Kilifi County Maternal, Newborn and Child Health (MNCH) and Newborn Care Support Visit Report

Consolidated System Findings, Learning Insights and Priority Actions

Date: 7–8 April 2026



Figure 1Group photo with the Governor of Kilifi County, the CECM for Health, CoG staff, and the Inter-County MPDSR team

Mission member(s)

Khatra Ali	Gerald Muka
Meboh Abuor	Dr. Felicitas Makokha
Dr. Simon Mbirua	Dr. James Amange
Mercy Gatabi	Dr. Mitei Chepwogen

Report Snapshot

Situation Snapshot (2025)

In 2025, the County recorded **1,275 perinatal deaths**, comprising 357 fresh stillbirths, 435 macerated stillbirths, and 483 neonatal deaths. The leading causes of neonatal mortality were birth asphyxia, prematurity, and neonatal sepsis.

During the same period, the County reported **48 maternal deaths**, with a facility maternal mortality ratio of **112 per 100,000 live births**. The leading causes of maternal mortality included postpartum haemorrhage, antepartum haemorrhage, and eclampsia.

Strength of the County

- Strong political and administrative leadership commitment, demonstrated through engagement of H.E. the Governor and alignment on priority actions
- Functional MPDSR structures across County, Sub-County, and facility levels, supporting continuous review and learning
- Availability of referral facilities providing comprehensive maternal and newborn health services
- Active engagement with development partners supporting MNH system strengthening
- Established culture of data use and review through MPDSR and performance forums
- Demonstrated willingness by leadership to take corrective action and strengthen accountability

Top System Bottlenecks

- Shortage of specialized human resources and suboptimal workforce deployment, particularly in neonatal care
- Limited newborn critical care capacity, including absence of a functional NICU and uneven infrastructure across facilities
- Delays in emergency referral and transport, with inadequate ambulance capacity and coordination
- Unreliable oxygen supply due to a non-functional PSA plant and dependence on cylinders
- Gaps in follow-through on MPDSR recommendations, resulting in recurring system gaps.

Priority Actions

- Strengthen workforce capacity (neonatal, anaesthesia, critical care), including targeted training and improved deployment.
- Establish/operationalize NICU functions and expand KMC, cots and essential neonatal equipment (e.g., CPAP).
- Restore critical infrastructure (oxygen systems, theatres) and operationalize ICU/HDU through staffing and equipment alignment.
- Strengthen referral coordination and enforce protocols; expand BLS/ACLS ambulance capacity and dispatch reliability.
- Improve commodity security, laboratory turnaround times, and blood supply systems through better forecasting and procurement.

Introduction

The Council of Governors (CoG), in partnership with the Inter-County Maternal and Perinatal Death Surveillance and Response (MPDSR) team and with support from the Gates Foundation, undertook a technical support visit to Kilifi County as part of a broader inter-county learning and leadership strengthening initiative targeting high-burden Counties. The engagement focused on accelerating reductions in preventable maternal and newborn mortality through strengthened implementation of MPDSR and related health system interventions.

Unlike routine supervisory missions, this engagement was structured as a collaborative learning and problem-solving exercise, bringing together County leadership, the County Health Management Team (CHMT), Sub-County teams, and facility-based service providers. The objective was to jointly examine system performance, interrogate persistent bottlenecks, and identify practical, locally implementable solutions.

The Inter-County MPDSR team played a facilitative role, guiding structured discussions, supporting interpretation of mortality audit findings, and probing deeper system-level constraints affecting implementation of known interventions. Attention was given to understanding why, despite the availability of policies, guidelines, and previous recommendations, certain system challenges persist over time.

The findings presented in this report reflect a synthesis of technical observations and collective reflections from County and facility teams, with emphasis on system functionality, execution gaps, and leadership actions required to improve maternal and newborn health outcomes.

Purpose and Nature of Support Engagement

The support visit was designed as a peer learning and systems strengthening engagement with the following objectives:

- To engage Kilifi County leadership and health teams in structured reflection on maternal and newborn health outcomes
- To jointly identify systemic and operational bottlenecks affecting service delivery
- To strengthen implementation of MPDSR recommendations through guided review and reflection
- To enhance coordination between National and County Government, as well as facility teams
- To promote accountability, peer learning, and shared problem-solving across levels of care

A distinctive feature of this engagement was its emphasis on learning from system behaviour in practice, rather than simply validating compliance with expected standards. The approach prioritized understanding how and why system bottlenecks persist despite ongoing reforms and investments.

County Context and Situation Overview

Kilifi County continues to carry a significant burden of maternal, newborn, and perinatal mortality, reflecting both clinical and systemic challenges within service delivery.

In 2025, the County recorded 1,275 perinatal deaths, comprising 357 fresh stillbirths, 435 macerated stillbirths, and 483 neonatal deaths. The leading causes of neonatal mortality were birth asphyxia, prematurity, and neonatal sepsis.

During the same period, the County reported 48 maternal deaths, with a facility maternal mortality ratio of 112 per 100,000 live births. The leading causes of maternal mortality included postpartum haemorrhage, antepartum haemorrhage, and eclampsia.

While the County has previously demonstrated progress in reducing maternal mortality, the 2025 figures indicate a concerning reversal, underscoring the need for renewed focus on quality of care, system readiness, and effective implementation of MPDSR recommendations.

Key Insight: Importantly, discussions during the engagement consistently highlighted that many of the contributing factors are already well recognized within the system. This points to a critical insight: the primary constraint is not lack of knowledge or policy, but inconsistent implementation and weak system follow-through.

Approach and Methodology of Engagement

The engagement adopted a mixed-method, systems-oriented approach, combining technical assessment with facilitated dialogue and reflective learning.

Key components included:

- High-level engagement with County leadership, including H.E. the Governor and senior officials, to align priorities and strengthen accountability
- Facility visits and direct observation of service delivery environments
- Structured engagement sessions with the County Health Management Team (CHMT)

- Interactive discussions with facility-based clinical teams
- Review of MPDSR processes, findings, and implementation status of recommendations
- High-level dialogue with County leadership on system priorities and constraints
- Cross-facility peer learning sessions focusing on shared challenges and solutions

Key System Learnings from the Engagement

Thematic Area	Key Challenge / System Issue	Implications for Service Delivery	Priority Action / County Request
Human Resource Capacity and Workforce Deployment	Shortfall in specialized personnel, especially neonatal nurses, alongside gaps in dedicated staffing for newborn and paediatric units across facilities	Elevated workload pressure, constrained provision of specialized care, and reduced quality of maternal and newborn services	Strengthen recruitment, deployment, and retention of specialized staff; expand neonatal and critical care training; enhance access to specialist neonatal expertise, including consideration of a county neonatologist
Critical Care and Newborn Services	Absence of a county-level NICU, limiting provision of advanced neonatal care for critically ill newborns	Reduced capacity to manage complex neonatal cases, contributing to avoidable morbidity and mortality	Establish a fully functional county NICU with appropriate equipment, staffing, and specialist support
Newborn Infrastructure and Equipment	Uneven newborn care infrastructure across facilities, with Kilifi County Hospital as the only facility with a standard newborn unit, while Malindi and Mariakani operate from improvised spaces, and	Inconsistent quality of newborn care, congestion in high-volume facilities, and compromised provision of essential services such as Kangaroo Mother Care	Upgrade newborn care infrastructure in Malindi and Mariakani to standard NBU level; establish dedicated KMC spaces; expand availability of cots, incubators, and essential neonatal equipment

Thematic Area	Key Challenge / System Issue	Implications for Service Delivery	Priority Action / County Request
	Mariakani lacks dedicated KMC beds		
Emergency Referral and Transport Systems	Gaps in emergency referral readiness, including ambulances lacking ventilator support for transfer of unstable patients and continued reliance on informal transport in some cases	Delayed access to appropriate care for obstetric and neonatal emergencies, increasing the risk of preventable deaths	Strengthen ambulance readiness with appropriate transfer equipment; provide ACLS-capable ambulances; enforce referral protocols and early referral practices across all facilities
Oxygen Supply and Critical Infrastructure	Prolonged non-functionality of the county PSA oxygen plant (over two years), resulting in continued dependence on cylinder-based supply systems	Inconsistent oxygen availability affecting newborn, paediatric, and critical care outcomes	Restore or replace the PSA oxygen plant; strengthen maintenance systems; ensure reliable and sustainable oxygen supply across facilities
Theatre Functionality and Surgical Capacity	Reduced functionality of theatre services, with only one of four theatres operational at Kilifi County Hospital, alongside similar constraints at sub-county level	Delays in emergency and elective surgical interventions, including obstetric procedures, affecting timely care	Restore full functionality of existing theatres through provision of essential equipment, including anaesthesia machines; strengthen theatre readiness at sub-county level

Thematic Area	Key Challenge / System Issue	Implications for Service Delivery	Priority Action / County Request
ICU and HDU Capacity	Underutilization of existing ICU and HDU infrastructure due to operational, staffing, and equipment constraints	Limited capacity to manage critically ill maternal and newborn patients despite availability of infrastructure	Optimize use of ICU and HDU capacity by addressing staffing, equipment, and operational gaps
Commodity Security and Laboratory Systems	Recurrent supply constraints affecting essential medicines, including oxygen, carbetocin, caffeine citrate, and newborn consumables	Disruptions in emergency obstetric and newborn care and delays in critical clinical interventions	Strengthen commodity security systems to ensure consistent availability of essential drugs and consumables for maternal and newborn care
Clinical Governance and Quality of Care	Inconsistent adherence to clinical protocols, including suboptimal partograph utilization (approximately 56%), and limited consultant engagement in quality of care processes	Delayed identification of complications and suboptimal clinical decision-making during labour and delivery	Strengthen supervision and adherence to intrapartum care protocols; reinforce partograph use; enhance consultant engagement in clinical oversight and quality improvement
MPDSR Implementation and Accountability	Recurrent MPDSR findings with limited closure of action points, indicating gaps between review and	Reduced system learning and limited translation of audit findings into sustained improvements in care	Strengthen follow-through on MPDSR recommendations through structured response tracking, accountability mechanisms, and

Thematic Area	Key Challenge / System Issue	Implications for Service Delivery	Priority Action / County Request
	implementation of corrective actions		routine integration into performance management
Workforce Motivation and Service Environment	Sustained pressure on frontline staff, particularly in high-volume service areas, coupled with limited structured staff welfare and motivation mechanisms	Reduced staff morale, increased risk of burnout, and potential impact on quality and continuity of care	Introduce practical staff motivation and welfare measures, including support for frontline teams, to enhance morale, retention, and service delivery continuity
Critical Care and Newborn Services	Absence of a county-level NICU, limiting provision of advanced neonatal care for critically ill newborns	Reduced capacity to manage complex neonatal cases, contributing to avoidable morbidity and mortality	Establish a fully functional county NICU with appropriate equipment, staffing, and specialist support
Newborn Infrastructure and Equipment	Uneven newborn care infrastructure across facilities, with Kilifi County Hospital as the only facility with a standard newborn unit, while Malindi and Mariakani operate from improvised spaces, and	Inconsistent quality of newborn care, congestion in high-volume facilities, and compromised provision of essential services such as Kangaroo Mother Care	Upgrade newborn care infrastructure in Malindi and Mariakani to standard NBU level; establish dedicated KMC spaces; expand availability of cots, incubators, and essential neonatal equipment

Thematic Area	Key Challenge / System Issue	Implications for Service Delivery	Priority Action / County Request
	Mariakani lacks dedicated KMC beds		

SWOT Analysis

Strengths	Weaknesses
• Strong political leadership and commitment to improving maternal and newborn health outcomes following high-level engagement • Established MPDSR structures providing a foundation for audit, learning, and system improvement • Existing health infrastructure (facilities, referral systems, and service delivery points) that can be strengthened and optimized • Active partner support contributing to system strengthening, capacity building, and service delivery improvements • Availability of routine health data to inform planning, monitoring, and decision-making	• System-wide human resource constraints affecting service quality, particularly in specialized maternal and newborn care • Limited functional capacity of critical care services, reflecting gaps in infrastructure, equipment, and skilled personnel alignment • Inefficiencies in emergency response and referral systems, contributing to delays in accessing timely care • Weak supply chain reliability affecting availability of essential commodities, blood services, and laboratory support • Gaps in clinical governance, including inconsistent adherence to protocols, supervision, and quality assurance mechanisms • Limited institutionalization of accountability mechanisms, particularly in translating MPDSR findings into sustained system improvements

	• Suboptimal service readiness at facility level, including gaps in emergency preparedness and care processes
Opportunities	**Threats**
• Strong political goodwill and readiness to implement agreed priority actions and reforms • Continued partner support for infrastructure development, workforce strengthening, and health system improvements • National prioritization of maternal and newborn health through MPDSR and Rapid Results Initiatives • Opportunity to optimize existing infrastructure by aligning staffing, equipment, and service delivery functions • Potential to strengthen system accountability through routine performance management, CHMT engagement, and data use • Leverage community health systems to enhance early identification of risks, referrals, and demand for services	• Persistent implementation gaps that may limit the effectiveness of existing policies and planned interventions • High burden of maternal and newborn morbidity and mortality exerting sustained pressure on constrained systems • Workforce fatigue, burnout, and attrition affecting continuity and quality of care • Ongoing supply chain vulnerabilities disrupting availability of essential medicines, blood, and laboratory services • Delays in financing and resource allocation affecting timely implementation of priority actions • Geographic and access barriers that continue to hinder timely access to emergency care, particularly in hard-to-reach areas

Malindi Sub-County Hospital: Facility-Level Learning and System Insights

The visit to Malindi Sub-County Hospital provided important insight into how County-level system constraints manifest at the point of care. The engagement highlighted that while core services are in place, the reliability of support systems remains a key determinant of service quality and responsiveness.

Key operational challenges observed included:

- **Laboratory diagnostics disruptions:** Intermittent shortages of reagents have affected the continuity of laboratory services, leading to delays in critical investigations. This has, in some instances, impacted timely clinical decision-making, including delays in initiating surgical interventions for mothers requiring emergency care.
- **Inconsistent availability of theatre and maternity commodities:** Essential supplies for theatre and maternity services are not consistently available, requiring clinicians to adapt practice under constrained conditions. This highlights gaps in supply chain predictability and the need for stronger commodity security systems to support safe and standardized care.
- **Gaps in emergency preparedness within triage and receiving areas:** The receiving and triage areas were not consistently equipped with essential emergency supplies and equipment, limiting readiness to manage incoming emergencies effectively. This points to the need for structured systems to ensure continuous emergency preparedness, including routine checks and accountability mechanisms.
- **Weaknesses in labour monitoring and clinical supervision:** While labour monitoring protocols are well known, inconsistent application, especially among junior staff and students was noted. This reflects gaps in supervision, mentorship, and reinforcement of clinical standards, especially in high-pressure service delivery settings.

At the same time, the facility demonstrated areas of progress that present opportunities for improvement. Strengthened laboratory staffing has created the capacity for 24-hour service delivery, indicating that targeted operational adjustments can significantly improve service reliability.

Engagement with H.E. the Governor: Leadership Alignment and Commitments

A high-level engagement was held with H.E. the Governor to present key findings from the support visit, align on priority system constraints, and discuss strategic actions required to improve maternal and newborn health outcomes in the County.

Key Discussion Areas

The discussion highlighted several priority areas requiring focused attention:

- The need to expand newborn care capacity, particularly considering the burden of birth asphyxia and the current absence of a functional County NICU
- Gaps in maternal and newborn critical care services, including limited ICU and HDU functionality
- Persistent challenges in emergency referral systems, including delays and limited availability of adequately equipped ambulances
- Shortages in specialized human resources, particularly in neonatal, anaesthesia, and critical care services
- Inconsistencies in availability of essential commodities, laboratory services, and other critical support systems
- The importance of strengthening community awareness and promoting early health-seeking behaviour
- The broader need to ensure that facilities are not only operational, but fully functional, with aligned staffing, equipment, and systems

Agreed Resolutions

The following resolutions were agreed during the engagement with H.E. the Governor to address the identified system gaps and strengthen maternal and newborn health outcomes in the County:

- Ensure consistent availability of essential maternal and newborn commodities, including uterotonics such as Carbetocin, across all levels of care, and support procurement and use of uterine balloon tamponade devices, including exploration of locally manufactured options.
- Prioritize establishment of a functional County-level Neonatal Intensive Care Unit (NICU), alongside expansion of neonatal bed and cot capacity, strengthening of Kangaroo Mother Care (KMC) services, and improved availability of essential neonatal equipment, including CPAP machines.
- Expand and operationalize Intensive Care Unit (ICU) and High Dependency Unit (HDU) services for maternal and critical care at both County and Sub-County levels to improve management of critically ill patients.
- Strengthen human resource capacity through training and deployment of neonatal nurses, expansion of critical care nursing capacity, and prioritized

recruitment of anaesthesiologists and critical care specialists, including targeted recruitment at higher job groups.

- Strengthen emergency referral coordination and response systems, including provision and operationalization of functional Basic Life Support (BLS) and Advanced Cardiac Life Support (ACLS) ambulances to improve timely and safe transfer of critically ill patients.
- Ensure consistent availability of essential drugs, consumables, and laboratory services through strengthened supply chain management systems and adequate budget allocation to sustain critical inputs.
- Develop and implement a County-wide community sensitization strategy to promote early antenatal care attendance, strengthen health-seeking behaviour, and improve linkage between communities and maternal and newborn health services.
- Prioritize strengthening of overall system functionality by ensuring alignment between infrastructure, staffing, equipment, and operational systems so that health facilities are fully functional and able to deliver safe and responsive care.
- H.E. the Governor committed to direct engagement with frontline healthcare workers to better understand operational challenges and identify practical, context-specific solutions to improve service delivery.

Cross-Cutting System Insights

Across all thematic areas, four overarching system patterns were observed:

- A persistent implementation gap between policy and practice
- Fragmentation of services, with limited integration across levels of care
- Underutilization of existing infrastructure and service capacity
- Weak accountability and feedback loops, particularly in the implementation of MPDSR recommendations
- These patterns indicate that the primary constraint in Kilifi County is not the absence of interventions, but limited system coherence, inconsistent execution, and insufficiently enforced accountability mechanisms.

Consolidated Priority Areas for Action

Based on the engagement, the following strategic priority areas were identified:

- Strengthen workforce capacity, with emphasis on neonatal specialization, critical care skills, and optimal deployment across high-burden service areas
- Establish a functional NICU and upgrade newborn care infrastructure to ensure equitable access to quality services across facilities

- Restore and strengthen critical infrastructure systems, including oxygen supply, theatre functionality, and ICU/HDU operations
- Strengthen emergency referral systems through improved coordination, enforcement of referral protocols, and expansion of ACLS-capable ambulance capacity
- Improve commodity security and strengthen blood supply systems through enhanced forecasting, procurement, and coordinated service delivery approaches
- Strengthen clinical governance, including adherence to protocols, supervision, and labour monitoring practices
- Strengthen MPDSR accountability systems through structured tracking, enforcement, and closure of recommendations
- Improve staff welfare, motivation, and retention to support sustained service delivery performance

Recommendations

The following priority actions are proposed to address the key system bottlenecks identified during the engagement:

1. **Strengthen newborn and critical care capacity:** Establish a functional NICU at Kilifi County Referral Hospital and upgrade newborn care infrastructure in high-volume facilities such as Malindi and Mariakani.
2. **Address critical human resource gaps:** Recruit and deploy specialized staff, especially neonatal nurses and critical care personnel, and strengthen clinical supervision and specialist support.
3. **Improve emergency referral and transport systems:** Strengthen referral coordination, enforce referral protocols, and expand access to adequately equipped ambulances for timely emergency response.
4. **Ensure availability of essential commodities, oxygen, and laboratory services:** Strengthen supply chain systems, restore oxygen infrastructure, and ensure consistent availability of essential drugs, reagents, and blood for emergency care.
5. **Strengthen quality of care and clinical governance:** Enforce adherence to clinical protocols, including labour monitoring, and enhance consultant engagement in oversight and quality improvement.
6. **Enhance MPDSR implementation and accountability:** Strengthen tracking and closure of MPDSR recommendations and integrate them into routine performance management systems.

7. **Strengthen leadership coordination and system alignment:** Improve coordination across facilities and departments, and align infrastructure, staffing, and services to ensure functional service delivery.

Conclusion

The CoG and Inter-County MPDSR team engagement with Kilifi County highlights a health system that is structurally established but operationally constrained.

The key learning from the engagement is that maternal and newborn health outcomes are not limited by the absence of policies or interventions, but by gaps in consistency, coordination, and execution of existing systems.

Improving outcomes will therefore require a deliberate shift from problem identification to sustained execution, supported by stronger accountability mechanisms, better system integration, and reinforced leadership action across all levels of care.

Photo Gallery: Highlights from the County Support Engagement


















