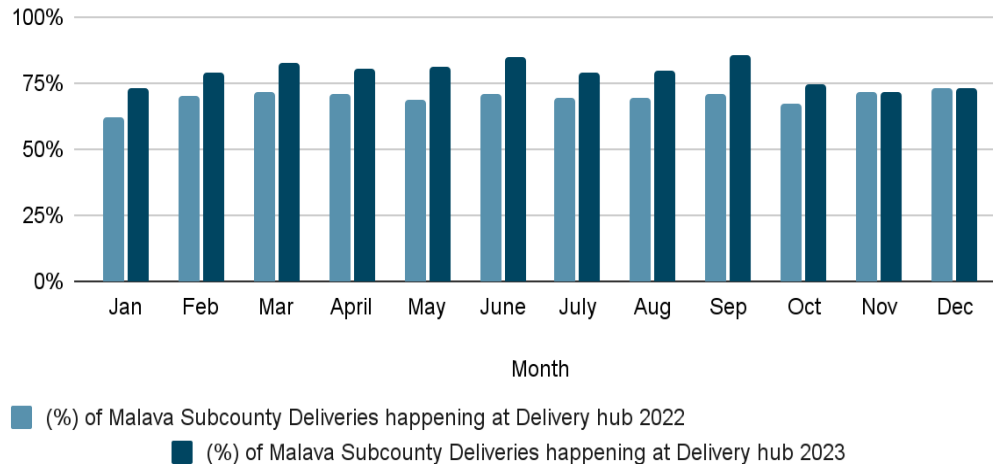
## Lessons Learnt

### *Planning for delays*

- Political transitions last year led to phase 1 delivery shift delays.
- Delays in financing County commitments due erratic flow of funds.
- Rise in construction costs due to inflation

# Insights from Malava Delivery shift

A comparison of (%) of Malava Subcounty Deliveries happening at Delivery hub in 2022 VS 2023



- In 2022, Malava delivery hub conducted **69% of expected deliveries**, whereas it now conducts **an average of 79% of expected deliveries** with the highest being in **Sept at 86%**.
- Malava sub county has recorded an **increase in 4th ANC** attendance from <70% between January to June this year to **85% in Aug**.
- Reduced neonatal referrals out of Malava due to NBU functionality
- More complex Difference-in-Difference analyses have corroborated this

# SDR sustainability and Government ownership

<b>Implementation of Critical Health system policies</b>	<b>County &lt;&gt; external partner cost share</b>	<b>Adoption low-cost sustainable innovations that improve MNH QoC</b>	<b>SDR governance through County led TWGs</b>
<ol style="list-style-type: none"><li>1. Kakamega Health Fund is currently under implementation</li><li>2. Referral policy under final stages of review - Set for Launch in Q1 2024</li><li>3. Waiver and exemptions policy at final review as well - Set for Launch in Q1 2024</li></ol>	<ol style="list-style-type: none"><li>1. For phase 1, County shouldered 50% of operating costs by providing HRH, commodities and service delivery costs</li><li>2. The plan is to increase County expenditure in phase 2 to progressively reduce dependency on external funding</li></ol>	<ol style="list-style-type: none"><li>1. In 2023, Kakamega County piloted and scaled use of paper based tickets to ensure order in service delivery</li><li>2. To pilot use of point of care test kits for ANC profiling and how to leverage rotation of L4 lab services for ANC profiling in PHC facilities</li></ol>	<ul style="list-style-type: none"><li>- Various project elements are currently being coordinated through county structures - TWGs including HRH, Finance, Referral, Supplies etc</li><li>- TWGs report into CHMT and a program implementation unit</li><li>- PMU reports to oversight team led by minister of Health with Biannual updates to the Governor for resource allocation and decisions</li></ul>

# Key Lessons and Takeaways

- ✓ **Continuous Stakeholder engagement and Management - inception to implementation**
  - a) Need for continuous engagement via multiple channels to sustain SDR momentum
  - b) SDR doesn't occur in a vacuum: other reforms may disrupt the current system such as the delivery shift
  
- ✓ **Planning for delays**
  - a) Political transitions last year led to phase 1 delivery shift delays.
  - b) Delays in financing County commitments due erratic flow of funds.
  - c) Infrastructure improvements in Malava experienced a 6 months delay against plan
  
- ✓ **Balancing program strategy with political priorities for buy-in**
  - a) We have had to shift Matungu from Phase 3 to Phase 2 due to political considerations, but politics is an important factor for Champions
  - b) Our County engagements has been carefully crafted to stay within acceptable political boundaries
  
- ✓ **National and County level policy changes can have overarching impact on project implementation**
  - a) Case in point are recent changes in health financing and national insurance. SDR has to adjust to align with the changes

# Reflections from Kakamega County Government



## Experience

- **TWG approach of SDR governance** has enhanced structures in health system management
- Project implementation challenged our resource allocation approaches with heavy emphasis on data
- We have witnessed **increased uptake of skilled deliveries** in SDR sites.
- Project implementation has triggered documentation of best practices in policies for posterity i.e FIF, waiver and referral policies.
- SDR has opened up space for **innovativeness and creativity** among HCW e.g ticketing among others

## Lessons Learnt

- **Health Policy** space in Kenya is dynamic and requires solid structures at County and hospital levels to adapt - We just adopted FIF and now we are transitioning to SHIF
- Service delivery can be enhanced by simple **innovations** - it just requires positive mindset among HCWs
- **Design for health care spaces** has evolved over time and the Government is keen on adopting lessons from designs by Mass in future expansions of healthcare spaces
- Lessons from **SDR's periodic checks on facility readiness** to offer definitive care will be emphasised in our programming moving forward



# Acknowledgements

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HARVARD T.H. CHAN  
SCHOOL OF PUBLIC HEALTH



THINK  
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**Thank you**