



Implementing Mobile Outreach Clinics in Maseru and Leribe

Background

In 2015, HIV was the cause of 19% of all childhood deaths under the age of five in Lesotho, contributing to an extremely high rate of under-5 mortality in the country. Lesotho was far from achieving its goal of 80% treatment coverage for HIV-positive children, with only 5,700 children, or 30%, of the total estimated 19,000 children receiving treatment. In order to bridge this coverage gap, first children need to be identified as HIV-positive. Community-based HIV testing services (HTS) was identified as an avenue to find and test children who were not seeking services at health facilities.

In October 2015, the **Mobilizing HIV Identification and Treatment (M-HIT)** project commenced operations of mobile outreach clinics (MOCs) with a focus on HTS and prevention-of-mother-to-child-transmission (PMTCT) services at the community level in two of Lesotho's largest and most heavily HIV-burdened districts – Maseru and Leribe. These MOCs were conducted through a partnership with Ministry of Health (MOH), District Health Management Teams (DHMTs), Baylor College of Medicine Children's Foundation – Lesotho (BCMCF), Riders for Health (R4H), Clinton Health Access Initiative (CHAI), and staff from supporting health facilities.

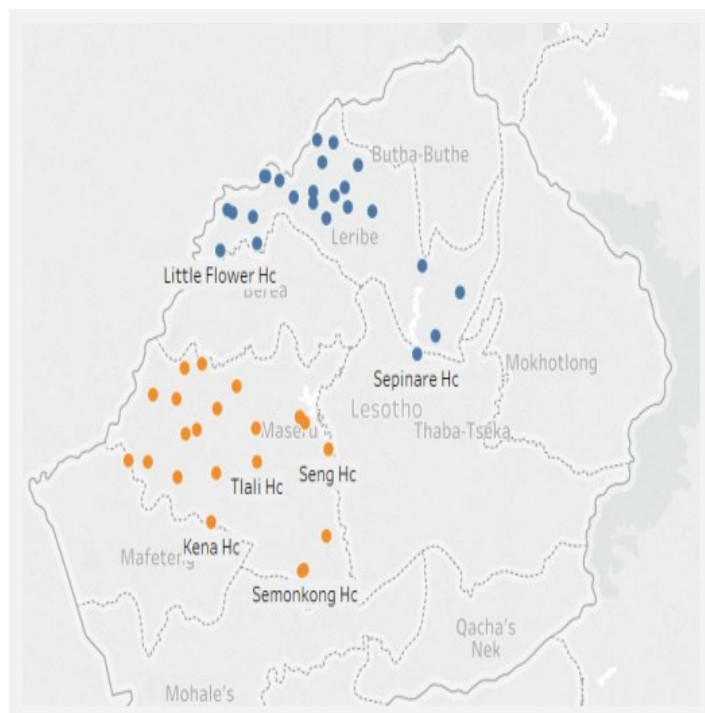


Figure 1: Map of M-HIT project's MOC-supported health facilities in Maseru and Leribe.

Mobile Outreach Clinic Implementation

MOCs are facility-supported primary healthcare outlets located in the community within the facility's catchment area. They provide a broad spectrum of healthcare services to primarily rural, underserved communities with a focus on HTS for children and PMTCT services. Four different models of outreach service delivery were conceptualized in initial planning of the MOCs, summarised in Table 1.

The choice for each MOC's model was largely influenced by the staffing patterns at the supported health facility, availability of drugs and commodities, and the venue, which was provided by the communities. Model 1 was the preferred model, used by the majority (44%) of outreach sites and provided a comprehensive service mix, followed by Model 2 (35%), Model 3 (11%) and Model 4 (8%).

On average, each MOC was supported by a combination of M-HIT staff – one BCMCF nurse and one R4H driver – as well as facility staff – one nurse sister, one nurse assistant, one counselor, and four village health workers (VHWs). Each district had four mobile outreach teams per day, four days a week, supporting 46 health facilities. The teams were scheduled to visit each unique outreach site on a monthly basis; however, as implementation progressed, some sites were cancelled and replaced due to inaccessibility and new sites were added to fill the gaps in the schedule.

Clinic space for each MOC was provided by the local community, and as a result, venues varied greatly, from people's homes to unoccupied buildings in a village to church and school buildings.

Table 1: Mobile Outreach Clinic Service Delivery Models

Service Delivery Models	Model 1: Community Wellness Clinic	Model 2: Clinic for Children and their Mothers	Model 3: Under 5 Focused Clinic	Model 4: HIV and AIDS Focused Clinic
Target Clientele	People living in hard to reach areas; focus on sick children, adults, and the elderly	Children under 5, pregnant and lactating women	Children under 5	HIV-positive children and their mothers
Type of Service Provision	<ul style="list-style-type: none"> Under 5 Clinic Maternal Health Services (ANC, PNC & Family Planning) HTS, including DBS/PCR testing for HIV-exposed infants ART initiation and refills TB screening OPD services for all patients 	<ul style="list-style-type: none"> Under 5 Clinic Maternal Health HTS, including DBS/PCR testing for HIV-exposed infants ART initiation only OPD children & their mothers 	<ul style="list-style-type: none"> Under 5 Clinic HTS, including DBS/PCR testing for HIV-exposed infants ART initiation only OPD for children only 	<ul style="list-style-type: none"> Under 5 Clinic HTS, including DBS/PCR testing for HIV-exposed infants ART initiation, refills, and viral load sample collection TB screening and treatment

Project Methods

The M-HIT project measured the services delivered through MOCs and assessed their ability to identify HIV-exposed infants, previously undiagnosed HIV-positive children, and pregnant and lactating women (PLWs) not already on ART. In addition, significant evidence was gathered on best practices and recommendations for implementing MOCs.

This brief describes the services delivered at MOCs, including the testing and identification volumes of HIV-positive children and PLWs, as well as how to achieve sustainability of MOCs. This document serves to inform the MOH, DHMTs, and partners around key decision-making and the design on handover of MOCs and the scale up of MOCs in all districts of Lesotho.

Data Collection Methods

A mix of quantitative and qualitative data were collected to inform the findings. The data sources included the following:

Project monitoring data: A monthly aggregate data collection tool was created for M-HIT's MOCs which was complementary of routine data collection in facility registers. The purpose of this tool was to capture all project performance monitoring indicators including patient volumes by service delivery type – outpatient department (OPD), antenatal and postnatal care, under-5, HTS, and ART treatment.

Interviews with health facility staff, MOC staff, and MOC clients: Structured questionnaires were administered in roughly half of the project's MOCs between March and April 2017 amongst MOC staff and clients. Observations around service delivery were also captured.

Key informant interviews: Interviews were conducted with management staff from supported health facilities who oversaw the MOC operations.

Project Findings

Summary of results

Between October 2015 to December 2017, 2,752 out of 2,885 (95%) scheduled MOCs were conducted across 158 unique sites associated with 46 health facilities. Overall, **65,924 HIV tests** were conducted with almost half, (46%), of the tests among children aged 0 to 14 years; 6%, 48% and 1% of tests conducted were among teenagers (15-19yrs), adults (20+ years), and PLWs, respectively. Among all HTS clients, 1,032 (1.6% yield) tested HIV-positive. Among the 30,056 children tested, 124 (**0.4% yield**) were HIV-positive. Overall, MOCs contributed to the districts' vaccines coverage was 9% for Penta 1, Penta 2, and Measles.

Service Provision Overview

HIV Testing

Figure 2 shows the cascade of HIV services at the MOCs disaggregated by age groups. Over the implementation period, 74,274 children were seen with 53% (40,768) already knowing their HIV status. Uptake of HIV testing among eligible clients was 93% for children; 100% for adolescents; and 97% for adults. Reasons clients were not tested included test kit stock-outs, the inability to receive consent for testing children from a legal guardian, and a lack of time and human resources to test all patients at an outreach.

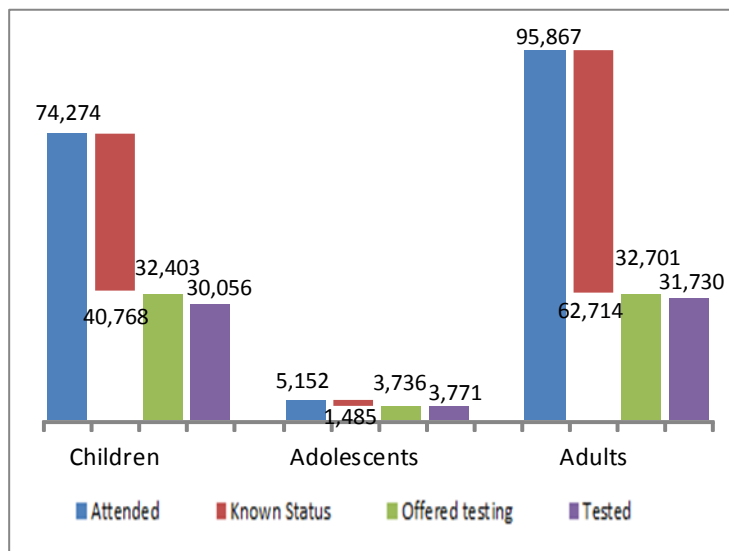


Figure 2: Mobile outreach clinics, HIV testing cascade

Of the 3,771 tests conducted on adolescents, 3,253 (86%) were female. The male positivity rate was only slightly higher than females at 1.7% vs. 1.1%, respectively.

Site Visit Frequency

Each MOC site was scheduled to be visited once a month, allowing a maximum of 27 visits. However, some outreaches were discontinued due to inaccessible roads and very low patient volumes and new sites were introduced to maintain a full schedule. In reality, the minimum number of outreaches that occurred per site was 1 and the maximum was 26; the median number of visits per site was 20.

Service delivery demand remained constant – on average, MOCs tested roughly the same number of clients of each age group every monthly visit, regardless of how many total clinics they held in one site. The same trend was observed for vaccines, under-5 and OPD services, showing that demand did not decrease over time (Figure 3).

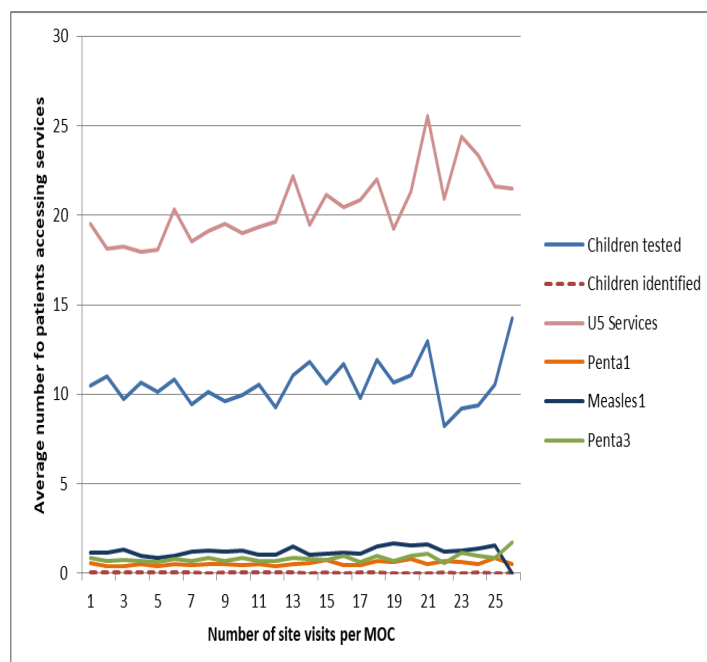


Figure 3: Average MOC Services by number of monthly visits

Mother and Child Services

Child Health Care Services

Children under-5 accounted for more than half of all OPD services (57,018 out of 104,348), indicating that mothers found great value in having their children receive essential services at MOCs. Although not every MOC offered early infant diagnosis services (68%), a total of 457 dried blood spots (DBS) were collected. Nearly 72% of outreach visits reported having sufficient vaccine stocks, yet relatively few doses of Penta 1, Penta 3, and Measles were administered. However, no data is available indicating the number of children who were in need of these vaccines. District EPI data showed that for 23 months (January 2016 – November 2017), a total 67,247 Penta 1, Penta 3 and Measles vaccines were administered to children at all facilities in Maseru and Leribe. M-HIT outreaches reported administering 6,269; 9% of the EPI total. It should be noted that the district EPI data includes facilities that were not supported by the M-HIT project, while M-HIT data only accounted for a total of 46 facilities.

Vaccine	Facility	M-HIT MOC	MOC Contribution
Penta 1	23,835	1,297	5%
Penta 3	23,132	1,981	9%
Measles1	20,280	2,991	13%
Total	67,247	6,269	9%

Table 2: Comparison of overall EPI vs. M-HIT vaccines delivery for Maseru and Leribe (Jan 2016 – Nov 2017)

Antenatal Care Services

- A total of 1,701 ANC visits were made to the MOCs in both districts. 472 of these visits were first-time attendees.
- 41 out of 46 (89%) of all M-HIT supported health facilities conducting MOCs had ANC patients.
- PMTCT services were offered at all MOCs, with HIV-testing being conducted on all pregnant women with unknown HIV status.
- Interviews with MOC staff showed that most did not feel comfortable offering ANC services due to lack of privacy at the outreach sites.

Qualitative Findings

Service Delivery

Health facility staff preferred patients to receive their ART refills at the facility because it allowed better data capture and patient tracking and it was inconvenient to bring ART patient files to the outreach. However, ART patients preferred to receive refills at MOC sites due to the fact that they were closer and more easily accessible. There was, anecdotally, more retention of ART patients for MOCs that provided refills.

Patient Satisfaction

Questionnaires revealed that among the 84 patients interviewed, 94% were satisfied with the services offered at MOCs, for reasons ranging from close proximity, to comprehensiveness and quality of services offered. However, clients mentioned the following as potential barriers for effective uptake of outreach services:

Evaluation Findings

- Regular commodities stock outs (primarily for chronic disease medication) or discontinuation of various medications.
- Inadequate shelter and space – patients often had to wait for services outdoors, which was particularly uncomfortable during the winter months; some pediatric services were provided outside, which also was not preferred. Some MOC accommodation had no doors or windows, which was perceived as an inappropriate environment to receive private health services.
- Long walking distances to outreaches by some patients – due to inaccessible roads and very remote communities, some patients had to walk up to 4 hours to reach the nearest MOC (still closer than nearest health facility).

Health Provider Satisfaction

Among the 72 MOC facility staff interviewed, 83% expressed overall satisfaction with MOCs; all BCFM outreach nurses who led the MOCs expressed contentment and overall satisfaction for their role in delivering services the different communities. **The biggest perceived benefit of MOCs was the effect they had in reducing patient volumes at the facility. This resulted in improved quality of services at MOCs and the facility because the decreased patient volumes allowed healthcare workers to spend more time with each patient.** MOCs also had a significant impact in assisting facilities to meet their individual facility targets as they made health services accessible to many who could not access these services otherwise.

“We knew there were communities in our catchment area who were not able to access much needed services because of the long distances they had to walk to the facility. Outreach clinics have made the number of U5 and OPD clients accessing services at the facility manageable, while making sure that some new clients who would otherwise not have come to the facility are able to access health services at their doorstep, especially pregnant women and children under the care of the elderly and sickly.”

Challenges

- Poor road infrastructure in some highland areas and poor weather meant that not all MOC's were implemented as scheduled.
- Difficulty in obtaining caregiver consent for children's HTS resulted in missed opportunities for identification.
- Inadequate facility staffing at MOCs resulted in the inability to offer all services to clients, and/or some clients returning home without receiving any services.
- On average, 3% of the MOC sites continued to experience stock outs of essential commodities. This was a result of different bottlenecks at the facility, district, and central levels. Overall, 13% of MOC site-visits were unable to provide services to all clients on a given day.
- Finding suitable venues to conduct MOCs within a community was an ongoing challenge.

Lessons Learnt

- Program data showed that MOCs were successful in testing target groups such as children and PLWs; 46% of all tests conducted at MOCs were among children. In addition, qualitative data collected showed that patients preferred the comprehensive model for MOC service delivery, with almost all of the patients who expressed satisfaction with outreach clinics mentioning either that they loved MOCs because of their comprehensive services or that they wanted them to be more comprehensive.
- Although identifications were significantly lower than expected, MOCs did continuously find HIV-positive children throughout the duration of the evaluation.
- Venue locations for where the MOCs were implemented mattered—insufficient space and lack of privacy was a deterrent for clients to return and seek continued services.

Sustainability of MOCs

In efforts to transition MOC management and operations from M-HIT to the MOH, health facility MOC staff were asked what resources and areas of support would be needed in order to continue MOC implementation after project phase out (Figure 4).

- 36% of staff felt that they had everything needed to continue MOCs, while 29% reported needing more human resources; specifically, in cases where a facility nurse was unable to staff the MOC, providing a nurse from the DHMT to staff the MOC.
- 11% of respondents felt that the MOC venues needed improvement – ideally a dedicated health post, but at the very least a workable space with indoor waiting areas.
- 10% reported that sustainability was much more likely if MOC staff received a lunch allowance, and 8% said MOCs needed basic clinical equipment (e.g. scales, BP machines, pipettes) to be able to offer basic services.

Overall, given over one-third felt that MOC's could continue as-is, it is believed that the current model is sustainable.

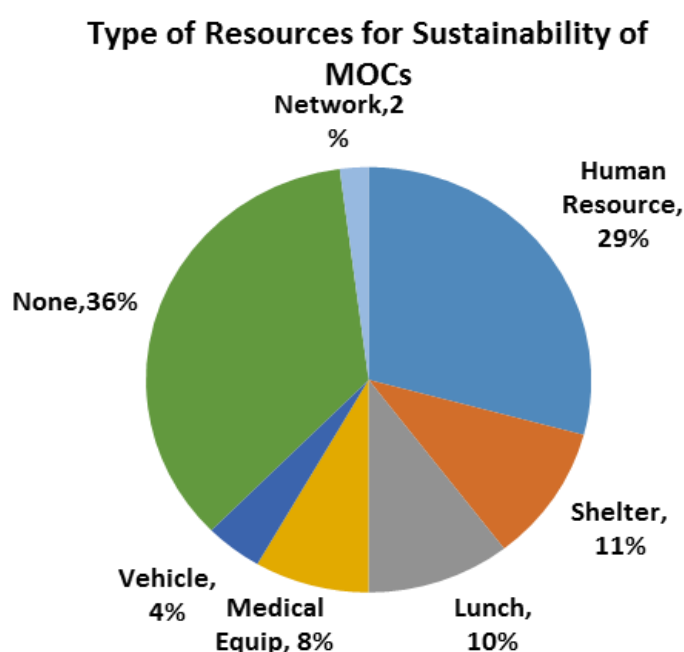


Figure 4: Primary resources needed by facilities for MOCs to ensure sustainability (N=46 facilities)

Recommendations

The M-HIT project findings highlight that an effective district-level programme for mobile outreach clinics for primary health care delivery requires the following:

- **Service Delivery** – although the most comprehensive service delivery model was the most popular, each facility knows their community's needs and available resources best. Therefore, it is recommended that support be provided by MOH to develop and adopt a service delivery model tailored appropriately to each site.
- **Create an essential medicines and equipment list** - this will reinforce the streamlining of services and ensure that each MOC is equipped to fulfill these expectations.
- **Adequate Accommodation**, including a waiting area – is essential in providing patients with the privacy they deserve and will boost the confidence and attendance of patients particularly during the winter months when patients are not willing to wait for services in the cold.
- **Adequate Staffing for Mobile Outreach Clinics** – the recommended staffing pattern for a successful outreach clinic includes at least one nurse officer, one nurse assistant, one HTS counsellor and at least one village health worker. Ideally, there should be one dedicated DHMT-based outreach nurse to fill one of the nursing positions at each MOC.
- **Strengthen Stock Management** – increased supervision and capacity building for facility's stock management.
- ♦ **Data Management** – data entry needs to be standardized across MOCs. In order to facilitate this, it is recommended that the DHMTs develop data management standard operating procedures and ensure that health facility staff are equipped to implement them.

