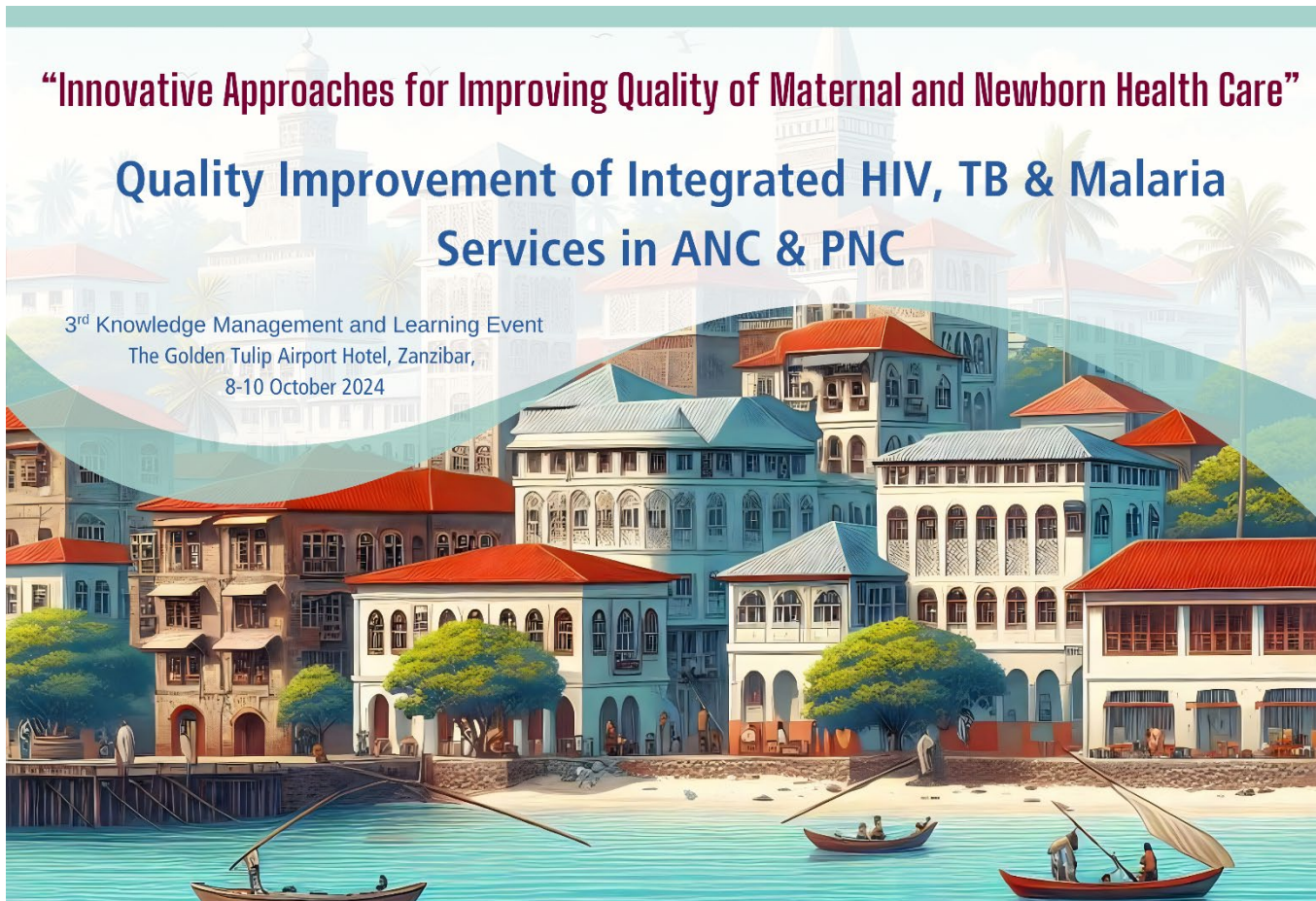


“Innovative Approaches for Improving Quality of Maternal and Newborn Health Care”

Quality Improvement of Integrated HIV, TB & Malaria Services in ANC & PNC

3rd Knowledge Management and Learning Event
The Golden Tulip Airport Hotel, Zanzibar,
8-10 October 2024



Knowledge Management and Learning Event Report 2024



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1. EVENT BACKGROUND AND OVERVIEW

The **Quality Improvement of Integrated HIV, TB & Malaria Services in Antenatal (ANC) and Postnatal Care (PNC)** programme is one of the Liverpool School of Tropical Medicine (LSTM) initiatives within the [Emergency Obstetric and Quality of Care Unit](#) portfolio of the International Public Health Department. Funded by Takeda's Global CSR Program through The Global Fund, this five-year initiative (2020-2024) aims to improve the availability and quality of integrated services for HIV, TB, and Malaria during ANC and PNC in Kenya, Nigeria, and Tanzania, thereby contributing to improved maternal and newborn health outcomes.

Annual Knowledge Management and Learning (KML) events were introduced under the programme in 2022. These events provide an opportunity to highlight programme results, share lessons learned across teams and key stakeholders in supported countries and plan for subsequent programme years. These events complement the continuous engagement of programme implementation teams at national and subnational levels with key maternal and newborn health (MNH) stakeholders led by the Ministries of Health (MoH).

The programme's first two KML events were held in September 2022 in Liverpool and September 2023 in Nairobi, respectively. The third and final KML event was held in Zanzibar from October 8 to 10, 2024 and hosted by the local implementing partner, the State University of Zanzibar.

KML 2024 Objectives

1. Share the results from research into quality improvement of integrated HIV, TB and Malaria services in ANC and PNC.
2. Disseminate best practices and lessons learned from programme implementation.
3. Facilitate cross-learning between research teams and implementing countries (south-south collaboration).
4. Hold policy dialogue on evidence-based MNH quality improvement capacity strengthening approaches and explore strategies to sustain promising interventions.

Stakeholder Groups and Participants

The success of the 3rd KML was made possible by the collective efforts and commitment of a diverse group of stakeholders. These stakeholders have played critical roles in driving the shared mission of improving maternal and newborn health outcomes across the region by facilitating knowledge exchange, sharing best practices, and demonstrating the impact of sustainable partnerships. The event hosted a total of 79 participants, including:

- Ministry of Health Representatives from Kenya, Tanzania mainland, Zanzibar, and Nigeria highlighting the critical role of national and subnational governments in shaping and implementing policies that directly impact maternal and child health



- Funding and implementation partners who have brought their expertise, resources, and commitment to improving health outcomes for women and children - Global Fund, Takeda, State University of Zanzibar (SUZA), University of Dodoma (UDOM), and LSTM (UK, Kenya, and Nigeria)
- Minister of Health and First Lady of Zanzibar as key leaders representing the host country
- Healthcare workers and service providers from Kenya, Tanzania mainland, Zanzibar, and Nigeria

2. KML 2024 SESSIONS AND KEY TAKEAWAYS

Session 1: Welcome, Introductions, Keynote, Recognition and Awards

The KML officially began with welcome messages from the host SUZA shared by the Dean of the Faculty of Medicine and Health Sciences, Dr Salma Abdi Mahmoud, and Vice Chancellor, Prof Mohamed Makame Haji. This was complemented by welcome remarks from the LSTM Programme Lead, Prof. Charles Ameh, emphasising the significance of the KML as a platform for exchanging knowledge, sharing best practices, and strengthening partnerships to improve maternal and newborn health.

Other key speakers, who set the tone for the KML and provided powerful insights into the challenges and opportunities in maternal and child health, further enriched the first session.

Joining the discussions virtually, Ms Rina Sakai, Operational Excellence Manager at Takeda Pharmaceuticals, highlighted Takeda's ongoing commitment to improving global health outcomes, particularly for African women and children, through partnership with The Global Fund. She emphasised that integrating HIV, TB, and Malaria into maternal and newborn services is essential to addressing health inequities, and she encouraged participants to collaborate and innovate as they shared knowledge and insights during the event.

Also joining virtually, Dr Nicholas Furtado from The Global Fund provided a message of support, reinforcing the importance of multi-stakeholder partnerships in advancing maternal and newborn health. He expressed the Fund's dedication to supporting initiatives that strengthen health systems and improve the quality of care, noting that integrating HIV, TB, and Malaria services is critical in achieving Universal Health Coverage. Dr Furtado underscored the role of the KML event in shaping future health strategies and urged all attendees to take the lessons learned back to their respective countries.

Zanzibar's Ministry of Health was represented by Hon. Nassor Ahmed Mazrui, the Minister of Health, who emphasised Zanzibar's focus on improving maternal and child health through collaborations with international and local stakeholders. The Ministry's efforts, particularly in addressing malnutrition and enhancing maternal care, were central to his remarks, underscoring the region's health priorities.



The highlight of the first session was a keynote address delivered by Her Excellency Mama Mariam Mwinyi, the First Lady of Zanzibar. The First Lady underscored her commitment to improving maternal and child health in Zanzibar. As the founder of the Zanzibar Maisha Bora Foundation, she emphasised the importance of tackling malnutrition, improving maternal nutrition, and ensuring access to quality health services for women and children. Her foundation's work aligns closely with the goals of the quality improvement programme, focusing on reducing stunting, improving reproductive health, and promoting socio-economic empowerment for women and children. The First Lady's address was a powerful reminder of the direct link between quality healthcare and society's well-being. Her leadership in Zanzibar's efforts to combat malnutrition and improve access to maternal care resonated deeply with all attendees. She emphasised the power partnerships to consolidate the gains of the project and maternal and newborn health targets of Zanzibar.

Awards and Recognition

The KML awards and recognition segment acknowledged the contributions of various stakeholders, including healthcare professionals, ministries of health, and partner organisations, in the quality improvement journey. Categories included Best Performing Trainer, Best Mentor, Best Performing Quality Improvement Impact Health Facility and Partnership and Collaboration. The awards were a tribute to the hard work and dedication of individuals and institutions striving to improve quality care in antenatal and postnatal services.



Top: Prof Charles Ameh (Program Lead); Her Excellency Mama Mariam Mwinyi, Salum Slim Takawal (MoH Zanzibar) & 1st Lady of Zanzibar. Bottom: KML participants; group photo with 1st Lady of Zanzibar.



2024 Award Recipients

Best Performing Trainer

- Peter Nandikove, Nursing-Midwifery Lecturer, Masinde Muliro University, Kenya
- Sylvia Kimtai, Nurse Midwife, Uasin Gishu County, Kenya
- Dr Olanlege Olayinka, Consultant Obstetrician/Gynaecologist, Oyo State, Nigeria
- Binta Mohammed, Nurse Midwife, Barau Dikko Teaching Hospital, Kaduna State, Nigeria
- Dr Maria Rweyemamu, Obstetrics and Gynaecology Lecturer, University of Dodoma, Tanzania
- Dr Ali Juma Hassan, Mnazi Mmoja Hospital, Zanzibar

Best Mentor

- Farhiya Ahmed, Nurse Midwife, Medina Health Centre, Garissa County, Kenya
- Janet Cheluget, Kapteldon Sub-County Hospital, Uasin Gishu County, Kenya
- Abodunrin Funmilayo Kemi, Nurse Midwife and Reproductive Health Coordinator, Oyo State, Nigeria
- Iliya Aishatu, Nurse Midwife, Katari Primary Health Centre, Kaduna State, Nigeria
- Loema Zakayo, Nurse Officer, Chemba District Hospital, Tanzania
- Rehema Abdalla Abeid, Nurse Officer, Chake District Hospital, Pemba, Zanzibar

Best QI Impact Health Facility

- Serem Health Centre, Vihiga County, Kenya
- Apete Primary Health Centre, Ido Local Government Health Authority, Oyo State, Nigeria
- Makole Health Centre, Tanzania
- Micheweni Hospital, Zanzibar

Partnership and Collaboration

- Department of Family Health, Ministry of Health, Kenya
- Federal Ministry of Health, Nigeria
- Primary Health Care Development Agency, Oyo State, Nigeria
- Primary Health Care Development Agency, Kaduna State, Nigeria
- Division of Reproductive, Maternal & Child Health, Tanzania
- University of Dodoma, Tanzania
- Integrated Reproductive & Child Health Centre (IRCHC), Zanzibar
- State University of Zanzibar

The participation of various stakeholders, from government ministries to international partners, emphasised the collective effort required to improve health outcomes. The awards ceremony celebrated the dedicated efforts of health professionals and institutions, underscoring the ongoing commitment to quality improvement in maternal and newborn care across the region.





Session 2: Country Ministry of Health Strategic Approaches

Session 2 of the KML event focused on the strategic approaches adopted by Ministries of Health in Tanzania, Kenya, and Nigeria to improve the quality of ANC and PNC services. This session highlighted key initiatives and actions taken by these countries to reduce maternal and child mortality, focusing on evidence-based strategies, integration of services, and addressing barriers to healthcare access. The session featured presentations from Dr Ahmad Makuwani (Tanzania), Dr Issak Bashir (Kenya), and Dr Henry Jumbo (Nigeria), who shared insights into the progress and challenges their countries face in improving maternal and child health outcomes.

1. Tanzania's Focus on Accountability and Data-Driven Approaches

Dr Ahmad Makuwani from Tanzania discussed the country's commitment to improving maternal and child health through robust data collection and accountability mechanisms. The introduction of a scorecard system to track key reproductive maternal health indicators has allowed Tanzania to monitor progress and hold stakeholders accountable.

Key Takeaway

The importance of data in guiding health policy and improving service delivery was a central theme. Tanzania's approach to maternal death surveillance and response was highlighted as an effective tool for improving accountability and quality of care. By making data transparent and regularly reviewing outcomes, Tanzania has created a culture of continuous improvement. The country has successfully reduced maternal and child mortality through consistent tracking of health outcomes and focusing on health equity, ensuring that services reach all women, regardless of income, education, or location.

2. Kenya's Focus on Quality of Care and Equity in Maternal Health

Dr Issak Bashir from Kenya shared the country's progress in improving access to healthcare through the Linda Mama Program, which provides free maternal health services. While Kenya has made significant strides in increasing access to antenatal care, the country faces challenges in reducing maternal and newborn mortality, particularly in rural areas.

Key Takeaway

Kenya's experience underscores the need for both access and quality of care. Despite near-universal ANC coverage (98%) and improved skilled birth attendance (88%), the country still faces high maternal and newborn mortality, particularly in remote, arid, and semi-arid areas. Dr Bashir highlighted the importance of improving the quality of care at health facilities, especially in underserved regions. He emphasised the government's efforts to harmonise quality care standards and train healthcare workers through mentorship, a shift from expensive residential training to more scalable in-service approaches.



3. Nigeria's Integrated Approach to Antenatal Care and Maternal Health

Dr Henry Jumbo, representing Dr Binyerem Ukaire of Nigeria's Ministry of Health, discussed Nigeria's focus on the integration of WHO's ANC model to improve maternal health outcomes. The country has implemented various strategies, including the introduction of group antenatal care in several states, aimed at improving the quality of ANC through peer support and better health education.

Key Takeaway

Nigeria's approach to ANC emphasises both the quantity and quality of care. While the country has made progress in ANC attendance (67%) and skilled birth attendance (43%), Dr Jumbo highlighted the ongoing challenge of improving facility-based delivery rates. The focus on integrating group ANC, mentorship for healthcare workers, and addressing the social determinants of health reflects Nigeria's commitment to improving maternal health outcomes. Dr Jumbo also discussed Nigeria's efforts to address maternal health disparities across rural and urban areas by focusing on quality improvements and strengthening healthcare infrastructure

4. Harmonising Health Systems and Data for Effective Policy Implementation

Across the presentations, the theme of harmonising national health systems and ensuring data integration was emphasised as a crucial step towards achieving sustainable improvements in maternal and child health. Both Kenya and Nigeria are focusing on digitising health data systems, while Tanzania's focus on data accountability has helped improve transparency in the healthcare system.

Key Takeaway

The harmonisation of health systems, including standardised quality care protocols and the integration of digital data systems, is vital for effective policy implementation and monitoring. These efforts enable ministries to track progress, allocate resources more efficiently, and identify areas that require additional support. A unified national health data platform, as seen in Nigeria, facilitates real-time reporting and more effective decision-making

5. Addressing Health Inequities and Social Determinants

All three presenters discussed the challenge of health inequities, particularly in remote and underserved areas. They emphasised the importance of not just increasing service access but ensuring that care is of high quality and is accessible to all women, regardless of their social or economic background.

Key Takeaway

To effectively reduce maternal and child mortality, it is essential to address both healthcare access and the social determinants of health. This includes improving education, infrastructure, and health services in marginalised areas, particularly in rural regions and urban slums. Additionally, focusing on inclusive health systems that provide services to vulnerable groups, such as



adolescents and the elderly, can help ensure that no one is left behind in the journey towards better maternal and child health outcomes.

Session 3: Identifying Bottlenecks to Quality ANC and PNC; Design and Introduction of QI Process at Health Facility Levels

Session 3 of the KML event focused on the programme's approach to introducing quality improvement processes at the health facility level to address critical aspects of ANC and PNC service delivery. The session explored the journey from baseline assessment to co-creating an innovative ANC and PNC capacity-strengthening initiative, emphasising the integration of HIV, TB, and Malaria services.

LSTM's Dr Uzochukwu Egere, Dr Alice Ladur, and Dr Fiona Dickinson shared presentations on developing and delivering training programs, using a standards-based audit approach to improving quality, and introducing innovative QI methods to enhance service delivery.

This session provided valuable insights into how these QI initiatives can be implemented at the health facility level, overcoming challenges to improve maternal and newborn health outcomes.

Session 3 Takeaways

1. Baseline Assessment for Targeted Quality Improvement

Dr Egere highlighted the importance of baseline assessments in designing and implementing QI initiatives. The programme's baseline assessments across Kenya, Nigeria, Tanzania, and Zanzibar were key to identifying gaps in infrastructure, supply availability, and the quality of ANC/PNC services. The assessments revealed that essential equipment, training opportunities, and an adequate health workforce were lacking in many facilities, particularly in remote areas, highlighting the need for targeted interventions to bridge these gaps and improve service delivery.

A key takeaway from this presentation was the need for ongoing engagement with stakeholders, especially government health systems, to ensure the success and sustainability of QI interventions. By understanding the local context, the programme was able to adapt and create a customised approach that addressed the specific needs of each country and facility, making it more effective in improving maternal and newborn health outcomes.

2. Co-Creation of the ANC and PNC Capacity Strengthening Program

Dr Ladur introduced the co-creation process of the innovative ANC and PNC capacity-strengthening initiative. This approach emphasised the collaborative effort between LSTM, country governments, and local partners to design a training program that would be both contextually relevant and effective. The program incorporated a blended learning format—combining self-directed learning (SDL), facilitated virtual sessions, and face-to-face training—to ensure that healthcare workers received comprehensive, accessible, and hands-on training.



A significant takeaway was the program's flexibility and scalability. The shift from traditional in-person training to a blended learning approach allowed for broader reach, enabling HCWs in different regions to access training without geographical barriers. This model is particularly valuable in low-resource settings where traditional training opportunities are limited. Moreover, mobile technology allowed learners to access materials offline, ensuring that the training was sustainable and could be continued even in areas with limited internet connectivity.

3. Role of Standards-Based Audits in Quality Improvement

Dr Dickinson focused on using standards-based audits for continuous quality improvement in ANC and PNC services. Standards-based audits are a crucial component of the QI process, allowing facilities to assess their performance against established standards, identify areas for improvement, and track progress over time. Health facilities can employ this method to implement a continuous evaluation, auditing, and improvement cycle.

The power of data-driven approaches in shaping effective QI interventions was emphasised. The standards-based audit approach provides a clear framework for evaluating the quality of care and encourages a culture of accountability and transparency within health facilities. Regular audits help ensure that interventions are making a tangible impact on healthcare practices and outcomes, leading to better maternal and newborn care.

4. Importance of Integrating HIV, TB, and Malaria Services

Throughout the session, the integration of HIV, TB, and Malaria services into ANC and PNC was emphasised in addressing the interconnected health challenges faced by pregnant women and newborns. The baseline assessments revealed variations in the availability of services, with HIV and Malaria services being more widely available in some countries than others. Integrating these services into routine maternal care ensures a comprehensive approach to health, addressing the multiple needs of women and children during pregnancy and the postnatal period.

The key takeaway here was the opportunity for cross-learning and integration. Combining these critical health services allows providers to streamline service delivery, reduce redundancies, and improve outcomes. Furthermore, integrating services presents opportunities for health system strengthening, particularly in resource-limited settings, where the need for more efficient and comprehensive care is most urgent.

5. Overcoming Challenges in Health Facility Training and Service Delivery

The session highlighted several challenges identified and addressed during programme implementation, including the availability of resources, infrastructure, and trained personnel in health facilities. The baseline study highlighted that mental health and respectful maternity care training were notably lacking across the facilities, which was anticipated to significantly affect the quality of care provided. Similarly, the availability of clinical guidelines and essential equipment was inconsistent across countries, with some regions facing shortages of vital diagnostic tools and medicines.



The three presentations and audience discussions highlighted that **training programs must be designed with a clear understanding of local limitations, and solutions must be tailored to address specific challenges**. This could include providing additional training on using technology (such as Zoom for virtual sessions), ensuring better infrastructure and resource allocation, and providing ongoing mentorship to reinforce learning and ensure that healthcare workers are supported in their practice.

Session 4: Programme Overview, Results, and Impact

Session 4 of the KML event focused on the country-specific approaches to implementing integrated HIV, TB, and Malaria services within ANC and PNC in Kenya, Nigeria, Tanzania, and Zanzibar.

Presented by the respective country leads, the session highlighted the progress made in integrating these essential services, successes and challenges, and the sustainability of these efforts. Each country presented unique methods of addressing the quality of care in ANC/PNC services, the achievements and impact measured through improved service delivery, and the lessons learned throughout the implementation process.

Session 4 Takeaways

1. Nigeria

Dr Hauwa Mohammed presented Nigeria's approach, which began in 2020 with a focus on Kaduna and Oyo states. Key to Nigeria's program was the baseline survey conducted in 2020, which identified deficiencies in equipment and service delivery for ANC and PNC. The survey findings informed the targeted intervention, which included capacity-building activities such as training over 800 healthcare workers in ANC/PNC and QI techniques complemented by the provision of essential medical equipment.

By conducting quarterly reviews and completing 146 audit cycles, the program improved health facility infrastructure, data management, and staff attitudes. Notably, the program increased awareness and improved communication with patients, ensuring that all women who underwent caesarean sections were informed about the procedure's implications for future pregnancies. ANC attendance also significantly improved, demonstrating effectiveness in increasing health service utilisation.

Challenges highlighted included staff shortages, frequent transfers of trained personnel, and inadequate infrastructure, all of which hindered continuity of care. However, Nigeria's focus on government ownership and ongoing mentorship was emphasised as crucial for ensuring sustainability and expanding reach.

2. Tanzania

Dr Leonard Katalambula shared insights into efforts in Dodoma since 2021. These included capacity building in ANC/PNC services and the integration of HIV, TB, and Malaria screening into



routine maternal care. Key results from Dodoma highlighted an increase in ANC and PNC service utilisation, particularly for first ANC visits and early PNC check-ups within 48 hours of delivery. The supply of essential equipment and consistent training and mentorship for health providers supported this.

A notable achievement in Tanzania was the improvement in the testing and screening of pregnant women for conditions like proteinuria, TB, and blood glucose, with significant increases in the number of women receiving these services compared to the baseline. Qualitative data confirmed that women accessing services at programme-supported facilities reported better quality of care, indicating the success of the integrated service model.

A significant challenge raised was related to the movement of providers between facilities, which disrupted service delivery. Nonetheless, the collaborative approach between UDOM, the Ministry of Health, and local health facilities, along with the integration of data collection systems, helped mitigate some of these issues and laid the foundation for sustainable improvements in maternal and newborn care.

3. Kenya

Dr Rael Mutai presented Kenya's approach, which commenced in 2021 across Vihiga, Uasin Gishu, and Garissa Counties. Kenya's interventions included baseline assessments, mentorship, and training, impacting over 350 health service providers, with an additional 46 mentors actively involved in capacity building.

By the end of July 2024, 92% of the supported health facilities had completed at least two standards-based audit cycles, with significant performance improvements. The proportion of health facilities meeting their targets increased to 57%, showing a 44% average improvement in performance across ANC attendance, first ANC visits within 12 weeks, and PNC coverage within 48 hours.

Kenya's experience underscored the importance of community engagement in boosting ANC/PNC uptake. The involvement of community health workers in mentorship and advocacy was critical in overcoming barriers to health access. However, challenges such as inadequate managerial support, the need for essential equipment, and staff shortages were identified as areas requiring attention to sustain the gains made.

4. Zanzibar

Dr Salma Abdi Mahmoud shared Zanzibar's experience from the baseline survey in 2022, which revealed critical gaps in service delivery. Quarterly monitoring through 2023 ensured that improvements were tracked and implemented.

Key achievements included increased ANC attendance and improved testing for HIV and malaria. The proportion of women receiving postnatal care within 48 hours increased significantly, and screening for TB and Malaria was enhanced. The data-driven approach and standards-based audits allowed timely interventions and more effective service delivery.



Challenges in Zanzibar included cultural beliefs affecting early ANC attendance and a human resources shortage in supported health facilities. The frequent reallocation of staff also disrupted service continuity. However, Zanzibar's approach to capacity building, regular monitoring, and a multidisciplinary team approach successfully improved maternal and newborn health services.

Session 5: Results of Evaluation and Implementation Research

Scientific Session 1: Systematic Review Findings from PhD Candidates

The first scientific segment of Session 5 of the KML event started with a systematic review of findings from three PhD candidates, each addressing critical aspects of maternal and newborn health care. The session provided valuable insights into the factors influencing the quality of ANC, the impact of mental health and domestic abuse on maternal well-being, and the effectiveness of different training approaches for health service providers.

Dr Maria Rweyemamu: Quality-Adjusted Coverage of ANC in Sub-Saharan Africa

Dr Rweyemamu shared insights into the definitions, measures, and factors affecting the quality of ANC in sub-Saharan Africa. The review highlighted significant variations in how quality is defined and measured across different studies, with some prioritising the content of ANC services. In contrast, others emphasised coverage and the intended health benefits of care.

One key conclusion from the review was that health outcomes (e.g., maternal, and neonatal health) are more accurate measures of the quality of ANC services than simply the coverage of service content. This underscores the need for a shift from focusing solely on service provision to assessing the actual health benefits experienced by pregnant women. The review also pointed out that quality of care is influenced by multiple factors, including health infrastructure, health worker skills and attitudes, and socio-economic factors like education and income.

To improve ANC quality, Dr Rweyemamu's findings recommended adopting a standardised set of indicators to measure quality, ensuring these indicators are aligned with women's health needs and the local disease burden. The review also advocated integrating a more holistic view of maternal health, considering women's experiences during ANC visits.

Umami-Rahmat Abubakar: Domestic Abuse and Mental Illness among Pregnant and Postpartum Women

Umami explored the prevalence and risk factors of domestic abuse and mental illness among pregnant and postpartum women in sub-Saharan Africa. The findings revealed high rates, with domestic abuse affecting 35.7% of women and mental illness affecting 26.0%.

A significant takeaway from the review was the strong correlation between intimate partner violence and the prevalence of mental health issues like perinatal depression and anxiety. Key risk factors for both domestic abuse and mental illness included lower educational levels, younger age, unplanned pregnancies, and lack of social support. This highlights the urgent need for



interventions that address these social determinants and integrate mental health support into ANC and PNC services.

The review established that addressing domestic abuse during pregnancy requires a multi-faceted approach, including educating both women and their partners, reducing alcohol misuse, and supporting women with unplanned pregnancies. Future research should focus on longitudinal studies to understand the long-term effects of domestic abuse and mental illness on maternal health outcomes, as well as assessing the effectiveness of current interventions.

Zainab Suleiman: Effectiveness of Blended Learning vs Face-to-Face Training for Healthcare Providers

Zainab assessed the effectiveness of blended learning versus traditional face-to-face training approaches for strengthening healthcare provider capacity. The review synthesised data from 23 studies, comparing the outcomes of both training methods regarding knowledge, skills, and clinical practice.

One of the key findings was that blended learning was as effective as face-to-face training in improving healthcare provider knowledge and skills, with a notable advantage in cost-effectiveness. While face-to-face training showed more direct interaction and engagement, blended learning allowed for broader scalability and cost savings, making it an appealing option for resource-constrained settings. Additionally, blended learning was associated with improved confidence and clinical practice, such as better handling of obstetric emergencies.

The findings revealed that blended learning is a viable and cost-effective solution for large-scale health provider training in LMICs, especially when logistical or financial constraints make face-to-face training challenging. However, Zainab emphasised that blended learning programs should include sufficient interactive elements for optimal effectiveness to ensure sustained engagement and knowledge retention.

Scientific Session 2: Programme Results

The second scientific segment presented programme results by comprehensively examining the effectiveness of QI training and other interventions. It focused on improvements in maternal and newborn health services, emphasising the integration of infectious disease testing and essential screenings.

Dr Ladur presented insights from a stakeholder perspective on developing and implementing the ANC-PNC blended learning course in Kenya, Nigeria, Tanzania, and Zanzibar. The study highlighted the benefits of involving stakeholders in developing and adapting training programs to suit local needs better.

The importance of real-time feedback and co-creation in refining the course and increasing engagement was emphasised. Stakeholders had noted that the adaptability of the blended learning model was crucial in overcoming technological barriers and ensuring broad participation. However, language barriers and technical issues, like poor connectivity, were also acknowledged.



Incorporating stakeholder feedback into the implementation helped enhance the course's relevance and effectiveness.

Dr Egere presented the programme's overall monitoring and evaluation results, highlighting key indicators such as ANC visits, PNC attendance, live birth rates, and the effectiveness of integrated HIV, TB, and Malaria services. The M&E framework focused on assessing progress toward key targets and providing actionable insights for decision-making.

The programme demonstrated improvements across key health indicators, with significant increases in ANC attendance in Kenya and Nigeria. The most significant improvement was in Nigeria, where ANC visits more than doubled the baseline figures. Additionally, PNC attendance within 48 hours post-delivery increased, with Kenya and Nigeria meeting their targets. Improvements in the quality of services, including essential screenings for conditions like anaemia and HIV, which were successfully integrated into the routine ANC process, were noted. However, regional variability was evident, with challenges such as inconsistent data reporting and a lack of resources at some facilities.

Dr Dickinson focused on the effectiveness of QI training in improving health worker skills and confidence, emphasising the integration of infectious disease screenings into routine ANC services.

The results demonstrated a significant improvement in knowledge, skills, and confidence among healthcare workers following the QI training, particularly in relation to HIV and Malaria testing. Notably, there was a 40% increase in compliance with ANC and PNC standards across the facilities, with a marked increase in HIV testing rates approaching 100% across all sites. The training also led to behaviour changes, with health workers more confident in performing screenings and providing high-quality care. However, challenges such as staff turnover and resource constraints remained, impacting the sustainability of the results.

Scientific Session 3: PhD Candidate Findings against Objectives

The third scientific segment featured presentations from the three PhD candidates who shared findings against their research objectives.

Dr Rweyemamu focused on the content of ANC services across sub-Saharan Africa, specifically assessing the coverage of WHO's 2016 ANC recommendations, revealing significant gaps in implementing these guidelines, with many countries struggling to provide comprehensive ANC services due to resource constraints. While countries like Ethiopia, Nigeria, and Kenya reported good coverage in essential areas such as blood pressure measurement and urine sample collection, many countries still fail to achieve high coverage for early ANC booking and the recommended number of ANC visits. The findings emphasised the need to standardise ANC service indicators and align them with the WHO model to enhance the quality and utilisation of ANC services. Investing in health infrastructure and community mobilisation was recommended to improve ANC access and service delivery.



Ummi explored the barriers and facilitators to implementing domestic abuse screening during ANC and PNC visits in Kenya and Tanzania through focus group discussions and key informant interviews to gather data from HCWs across programme-supported facilities. The findings revealed that cultural norms, fear of disclosure, and economic vulnerability were significant barriers to screening for domestic abuse. HCWs noted that women were often reluctant to discuss abuse due to fear of judgment or worsening their situation. However, screening facilitators included the use of tools like the mother-baby booklet and the incorporation of mental health assessments into routine ANC service delivery. Her research highlights the need for systemic improvements in healthcare settings, such as creating safe spaces and refining screening protocols to better address domestic abuse during pregnancy and postpartum.

Zainab's research compared the effectiveness of blended learning and face-to-face approaches for strengthening health worker capacity through a mixed-method design, including quantitative assessments and qualitative feedback, to evaluate changes in knowledge, skills, and behaviour among healthcare providers in Kenya, Tanzania, and Zanzibar.

The findings revealed that both training methods resulted in similar improvements in knowledge and skills, with healthcare providers reporting high satisfaction with both approaches. However, due to its flexibility and cost-effectiveness, the blended learning model showed promise in low-resource settings. While face-to-face training allowed for better hands-on practice, blended learning was more scalable and reached more health workers. The findings showed that blended learning could be an effective and sustainable method for scaling maternal and newborn health capacity-strengthening programs in resource-constrained settings.

Session 6: Lessons Learned, Sustaining and Amplifying Impact

Session 6 of the KML delved into critical areas for advancing maternal and newborn health through sustained interventions, effective institutional research, and innovative program design. Through three diverse panels, the discussions focused on scaling up health worker capacity, strengthening institutional research and project management, and designing future-proof programs to maximise health impact. With experts from Kenya, Tanzania, Nigeria, and Zanzibar, the session provided valuable insights into the challenges and strategies for building resilient health systems and improving service delivery in resource-constrained settings.

Panel 1: Sustaining and Scaling Up HCW Capacity Strengthening: Inservice, Pre-Service

Panel 1 discussions centred on the strategies and challenges in scaling up health worker capacity in East and West Africa. Panellists emphasised the significant strides made through in-service and pre-service capacity-building initiatives, with notable improvements in maternal and child health service delivery, particularly in areas like Garissa, Kenya.

Community ownership and engagement were highlighted as essential for ensuring sustainability. In regions like Garissa, Kenya, where training on emergency obstetric care significantly boosted health worker confidence and service quality, the importance of local buy-in was evident.



Community mobilisation was also emphasised as a key strategy to ensure ongoing support and long-term impact. However, panellists acknowledged that resource constraints continue to pose challenges, particularly in rural areas.

Blended learning models for HCW training were identified as cost-effective solutions for scaling capacity-building programs. Panellists also emphasised the need for continuous mentorship, embedding training within national policies, and addressing the migration of health workers through bilateral agreements. They agreed that aligning capacity-building efforts with national health priorities and engaging local communities are critical to sustaining progress.

[Read more details on this panel discussion](#)

Panel 2: Reflections on the Approach to Institutional Research and Project Management Capacity Strengthening

Panel 2 delved into strengthening institutional research and project management capacity and integrating research with policy to drive impactful health improvements. The discussion underscored the importance of equipping research institutions with the skills and resources needed to conduct high-quality research that can directly inform policy.

One key insight was the need for greater collaboration between researchers and policymakers to ensure that research outputs translate into actionable policy changes. One panellist emphasised that "effective research is only as good as its ability to influence policy," underscoring the importance of involving policymakers early in the research process. The capacity-building model used in the programme, which involved PhD students and local university teams, was a significant success, as it helped strengthen in-house research capabilities and the health system.

Panellists suggested improving data management and analysis skills among researchers and health professionals to enhance the quality and usefulness of research. Additionally, they advocated for more flexible funding mechanisms to cover all research-related expenses and ensure the sustainability of institutional research efforts. Stronger regional collaborations and transparent data practices were identified as key to achieving long-term health system improvements.

[Read more details on this panel discussion](#)

Panel 3: Future Programme Designs for Enhanced Impact

Panel 3 explored the future of maternal and newborn health programming, emphasising the scaling up of successful interventions, community engagement, and addressing systemic health challenges. Dr Mwajuma Gumbo from Tanzania and Dr Henry Jumbo from Nigeria shared their experiences in scaling interventions to improve maternal and newborn health outcomes, focusing on quality of care and community-level engagement.

The importance of pre-service and in-service training was a recurring theme. The panellists highlighted the need for training health workers in technical skills and respectful maternity care to ensure that the care provided is effective and compassionate. Dr Gumbo stressed that



“continuous education ensures that the skills and attitudes taught are retained and applied consistently,” emphasising the need for long-term capacity-building strategies.

Scaling high-impact interventions was a key takeaway, focusing on extending proven programs to underserved areas. The panel called for more flexible and locally tailored curricula in health education, ensuring that training reflects the specific health challenges of local communities. Community engagement, through male involvement and the use of health workers to generate demand for services, was identified as critical to addressing delays in care-seeking behaviour. The panellists also recommended aligning policies with practice, ensuring the latest research and best practices are rapidly incorporated into health systems.

[Read more details on this panel discussion](#)

3. CONCLUSIONS AND FUTURE OUTLOOK

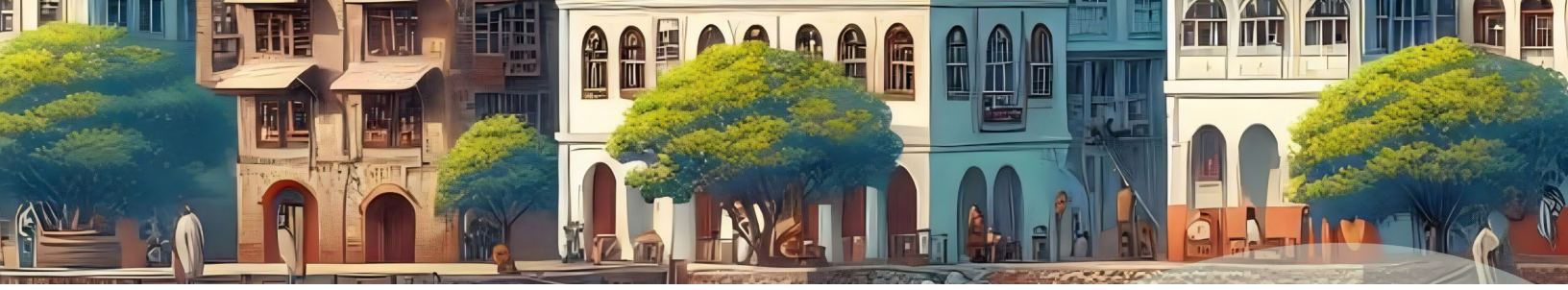
The three-day discussions and proceedings of the KML revealed that data-driven decision-making, community engagement, and the integration of essential services are crucial to improving service delivery and maternal health outcomes. While sustainability remains challenging, integrated maternal and child health interventions are well-positioned for long-term impact with government ownership, ongoing mentorship, and robust monitoring systems.

The research findings shared at the KML provided critical insights into the challenges and solutions for improving ANC/PNC services in LMICs. PhD candidate systematic reviews highlighted the need for comprehensive approaches that integrate quality care assessments, address mental health and social determinants, and leverage innovative training methods like blended learning. The findings also reinforced the importance of standardised metrics for evaluating the quality of care and the integration of mental health and domestic abuse services into routine maternal care. These insights are essential for shaping future interventions and ensuring that maternal health services are effective, accessible, and sustainable long-term.

The presentations and discussions highlighted the positive impact of quality improvement interventions on maternal and newborn health services, through blended learning training for health workers and the integration of infectious disease screenings. Programme results demonstrated measurable improvements in key health indicators such as ANC attendance, PNC follow-up, and the integration of HIV, TB, and malaria testing. However, challenges such as staff turnover, resource shortages, and technical issues must be addressed to ensure the sustainability and scalability of these improvements. Continuous stakeholder feedback, a robust monitoring and evaluation framework, and integrating evidence-based practices are essential to drive further improvements in maternal and newborn health outcomes.

Other key takeaways highlighted the importance of standardised service indicators and the need for culturally sensitive and systemically integrated approaches to addressing domestic abuse.

It is vital to scale health worker capacity, strengthen institutional research, and design innovative programmes that address immediate and long-term maternal and newborn health needs while



addressing community engagement, sustainable capacity-building efforts, and alignment between research, policy, and practice.

Future programmes can improve health service delivery by leveraging partnerships, strengthening pre-service and in-service training, and fostering local ownership. The KML discussions also emphasised the need for continuous adaptation and innovation in response to evolving health challenges, ensuring that maternal and newborn health programmes remain effective and sustainable.

4. ANNEXES

[KML 2024 Agenda](#)

[List of Participants](#)