COUNTY GOVERNMENT OF MURANG'A

Department of Health and Sanitation

MURANG'A COUNTY MATERNAL AND NEWBORN HEALTH (MNH) SITUATIONAL

FORWARD

This situational analysis provides a timely and necessary lens into the maternal and newborn health (MNH) landscape of Murang'a County, contextualizing its progress and persistent gaps in the journey toward Every Woman Every Newborn Everywhere (EWENE) and Sustainable Development Goal 3. Since the Kenya Demographic and Health Survey 2022, the county has demonstrated measurable gains, including improved skilled birth attendance, strengthened referral systems through ambulance networks, and expanded primary healthcare coverage under UHC. Strategic investments in community health systems, digitized reporting platforms, and maternal death surveillance and response (MPDSR) have further enhanced accountability and data-driven decision-making.

Despite these advances, inequities in access and quality of care, and gaps in the continuum of care, remain. Lessons learned underscore the need for precision in targeting high-burden populations, strengthening the capacity of the frontline workforce, and integrating respectful maternity care. Priority acceleration areas toward 2030 include: scaling quality improvement collaboratives in EmONC sites; optimizing real-time MNH data for rapid response; expanding family planning within the continuum of care; and deepening community engagement for co-production of health. Rapid Results Initiatives should focus on reducing perinatal mortality, eliminating preventable maternal deaths, and strengthening referral efficiency. This analysis thus provides a platform to enhance quality, amplify advocacy, and reinforce accountability to the communities served.

Dr Fredrick Kamondia Mbugua

County Executive Committee Member (CECM) for Health,

Murang'a County,

PREFACE

The situational analysis of maternal and newborn health (MNH) in Murang'a County is informed by emerging evidence and the imperative to accelerate progress toward improved health outcomes for women and newborns. The Kenya Demographic and Health Survey 2022 identified Murang'a among counties bearing a relatively high burden across key MNH performance indicators, necessitating renewed focus, targeted interventions, and strengthened accountability mechanisms.

In response, catalytic strides have been introduced through the Every Woman Every Newborn Everywhere (EWENE) agenda, translated into local action through strategic partnerships. We acknowledge support from the Gates Foundation and the OMMI coalition of policy actors, technical experts, and civil society organizations, established under the "Okoa Mama na Mtoto" Initiative, to advance advocacy and accountability in MNH.

During the inception meeting held in March 2026, stakeholders collectively identified the need for a baseline situational analysis to comprehensively understand the current MNH context, assess ongoing strategies, and identify critical gaps. This document is therefore envisioned as a foundational resource to guide strategic prioritization, inform adaptive programming, and accelerate progress toward Sustainable Development Goal 3. Ultimately, it aims to help bend the curve on maternal and newborn mortality, enhance women's productivity, and advance broader national development goals.

Prof Kihara Anne Beatrice

Women Engaged in Development,
Okoa Mama na Mtoto Initiative

Acknowledgements

- ICRHK and Gates Foundation

- The OMMI Partnership

ABBREVIATIONS

Abbreviation	Full Meaning
ANC	Antenatal Care
BEmONC	Basic Emergency Obstetric and Newborn Care
CARMMA	Campaign on Accelerated Reduction of Maternal Mortality in Africa
CEmONC	Comprehensive Emergency Obstetric and Newborn Care
CHMT	County Health Management Team
CHP	Community Health Promoter
CIDP	County Integrated Development Plan
CME	Continuing Medical Education
CPAP	Continuous Positive Airway Pressure
CPR	Contraceptive Prevalence Rate
CRVS	Civil Registration and Vital Statistics
CTG	Cardiotocography
DHIS2	District Health Information System 2
E-CHIS	Electronic Community Health Information System
EHR	Electronic Health Record
EmONC	Emergency Obstetric and Newborn Care
ENC	Essential Newborn Care
EWENE	Every Woman Every Newborn Everywhere
FIF	Facility Improvement Fund
FP	Family Planning
HDU	High Dependency Unit
HFD	Health Facility Delivery
HIE	Hypoxic-Ischemic Encephalopathy
HMIS	Health Management Information System
HRH	Human Resources for Health
ICU	Intensive Care Unit

IPC	Infection Prevention and Control
KDHS	Kenya Demographic and Health Survey
KMC	Kangaroo Mother Care
KNBS	Kenya National Bureau of Statistics
LBW	Low Birth Weight
$MgSO_4$	Magnesium Sulfate
MMR	Maternal Mortality Ratio
MNH	Maternal and Newborn Health
MoH	Ministry of Health
MPDSR	Maternal and Perinatal Death Surveillance and Response
MRI	Magnetic Resonance Imaging
NBU	Newborn Unit
NCD	Non-Communicable Disease
NHIF	National Health Insurance Fund
NMR	Neonatal Mortality Rate
OMMI	Okoa Mama na Mtoto Initiative
OPOCUS	Obstetric Point-of-Care Ultrasound
PCN	Primary Health Care Network
PHC	Primary Health Care
PNC	Postnatal Care
PROMPTS	(Digital Clinical Decision Support Platform)
QI	Quality Improvement
QoC	Quality of Care
RDS	Respiratory Distress Syndrome
RHIS	Routine Health Information System
RMNCAH	Reproductive, Maternal, Newborn, Child and Adolescent Health
SBA	Skilled Birth Attendance
SDG	Sustainable Development Goal

TFR	Total Fertility Rate
UHC	Universal Health Coverage
UNFPA	United Nations Population Fund
WHO	World Health Organization

Table of Contents

MURANG'A COUNTY MATERNAL AND NEWBORN HEALTH (MNH) SITUATIONAL ANALYSIS REPORT .... **Error! Bookmark not defined.**

FORWARD i

PREFACE ii

ABBREVIATIONS iii

EXECUTIVE SUMMARY x

BACKGROUND .... **Error! Bookmark not defined.**

1. Trends in Maternal and Neonatal Mortality in Murang'a County (Since 2022 to 2025 1

   1.1. Maternal Mortality Trends 1

   1.2. Neonatal Mortality Trends 1

MURANG'A COUNTY REFORMS ATTRIBUTABLE TO DECLINING MATERNAL AND NEONATAL MORTALITY TRENDS 16

2.1 Health Building Blocks 16

2.2 Developments Contributing to MNH 19

ACCELERATION PLANS TOWARD 2030 (SDG3/EWENE) 22

3.1 EWENE Acceleration Initiatives 22

3.2 Murang'a County Initiatives to Advance PHC/UHC 22

References 30

Table of Tables

Table 1 Comparison of national targets with Murang'a County KDHS and 2024/ 2025 key performance indicators 3
Table 2 Plausible causes for neonatal mortality 7
Table 3 Maternal deaths indicated by the ward and facility 17
Table 4 WHO Framework elements and Kenya application 14
Table 5 Comparison of the Murang'a County and national FP performance indicators, KDHS, 2022 31

List of Figures

Figure 1 Murang’a County NBU admissions against the total deliveries by month in 2025 4
Figure 2 Normal, managing complications and emergency care health service packages 6
Figure 3 Newborn unit admissions and related mortality per month in the year 2025 6
Figure 4 World Health Organization Quality of Care Framework 12
Figure 5 WHO’s 8 Standards for Improving MNH Quality 12
Figure 6 Acceleration plan strategic pillars 27
Figure 7 The centrality of family planning 29

EXECUTIVE SUMMARY

The situation analysis since 2022, the last KDHS shows that Murang'a County displays both progress and challenges in newborn and maternal health outcomes:

Neonatal mortality in *2022*, per DHS, was high (36/1,000), but facility data show a substantial decline by 2023 (8/1,000). Maternal mortality remains significantly above SDG3/EWENE targets, with varying county estimates (350/100,000), although this compares with national trends.

As of 2025, MNH performance indicators have improved dramatically since 2022. However, Murang'a has not yet attained EWENE/SDG3 benchmarks for maternal and neonatal mortality per DHS baselines and has notably low antenatal care uptake, with more macerated stillbirths than fresh stillbirths. Facility data indicate recent improvements, especially in neonatal outcomes.

The County reforms in digital health, financing, human resources, and MPDSR are plausible contributors to improved MNH outcomes and form a platform for further acceleration toward EWENE targets and milestones.

In Kenya, the acceleration towards EWENE targets and milestones commences with a clear articulation of the County situational analysis and related MNH trends to determine the context, priorities, and hotspots for implementing the acceleration plan and rapid results initiatives.

Trends in Maternal and Neonatal Mortality in Murang'a County (Since 2022 to 2025

1.1. Maternal Mortality Trends

- A county government document (Murang'a implementation plan) reported maternal mortality in the county at 350 per 100,000 live births, below the national average but still far above SDG targets (2030 SDG3.1: <70/100,000).
- There are no recent DHS-published county-specific MMR estimates post-2022, but national analysis (KHIS/MPDSR) indicates Kenya's institutional MMR was 99 per 100,000 live births in 2022.
    - *Interpretation:* Murang'a likely has reduced maternal deaths from earlier high levels, but still faces a persistent burden**.**

1.2. Neonatal Mortality Trends

- According to the *2022 KDHS county fact sheet*, **Murang'a had a neonatal mortality rate of *36 deaths per 1,000 live births*** — notably higher than the national KDHS rate of 21/1,000 live births reported for Kenya overall (2022).
- Preliminary **facility-based mortality tracking (2020–2023)** from county health records **shows a downward trend in neonatal and perinatal mortality**, with facility-based neonatal death rates declining from 25.9 per 1,000 live births in 2020 to 7.8 per 1,000 in 2023.
    - *This suggests substantial recent improvements at facility levels since the KDHS baseline.*

Table 1 below compares the Kenyan national targets by 2027 with the Murang'a data from KDHS 2022 and 2024/2025, showing that County key performance indicators are on a trajectory of improvement. The 2025 data for Murang'a County regarding the SDG and EWENE targets show the following: a maternal mortality rate of 141/100,000, just below the SDG upper limit. Neonatal mortality is below the EWENE target of 10.5 per 1,000 live births. Skilled birth attendance is at 96.2%, and health facility delivery is at 83.9%, both above the EWENE targets of 90% and 80%, respectively. The fourth antenatal visit stands at 58.3% is below the target of 90%. In postnatal care, 77.6% of mothers and 82.1% of neonates are seen within 48 hours.% indicates that the mothers are just below the target threshold, while the neonatal review exceeds the 80% threshold.

The data for Murang'a County regarding the SDG and EWENE targets show the following: a maternal mortality rate of 141/100,000, just below the SDG upper limit. Neonatal mortality is below the EWENE target of 10.5 per 1,000 live births. Skilled birth attendance is at 96.2%, and health facility delivery is at 83.9%, both above the EWENE targets of 90% and 80%, respectively. The fourth antenatal visit stands at 58.3% below the target of 90%. In postnatal care, 77.6% of mothers and 82.1% of neonates are seen within 48 hours. The mothers are just below the target threshold, while the neonatal review exceeds the 80% threshold.

The number of perinatal deaths totals 294, giving a perinatal mortality rate of 15.9/1000 live births. Notably, macerated stillbirths are 173, and fresh stillbirths are 121. Stillbirths are an indicator of the prenatal and intrapartum care, access to EmONC and quality of care delivered. This data reflects that more attention to prenatal attendance of mothers should be encouraged, quality of care,

identification of high-risk pregnancies, fetal surveillance with the employment of O- POCUS, CTG, and management is needed. Importantly, bereavement counseling and perinatal autopsy to determine the underlying pathology should be integrated into routine MPDSR.

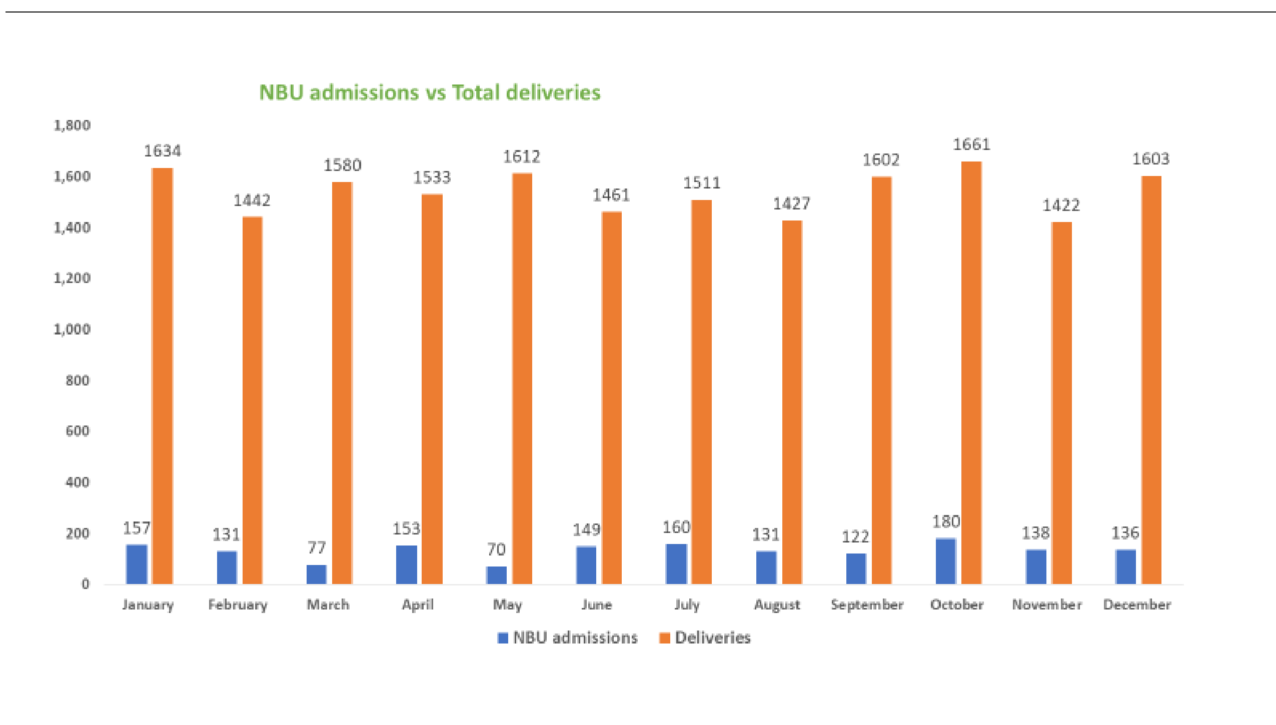
Table 1 Comparison of national targets with Murang'a County KDHS and 2024/ 2025 key performance indicators

EWENE Indicator	National Target (2027)	Murang'a Baseline (KDHS 2022)	Murang'a Current (2024/2025)
Maternal Mortality Ratio (per 100,000 live births)	≤140	_	141 (institutional)
Neonatal Mortality Rate (per 1,000 live births)	≤12	_	10.4
Stillbirth Rate (per 1,000 births)	≤12	_	15.9
Perinatal Deaths (total number)	—	_	294 stillbirths)
Skilled Birth Attendance	≥90%	96.20%	_
Health Facility Delivery	≥80%	83.90%	_

4+ Antenatal Care (ANC) Visits	90%	58.30%	_
Postnatal Care (within 48 hours) – Mother	≥80%	77.60%	_
Postnatal Care (within 48 hours) – Newborn	≥80%	82.1% (national)	_

Figure 1 below shows an average of 134 NBU admissions per month, with troughs in March and April at 4% of deliveries. The highest admission occurred in October, at 10% of total deliveries.

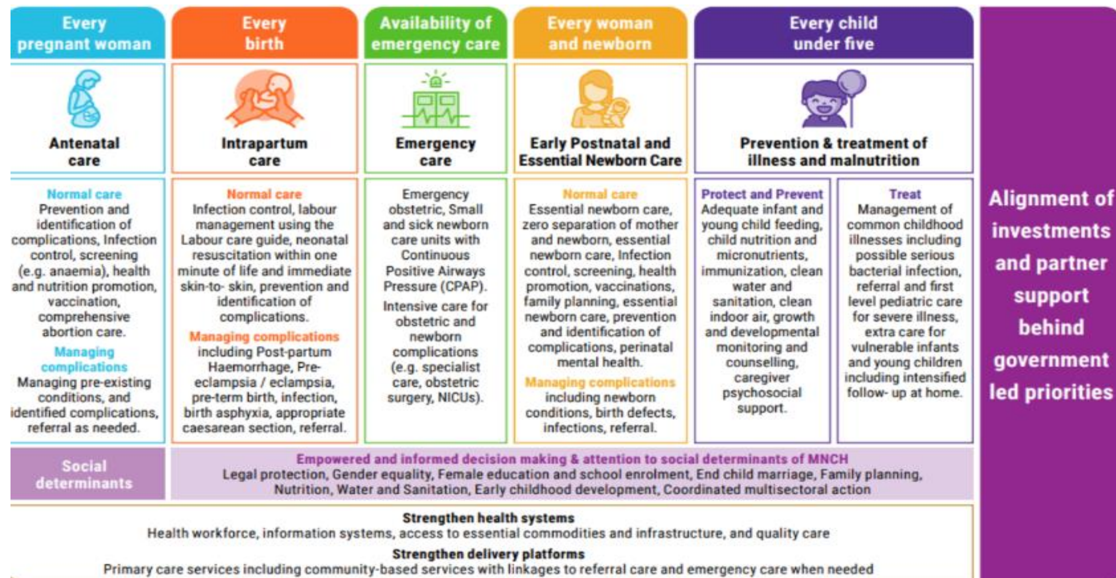
Figure 1 Murang'a County NBU admissions against the total deliveries by month in 2025



Important to retain the maternal -neonatal dyad during the admission of the newborn to gain an in-depth understanding of whether pregnancy was high-risk

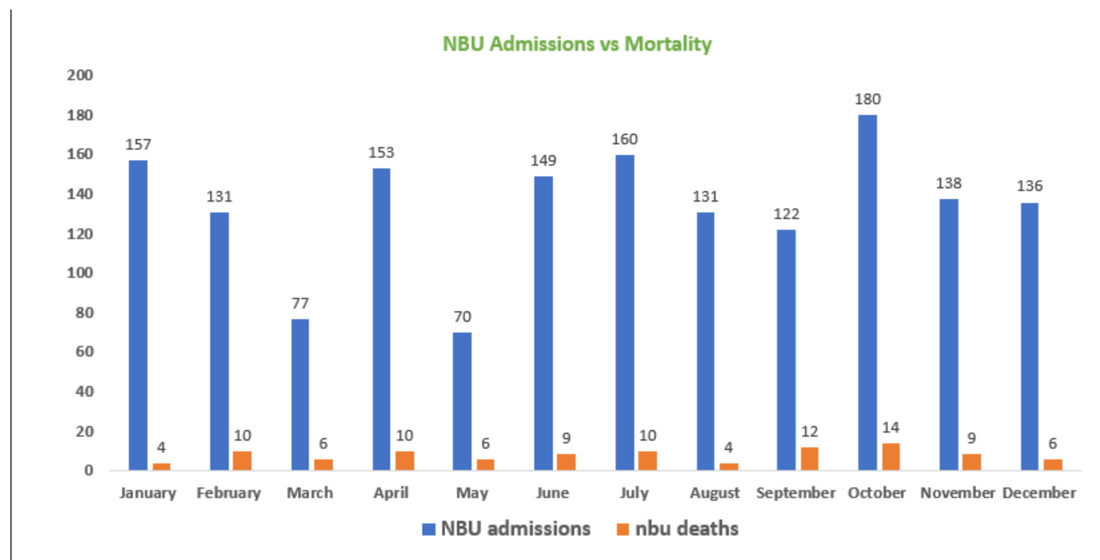
and culminated in the affected newborn. Often, the admissions result from Obstetric complications tracked utilizing the labor care guide, and with childbirth, the newborns are admitted due to direct causes such as birth asphyxia, prematurity, low birth weight, neonatal sepsis and congenital anomalies. These neonates are often addressed as small and sick, vulnerable neonates. Our recognition and access to emergency newborn care and/or functional referral into newborn units are crucial to their survival and thriving. Figure 2, shown below, illustrates the standard management of complications and the required emergency newborn health care packages.

Figure 2 Normal, managing complications and emergency care health service packages



The newborn mortality among NBU admissions, shown in Figure 3, exhibits month-to-month variation, with the lowest rate at 2.5% in January and the highest at 10% in September. In addressing neonatal mortality, we undertake MPDSR. Surveillance and response provide health care teams with an opportunity.

Figure 3 Newborn unit admissions and related mortality per month in the year 2025



Most neonatal deaths occur within the first 48 hours; the reasons are tabulated in Table 2 below. Important to have critical care units and competent personnel, or functional neonatal referral systems, to escalate care for the sick newborn in an appropriate and timely manner.

Table 2 Plausible causes for neonatal mortality

Category	Specific Causes	Key Contributing Factors (Health System & Clinical)
Intrapartum-related events (Birth asphyxia/hypoxia)	- Failure to initiate breathing at birth - Hypoxic-ischemic encephalopathy (HIE)	- Poor fetal monitoring (no partograph use) - Delayed recognition of fetal distress - Inadequate neonatal resuscitation skills - Lack of functional resuscitation equipment
Prematurity complications	- Respiratory Distress Syndrome (RDS) - Apnea of prematurity - Immature organ systems	- Inadequate antenatal corticosteroid use - Poor thermal care (hypothermia) - Limited access to CPAP/oxygen - Weak kangaroo mother care (KMC) implementation
Low Birth Weight (LBW)	- Complications of small size and poor physiological reserve	- Maternal malnutrition - Inadequate antenatal care - Poor feeding support immediately after birth
Neonatal infections (early-onset sepsis)	- Sepsis within 48 hours - Pneumonia - Meningitis (rare, early but possible)	- Prolonged rupture of membranes - Maternal infection (e.g., chorioamnionitis) - Poor infection prevention and control (IPC) - Unclean delivery practices
Birth trauma	- Intracranial hemorrhage - Physical injury during delivery	- Prolonged/obstructed labor - Inappropriate use of instruments - Lack of skilled birth attendance
Congenital anomalies	- Severe malformations incompatible with life (e.g., neural tube defects, cardiac anomalies)	- Limited antenatal screening - Lack of early diagnosis and referral systems
Failure of immediate newborn care	- Hypothermia - Hypoglycemia - Delayed initiation of breastfeeding	- Poor adherence to Essential Newborn Care (ENC) - Lack of skin-to-skin care - Delayed or absent feeding support

Maternal complications affecting the newborn	- Effects of maternal hemorrhage, eclampsia, or sepsis on the newborn	- Poor management of obstetric emergencies - Weak referral systems - Delays in accessing EmONC services
Health system delays (Three Delays model)	- Delay in seeking care - Delay in reaching care - Delay in receiving quality care	- Transport barriers - Inadequate staffing - Stock-outs of essential commodities - Weak triage and emergency response systems

The importance of conducting MPDSR cannot be underscored for maternal and neonatal mortality.

The benefits from undertaking MPDSR include:

1. MPDSR enables **systematic identification, notification, and review** of maternal and perinatal deaths, generating accurate data on:
    - Causes of death
    - Timing and location
    - Contributing clinical and non-clinical factors

2. **Identifies avoidable factors and health system gaps, targeting interventions to prevent death recurrence**
    - A central benefit is uncovering **modifiable (avoidable) factors**, including:
    - Delays in care (decision, access, treatment)
    - Health system weaknesses (referral, staffing, supplies)
    - Socio-cultural and community barriers

3. Drives continuous quality improvement (CQI), giving actionable lessons

- MPDSR operates as a **continuous surveillance–review–response cycle**, ensuring:
- Real-time learning from every death
- Implementation of corrective actions
- Monitoring of improvements

4. Strengthens accountability and a “no blame” culture, but for learning, improving participation, and system responsiveness

- Updated guidelines emphasize:
- Confidential, non-punitive review processes
- Multidisciplinary team engagement
- Institutional accountability for implementing recommendations

5. Enhances clinical decision-making, policy formulation and planning decisions

Aggregated MPDSR data:

- Informs national and subnational policies
- Guides resource allocation
- Supports prioritization of high-impact interventions

6. Strengthens health information systems, giving reliable national mortality statistics

MPDSR improves:

- Data quality and completeness
- Integration with Civil Registration and Vital Statistics (CRVS)
- Routine Health Information Systems (RHIS)

7. Improves maternal and newborn health outcomes, a proven intervention for mortality reduction

When effectively implemented, MPDSR:

- Reduces preventable maternal and neonatal deaths
- Improves access and quality of care
- Supports achievement of SDG 3 targets

8. Promotes coordinated multi-level and whole – system response

MPDSR ensures action at:

- Facility level (clinical practice changes)
- Community level (health-seeking behavior, delays)

- National level (policy and financing reforms)

9. Strengthens governance and leadership in MNH, giving stewardship

Updated national guidelines (e.g., Kenya 2024) highlight:

- Structured MPDSR committees at all levels
- Clear roles and accountability mechanisms
- Legal and ethical frameworks

Key Insight for MPDSR and the EWENE Context

- The **majority of these deaths are preventable** with:
    - Skilled birth attendance
    - Timely **Emergency Obstetric and Newborn Care (EmONC)**
    - Immediate **Essential Newborn Care (ENC)**

- MPDSR reviews consistently show that **failures in the first minutes to hours after birth** (the "golden hour") are critical determinants of survival.

In the conduct of MPDSR, it is important to address the ward and the facility of death occurrence as shown in Table 3 below. Identifying the specific ward and health facility where a maternal death occurs is critical for strengthening **facility-level accountability and quality improvement**. It enables precise mapping of delays, clinical decision points, and system failures—such as gaps in triage, staffing, emergency response, or referral pathways—thereby supporting targeted interventions within the exact point of care. This granular localization transforms maternal death reviews from general reporting into actionable quality improvement processes. Complementing this, community **verbal and social autopsies** provide essential insights into non-clinical determinants of death, including delays in care-seeking, socio-cultural barriers, gender dynamics, financial constraints, and health literacy gaps. Together, these approaches offer a comprehensive understanding of both the health system and community-level drivers of mortality. This integrated evidence strengthens Maternal and Perinatal Death Surveillance and Response (MPDSR), informs policy and program design, and enhances equity-focused interventions aimed at preventing avoidable maternal deaths.

Table 3 Maternal deaths indicated by the ward and facility

Subcounty	Ward	Facility	No of maternal deaths
Muranga south	Nginda	Maragwa Subcounty Hospital	6
	Kimorori/wempa	Santamore specialised surgical hospital (Private)	1
Kiharu	Township	Muranga County referral Hospital	13
Kahuro	Mugoiri	Muriranja Subcounty Hospital	1
Kandara	Ruchu	AIC Githumu Hospital(Private)	2
Mathioya	Kiru	Kiriaini Mission Hospital(Private)	3
Total			**26**

Figure 4 World Health Organization Quality of Care Framework

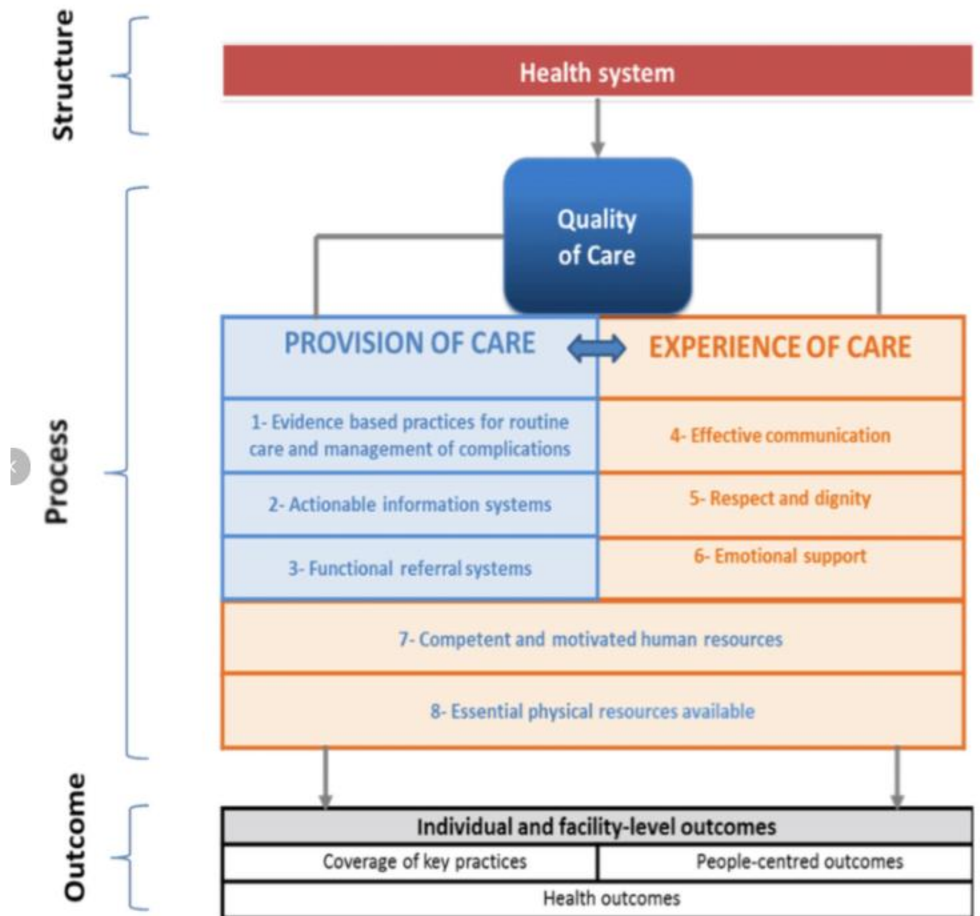


Figure 5 WHO's 8 Standards for Improving MNH Quality

1. **Evidence-based practices** for routine and emergency care
2. **Actionable information systems** (data for decision-making, audits, MPDSR)
3. **Functional referral systems**
4. **Effective communication with women and families**
5. **Respect and preservation of dignity** (respectful maternity care)
6. **Emotional support**
7. **Competent, motivated human resources**
8. **Essential physical resources available (infrastructure, drugs, equipment)**

2. Kenya Quality of Care Framework for MNH

Kenya's approach aligned with the WHO operationalizes quality through national health sector strategies and RMNCAH investment frameworks, emphasizing:

A. Standards and Norms

- Adoption of WHO QoC standards into national clinical guidelines (BEmONC/CEmONC)
- Integration of MPDSR as a core quality accountability mechanism
- Use of standard treatment protocols and clinical audits

B. Quality Domains Contextualized to Kenya

- Clinical effectiveness (adherence to protocols, EmONC readiness)
- Patient safety (infection prevention, safe surgery, medication safety)
- People-centred care (respectful maternity care, gender responsiveness)
- Timeliness and access (referral systems, ambulance networks)
- Efficiency (resource use, reducing delays)
- Equity (reaching marginalized and hard-to-reach populations)

C. Key Kenya Quality Improvement Pillars

- MPDSR & perinatal audits → learning and accountability
- Quality Improvement (QI) teams at the facility level

- Data use culture (DHIS2, digital health, dashboards)
- Supportive supervision and mentorship
- Capacity building (skills & drills, EmONC training)
- Community engagement and social accountability

D. Health System Enablers

- Strengthening referral systems and transport networks
- Availability of commodities (oxytocin, $MgSO_4$, antibiotics)
- Human resources for health (midwives, obstetricians, neonatal care staff)
- Integration of digital health and FemTech innovations (emerging priority)

Integrated WHO–Kenya Quality of Care Model

Table 4 WHO Framework elements and the Kenya application

WHO Framework Element	Kenya Application
Provision of care	EmONC services, clinical protocols, and audits. Have the 1st Basic Obstetric protocol and Paediatric protocol 5th edition, 2022
Experience of care	Respectful maternity care, gender-responsive services
Information systems	DHIS2, MPDSR, digital health platforms
Referral systems	Ambulance networks, tiered care system

Human resources	Workload to workforce ratio, Skilled birth attendance, mentorship
Physical resources	Facility readiness, commodities and technology
Continuous QI	Facility QI teams, national quality strategies

MURANG'A COUNTY REFORMS ATTRIBUTABLE TO DECLINING MATERNAL AND NEONATAL MORTALITY TRENDS

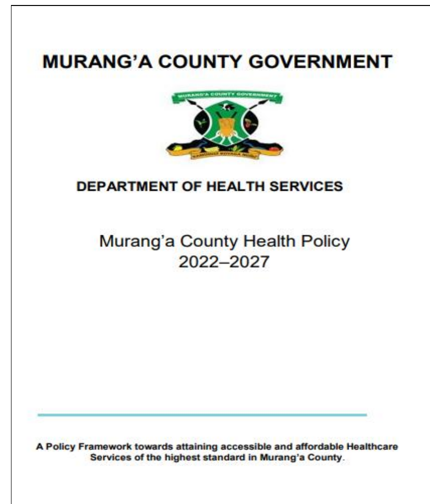
2.1 Health Building Blocks

Murang'a's reported **transformative reforms** based on the health building blocks. This was echoed at the Induction meeting with OMMI and the Minister of Health, Dr Fredrick K. Mbugua.

i. Leadership and governance

The CHMT, led by the Governor, leads from the front.

Examples include the Governor's policy direction in the County. His active engagement and participation in the digitization of the health sector and staff capacity building, where he personally attended every meeting during the transformation process, and the boost of being fully digitized and eco-friendly today.



Others include the Kangata Health Care model for the Murang'a citizenry, the health department's visibility on social media (Facebook), the weekly MPDSR meetings held every Wednesday, and the weekly CME held in the hospital boardroom. The Governor also takes a personal interest in being updated on service delivery. This includes integrating adolescent and youth health into MNH, strengthening primary health coverage through CHP, and overseeing CHP-led capacity training, all overseen by the Deputy County Director of Health.

ii. Health financing

In healthcare financing, the facility improvement fund (FIF) has been used to improve infrastructure and ensure the availability of essential commodities. Clear testimony includes the recently opened maternal-newborn unit and the development of a new emergency care unit. Expansion of the newborn unit and pediatric unit, admission of sick neonates, kangaroo care, HDU/ICU center, MRI center, OPOCUS, and CTG (1) found in the antenatal ward.

Under Governor Irungu Kang'ata's leadership, Murang'a County has transitioned from a system burdened by debt and facility stagnation to one defined by aggressive **health financing** and **infrastructure investment**. According to recent reports in the *Daily Nation*, the county's performance in the health financing pillar is characterized by a "triple-threat" strategy: massive capital expenditure, innovative social insurance, and digitized revenue protection https://share.google/TUO8V2ZgGtGGVxGgn.

Diaspora Africa Kenya Uganda Tanzania

DAILY NATION

NAIROBI METRO COAST MOUNTAIN LAKE REGION RIFT VALLEY NORTHERN

From debt to delivery: Murang'a's Irungu Kang'ata healthcare turnaround

Monday, May 04, 2026

iii. Human resources

On the human resources pillar, they face staffing constraints. Despite this, a robust team culture exists between leadership and staff, and they are genuinely motivated to improve the quality of care for their patients. Additionally, a National circular advising the government not to recruit HRH until 2030 is exacerbating the shortage of new staff. However, they are exploring the provision of LOCUMS and voluntary services to ease this constraint.

iv. Medical commodities and technologies

Regarding medical commodities and technologies, there are no drug shortages in Murang'a County. This includes access to FP Commodities, which has a costed implementation plan and robust MNH pillar coverage in its County Implementation Development Plan (CIDP). The county has a robust HMIS system overseen by the digital health champion Joseph Ndung'u. Other counties are coming to Murang'a to benchmark, and other partners are showing increased interest in this area.

2.2 Developments Contributing to MNH

Improved perinatal outcomes are being attributed to:

1. **Digitalisation & Data for Decision-Making**

- Health facilities in the county have implemented **digital triage and clinical decision support platforms** (e.g., PROMPTS), which have been credited with **reducing maternal and neonatal deaths** by improving early identification and referral of high-risk pregnancies.

2. **Health Financing Innovations**

- Although county health financing data is limited in peer-reviewed literature, Murang'a's health department has aggressively increased budgetary allocations to **maternal and newborn services and essential commodities**, reducing stock-outs and enabling a continuum of care.

3. **Human Resource for Health Strengthening**

   - The county has scaled up **training of frontline health workers**, mentorship, and skills development in Emergency Obstetric and Newborn Care (EmONC), which is a known driver of maternal and neonatal survival improvements.
   - SoP
   - MPDSR co- learning intra-county networks

- HrH motivation through a strong team culture from the leadership cascaded all the way to support and includes community- based staff
- Consideration for LOCUMS and volunteers, as there is a national embargo for recruitment

4. MPDSR & Quality Assurance

- Strengthened Maternal and Perinatal Death Surveillance and Response (MPDSR) processes in Kenya, including better reporting and review at county levels, are improving **accountability and targeted quality improvement actions** nationwide — likely benefiting Murang'a outcomes.

ACCELERATION PLANS TOWARD 2030 (SDG3/EWENE)

3.1 EWENE Acceleration Initiatives

Several initiatives have been undertaken within the country to accelerate progress towards the EWENE targets.

- **Quality of care strategies -** counties are aligning with **national quality improvement standards for maternal and small/sick newborn care**, embedded in Kenya's broader health plans for 2024-2027. These include equipped facilities, standardized care pathways, and improved referral systems.
- **Community and continuum of care -** scaling community health unit interventions, birth preparedness messaging, and strengthened referral networks are central to planned acceleration.
- **Further digital health expansion -** building on platforms like prompts, Murang'a, and other counties are aligning with national e-health strategies to leverage **real-time monitoring, predictive risk stratification, and decision support** across the maternal-newborn continuum.

3.2 Murang'a County Initiatives to Advance PHC/UHC

Murang'a County has emerged as one of Kenya's leading subnational examples of **advancing Primary Health Care (PHC) as the foundation for Universal Health Coverage (UHC)**. Its approach is notable for combining **community systems, financial protection, digital health, and service delivery reforms**.

Below is a structured, policy-relevant description aligned to PHC/UHC pillars:

A. Community Health Systems as the Backbone of PHC with early **detection of NCD's, referral of pregnant women and sick children and linkage from community to health facilities**

Murang'a has made significant investments in **community-level care**, which is central to PHC:

- Deployment of **over 2,000 Community Health Promoters (CHPs)**
- Household registration and follow-up using **Electronic Community Health Information System (E-CHIS)**
- Delivery of preventive and promotive services at household level

B. Pro-poor Health Financing and UHC Coverage

Murang'a is widely recognized for **innovative county-level health financing**:

- Partnership with the National Health Insurance Fund to cover **indigent households**
- Expansion from 20,000 to **over 38,000 vulnerable households**
- Comprehensive benefit package including:
    - Outpatient, inpatient, maternity
    - Emergency services, oncology, dialysis
    - **Provide Dental and optical services (rare at county level)**

Impact:

- Reduced out-of-pocket expenditure
- Increased access for informal sector and vulnerable groups
- Movement toward **financial risk protection**, a core UHC pillar

C. Primary Health Care Networks (PCNs) and Integrated Service Delivery

Murang'a is aligning with Kenya's PHC reforms through:

- Establishment of **Primary Health Care Networks (PCNs)**
    - Hub (Level 3/4 facility) + spoke (dispensaries, CHUs) model
- Coordinated referral systems across levels of care
- Integration of **preventive, promotive, and curative services**

Impact:

- Improved efficiency and continuity of care
- Reduced fragmentation of services
- Shift from episodic to **person-centered care**

D. Digital Health Transformation for PHC Efficiency

Murang'a is a **national leader in digital health at County level**:

- Transition from manual to **electronic health records (EHRs)**
- Digitized revenue collection (cashless, M-Pesa integration)
- Real-time dashboards for:
    - Patient flow
    - Drug stock monitoring
    - Facility performance

Impact:

- Reduced waiting times
- Improved accountability and resource management
- Data-driven decision-making for PHC planning

E. Health System Strengthening (Supply, Infrastructure, HRH)

The county is investing in **system readiness for PHC/UHC**:

- Upgrading health facilities (including ICU, specialized units)

- Expanding ambulance and referral services
- Strengthening supply chains for medicines and commodities
- Recruitment and capacity building of health workers

Impact:

- Improved service readiness at primary and referral levels
- Enhanced emergency and maternal-newborn care capacity

F. Preventive and Public Health Focus

Murang'a's PHC model emphasizes **disease prevention and health promotion**:

- Screening programs for NCDs
- Nutrition interventions for mothers and children
- HIV, malaria, and sanitation programs
- Alcohol control policies

Impact:

- Reduced disease burden
- Alignment with PHC shift from **curative to preventive care**

G. Policy and Governance Alignment

Murang'a's approach is anchored in:

- **Murang'a County Health Policy 2022–2027**
- Alignment with:
    i. Kenya Health Policy
    ii. UHC agenda
    iii. SDGs

Key governance features:

- Strong **county–national–partner collaboration**
- Use of data and policy frameworks to guide implementation
- Focus on **equity and inclusivity**
- Kangata care

H. Innovations and Leadership in UHC

Murang'a has been described as:

- A **pioneer county for UHC pilots in Kenya**
- A model for **county-driven insurance expansion**
- A leader in integrating **digital + community + financing reforms**

I. Persistent Challenges

Despite progress, key gaps remain:

- Human resource instability (e.g., UHC staff employment concerns)
- Financing sustainability
- Dependence on national transfers for scaling UHC

Nationally Kenya scheduled to launch an acceleration plan with the strategic pillars displayed in Figure 6 below. This is to be modified to the County context, priorities and further address their unique rapid result initiatives accelerating towards SDG 3.

Figure 6 Acceleration plan strategic pillars

"Family planning a health and wealth investment towards sustainable development." Table 5 below shows the family planning key performance indicators indicate that Murang'a County has similar total fertility similar to the national rate. All other performance indicators show Murang'a has favorable use of modern methods , lower unmet needs and demand satisfied compared to the national data. Family planning is often an underemphasized pillar within Every Woman Every Newborn Everywhere (EWENE) and safe motherhood, yet has central role in preventing unintended pregnancies and averting rapid repeat pregnancies. Its impact is maximized when integrated across the continuum of care—from pre-pregnancy counseling, where women and adolescents receive informed choice and fertility planning; through antenatal care, where birth spacing and postpartum family planning are discussed; to intrapartum and immediate postpartum periods, where timely provision of contraceptive methods can be initiated; and extending into postnatal and child health services. This continuity ensures sustained access, reduces missed opportunities, and improves maternal and newborn outcomes.

Table 5 Comparative of the Murang'a County and national FP performance indicators, KDHS, 2022

Indicator	Murang'a County	Kenya
Total fertility rate (number of children per woman)	3.5	3.4
Use of modern methods of FP (% of married women age 15-49)	67%	57%
Unmet need for FP1 (% of married women age 15-49)	5%	14%
Demand for FP satisfied by modern methods (% of married women age 15-49)	88%	75%

Beyond health, family planning is a powerful economic and development intervention, contributing to reduced healthcare costs, enhanced female participation in education and the workforce, and accelerated demographic dividends. Its cross-sectoral influence spans education, finance, gender equality, and environmental sustainability, positioning it as a cornerstone of sector-wide development strategies.

Figure 7 The centrality of family planning

References

1. Muthee R, et al. Trends in maternal mortality and stillbirths by county in health facility data, Kenya, 2011-2022. BMC Pregnancy Childbirth. 2025; DOI:10.1186/s12884-025-07726-6.

2. Kenya National Bureau of Statistics (KNBS). 2022 Kenya Demographic and Health Survey – Murang'a County Fact Sheet. Nairobi: KNBS; 2023.

3. World Health Organization. Maternal and perinatal death surveillance and response: materials to support implementation. Geneva: WHO; 2021. Available from: https://www.who.int/publications/i/item/9789240036666

4. World Health Organization. Strengthening legal and regulatory frameworks for maternal and perinatal death surveillance and response. Geneva: WHO; 2024.

5. Ministry of Health, Kenya. National guidelines for maternal and perinatal death surveillance and response. Nairobi: MoH; 2024.

6. World Health Organization. Time to respond: a report on the global implementation of maternal death surveillance and response. Geneva: WHO; 2023.

7. Kalter HD, et al. Social autopsy for maternal and child deaths: a comprehensive literature review to examine the concept and development of the method. Popul Health Metr. 2011;9:45.

8. Scott K, et al. Factors affecting implementation of maternal and perinatal death surveillance and response in low- and middle-income countries: a systematic review. BMJ Glob Health. 2020;5(4):e002161.

9. Ministry of Health, Kenya. 1st basic Obstetric protocols 2026. Nairobi: MoH; 2026. Available from: https://www.health.go.ke/sites/default/files/2026-02/Basic%20Obstetric%20Protocols%202026_shareable_DO%20NOT%20USE%20FOR%20PRINT.pdf

10. Ministry of Health, Kenya. Basic paediatric protocol. 5th ed. Nairobi: MoH; 2022. Available from: http://guidelines.health.go.ke/#/category/55/478/meta

11. Murang'a County Government. Murang'a County Multisectoral Food and Nutrition Security Plan. Murang'a: Murang'a County Government; 2023.

12. Amref Health Africa. Maternal and Newborn Health – Kenya. Amref.org; 2025.

13. Ministry of Health, Kenya. Kenya Health Sector MTEF 2024-2027. Nairobi: MoH; 2024.

14. Raymond JL, et al. Rapid Results Initiatives: Lessons from health improvement interventions. J Public Health Manag Pract. 2005;11(5):420–8.

15. Chansa C, et al. Zambian health systems sprint: effects of Rapid Results Initiatives on immunization coverage. Health Syst Reform. 2020;6(3):e1873076.

16. World Health Organization. Digital Health Report 2023. Geneva: WHO; 2023.

17. Patra S, et al. Leveraging digital platforms to improve maternal outcomes in India. BMC Pregnancy Childbirth. 2022;22:999.

18. Kruk ME, et al. High-quality health systems in the SDG era: resilient, integrated care. Lancet Glob Health. 2018;6(11):e1196–252.

19. Uwizeye G, et al. Continuous quality improvement and newborn survival in Rwanda. BMJ Glob Health. 2021;6(11):e007116.

20. Perry HB, et al. Community health workers at the dawn of a new era. Lancet. 2020;396:787–98.

21. Banteyerga H. Ethiopia's health extension program: achievements and lessons. Glob Health Sci Pract. 2022;10(1):e2100520.

22. Harris J, et al. Advocacy for maternal health financing: global lessons. Health Policy Plan. 2024;39(2):136–50.

23. African Union Commission. CARMMA: Strategic Framework for Maternal Mortality Reduction in Africa. Addis Ababa: AUC; 2019.

24. Yadav P, et al. Public–private partnerships in health: implementation and impact. Health Policy. 2021;125(7):865–73.

25. Nyaga RN, et al. Telemedicine support for maternal emergencies in Kenya. Int J Telemed Appl. 2023;2023:9863459.

26. Thaddeus S, et al. The three delays framework and maternal mortality. Lancet. 1994;364:909–19.

27. Dovlo D, et al. Improving referral care with transport vouchers in Ghana. Afr J Health Sci. 2020;33(3):456–65.

28. Kaphuka J, et al. Social and behaviour change communication in maternal health. Glob Health Promot. 2023;30(1):34–42.

29. Kazungu JS, Moturi AK, Kuhora S, Ouko J, Quaife M, Nonvignon J, et al. Examining inequalities in spatial access to National Health Insurance Fund contracted facilities in Kenya. Int J Equity Health. 2024;23:78.

30. Moses MW, Korir J, Zeng W, Musiega A, Oyasi J, Lu R, et al. Performance assessment of the county healthcare systems in Kenya: a mixed-methods analysis. BMJ Glob Health. 2021;6(6):e004707.

31. Njuguna J. The effect of a pilot universal health coverage program on hospital workload: a comparative study of two counties in Kenya. Dialogues Health. 2023;2:100100.

32. Barasa E, Kazungu J, Nguhiu P, Ravishankar N, et al. Examining the implementation experience of the Universal Health Coverage pilot in Kenya. Health Syst Reform. 2024;10(3):2418808.

33. Meme SM, Kawila C, Njoroge K. Health financing and management of health products and technologies in Kenya: a multi-county study. Preprint (Sciety Labs). 2025.

34. Okungu V, Chuma J, Mulupi S, McIntyre D. Extending coverage to informal sector populations in Kenya: design preferences and implications for financing policy. BMC Health Serv Res. 2018;18:13.

35. Owino R. Towards universal health coverage: an assessment of the healthcare system in Kenya between 2017–2020. Kabarak J Res Innov. 2021;11(3).

36. Kariuki RM, Rithaa GK, Oyugi E, et al. Uptake of partner notification services in HIV testing in selected health facilities in Gatanga Sub-County, Murang'a County, Kenya: a retrospective study. BMC Infect Dis. 2020;20:432.

37. Ministry of Health, Kenya. Kenya Health Policy 2014–2030. Nairobi: Government of Kenya; 2014.

38. Ministry of Health, Kenya. Primary Health Care Strategic Framework 2019–2024. Nairobi: Government of Kenya; 2019.

39. Ministry of Health, Kenya. Kenya Universal Health Coverage Policy 2020–2030. Nairobi: Government of Kenya; 2020.

40. World Health Organization. Primary health care on the road to universal health coverage: 2019 monitoring report. Geneva: WHO; 2019.

41. World Health Organization. Global Programme of Work 14 (2025–2028). Geneva: WHO; 2025.

42. Mwakatobe R, et al. Mass media campaigns and ANC attendance in Tanzania. BMC Public Health. 2022;22:245.

43. Gilson L, et al. Health policy and systems research: A governance analysis. Health Policy Plan. 2017;32(suppl_3):iii1–iii14.

44. Nzinga J, et al. Strengthening leadership and governance in health: A systematic evidence review. Health Syst Reform. 2018;4(3):213–25.

45. Bjorkman M, et al. Community scorecards and health outcomes: Global evidence. Lancet Glob Health. 2019;7(4):e396–405.

46. Doyle K, et al. Gender-transformative training and reproductive health outcomes. Health Educ Res. 2021;36(2):125–38.

47. Falade-Fatila O, et al. Male involvement and maternal health services utilisation. Afr J Reprod Health. 2020;24(1):7–18.

48. Hanson C, et al. Outreach services in reducing newborn inequities. BMC Public Health. 2020;20:1235.

49. Lassi ZS, et al. Community health education and MNH service utilisation. Reprod Health. 2020;17:114.

50. Wakefield MA, et al. Mass media campaigns for public health. Annu Rev Public Health. 2019;40:385–405.

51. Hulton LA, et al. Patient-centred care improves maternal service utilisation. BJOG. 2021;128(1):32–38.

52. Witter S, et al. Performance-based financing in reproductive health. Health Policy. 2021;125(7):865–73.

53. Bradley S, et al. Supportive supervision and health worker performance. Hum Resour Health. 2020;18:41.

54. Willis-Shattuck M, et al. Motivation and retention of health workers. Hum Resour Health. 2008;6:14.

55. Buchan J, et al. Health workforce retention evidence. Hum Resour Health. 2022;20:52.

56. Basu S, et al. Embedded implementation research in health programmes. BMJ Glob Health. 2018;3:e000837.

57. Agarwal S, et al. Innovation challenges in health. J Innov Health Inform. 2022;29(1):e2022005.

58. Kruk ME, et al. Learning networks in health systems. Health Aff (Millwood). 2016;35(11):1990–96.

59. World Health Organization. Family planning/contraception. Geneva: WHO; 2023.

60. World Health Organization. Programming strategies for postpartum family planning. Geneva: WHO; 2013.

61. Cleland J, Conde-Agudelo A, Peterson H, Ross J, Tsui A. Contraception and health. Lancet. 2012;380(9837):149–56.

62. Ahmed S, Li Q, Liu L, Tsui AO. Maternal deaths averted by contraceptive use: an analysis of 172 countries. Lancet. 2012;380(9837):111–25.

63. United Nations Population Fund. State of World Population Report. New York: UNFPA; 2022.