

# Evaluation of ZimHealth's investment in upgrading Mabvuku Polyclinic Zimbabwe



## Evaluation Report

18 June 2024

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# EXECUTIVE SUMMARY

## Introduction

This impact evaluation assessed the contribution of the Zimbabwe Network for Health's (ZimHealth) investment in upgrading Mabvuku Clinic to provide Emergency Obstetric and Newborn Care (EmONC) in addition to the antenatal, delivery, postnatal, and childcare services already offered. The aim was to improve maternal health services delivery in Harare, Zimbabwe. The ex-post independent evaluation was conducted in April 2024 and examined the ZimHealth project implemented between January 2015 and December 2016.

## Methodology

The evaluation had two primary objectives. First, it aimed to assess the impact of ZimHealth's investment in maternal health services at Mabvuku Clinic. Second, it sought to provide lessons learned and recommendations for ZimHealth's future projects. The findings from this evaluation are intended to assist in future resource mobilization, enhance accountability, and identify best practices for upcoming projects.

The evaluation employed a multifaceted approach to gather comprehensive data. It began with a document review, followed by quantitative data analysis utilizing statistics from the District Health Information System (DHIS) and data from Mabvuku Clinic and its laboratory. Key informant interviews were conducted with policymakers from Harare City Council, and a meeting was held with senior Ministry of Health and Child Welfare policymakers to share the findings and obtain additional feedback. Additionally, semi-structured exit interviews with women attending antenatal care provided valuable insights into their experiences accessing maternal health care.

## Key Findings

<b>Evaluation criteria</b>	<b>Key findings</b>
Relevance	The intervention was highly relevant and strategic to the maternal health agenda of the Harare City Council and the Ministry of Health and Child Welfare.
Efficiency	The intervention was highly efficient in terms of project execution and delivery. It was completed in two years with an independent financial and project management team in place.
Effectiveness	<ul style="list-style-type: none"><li>• The intervention had a significant impact on the reduction in referrals to central hospitals, which was 40%, even though it did not meet the targeted 50% reduction.</li><li>• There was an average of 26% increase in bookings for deliveries and 52% decrease in unbookings.</li><li>• There was an average 30% increase in the number of women attending the second ANC visit and a 60% increase in the number of women attending all antenatal visits.</li><li>• Women appreciated the comprehensive services that allowed for integrated same-day testing and return of results, including the dual HIV and syphilis test.</li><li>• There was no significant impact of the Mabvuku upgrade at the impact level on maternal or neonatal mortality.</li></ul>
Sustainability & Scalability	There were several factors identified to ensure the sustainability of the intervention and enable its scalability. However, despite these efforts, there is a risk that these benefits may not be sustained due to several challenges identified.

## **Recommendations and policy implications**

Based on the lessons learned from this project, ZimHealth and the Harare City Council should consider the following recommendations for future interventions in primary care facilities across Zimbabwe:

1. Develop a clear and comprehensive implementation plan that includes adequate human resources, training programs, fit-for-purpose diagnostic tools, treatment pathways, supply chain management improvements and functional referral and follow-up mechanisms.
2. Establish a formal partnership or agreement between the Harare City Council (HCC) and the Ministry of Health and Child Care (MoHCC) to ensure a common understanding, manage expectations, and enhance coordination. This agreement should ensure commitment and closer linkages between services provided by both entities.
3. Allocate dedicated staff to operate and maintain specialized facilities like theatres, ensuring they function at optimal levels.
4. Install strong substantive leadership with a clear vision to oversee project implementation and ensure continuity. Leadership gaps, such as the absence of a matron, can result in operational challenges that affect service delivery and can lead to oversight of critical issues like maintenance of essential equipment such as BP machines.
5. Improve coordination and management of donor support to maximize impact and ensure sustainability. Establish partnerships with other local entities to leverage resources and enhance project sustainability beyond donor funding cycles.
6. Emphasize the generation and use of data to inform decision-making processes. Implement strategies based on empirical evidence and patient feedback to improve service delivery efficiencies and reduce waiting times.

## **Conclusion**

The ZimHealth intervention successfully expanded access to maternal health services and reduced referrals to central hospitals. Still, critical gaps remain in emergency obstetric care and maintaining service quality at Mabvuku Clinic. These challenges underscore the urgent necessity for a comprehensive approach to health system strengthening. Addressing issues such as staffing shortages, leadership capacity, ensuring sustainable financing, and securing reliable medical supplies are essential for delivering integrated and high-quality healthcare services. Mabvuku Polyclinic serves as a poignant example highlighting that a resilient health system requires not only robust infrastructure but also a well-equipped workforce, consistent supply chain, and efficient service delivery to serve its community effectively.

# 1. INTRODUCTION

This impact evaluation assesses the contribution of the Zimbabwe Network for Health's (ZimHealth) investment in upgrading Mabvuku Clinic to provide Emergency Obstetric and Newborn Care (EmONC) in addition to the antenatal, delivery, postnatal, and childcare services already provided and thereby improving maternal health services delivery in Harare, Zimbabwe. The ex-post independent evaluation was conducted in April 2024, and it examines the ZimHealth project implemented between January 2015 and December 2016.

## 2. BACKGROUND

### 2.1 ZIMHEALTH

The Zimbabwe Network for Health (ZimHealth) is a non-governmental, non-profit association registered in Geneva, Switzerland, and established by Zimbabweans living in Europe to mobilize financial, material, and human resources to support health services in Zimbabwe. It has three key objectives:

1. Inform, educate, and communicate the status and needs of the Zimbabwe public health delivery system to all Zimbabweans in Switzerland and the rest of Europe, as well as to the European public.
2. Raise funds and other support from individuals, private corporations, and international, multilateral, and bilateral agencies in Switzerland and the rest of Europe.
3. Distribute equitably funds and materials to health services in all provinces and districts of Zimbabwe, as far as resources allow.

### 2.2 ZIMBABWE'S HEALTH SYSTEM

Zimbabwe's health service delivery system is organized into primary, secondary, tertiary, and quaternary levels. Primary Health Care (PHC) forms the core of healthcare provision, encompassing a wide array of services such as maternal and child health, nutrition and food production education, immunizations, disease control, water and sanitation, essential drugs, and basic curative and preventive care. Integration of health services is a key feature at all levels of delivery, ensuring comprehensive access to services, including maternal and child health and family planning.

The public sector, primarily overseen by the Ministry of Health and Child Care (MoHCC), plays a pivotal role in delivering healthcare across both rural and urban areas. The private sector supplements public service delivery, comprising for-profit entities such as industrial clinics, private hospitals, and general practitioners, as well as not-for-profit organizations like mission clinics, hospitals, and NGOs. Zimbabwe is divided into ten provinces, with Harare and Bulawayo, designated as cities with provincial status. In Harare, healthcare services are structured into primary healthcare centers managed by the Harare City Council (HCC), while tertiary and quaternary care facilities fall under the jurisdiction of the MoHCC.

Mabvuku Polyclinic operates under the HCC and was the focal point of the partnership with ZimHealth for the project evaluated in this study.

### **2.3. STATE OF MATERNAL HEALTH IN ZIMBABWE**

Zimbabwe has witnessed some progress in maternal health indicators, with maternal mortality declining from 570 per 100,000 live births in 2010 to 363 per 100,000 live births in 2015. Despite the improvement, maternal mortality remains high, indicating that further improvements are crucial. Improving access to quality maternal health services, particularly for vulnerable and marginalized women, and addressing barriers to achieving 'adequate' antenatal care services are imperative for sustained progress. Between 2010 and 2015, Zimbabwe's under-5 mortality rate was 69 deaths per 1,000 live births, and the infant mortality rate in 2015 was 50 deaths per 1,000 live births, meaning about one in 15 children dies before their fifth birthday, with 70% of these deaths occurring during infancy. The neonatal mortality rate was 29 deaths per 1,000 live births, indicating that about 40% of childhood deaths happened in the first month of life.<sup>1</sup>.

Healthcare services during pregnancy and childbirth significantly influence maternal and infant survival. While 94% of Zimbabwean women attend at least one antenatal care visit, only 76% receive 'adequate' care, defined as attending at least four prenatal visits (4). Among those receiving antenatal care, nearly all had essential health checks like blood samples (98%) and blood pressure measurements (97%), while fewer received urine tests (68%) and intestinal parasite drugs (3%). About 83% of recent mothers took iron supplements, which are crucial for maternal health. Seventy-seven percent of births occurred in healthcare facilities, emphasizing institutional delivery's importance. Notably, 6% of births were delivered by Caesarean section (c-section), a critical intervention to reduce maternal and neonatal mortality and manage obstetric complications like fistulas. However, unnecessary C-sections pose risks, and the WHO recommends them only when medically necessary. The 2015 Zimbabwe Demographic and Health Survey reported a 6% c-section rate, within the WHO-recommended threshold for optimal health outcomes.

### **2.4 MABVUKU POLYCLINIC**

Mabvuku Polyclinic, situated 22 km from Harare's city centre in the Eastern District, serves as the sole healthcare facility for approximately 500,000 residents. Its catchment area encompasses Mabvuku, Tafara, Greendale, Eastlea, Msasa, Ruwa, and newer areas like Caledonia and Bobo Farms, which were outside its planned scope, thereby increasing its workload. As of 2015, the polyclinic operated with 35 maternity beds and conducted approximately 300 antenatal consultations and 250 deliveries monthly. However, due to its limited capacity for managing complications, many complex cases were referred to Harare Central Hospital, leading to a significant number of women bypassing Mabvuku Polyclinic's maternity services in favour of direct access to higher-level care. In 2013, Harare's clinics collectively recorded 25,825 deliveries, with 12,459 cases transferred to Central Hospitals, of which 17.3% (2,161) were un-booked, representing a notable risk factor.

### **2.5 Objectives of the ZimHealth Intervention**

To address these challenges and improve care, Mabvuku Polyclinic underwent expansion with the approval of the HCC and the MoHCC. The expansion project included the construction and equipping of a maternity theatre and a neonatal unit aimed at establishing the facility as a centre of excellence for Emergency Obstetric and Newborn Care (EmONC). This initiative complemented the existing antenatal, delivery, postnatal, and childcare services provided. The HCC, in collaboration with ZimHealth, approved the construction of a new wing at Mabvuku Polyclinic, dedicated to Dr. Daniel Makuto, a former

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<sup>1</sup> Zimbabwe Demographic and Health Survey 2015 <https://dhsprogram.com/pubs/pdf/FR322/FR322.pdf>

Secretary for Health in Zimbabwe who passed away in 2010. The project's objectives were twofold: to create a centre of excellence for the provision of maternal and neonatal services in Harare's high-density suburb by extending and upgrading existing facilities, thereby improving access and quality, and to assist in decongesting the central health facilities in Harare by decentralizing critical health services.

To support this project, ZimHealth and HCC mobilized resources from various sources (Table 1). ZimHealth leveraged its strategic position to secure grant financing from organizations such as the Elma Foundation, Higher Life Foundation, Oak Foundation, and Mabvuku/Tafara Trust.

*Table 1: Organisations that contributed to the upgrade of Mabvuku Clinic*

Benefactor	Contribution
Harare City Council	US\$ 400,000
ELMA Foundation	US\$ 300,000
Higher Life Foundation	US\$ 100,000
Mabvuku/Tafara Trust	US\$ 50,000
Oak Foundation	US\$ 30,000
Ministry of Health (equipment)	US\$ 100,000
ZimHealth (fundraiser/members)	US\$ 70,000
TOTAL	US\$1,050,000

### 3 EVALUATION APPROACH AND METHODOLOGY

#### 3.1 OBJECTIVES OF THE EVALUATION

This ex-post evaluation aims to understand and measure the impact of ZimHealth's investment in upgrading Mabvuku Clinic for maternal health, eight years after its completion. This will help with future resource mobilization, accountability, and the identification of best practices for future projects.

The evaluation objectives are to:

- Assess the impact of ZimHealth's investment in maternal health services at Mabvuku Clinic.
- Provide lessons learned and recommendations for ZimHealth's future projects.

The evaluation followed the OECD evaluation criteria, which are framed across six criteria: relevance, coherence, efficiency, effectiveness, sustainability, and impact. Additionally, scalability was included as an important criterion to assess how the lessons learned could inform the scale-up and replication of the model.



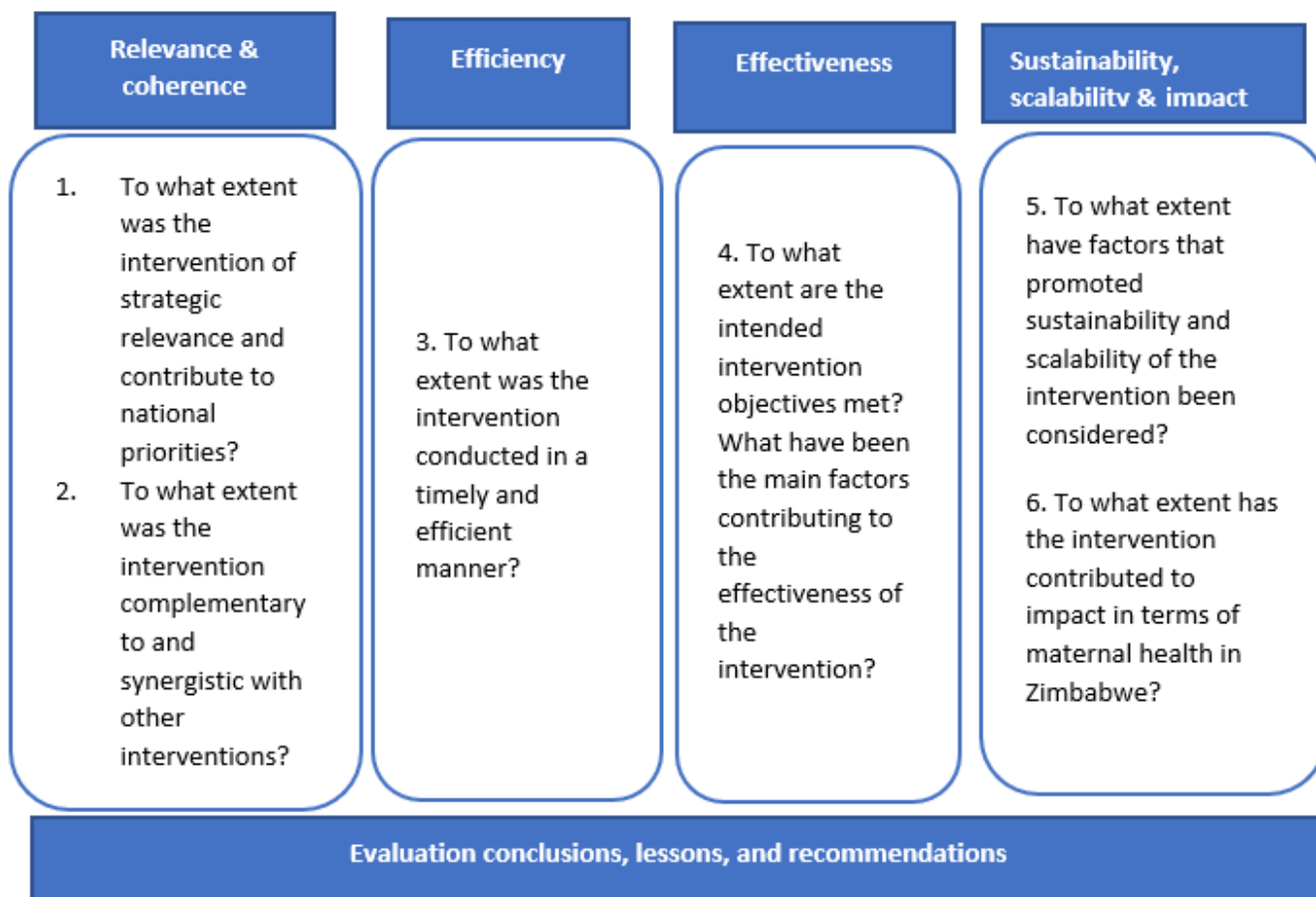


Figure 1: Key evaluation questions across the OECD criteria

### 3.2 DATA COLLECTION METHODS

The evaluation utilized four main data collection methods:

#### 1. Document Review:

- Conducted a rapid review of project plans, ZimHealth documentation, such as Strategy related documents and review of information on the website.
- Reviewed documents from key stakeholders, including the Ministry of Health and publications on Mabvuku and maternal health in Zimbabwe.

#### 2. Quantitative Data Analysis:

- Analyzed statistics from the District Health Information System (DHIS) for Mabvuku.
- Reviewed data from the Mabvuku clinic and its laboratory.

#### 3. Key Informant Interviews:

- Conducted semi-structured interviews with policymakers at HCC, including the Health Services Manager, Chief Epidemiologist, Chief Nursing Officer, and District Medical Officer.
- Collected feedback from Ministry of Health policymakers during a presentation session with the Minister of Health, Permanent Secretary, Director of Strategy and Policy, Director of Preventive Health, Director of Laboratory Services, and other senior officials as part of a side event/meeting during the World Health Assembly in Geneva 2024.

- Interviewed seven healthcare workers at Mabvuku clinic, including medical laboratory scientists, primary healthcare counselors, midwives, the District Nursing Officer, and the Acting Matron.

#### 4. Exit Interviews:

- Conducted semi-structured interviews with twenty-two women attending antenatal care to understand their experiences

### 3.3 LIMITATIONS

The key limitations of the evaluation include staff turnover and recall bias. Given the time elapsed since the project ended and the movement of staff (both project staff and government counterparts due to turnover and re-postings), it was not always possible to speak to the most relevant stakeholders. Additionally, the gap between the end of the project and the evaluation may have led to recall bias, with some details of the intervention potentially being forgotten.

## 4 EVALUATION FINDINGS

### 4.1 RELEVANCE AND COHERENCE

#### **Finding 1: The intervention was highly relevant and strategic to the maternal health agendas of the HCC and the MoHCC.**

This project was part of Harare City's Strategic Plan 2010 to 2015— "Crafting a World Class Health Service"—aimed at decongesting central hospitals and improving healthcare quality at all service levels. The HCC contributed over 40% of the project budget, showing how relevant and important it was to their strategic focus. The upgrade of Mabvuku Polyclinic was well-aligned with national health priorities, though there was some misalignment between central hospitals and the MoHCC due to a perceived lack of cooperation.

As Harare's population increased, the healthcare system struggled to meet the growing demand, leaving central hospitals overwhelmed. Both HCC and MoHCC made a strategic decision to upgrade public health facilities to accommodate this population growth. However, despite the intervention being designed to decongest central hospitals, Mabvuku Clinic received limited support from these hospitals. The HCC operates at the primary care level in Harare and upgrading clinics with theatre facilities was a move towards secondary care. At the project's conception, the HCC planned to recruit additional staff for the maternity theatre and neonatal unit. Arrangements were made with the University of Zimbabwe and Harare Hospital for refresher training of current staff, ensuring readiness once construction was completed. There was an understanding that the MoHCC would support staff training, which has not been sustained, and the agreement for training theatre staff was never formalized.

In addition, the government policy on free maternal healthcare, implemented in 2018, conflicted with the paid maternal health services at Mabvuku Clinic, where women were expected to pay USD 25 for all services. Many women in the targeted, economically disadvantaged communities still consider this fee very high. This discrepancy has impacted the intervention's effectiveness, as people continued to bypass the clinic for free deliveries at central hospitals (see the effectiveness section for more details).

***One HCC policy maker commented that, "It's in their best interests (MoHCC) to support us, but there is a lack of appreciation (for what we do) from central hospitals."***

## 4.2 EFFICIENCY

### Finding 2: The intervention was highly efficient in terms of project execution and delivery.

Although the project took two years to complete versus the planned one-year timeline, it was still deemed efficient given the circumstances. The expansion began with ground clearing and breaking in December 2014, followed by the start of foundation work in January 2015. The initial plan aimed for a one-year completion. By the end of 2015, roofing was at an advanced stage, but delays occurred due to the late receipt of funds and additional work required on the foundations because of soil type. Consequently, the project completion date was adjusted to mid-2016, with the Certificate of Occupation issued in October 2016 and full operations in the new theatre beginning in 2017.

PKF Chartered Accountants (Zimbabwe) handled the project and financial management, attending site meetings, managing payments, and conducting internal audits. The project coordination team included representatives from the Harare City Council, financial management by PKF Chartered Accountants, and local members of ZimHealth. Interviews indicated that the involvement of a professional management firm ensured the project was executed proficiently, maintaining high standards of oversight and accountability.

## 4.3 EFFECTIVENESS

### Finding 3: The intervention had a significant impact on reducing referrals to central hospitals, achieving a 40% reduction despite not meeting the targeted 50% reduction.

In 2020, the target was exceeded with a 62% reduction in transfer to the central hospitals (Figure 2). The primary motivation for initiating the project was to alleviate congestion at central hospitals, which remains an ongoing challenge despite the progress made. Most transfers were for women in labor, with rates 2 to 3 times higher than those for antenatal care (ANC) transfers. Interviews with nurses revealed that about one-third of labor transfers resulted in c-sections.

Interviews with healthcare workers and women indicated that the clinic still refers all complicated pregnancies to the central hospital due to the absence of a resident doctor. The clinic's lack of accommodation and low salaries hinder its ability to attract and retain doctors, contributing to a general brain drain among healthcare workers.

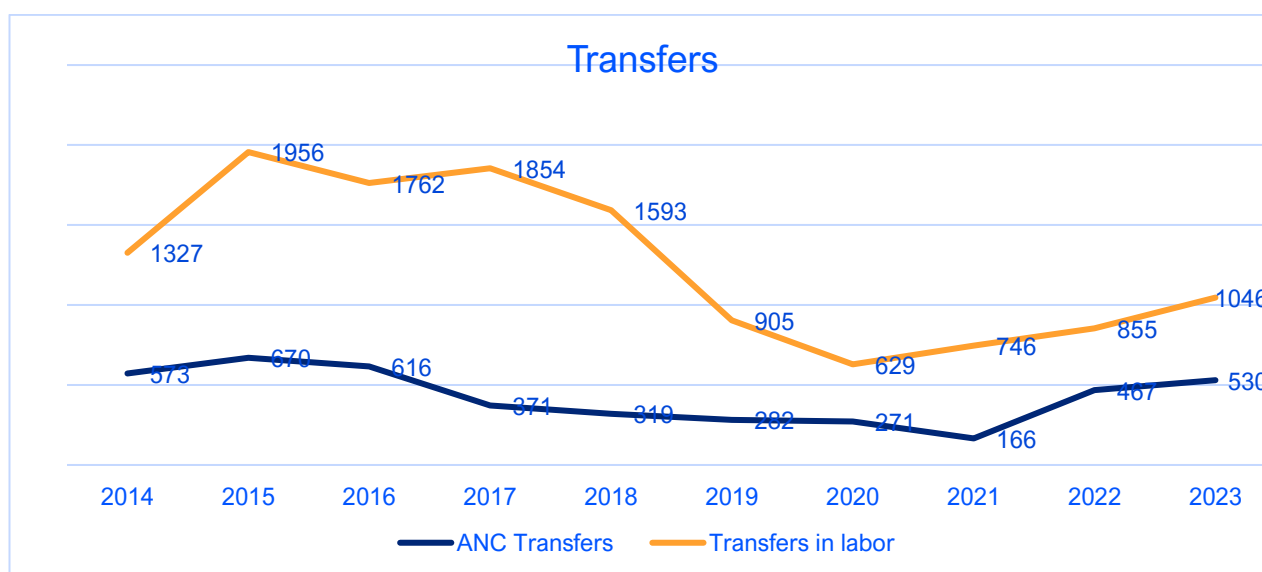


Figure 2: Transfers or referrals conducted at the facility

Elective C-sections are scheduled weekly, averaging three per month. One HCC policymaker criticized this limited schedule, stating, *"This is the biggest problem and failure of the facility; why only one day a week for elective surgery?"* Assuming one-third of the 1,046 transfers required C-sections in 2023, it means 348 C-sections could have been done, translating to at least 29 surgeries needed per month instead of the two surgeries actually performed in 2023 (Figure 3).

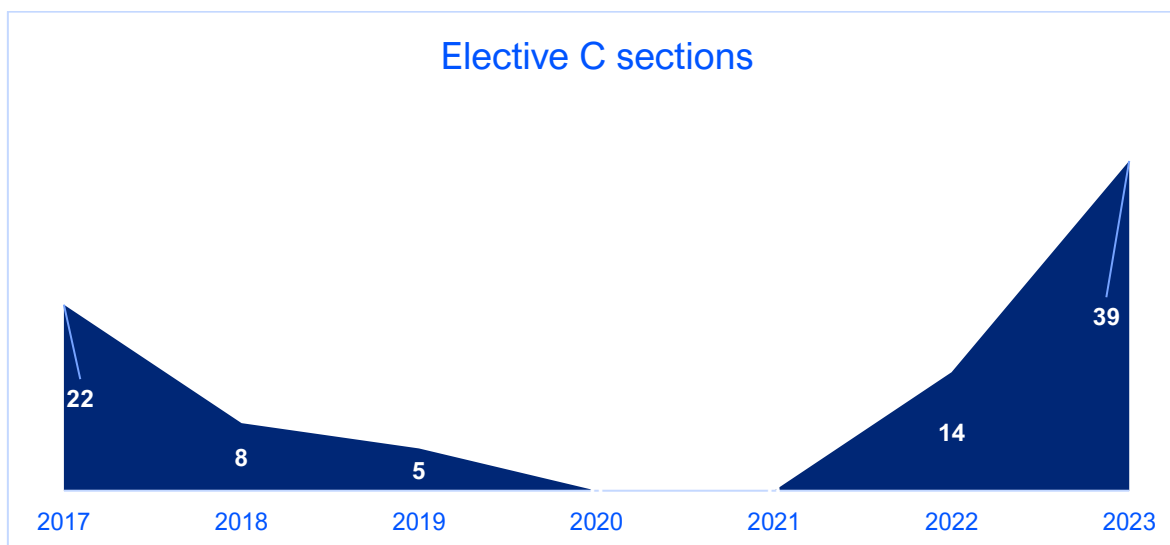


Figure 3: Elective C-sections conducted at the facility

This discrepancy highlights the need for more theatre staffing, including a surgeon and an anesthetist, and operational strategies to fully realize the facility's potential and reduce dependence on central hospitals. At the project's inception, there was a verbal agreement with the MoHCC to train theatre staff for the Mabvuku clinic, and the training was conducted but many trained staff left for better opportunities. MoHCC policymakers consulted for feedback in the evaluation were unaware of this arrangement, suggesting a need for greater cooperation with the HCC. However, political complexities arising from the opposing political affiliations of the MoHCC, and HCC further complicate their relationship, leading to poor communication and blaming each other, affecting the quality and extent of C-sections offered at Mabvuku.

Some HCC policymakers argued that Mabvuku's location limits its ability to attract clients, suggesting that a more centrally located facility like Mbare, targeted for the next upgrade, would be more effective due to higher client numbers.

Interviews with midwives and women revealed that the referral and transfer process sometimes delayed care due to transportation challenges, occasionally forcing nurses to deliver babies before transferring them to a hospital. Healthcare workers noted that private ambulances, costing between USD 70 and USD 100, are the most readily available. The city ambulance service is cheaper and sometimes allows patients to pay on credit, however, women cited this service as a challenge. Two women emphasized the need for an ambulance service provided by the HCC with acceptable payment terms, as they often lack the money during emergencies. One woman expressed, *"The nurses tell us to look for money to pay for the ambulance when the focus should be on preserving life. There should be an ambulance that you can pay for after the service."*

**Finding 4: Bookings for deliveries increased moderately (26%), and unbookings decreased significantly (52%).**

Although the targeted increase in bookings was 50%, achieving just over half of this goal still represents meaningful progress. This improvement indicates that more women are utilizing the clinic's services and planning their deliveries in advance, which is crucial for ensuring better maternal and neonatal outcomes.

However, the shortfall in meeting the booking target highlights the need for further efforts to encourage expectant mothers to book their deliveries and fully utilize the clinic's services.

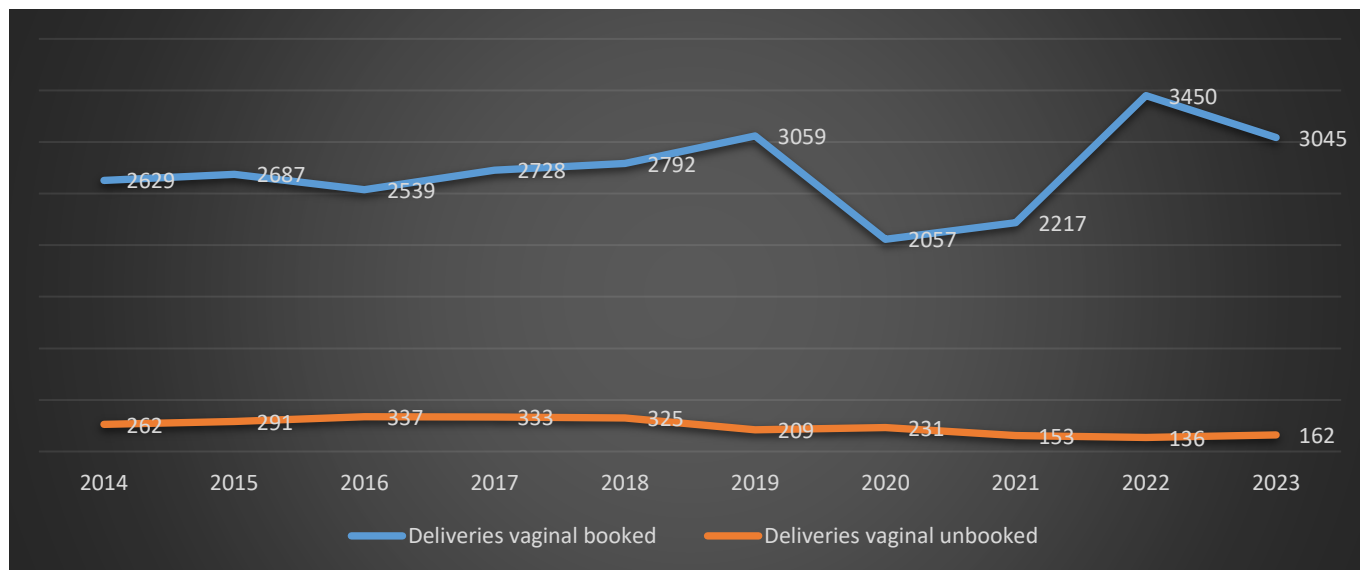


Figure 4: Bookings and Unbookings at Mabvuku clinic

The increase in bookings for deliveries and the reduction in unbooked deliveries at Mabvuku Polyclinic, though not meeting anticipated levels, can be attributed to several factors. A significant barrier identified was the preference of women to go directly to central hospitals, despite overcrowding, due to the availability of free maternal health services provided by the MoHCC. In contrast, Mabvuku Polyclinic charged USD 25 for comprehensive maternal health services, which included antenatal care, delivery, and postnatal care for the first month. This cost was perceived as prohibitive for many women in the poor community served by the clinic, especially since over half of the interviewed women were unemployed.

Additional fees reported by some women further compounded financial barriers. For instance, extra payments were allegedly required when the clinic purportedly reached its daily patient limit, highlighting potential irregularities in service access. Although healthcare workers denied these claims and emphasized equitable treatment, similar practices were reported at central hospitals despite services being officially free, suggesting systemic challenges in healthcare access. As one woman recounted, *"It's free, but you have to pay something,"* highlighting the mixed messaging and financial challenges even in ostensibly free services.

Conversely, positive feedback from women emphasized the caring attitude of nurses, comprehensive services, and pleasant atmosphere at Mabvuku Polyclinic. Nurses were praised for explaining procedures and treating patients respectfully, elements attributed to ongoing customer care training provided by the HCC. Patient rights and the patient charter were routinely reinforced among staff, contributing to a supportive care environment. One woman said, *"Compared to where I went the last time. I like it here. The nurses are nice. The place is nice."* One HCC policymaker commented, *"Mabvuku is a nice working environment; it calms people down, and even the attitudes of the nurses improve. The general equipment is there. You are happy because the equipment is available."*

Despite overall positive feedback about the care received, some women reported instances where they felt rushed, overwhelmed, or confused by the pace or manner of service delivery. Minimum interaction was required to keep pace with the high volume of women that needed to be served.

**Finding 5: There was an average 30% increase in the women attending the second ANC visit and a 60% increase in women attending all antenatal visits.**

The increase in women attending the second and all antenatal care (ANC) visits at Mabvuku Polyclinic, while positive, was lower than the national average of 76% of women accessing at least four ANC visits. Despite this, there was a notable improvement, with 92% of women attending at least four ANC visits by 2023 (Figure 5), indicating progress in the right direction.

One of the primary reasons cited for the initially lower ANC attendance was the financial burden associated with accessing services at Mabvuku Polyclinic. Women highlighted the costs of services and transportation to the facility as significant barriers. Some women opted to bypass ANC visits altogether and were only present for delivery, potentially risking their health and that of their child due to missed opportunities for early detection and intervention.

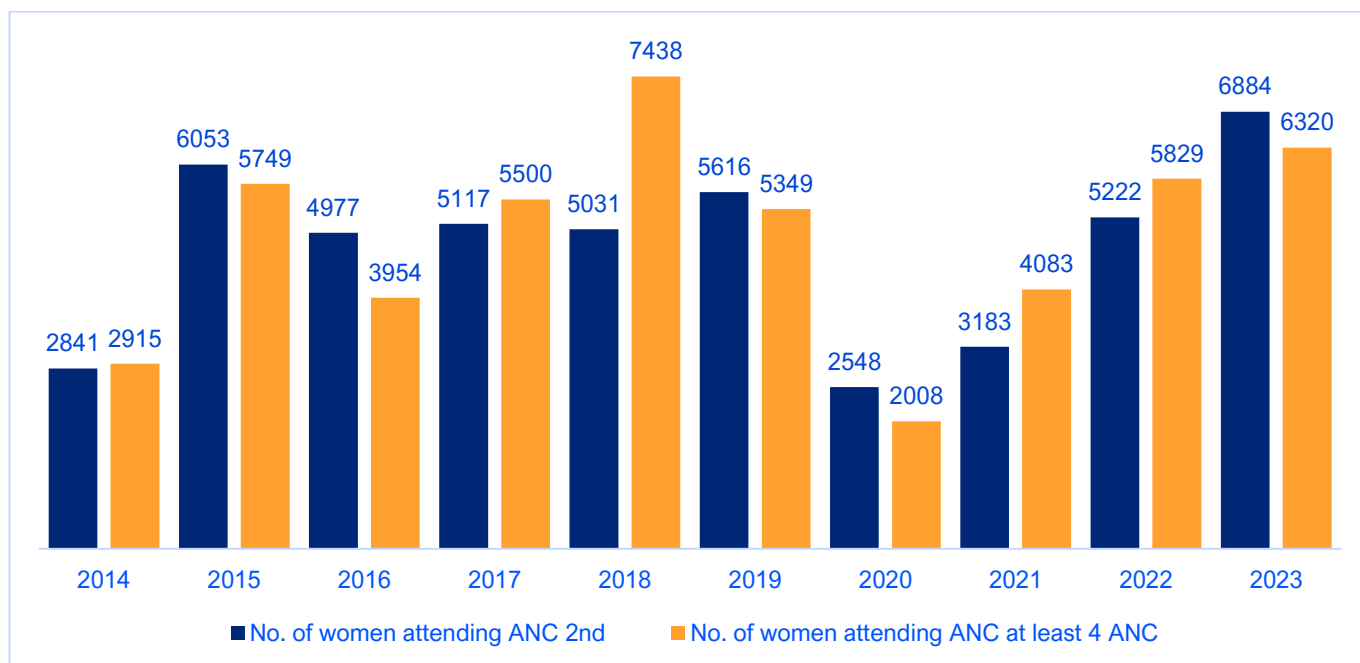


Figure 5: Women attending the 2nd and 4th antenatal visit

**Finding 6: Women appreciated the comprehensive services offered, particularly highlighting the integrated same-day testing and return of results, including the dual HIV and syphilis test.**

The clinic provided comprehensive, integrated care, including diagnosis for various conditions. Interviews with the HCWs revealed the range of diagnostics performed for the women on the day. The laboratory technician explained that the blood tests included a full blood count (FBC), anemia, rhesus factor, and syphilis. However, the rhesus test was only performed when materials were available; they had temporarily stopped due to a shortage. The rhesus factor test is crucial as it indicates whether the blood of two different people, such as a mother and her baby at birth, is compatible. Incompatibility can cause problems.

Syphilis testing was conducted using a dual HIV and syphilis test by the primary care counselors, who were not trained nurses and so would refer any positive cases to the midwives. If a woman tested positive for HIV, further baseline investigations were carried out, including viral load test, CD4 count, Hepatitis B surface antigen screening, and HCV testing. Women with a CD4 count below 200 and presumptive TB patients received an initial MTB test and urine TB LAM, which is sensitive for people with low CD4 counts. The laboratory had different machines for these tests, such as the CD4 analyzer and the FBC analyzer. The laboratory technician confirmed that simultaneous testing for TB, HIV viral load for those already HIV

positive, Early Infant Diagnosis and COVID-19 was available. These testing services were provided for the entire facility, not just for women attending antenatal care.

The midwives explained that in previous years, they used to send the samples to a central facility for processing. Women would then receive their results after about a month or during their next antenatal care visit. This delay often hindered timely care and follow-up actions that might be necessary for the women. Additionally, not all women attended their first antenatal visit during the first trimester of pregnancy; many came later when it was almost too late to start proper antenatal care.

An analysis comparing the number of tests conducted at Mabvuku Polyclinic between Jan to March 2022, 2023, and 2024 reveals notable variations. In 2022, a total of 276 tests were conducted during this period, which increased to 317 tests in 2023 but decreased significantly to 119 tests in 2024 (Figure 6). These tests equate to an average of 4 specimens per day or one run per day on the 4-module GeneXpert instrument available at the clinic. The fluctuation in testing numbers highlights issues with optimization and consistent supply of Viral Load testing onsite, primarily due to the erratic availability of GeneXpert Viral load cartridges supplied by NATPHARM, the national supplier. Shortages of these cartridges have been a recurring challenge, affecting the clinic's capacity to conduct tests consistently and meet demand.

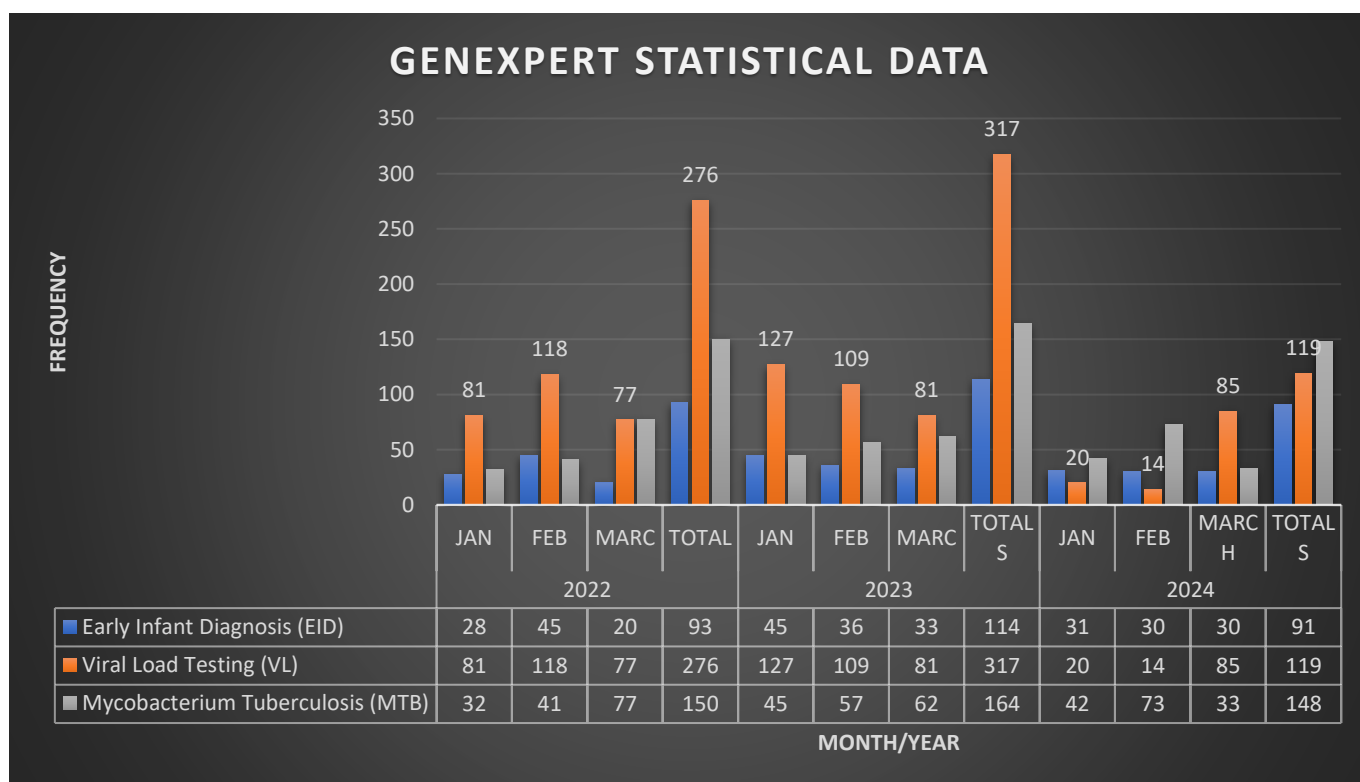


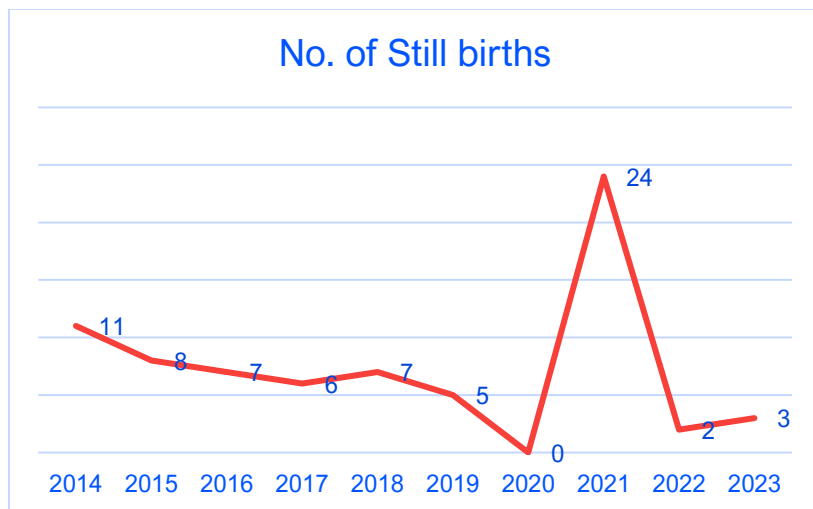
Figure 6: Utilisation of the GeneXpert machine at Mabvuku clinic

**Finding 7: There was no significant impact of the Mabvuku upgrade at the impact level on maternal or neonatal mortality.**

The evaluation of the Mabvuku Polyclinic upgrade revealed no significant impact on maternal or neonatal mortality rates following the intervention. Comparisons between pre-and post-intervention periods showed no statistically significant differences in these mortality rates. This finding contrasts with the initial expectations and highlights several factors contributing to the outcomes observed.

Firstly, baseline maternal and neonatal mortality rates in Zimbabwe provide context, with an average of approximately two neonatal deaths per 1,000 live births. Despite efforts to improve facility infrastructure

and service delivery at Mabvuku Polyclinic, the broader systemic challenges, and external factors such as the COVID-19 pandemic have influenced health outcomes. During the COVID-19 pandemic, there was an observed increase in stillbirths and antenatal deaths in 2021 and 2022, contributing to overall maternal mortality trends (Figures 7 and 8). These externalities underscore the complex interplay of factors affecting maternal and neonatal health outcomes beyond facility-level improvements alone.



*Figure 7: Number of stillbirths at the clinic*



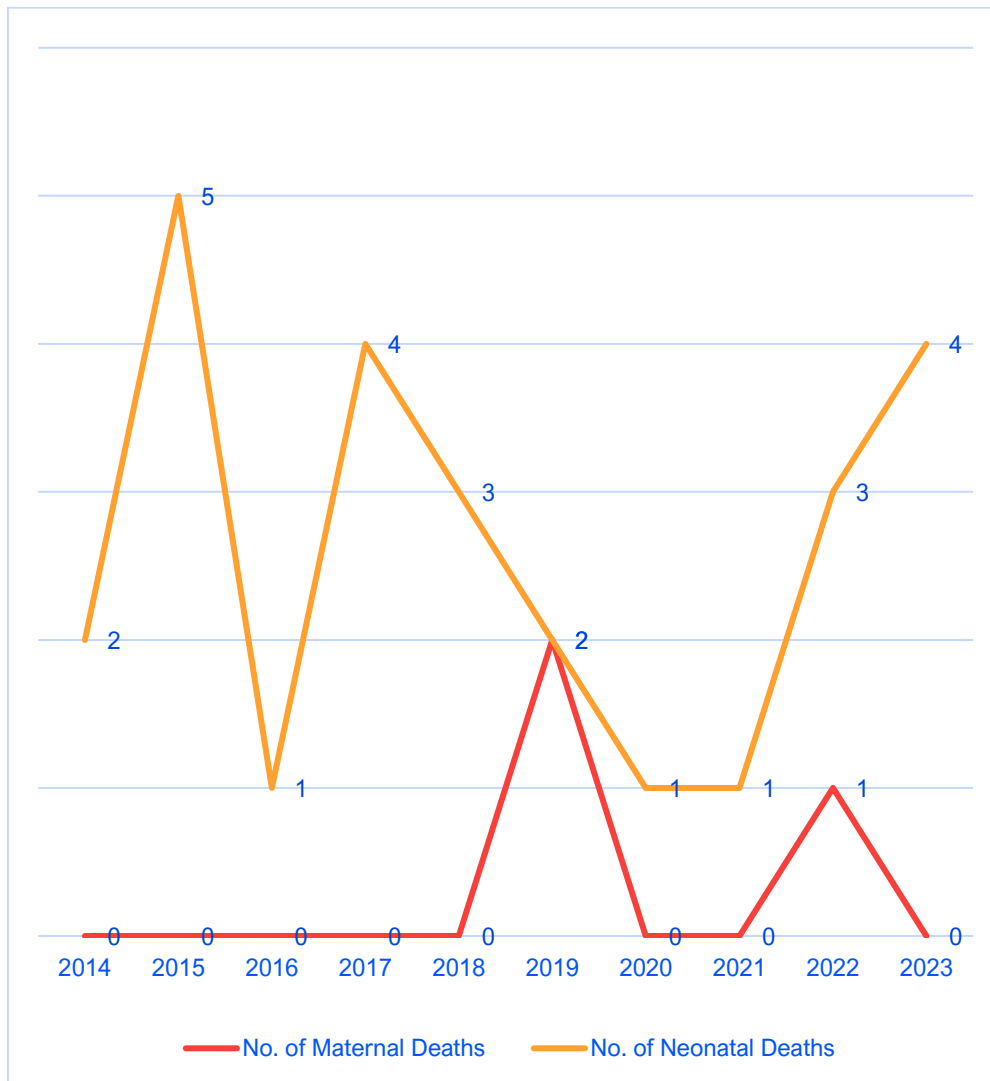


Figure 8: Number of maternal and neonatal deaths

While the upgraded facilities at Mabvuku Polyclinic aimed to improve access to emergency obstetric and neonatal care, the absence of a significant impact on mortality rates suggests the need for comprehensive health system strengthening and ongoing efforts to address multifaceted challenges. Enhancing coordination with central hospitals, improving referral systems, and addressing community-level health education and awareness are crucial components for future interventions aimed at effectively reducing maternal and neonatal mortality.

#### 4.4 SUSTAINABILITY AND SCALABILITY

##### **Finding 8: Despite its initial success and support, the sustainability of the intervention at Mabvuku Polyclinic hinges on several critical factors.**

A primary condition for sustainability, which is already in place, is the robust partnership and ownership demonstrated by the HCC, which contributed nearly half of the resources for the facility upgrade. This commitment underscores the importance of local buy-in and leadership in maintaining and expanding the project's impact. As one policymaker emphasized, positioning Mabvuku as a center of excellence for primary healthcare sets a precedent for emulation and showcases achievable outcomes.

Moreover, the intervention aligns with national health policies aimed at enhancing secondary healthcare facilities in Harare to alleviate strain on central hospitals, highlighting its strategic relevance within broader health system priorities. Additionally, ongoing donor support has bolstered the project; however, this has also introduced challenges, including dependency and potential fluctuations in external funding.

Despite these strengths, several critical challenges threaten the intervention's sustainability. These challenges primarily revolve around health workforce issues, a lack of materials, and donor coordination.

#### 4.4.1 Health workforce challenges

Staff shortages at the Mabvuku clinic severely hinder its operations. The facility operates with only half the required staff complement, resulting in excessively long waiting times for patients, averaging around ten hours. A woman suffering from back pain expressed her discomfort with the long waiting times, emphasizing that pregnant women should not have to sit on hard benches all day. This situation is exacerbated by the high patient load, where a single nurse may be responsible for attending to 30 to 50 women at a time. One primary care counselor, who previously worked at a satellite clinic of the central hospital, confirmed the heavy workload, stating, "*Here there is pain, there is a lot of work.*" When the clinic was too busy, some steps had to be skipped, and tasks were sometimes done while tired, increasing the risk of missing important details, such as detecting a breech baby during palpation.

Moreover, the scheduling system, which is aimed at managing patient flow, struggles to effectively accommodate new bookings and repeat appointments. This results in confusion and delays, as patients may arrive on incorrect days or need additional services like scans that cannot be accommodated immediately.

Attempts to mitigate staffing shortages through locum or contract nurses from other hospitals, such as Harare Hospital, Parirenyatwa, or Bulawayo Hospital, are only partially successful. While these nurses alleviate immediate staffing pressures, they often lack long-term commitment and understanding of the clinic's specific needs, contributing to inefficiencies.

#### 4.4.2 Lack of materials

The clinic's challenges are compounded by Zimbabwe's broader economic problems, impacting staff compensation and resource availability. Mabvuku Polyclinic faces chronic shortages of essential medical supplies and equipment. Basic necessities such as newborn care spaces, functional infant radiant warmers, glucometer strips, urine collection jars, syringes, and soap are consistently unavailable or inadequate. Laboratory equipment breakdowns, including vital analyzers for blood tests, further compromise diagnostic capabilities. Issues with the GeneXpert machine, critical for multi-disease testing, due to cartridge shortages significantly impact timely diagnostics and patient management. Additionally, the laboratory is very hot, affecting equipment like the biochemistry analyzer, which hasn't worked properly for two years due to inadequate temperature control and power issues.

The clinic has only one small BP machine, which is inadequate for such a large facility. One midwife asked, "*How can such a big clinic have only one BP machine?*" An Interview with an HCC policymaker showed that some BP machines were in storage donated by UNICEF, yet the clinic did not have them, highlighting some supply chain and coordination issues.

Frequent power outages further exacerbate issues, limiting the use of vital equipment like the infant radiant warmer and oxygen concentrators. The generator, only used during c-sections, often lacks fuel, and the piped oxygen system is non-functional due to vandalized copper pipes.

A midwife mentioned the absence of iron tablets, forcing them to prescribe alternatives that many women cannot afford, resulting in persistent low blood levels. Three women confirmed the lack of iron tablets because they had not received any supplements, even if their blood levels were low. Women often return with lower blood levels due to poor diets and a lack of supplements. The clinic also faces a shortage of materials for the theatre, requiring patients to buy necessary items for scheduled

procedures, which many cannot afford.

#### **4.4.3 Donor coordination**





There are many development partners at the Mabvuku clinic, including the AIDS Healthcare Foundation (AHF), Global Fund, BRTI, ZimTech, Cordaid, Red Cross, and ZimHealth, each funding different aspects of service delivery. For instance, primary care counselors funded by the Global Fund handle HIV tests, while AHF funds laboratory technicians. Having different donors for different things at the facility level has led to a fragmentation of services, where specific needs are met by different donors, causing gaps in other critical areas. For example, internet access in the laboratory could solve issues with transmitting results, but their donor does not cover this aspect. Meanwhile, Global Fund counselors have monthly data bundles to transmit HIV test reports, but they cannot share their internet due to limited data allocations. Healthcare workers expressed frustration that despite having many donors, some critical needs, such as treatment and diagnostic equipment, were still unmet.

Additionally, donor fragmentation has led to an imbalance in workload distribution. Donor-funded workers often receive more tasks than their city council-funded counterparts despite performing similar roles. This has resulted in resentment and affected staff motivation, with some permanent staff saying, "*You do the work; you earn in USD.*" This division exacerbates the challenges faced by the clinic, further complicating the delivery of comprehensive healthcare services.

Another issue mentioned by the healthcare workers was the frequent absenteeism of staff attending various donor workshops, which affected operational capacity. These workshops were essential for the staff as they provided per diems, supplementing their often-insufficient income. As a result, even though the facility was already operating with only half the required staff complement, a significant portion of the remaining staff, particularly the leadership, would often be away at these workshops. At the time of the study, the facility was managed by an acting matron, and a substantive leader had yet to be hired. This situation meant that small but important issues often fell through the cracks, further impacting the quality of care and the facility's overall efficiency. The researcher also faced challenges in reaching policymakers, as they were frequently attending these donor-funded workshops.

## Key indicators

60% progress

Fully on track		100%
Largely on-track		80%
Partially on track		50%
Off track		0%







Indicator	Target	Progress (2023)	
Referrals to central hospital	50% increase	34%- 62% increase (highest)	
Bookings	50% increase	20% -26%	
Emergency c-section	-	Limited elective c-section	
Lab x-ray		No	
Increased service time	24 hr service	8hr service	
Comprehensive service		Yes, integrated care	

Figure 9: Summary of progress against key performance indicators

## 5. DISCUSSION

Mabvuku PolyClinic's recent upgrade to enhance maternal health services underscores the complex challenges inherent in delivering effective healthcare within resource-limited environments. The clinic's upgraded infrastructure, though a critical step forward, reveals that success in healthcare delivery hinges on a complex interplay of multiple factors that must be adequately addressed.

Firstly, the upgrade itself represents a substantial investment in physical infrastructure, aiming to provide comprehensive maternal health services. This infrastructure includes facilities such as a maternity theatre, neonatal unit, and improved service areas designed to meet the needs of expectant mothers and newborns. However, the mere presence of these facilities does not guarantee effective service delivery without addressing other critical components of the healthcare system.

Effective healthcare delivery relies on a well-functioning ecosystem where a competent and adequate health workforce supports infrastructure. Mabvuku Polyclinic, like many healthcare facilities in similar contexts, faces significant challenges related to health workforce shortages. Operating with only half the required staffing levels, the clinic struggles to cope with the high patient load, resulting in prolonged waiting times and compromised patient care. The reliance on locum nurses from other facilities while providing temporary relief underscores the need for sustainable staffing solutions and retention strategies tailored to the clinic's specific needs.

Furthermore, the availability and accessibility of essential medical supplies and equipment are essential for delivering quality healthcare. Despite its upgraded status, Mabvuku Polyclinic grapples with chronic shortages of basic supplies such as newborn care materials, diagnostic tools, and even essential medicines. Equipment breakdowns, inadequate stock management, and challenges in maintaining a consistent supply chain further strain the clinic's ability to provide uninterrupted services.

Effective healthcare delivery necessitates streamlined management practices and robust operational systems in addition to infrastructure, workforce, and supplies. The fragmentation of donor support and inconsistent coordination among various stakeholders contribute to operational inefficiencies at Mabvuku Polyclinic. Divergent funding streams for specific services lead to gaps in overall service integration and resource allocation, complicating efforts to deliver comprehensive maternal healthcare services.

Addressing these challenges requires a holistic approach that goes beyond physical infrastructure upgrades. Sustainable solutions must encompass comprehensive workforce planning, strengthened supply chain management, enhanced coordination among donors, and improved operational efficiencies. Moreover, community engagement and patient-centered care practices are vital to ensure that healthcare services are responsive to the needs and preferences of the local population.

## **6. RECOMMENDATIONS**

Based on the lessons learned from the Mabvuku Polyclinic project, there are some recommendations and policy implications for ZimHealth as it plans similar interventions in primary care facilities across Zimbabwe:

### **A. Clear Comprehensive Plan of Implementation:**

- Develop a detailed and comprehensive implementation plan that includes adequate human resources planning, training programs, appropriate diagnostic tools, treatment pathways, and robust supply chain management.
- Ensure that the plan addresses functional referral systems and effective follow-up mechanisms to enhance continuity of care.

### **B. Formal Partnership/Agreement with MoHCC:**

- Establish a formal partnership or agreement between the HCC and the MoHCC.
- This partnership should clarify roles, responsibilities, and expectations to ensure a common understanding and mutual commitment toward achieving healthcare goals.

### **C. Dedicated Theatre Staff and Leadership:**

- Ensure the presence of dedicated and adequately trained theatre staff to maximize the functionality of state-of-the-art theatre facilities.
- Appoint strong substantive leadership, such as a matron or equivalent, with a clear vision and authority to oversee operations effectively. This leadership should be empowered to address operational challenges promptly, such as equipment maintenance and staff scheduling issues.

### **D. Better Coordination of Donor Support:**

- Improve coordination and management of donor support to avoid fragmentation and overlap in service delivery.
- Develop strategies to integrate donor-funded initiatives into the broader healthcare system, ensuring comprehensive service delivery and continuity of support.

#### **E. Data-Driven Decision Making:**

- Generate and utilize data effectively to drive decision-making processes and improve service delivery efficiencies, reduce waiting times, and enhance patient outcomes.
- Use data to monitor progress, identify areas for improvement, and adjust strategies as needed to optimize healthcare delivery.

#### **F. Separate Financial and Project Management:**

- Establish a clear separation between financial management and project management functions. This was successfully done at the Mabvuku clinic and should be continued.

## **7. CONCLUSION**

In conclusion, the ZimHealth intervention at Mabvuku Clinic has demonstrated meaningful progress in expanding access to maternal health services and mitigating the strain on central hospitals through reduced referrals. However, critical gaps persist, particularly in emergency obstetric care and maintaining service quality. These challenges underscore the necessity for a holistic approach to health system strengthening. Key priorities include addressing staff shortages, enhancing leadership, ensuring reliable financing, and improving supply chain management for essential medical supplies. By prioritizing these areas and leveraging integrated health services underpinned by robust governance and infrastructure, future interventions can build upon the successes and lessons learned from Mabvuku Clinic to achieve sustainable improvements in healthcare delivery and patient outcomes across Zimbabwe.