Mobilizing HIV Identification & Treatment Project

Community-based HIV testing to find HIV-positive children, pregnant and lactating women in Lesotho

March 2018

BACKGROUND

In 2015, all facilities in Lesotho offered provider-initiated and voluntary HIV testing and counseling (HTC) services. Few HIV testing opportunities were available outside of these conventional testing touchpoints, yet estimates suggested that many children remained undiagnosed. In an effort to accelerate the global 90-90-90 goals for children 0-14 years old, as well as pregnant and lactating women (PLWs), **the Mobilizing HIV Identification and Treatment (M-HIT) project identified community-based testing as a solution in finding those who were not routinely seeking health services at facilities.** Community-based HIV testing expands the provision of HTC services to individuals who are not or cannot access facility-based services.

PROJECT OVERVIEW

The M-HIT project commenced in October 2015 with the aim of rapidly identifying undiagnosed HIV-positive children in the community and linking them to care at the nearest health facility. The project operated in Maseru and Leribe, the two districts that had the highest volumes of unidentified HIV-positive children. Testing was conducted by M-HIT's implementation partners, Baylor College of Medicine Children's Foundation and PSI, whose nurses and counselors were specially trained in paediatric HTC. Seven community-based testing strategies were implemented with data captured from October 2015 – December 2017.

7 Community-Based Testing Strategies

Mobile Outreach Clinics (MOC)

Comprehensive health services provided though a facility on a monthly basis to rural sites with a focus on HTC and mother and child care services

Targeted Testing

Provision of HTC services at venues with children who have been identified as high-risk of HIV infection (e.g. orphanage)

Facility Index Testing

Counselors request consent from ART patients during facility refill visits to provide home-based HTC for all household members

Door-to-Door Testing (D2D)

During facility-index testing, surrounding households are approached for HTC services to conceal the targeted approach

Door-to-Door Index Testing

During door-to-door testing, if someone identifies as HIV-positive their household members are indexed and tested

Roadside Tent Testing

A tent is erected in a high-traffic pedestrian location (e.g. bus station) to provide HTC to anyone interested

Semi-Static Tent Testing

A tent is erected in a high-traffic pedestrian location for at least 2 weeks to provide HTC to anyone interested

EVALUATION OBJECTIVES

First 90

The objectives were to identify the effectiveness of each testing strategy in:

1. Reaching children and PLWs for HIV testing
2. Identifying newly-diagnosed HIV-positive children and PLWs
3. Determining M-HIT's contribution to overall testing and identification volumes in Maseru and Leribe districts

METHODS

A prospective observational evaluation was designed with programmatic data on all testing events routinely collected from implementing partners. Facility testing data was summarized from Lesotho's Ministry of Health data warehouse, DHIS2. Testing volumes, number identifications, and yields were compared between the strategies, as well as over time.

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Overall HIV Testing & Identifications

Total Tests, Positives, and Yields by Strategy

Strategy	# of months implemented	Tests	Positives	Yield
Mobile Outreach Clinic	27	65,924	1,032	1.57%
Door-to-Door	27	46,336	1,132	2.44%
Roadside Tent	23	15,540	361	2.32%
Door-to-Door Index	27	9,044	176	1.95%
Facility Index	12	1,078	17	1.58%
Targeted	8	585	16	2.74%
Semi-Static	9	322	9	2.80%
TOTAL		138,829	2,743	1.98%

138,829 tests were conducted between Oct 2015— Dec 2017

- ⇒ Mobile Outreach Clinics tested 47%
- ⇒ Door-to-Door tested 33%
- ⇒ Roadside Tent tested 11%

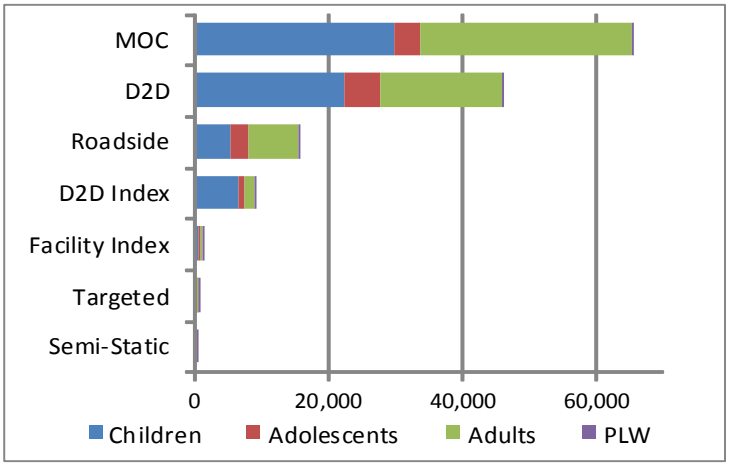
2,743 HIV-positive individuals were identified

- ⇒ Door-to-Door identified 41%
- ⇒ Mobile Outreach Clinics identified 38%
- ⇒ Roadside Tent identified 13%

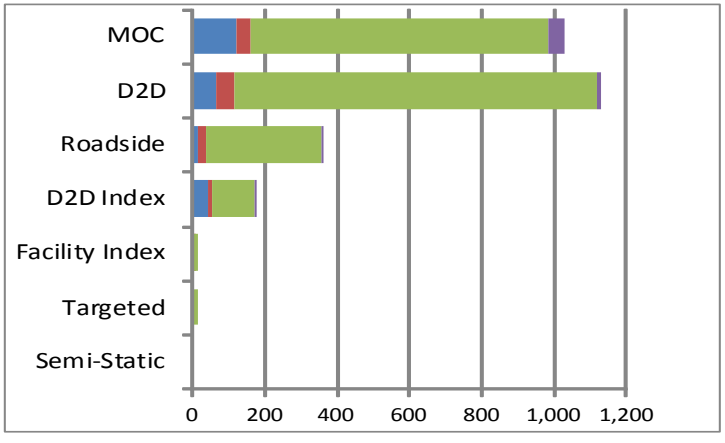
Overall yield was 1.98%

Breakdown by Age Categories

Testing Volumes by Age & Strategy



Identifications by Age & Strategy



Identifications and Yield, by Sex and Age

Age Group	Male		Female	
	n	%	n	%
Children	126	0.4%	135	0.4%
Adolescents	35	0.8%	97	1.2%
Adults	818	4.6%	1,473	3.5%
PLWs	—	—	59	7.1%

Testing Volumes

- Almost half, **47%**, of all tests conducted were on children aged 0-14 years
- Adolescents accounted for 9%, adults for 43%, and PLWs for 1% of all tests conducted
- Three strategies were successful in testing more children than adults: Door-to-Door Index, Facility Index, and Targeted Community Testing, having 73%, 70% and 55% of total tests conducted on children, respectively

Identifications

- The majority of HIV-positive individuals identified were adults (84%)
- PLWs were mostly found through Mobile Outreach Clinics (75%) and Door-to-Door testing (20%)
- Door-to-Door testing was most successful at finding the highest volume of HIV-positive adolescents (39%), followed by Mobile Outreach Clinics (31%)

Yields by Age

Yields varied greatly by age categories:

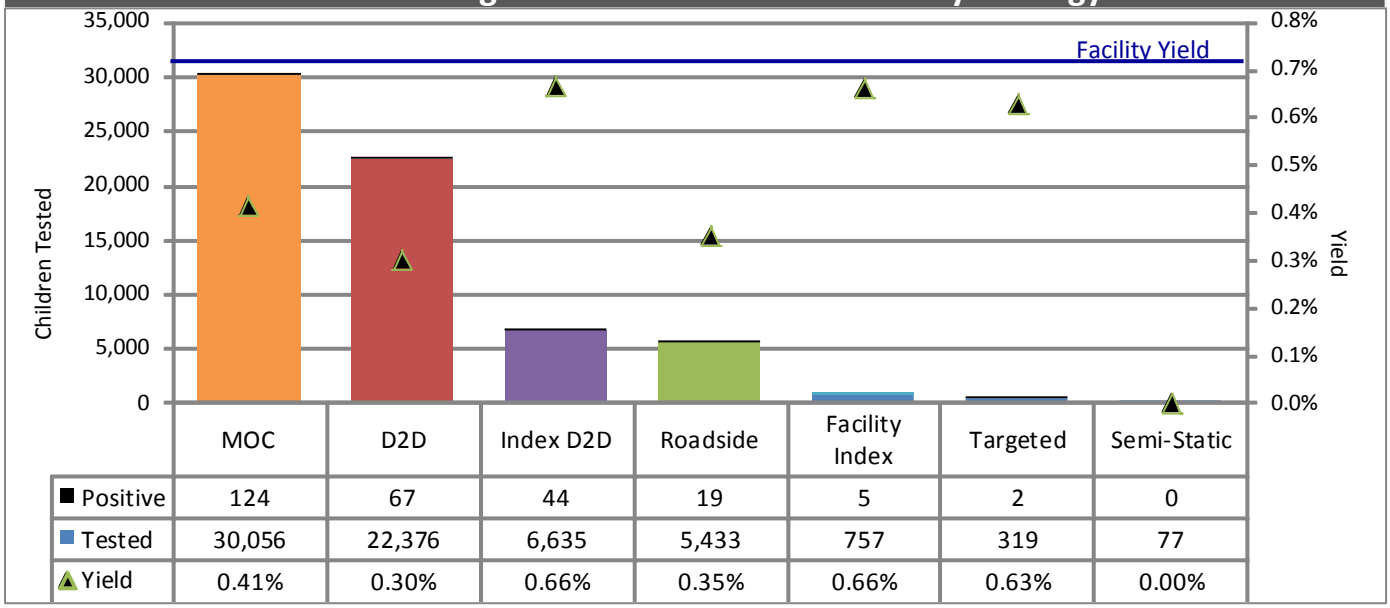
- PLWs: 7.0%
- Adults: 3.8%
- Adolescents: 1.0%
- Children: 0.4%

Yields by Sex

- 64% of all identifications were female
- There was no difference in yields by sex for children
- Females had slightly higher yields than males for adolescents, but it was the opposite for adults

Paediatric HIV Testing & Identifications

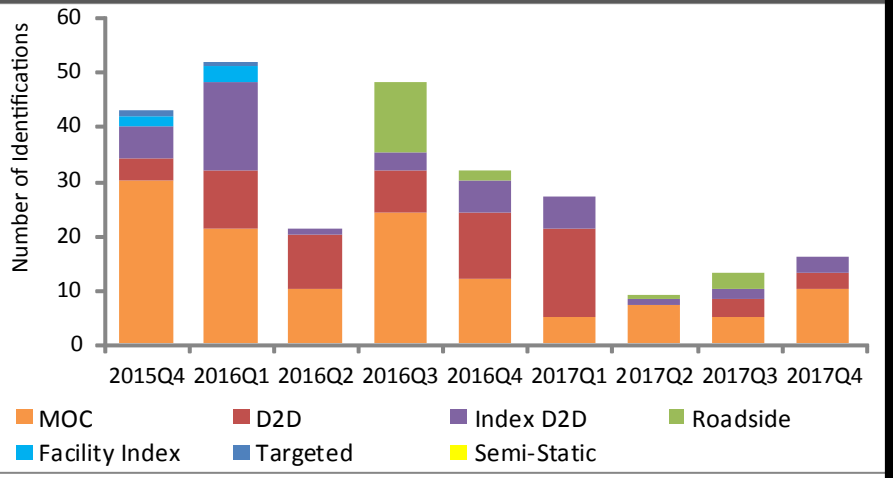
Paediatric Testing and Identification Volumes by Strategy



	MOC	D2D	Index D2D	Roadside	Facility Index	Targeted	Semi-Static
Positive	124	67	44	19	5	2	0
Tested	30,056	22,376	6,635	5,433	757	319	77
Yield	0.41%	0.30%	0.66%	0.35%	0.66%	0.63%	0.00%

- The overall yield for M-HIT among children tested was 0.40%, with strategy yields ranging from 0.00% to 0.66%
  - ⇒ During the same period, the facility testing yield was only slightly higher at 0.72%
- Positivity yields were considerably lower than expected especially for strategies considered to be targeted approaches such as Facility and Door-to-Door Index testing
- Overall Mobile Outreach Clinics tested almost as many children (46%) as all the other strategies combined

Paediatric Identification Volumes Over Time



Total number of identifications across all strategies decreased over time throughout the course of the M-HIT project:

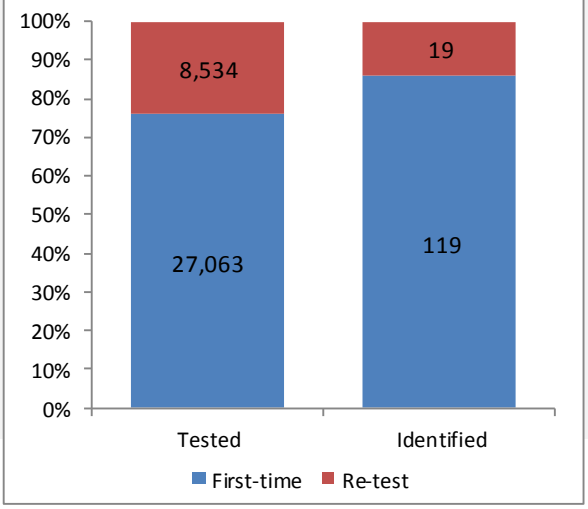
- Between 2016 and 2017, the total number of HIV-positive children identified decreased by more than 50%

Previous Test History

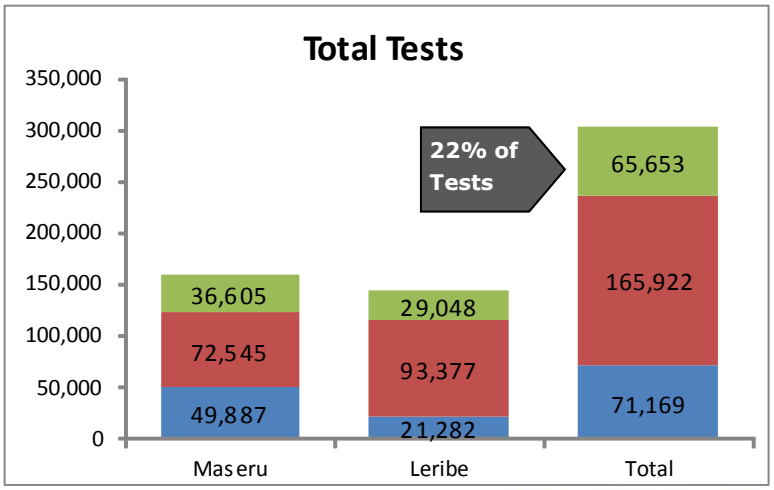
- 76% of all children tested had never previously been tested for HIV*
- 86% of all children identified as HIV-positive had never previously been tested for HIV*

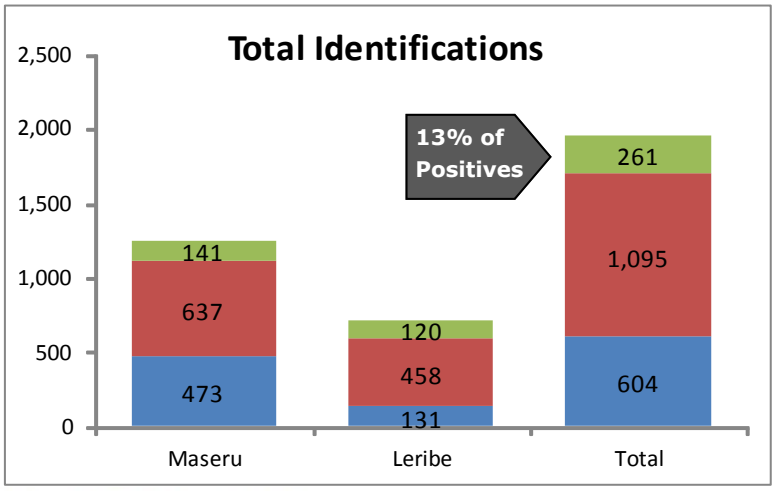
*Does not include MOC strategy

Paediatric First-time vs Repeat Testers



M-HIT Contribution to Overall District Testing & Identifications





M-HIT MoH-public facilities MoH-private facilities

KEY FINDINGS

- Community-based HTC was effective at finding high proportions of children to test.
- Community-based HTC had marginally lower yields than facility HTC, but was effective at finding previously untested HIV-positive children.
- Mobile Outreach Clinics, the only strategy to offer integrated health services, identified nearly twice as many HIV-positive children as all the other testing strategies, as well as identifying the majority of PLWs.
- Door-to-Door testing was more effective at finding HIV-positive individuals of all ages in comparison to targeted strategies such as Index Testing and Targeted Community Testing.
- All strategies experienced decreasing identifications and yields over the course of the M-HIT project.
- Overall, M-HIT contributed 22% to children tested and 13% to children identified in Maseru and Leribe districts.

RECOMMENDATIONS

In Lesotho, paediatric HIV identifications are rare, making each diagnosis significant. Facility-based testing will remain the backbone of HIV testing, however community-based testing will be crucial in finding all HIV-positive individuals, especially children.

Continuation of Mobile Outreach Clinics — as an extension of facility services to communities — is highly recommended due to the many benefits they provide to the health system and the populations they serve. MOCs provide a multitude of services to clients, saving them time and money, as well as aiding in decongesting their associated health facilities which allows them to provide higher quality and more efficient services to their clients. The provision of antenatal care (ANC) was qualitatively found to be a significant factor in the success of MOCs. It is recommended that ANC, under-5 services, and HTC continue to be flagship services of Mobile Outreach Clinics moving forward. In April 2018, the Ministry of Health will be taking over full implementation of the MOCs, ensuring their sustainability in Lesotho.

Due to the static nature of Mobile Outreach Clinics, it is recommended that a household-based testing strategy be implemented to supplement areas that do not have convenient access to a facility or MOC. Ideally, these healthcare workers would be trained to provide other basic services to these household clients such as TB screening, deworming for children, and other services approved by the Ministry of Health.

In a resource constrained setting which solely strives to achieve comprehensive HIV testing coverage, Door-to-Door testing is recommended as a highly effective and efficient strategy in accomplishing this goal. It can also be effective at finding adolescents, who are a hard-to-reach population in Lesotho. Limited planning and logistical support were required to execute the Door-to-Door strategy within the M-HIT project, however it is advised that in the future this strategy be implemented more systematically to ensure that *every* person in *every* village receives testing services.

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