Quantifying the Effect of a Community-led Monitoring Intervention in Malawi and South Africa

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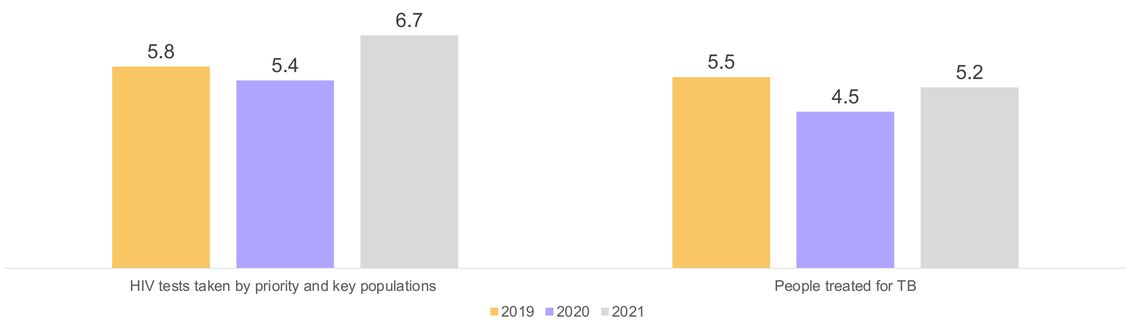
Introduction 1

Global guidance encourages the use of community-led monitoring (CLM) to shape effective health services. Yet, the attribution of CLM to service improvements is often imprecise. To our knowledge, this is the first study that aims to quantify this effect.

During the worst of COVID-19, CLM became even more critical. The pandemic fuelled devastating declines in prevention, diagnosis, and treatment levels for HIV and TB. Now, as the world emerges from the worst of the pandemic, there are encouraging signs of recovery (Figure 1).

Figure 1. HIV and TB Service Disruption During COVID-19, Globally (millions)



This study measures the effect of a CLM intervention in Malawi and South Africa ("Citizen Science"), implemented during COVID-19. It aims to document and quantify how CLM contributed to improved service delivery during the period of disruption.

Methodology 2

We implemented a CLM initiative at 33 health facilities in Malawi and South Africa, collecting data from November 2018 – October 2022. Together, these facilities serve a catchment area of nearly one million people (989,848).

We conducted monthly clinic records surveys of HIV and TB services and interviewed 202 healthcare workers and 303 recipients of care.

Data was fed back to facilities on a quarterly basis to discuss gaps and identify solutions. Regular community education sessions generated demand for services. We then compared outcomes at our monitored sites to national data and to data from other facilities where no CLM mechanism was in place.

Table 1. Health Facilities Monitored in ITPC's *Citizen Science* Community-Led Monitoring Project

Facility Name	District	Facility Type	Location	Catchment Area
MALAWI				
Dedza District Hospital	Dedza	Hospital	Urban	30,803 people
Mayani Health Centre	Dedza	Health Center	Rural	32,207 people
Tsoyo Health Centre	Dedza	Health Center	Rural	24,336 people
Kaphuka Health Centre	Dedza	Health Center	Rural	34,255 people
Dedza Family Planning Association of Malawi	Dedza	Non-Governmental Organization	Urban	20,000 people
Lobi Health Centre	Dedza	Health Center	Rural	30,309 people
Kasungu District Hospital	Kasungu	Hospital	Urban	144,223 people
Bua Health Centre	Kasungu	Health Center	Rural	53,475 people
Mnyanja Health Centre	Kasungu	Health Center	Rural	40,777 people
Kasalika Health Centre	Kasungu	Health Center	Rural	45 605 people
Kasungu FPAM Health Centre	Kasungu	Health Center	Urban	58,653 people
Chamwabvi Health Centre	Kasungu	Health Center	Rural	26,830 people
K2-TASO	Kasungu	Non-Governmental Organization	Rural	40,000 people
Kalululma Health Centre	Kasungu	Health Center	Rural	13,954 people
SOUTH AFRICA				
Caltenville Central Clinic	West Rand	Primary Healthcare Clinic	Urban	19,023 people
Khutsong Community Health Centre	West Rand	Community Health Centre	Peri-Urban	22,834 people
Thusanang Clinic	West Rand	Primary Healthcare Clinic	Peri-Urban	19,548 people
Dr Martinez Ramirez	West Rand	Primary Healthcare Clinic	Peri-Urban	38,096 people
Krugersdorp Central Clinic	West Rand	Primary Healthcare Clinic	Urban	35,873 people
Tartlon Clinic	West Rand	Primary Healthcare Clinic	Rural	19,777 people
Mogale Clinic	West Rand	Primary Healthcare Clinic	Rural	23,467 people
Odirileng Maponya Clinic	West Rand	Primary Healthcare Clinic	Peri-Urban	38,401 people
Eric Ndeleni Clinic	West Rand	Primary Healthcare Clinic	Peri-Urban	38,401 people
Maki Legwete Clinci	West Rand	Primary Healthcare Clinic	Peri-Urban	38,069 people
Badirile Clinic	West Rand	Primary Healthcare Clinic	Rural	11,313 people
Mohlakeng Community Health Centre	West Rand	Community Health Centre	Peri-Urban	39,474 people
Bekkersdal West Community Health Centre	West Rand	Community Health Centre	Peri-Urban	31,779 people
Zuurbekom Clinic	West Rand	Primary Healthcare Clinic	Peri-Urban	17,302 people
Ya Rona Clinic	West Rand	Primary Healthcare Clinic	Peri-Urban	39,474 people
Carltonville Home-Based Care	West Rand	Community Health Center	Urban	19,023 people
Sizabantu Traditional Healers	West Rand	Community Health Center	Peri-Urban	31,779 people
Tlhabologang Development Projects	West Rand	Non-Governmental Organization	Peri-Urban	35,873 people
Rotanganedza Community Care	West Rand	Non-Governmental Organization	Rural	19,777 people

Results 3

In 2020, COVID-19 led to a 64% decline in voluntary medical male circumcision (VMMC) in South Africa (nationally), with a similar (66%) decline at our monitored sites. In 2021, as COVID-19 restrictions abated, circumcisions increased by 126% nationally, and by 156% at our monitored sites.

A professional nurse said that the CLM intervention encouraged her to "*start afresh, giving health education*". We also found evidence of recipients of care using internet search engines to research responses to our VMMC questions, including when and where they could access the intervention.

Figure 2. % Change in the Number of VMMCs Performed, South Africa (2019 - 2021)

In 2019, the TB treatment success rate was comparable at our monitored sites (78%) and in South Africa as a whole (79%). In 2020, it was 85% at our monitored sites and 78% nationally. Recipients of care cite improvements to physician and nurse support as a result of the CLM.

During COVID-19 in Malawi, HIV testing fell by 39% in facilities without CLM (control study) compared to 25.5% at our monitored sites (intervention sites). Since then, new ART initiations are increasing ten times faster at our monitored sites than the rest of Malawi.

Table 2. Isolating the Effect of our CLM on HIV Testing in Malawi – The Counterfactual

Group	Location	# of facilities	CLM in place	Data source	Time periods examined	Change in HIV testing
Intervention	Dedza & Kasungu Districts, Malawi	14	Yes	Citizen Science project	Before COVID-19: November 2018 – September 2019 During COVID-19: November 2020 – September 2021	25.5% fewer tests due to COVID-19
Control	Lilongwe District, Malawi	8	No	Thekkur, et al. (2021)	Before COVID-19: March 2019 – February 2020 During COVID-19: March 2020 – February 2021	39.0% fewer tests due to COVID-19

Healthcare workers say that the CLM intervention directly improved testing and treatment services:

> *"MANERELA+ did an analysis that compared the total number of people becoming newly HIV-positive against the number of people newly initiated on HIV treatment. This showed a gap, which caused us to ask why so few had initiated HIV treatment. This led to discussions and finding solutions, one of which was to start escorting new HIV-positive clients to HIV treatment counselling and potential initiation as part of our test-and-treat policy."* – **Healthcare Worker, Malawi**

Conclusions 4

The CLM intervention was associated with more resilient HIV and TB services. If the CLM effect is extrapolated to a national level, this equates to 48,529 additional circumcisions, 568,308 additional HIV tests, 15,595 additional ART initiations, and 13,285 additional people successfully treated for TB. This is a compelling case for the continued scale-up of CLM.

Photo 1: Citizen Science data collector Makhatazle Engie Tiba (left) with local government HIV secretariat member Lulu Kotobe Sosibo (right) exiting the Badirile Clinic in West Rand, South Africa after discussing service improvement needs based on community-led monitoring data (February 2022)

Acknowledgements 5

ITPC thanks and acknowledges those who have supported our work in this critical community-led monitoring project. In particular, we recognize the contributions of the 123 recipients of care, including people living with HIV and people affected by TB, who shared their experiences.

We also acknowledge the tireless efforts of our partners. In Malawi, these partners are the Malawi Network of Religious Leaders Living with or Personally Affected by HIV and AIDS (MANERELA+) and The Network of Journalists Living with HIV (JONEHA). In South Africa, they are the Networking HIV & AIDS Community of Southern Africa (NACOSA), Access Chapter 2, and Rotanganedza Community Care. We especially recognize the 66 community data collectors, who steadfastly visited health facilities and communities, day in and day out, in the midst of a pandemic, watching what matters on the ground. We also commend the efforts of the 40 Life Maps participants, who shared intimate details of their lived experiences in order to improve access to health services in their communities.

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