

Engaging the community to reach 90-90-90

A review of evidence and implementation strategies in Malawi



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Clients return to their community after benefitting from services provided in Chamera Improved Health post. Thyolo District. Credit: Miguel Cuenca

Front cover: A mentor mother counselling a young mother at Bwalia Hospital Credit:m2m

Back cover: A mentor mother giving a health talk during a community outreach, Likuni Credit: m2m

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Abbreviations

ANC	Antenatal Care
ART	Antiretroviral Therapy
ARV	Antiretroviral Drugs
CAG	Community ART Group
CBO	Community Based Organisation
CHW	Community Health Worker
DHMT	District Health Management Team
EC	Expert Client
EGPAF	Elizabeth Glaser Pediatric AIDS Foundation
EID	Early Infant Diagnosis
FBO	Faith Based Organization
FSW	Female Sex Worker
HBC	Home Based Care
HAART	Highly Active Antiretroviral Therapy
HIV	Human Immunodeficiency Virus
HSA	Health Surveillance Assistant
HTC	HIV Testing and Counselling
IEC	Information, Education and Communication
INGO	International Non- Governmental Organisation
LTFU	Loss To Follow Up
MANASO	Malawi Network of AIDS Service Organisations
MCC	Malawi Community Charter on 90-90-90
MIAA	Malawi Interfaith AIDS Association
MIPC	Mother-Infant Pair Clinic
MM	Mentor Mother
MNCH	Maternal, Newborn and Child Health
MOH	Ministry of Health
MSM	Men who have Sex with Men
NAC	National AIDS Commission
NGO	Non-Governmental Organisation
NSP	National Strategic Plan
PCR	Polymerase Chain Reaction
PIH	Partners in Health
PLHIV	People Living With HIV
PMTCT	Prevention of Mother-to-Child Transmission
PNC	Postnatal Care
PWID	People Who Inject Drugs
SRH	Sexual and Reproductive Health
STI	Sexually Transmitted Infection
TB	Tuberculosis
USAID	United States Agency for International Development
VHW	Village Health Worker
VMMC	Voluntary Medical Male Circumcision
WHO	World Health Organization

Executive Summary

Worldwide in 2014, 36.9 million people are living with HIV. Of these, an estimated 54% are aware of their status and by March 2015, 15 million people were receiving antiretroviral care (1). Malawi has been one of the hardest hit countries by the HIV epidemic. Current estimates propose 1,100,000 Malawians are living with HIV in 2014, with over half a million (552,808) alive on ART (2,3). The adoption of the UNAIDS 90: 90: 90 targets in 2014 (90% of people living with HIV should know their status, 90% who know their status should be on ART, 90% of those on ART should be virologically suppressed) have been mirrored within the Malawian National Strategic plan (NSP) and concretely mean that 801,900 (73%) of all PLHIV should be virologically suppressed on ART.

Malawi has already embraced decentralisation, task shifting of HIV testing and counselling (HTC) and HIV care, and in most instances, is able to provide a 3 month drug supply. Service intensity however has not been systematically addressed. To achieve the 90-90-90 targets in a health system that has limited human resources and whose clinics are already overburdened, high impact interventions must be identified at each step of the HIV prevention, care and treatment cascade and linkages between the facility and community maximised.

Interventions defined as “community based” have included interventions by health care workers performed as outreach e.g. community based HTC campaigns, as well as interventions performed directly by community members either at the facility or in the community. Successful interventions have been documented across the cascade, supported by evidence from within Malawi and the wider region. To achieve the first “90” strategic community engagement to ensure acceptability of enhanced provider initiated testing alongside community based testing interventions should be combined. Maximising testing coverage whilst ensuring maximum testing yield should be achieved through targeted outreach for key populations, families of index clients and in geographic and population based high prevalence areas.

To enhance retention and adherence, strategies that address psychosocial support and patient education (lay counsellors, expert patients and support groups Page 25 and 38), provide individual patient case management (appointment and defaulter tracing systems Page 27-28) and services that place the patient firmly at the centre of ART delivery are described (Fast track page 29, adherence clubs Page 47, community ART groups (CAGs) page 54 and community ART distribution points page 57).

In many of the examples the critical work of lay counsellors, expert patients and community health workers underpin the intervention. These cadres support an activity at the facility but because they are community members, provide the essential link to the community to support tracing and home based interventions. Specific interventions for PMTCT such as providing a mother mentor (Page 39)



and the organisation of teen clubs for adolescent care (Page 44) have also demonstrated significant impact on retention.

The mapping of these interventions has demonstrated that there are a range of interventions already implemented across the country but led by different implementing partners and with differing terminologies for cadres performing similar functions. Other promising interventions are only available in one or two districts (e.g. CAGs or ART fast track). What is clear is that to achieve the 90-90-90 targets by 2020, national programmes will need to employ innovative strategies in service delivery and identify system efficiencies and in order for any community based intervention to be successful an enabling environment is required. This will include mechanisms to strengthen the technical capacity of CBOs, engage community and faith based leaders in addressing stigma as well as ensuring robust and adaptable “differentiated” models of service delivery within the health system itself.

However to achieve these goals, the community and health system must act together as one with the patient placed firmly at the centre of any strategy. This report serves as a foundation for a multi-sectorial workshop that will consider which of these strategies could be taken to scale, led by the Ministry of Health.

Chapter 1

Background

The Malawi HIV prevention, care and treatment cascade

Worldwide in 2014, 36.9 million people were living with HIV. Of these, an estimated 54% are aware of their status and by March 2015, 15 million people were receiving antiretroviral care (1). Malawi has been one of the hardest hit countries by the HIV epidemic. Current estimates propose 1,100,000 Malawians are living with HIV in 2014, including 130,000 children. 32,000 new infections and 33,000 AIDS related deaths continued to be documented in the last year. However despite these daunting figures, huge progress has been made in the response to the epidemic in Malawi. HIV prevalence amongst 15-49 year olds has declined from 16.4% in 1999 to 10.6% in 2010 and modelling suggests a decline in HIV incidence of 35% from 0.74 per 100 person years in 2009 to 0.48 per 100 person years in 2012. Over half a million (552,808) people living with HIV are alive on ART, resulting in a 50% reduction in AIDS related death since 2004 (2,3).

The adoption of the UNAIDS 90: 90: 90 targets (90% of people living with HIV should know their status, 90% who know their status should be on ART, 90% of those on ART should be virologically suppressed) has galvanised national programmes to re-examine their successes and challenges across the HIV care and treatment cascade. These targets have set the frame for the new Malawi National Strategic Plan (NSP) for HIV response 2015-2020 and concretely mean the aim is for 81% of People Living With HIV to be initiated and sustained on treatment and 73% of all PLHIV to be virologically suppressed. Through this plan it is predicted that adult HIV incidence will decrease to 0.2 (17,000 new infections per year) and paediatric infections to decrease to 3900 per year. To achieve these targets, high impact interventions must be identified at each step of the cascade.

The HIV prevention, care and treatment cascade is described below.

Step 1: HIV testing

The HIV care continuum begins with the diagnosis of HIV infection. Individuals who do not know they are infected can unknowingly pass the virus to others and those who are negative may gain additional motivation to remain negative through post-test counselling. Globally 54% of all adults know their status. In Malawi 43% of women and 40% of men have ever been tested and it is estimated 593,160¹ (54%) of all 1,100,000 people living with HIV are aware of their status.

1. Estimated from Pre ART plus ART clients alive and in care HIV Unit Quarter 1, 2015 Report

Step 2: Referral and linkage to medical care

When HIV testing is positive the person must be linked with medical services to undergo clinical and immunological assessment to determine their eligibility for ART. If not yet eligible (although universal eligibility for treatment will soon be introduced) the client must be retained in Pre-ART care with ongoing eligibility assessments.

Step 3: Initiation and retention on antiretroviral therapy

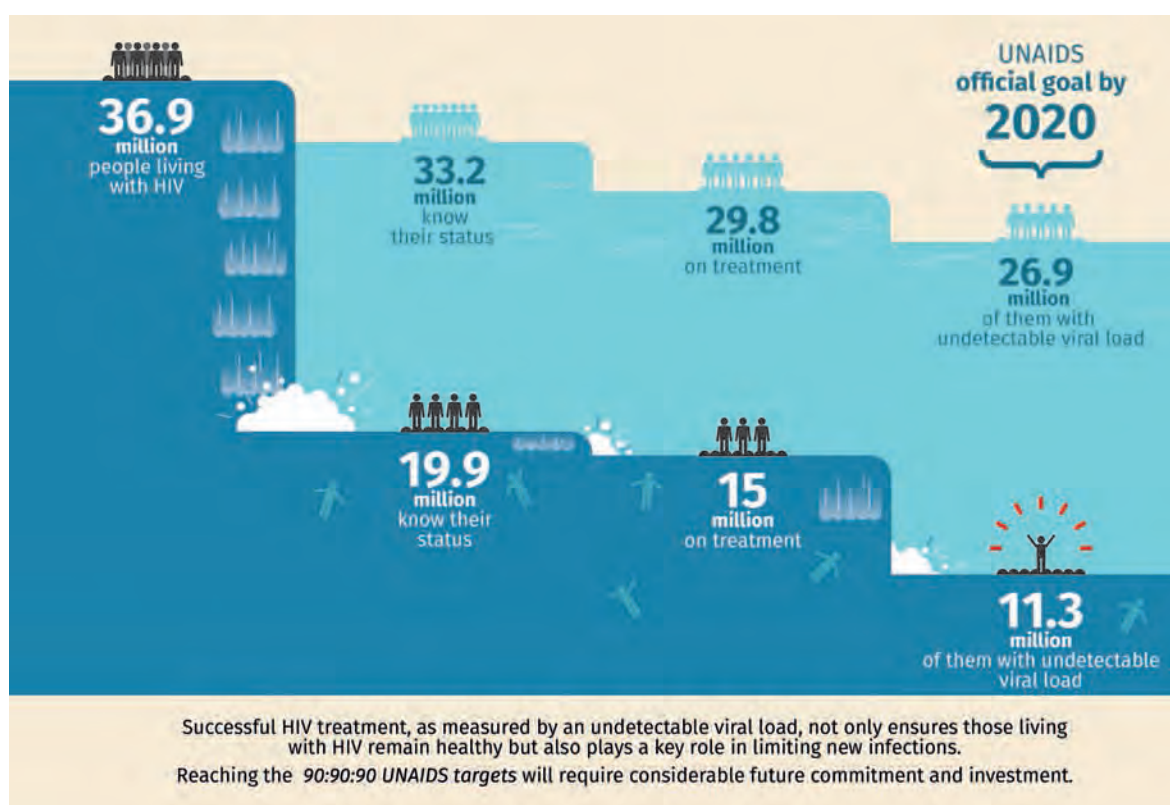
If eligible for ART according to the Malawian National guidelines (Stage 3 and 4, CD4 < 500 cells/mm³, PMTCT Option B+, all children under 5 years) the client must be initiated and subsequently retained on ART. Globally 15 million people are estimated to be on ART. In Malawi 552,808 (3) people are currently alive and receiving ART.

Step 4: Achieving virological suppression

By taking ART as prescribed, a person living with HIV can achieve virological suppression (defined in the WHO and Malawian national guidelines as a viral load less than 1000 copies/ml). Globally it is estimated that 76% of those on ART are virologically suppressed (1). Access to viral load testing in Malawi is currently limited with approximately 18% of all patients on ART accessing viral load testing in 2014. Of those tested in a community based survey in Chiradzulu district, 90.8% of adults on ART were suppressed to < 1000 copies/ml (2).

Figure 1a and 1b illustrate the global and Malawian HIV cascades, comparing current achievements to the 90:90:90 targets set by UNAIDS. Although there has been undoubted success in the fight against HIV in Malawi, a critical assessment at each step of the HIV prevention care and treatment cascade serves to highlight current gaps in service provision.

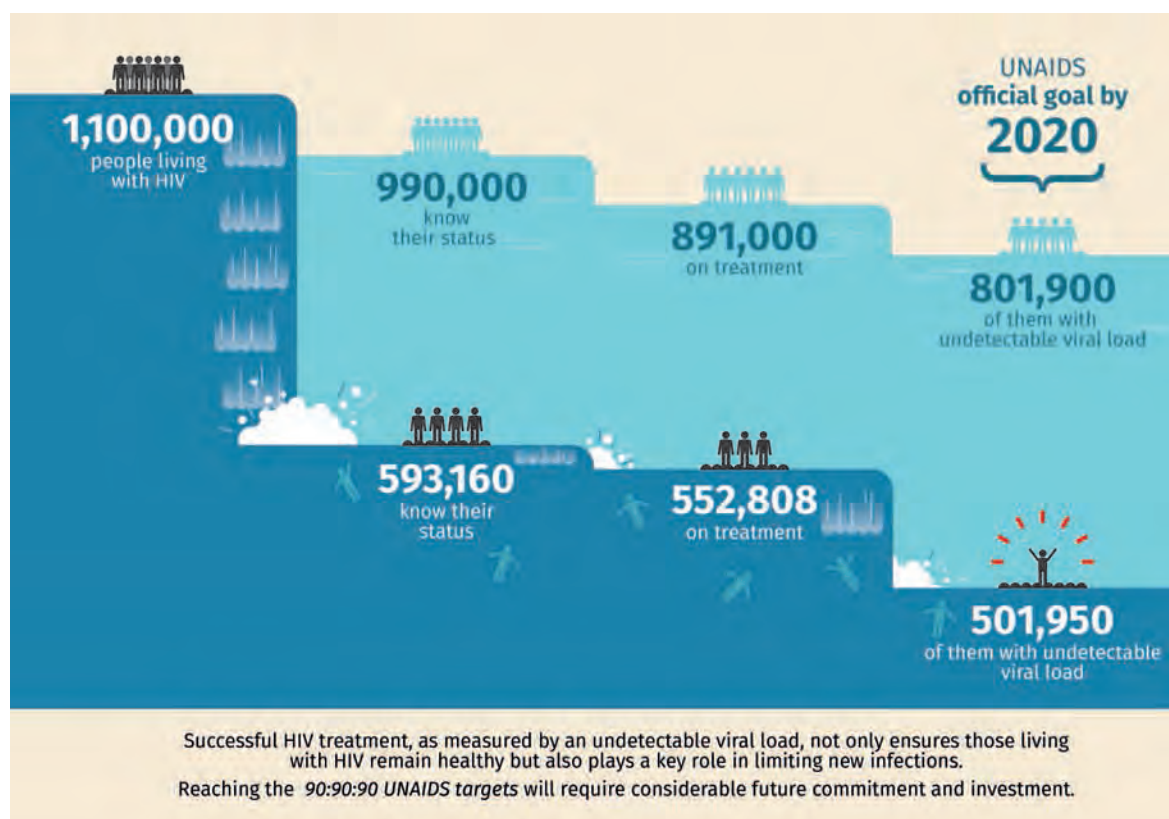
Figure 1a: **The Global HIV Care and Treatment Cascade**²



HIV Unit, Quarter 1, 2015 Report

2. Acknowledgement to MSF for original graphic

Figure 1b: **The Malawi HIV Care and Treatment Cascade**



Source: UNAIDS

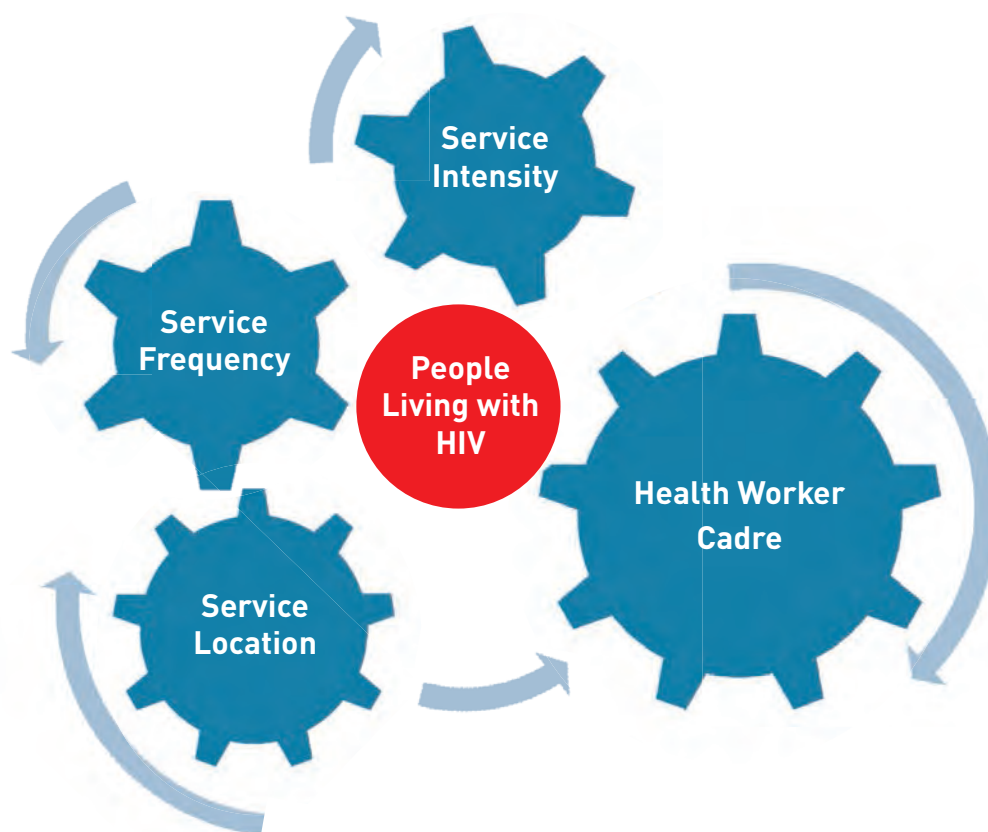
Differentiated models of care within the health system

The provision of HIV service delivery must place the person living with HIV at the centre of the strategy in order to maximise both efficiencies for the client and the health system. Four main “levers” of care have been defined that may alter how, where and by whom care is delivered. The levers can be defined as

- Decentralising care to primary care or beyond (e.g. to health posts or to community pharmacies).
- Task shifting to lower cadres.
- Frequency of the service (linked to duration of refill) and
- Service intensity (separating the need to see a clinician for clinical assessment and/or laboratory investigations versus the need for a stable patient to receive ART)(4).

Having these elements in place lay the foundation for any future community intervention. Malawi has already embraced decentralisation, task shifting of HIV testing and counselling (HTC) and HIV care, and in most instances is able to provide a 3 month drug supply. Service intensity however has not been systematically addressed. In addition, alternative ART delivery models implemented in Malawi and elsewhere that further serve to decongest clinics and reduce burdensome travel and waiting times for patients have yet to be considered.

Figure 2: **The Four Levers to tailor or adapt care to people's needs** (From Duncombe et al)



The role of the community to reach 90-90-90

Strengthening community based strategies across the HIV prevention care and treatment cascade is vital to maintaining what has already been achieved and will prove more essential to reach the ambitious targets set for 2020. An important lesson highlighted from the previous 15 years of treatment scale up is that community and civil society organisations are able to ensure accountability, catalyse demand creation, deliver services (within the facility and directly in the community) and handle resources efficiently.

To date 95% of HIV service delivery in Malawi is facility based. If programmes are to maximise efficiencies both for the health system and for patients it is estimated that community based service delivery will need to be scaled up to cover at least 30% of all services (1).

Scale up of HIV treatment has been enabled over the last decade through the introduction of fixed dose and less toxic medications along with the rising CD4 threshold for ART initiation, resulting in fewer patients presenting with late stage infections. With the advent of virological monitoring, clinicians may grow in confidence that patients are adhering and move towards a client self-management approach, supporting less frequent clinical assessments.

In light of these changes there is a prime opportunity for broader community engagement in the provision of HIV care. The challenge for the next decade is how to adapt delivery of services to the ever growing numbers of patients on ART whilst maximising the benefits of community interventions that enhance the quality of care.

Interventions defined as “community based” have included interventions by health care workers performed as outreach (e.g. community based HTC campaigns), as well as interventions performed directly by community members either at the facility or in the community. Such community based interventions involve PLHIV, lay counsellors, expert patients, mentor mothers, volunteers, community health workers (CHWs), traditional and faith based leaders and specific community based organisations (CBOs).

Activities include demand creation for HIV testing services and early ART initiation, service promotion, ensuring treatment adherence (including support in the identification and interventions for those failing treatment), provision of psychosocial support, revitalisation of the village health committees to strengthen the link between facility and community, improved networking and coordinating mechanisms and support for the follow up of defaulting clients. Review of the role and coordination of these cadres is timely with the international renewed interest in the role of community health workers such as the 544,000 CHWs scale up called for by the Global Investment Framework and the One million Community health workers (1m CHW) initiative (5).

The importance of such community engagement within ART delivery has recently been highlighted by WHO, introducing a chapter on community based delivery of ART in the March 2014 supplement to the consolidated guidelines on the use of antiretroviral drugs for treating and prevention of HIV infection (6). Further guidance and evidence based recommendations are expected in the 2015 revision of the guidelines. A year later in March 2015, UNAIDs released a report highlighting the impact of such community models of ART delivery. The report concludes that community based ART delivery can improve both the level of access to treatment, health outcomes and that such strategies are efficient, effective and of high quality (7).

As such, community based activities should now focus themselves towards achieving the 90-90-90 targets, with evidence based, high impact interventions being implemented at scale. Ensuring coordinated strategies from the Ministry of Health towards the scale up of community interventions, recognition of lay workers, coordination of CBOs and engagement of faith based leaders will be an essential part of the future strategy.

Report Objective

Both internationally and within the 2015-2020 Malawian NSP there is consensus that community engagement is an essential component to reach 90-90-90. The question now is how?

The following report summarises recent evidence across the HIV prevention, care and treatment cascade for community based interventions globally and, based on a mapping exercise performed in March 2015, for those being implemented in Malawi. These findings aim to serve as the foundation for development of a framework for which interventions may be standardised and taken to scale by the Ministry of Health.

Chapter 2

Methodology

A multi-faced methodology was adopted utilising secondary information sourced through desk review combined with primary information collected through key informant interviews (KII) and focus group discussions (FGDs). The following steps were followed:

Assignment design

A steering committee was set up at national level including representatives from the National Aids Council, UNAIDS and representatives of implementing partners. A national level meeting in Lilongwe was held with the project steering committee resulting in an inception report, logistical arrangements for the assignment, report time frame and format, draft framework, and initial discussion on data collection tools and methodology.



A world AIDS Day march highlighting the need to fight stigma and discrimination. Credit: UNAIDS

Literature review

A desk review of existing literature was carried out on community oriented service delivery models along the HIV continuum of care both in Malawi and in similar resource poor settings. Documents reviewed included peer reviewed publications, national strategic plans and reports from the National HIV Unit. Documents were also sourced from UNAIDS and other national and community based implementing partners.

Sampling

The sampling frame for the study was based on the available information of the presence of community oriented service delivery models across the country. The sample comprised of 15 districts, in the Northern Region (Rumphi, Mzuzu, Mzimba and Nkhatabay); in the Central Region (Lilongwe (peri-urban), Dedza, Mchinji, Salima and Dowa); and in the Southern Region (Mangochi, Balaka, Zomba, Neno, Thyolo and Blantyre). At least one community oriented service delivery model per district was documented. Those interviewed included health and HIV development partners, policy makers, INGOs and NGOs, programme implementers, service providers, members of the District Health Management Team (DHMT), District AIDS Coordinators (DAC), community groups (mother groups, support groups and community ART groups) and community health workers involved in implementation of existing community oriented service delivery models. (See Annex 1: List of participants)

Data collection and analysis

Data was gathered during field visits using semi-structured in-depth interviews, focus group discussions and observation of service delivery at facility and community levels. Data collection was conducted from 2nd to 14th March 2015 in the three regions at the national, district and community levels. A matrix was developed to guide documentation of key components observed. Data was analysed by clustering the various issues raised into thematic areas. Data analysis was conducted using a synthesis of information from various service delivery strategies to highlight interventions along the HIV prevention, care and treatment cascade.

Chapter 3

Creating an enabling environment for the provision of community based service delivery strategies

Strengthening Community Based Organizations

The Malawi HIV NSP (2015 to 2020) calls for the active participation of civil society (community, cultural and religious leaders, the formal and informal segments of the private sector, CBOs, PLHIV and community groups) in moving towards the ambitious 90-90-90 targets. To relieve the burden on healthcare providers, a number of the non-clinical tasks relating to patient follow-up and adherence support have been shifted to community based, lay health workers and volunteers and will rely on activities coordinated by CBOs (8).

CBOs however require both funding and technical assistance to strengthen their activities. A number of organisations provide such support with activities including:

- Provision of technical assistance and tools to strengthen community based HIV organizations and groups in HIV technical areas such as HTC, PMTCT and ART.
- Organizational systems strengthening.
- Provision of grants.
- Supporting coordination of partnerships, networking and collective advocacy on priority issues such as stock outs of ARVs and condoms.
- Conducting action research and promoting knowledge management that includes dissemination of lessons learned and evidence-based programming.
- Improving monitoring and impact measurement.

Challenges identified in the support of these organisations include:

- Rapid turnover of staff who often graduate to larger organisations after capacity building.
- Large number of CBOs but no easily available accreditation information regarding quality of intervention and care.
- Adequate accountability of donor funds by CBOs.
- Adequate monitoring and evaluation to measure impact.

Organizations that support CBOs include Southern African AIDS Trust (SAT), PACT, Counterpart, MANASO, Partners in Health (PIH), Elizabeth Glazer Pediatric AIDS Foundation (EGPAF) and Management Sciences for Health (MSH).


EXAMPLE

EGPAF CBO Technical Assistance Project

EGPAF Malawi has been providing technical assistance to six CBOs to strengthen organisational and technical capacity. Objectives of the project are ensuring that each CBO:

- Has advanced knowledge on PMTCT, enhanced capacity and improved internal functioning and controls.
- Is a substantial part of a network of CBOs and stakeholders that promotes HIV prevention and treatment.
- Maintains an enhanced relationship with their district hospital to support HIV/PMTCT referral services.

Key activities have included:

- Capacity building through training in technical, organisational capacity and network development.
- Orientation on referral books for health facility staff, peer educators, volunteers and CBO staff.
- Follow up visits to document success stories and conduct data quality assessments.
- Exchange and learning visits between CBOs and other organisations working with similar target populations.
- Production of IEC materials to promote HIV services.

Key achievements have included:

From December 2014 to May 2015 the six CBOs referred 570 women for PMTCT, HTC and reproductive health services. 693 HIV positive women received support services from the CBOs and 12,788 people received education or awareness messages about HIV/AIDS related services. EGPAF assisted the CBOs to create a formal referral system from the community to the facility. Overall organisational capacity compared to a baseline assessment increased from an average score of 70% to 89%.

Challenges

Despite the achievements made, the CBOs have experienced some project challenges such as high staff turnover (and difficulty institutionalizing changes), supply shortages (e.g. HIV test kits, condoms and educational materials) and implementation of the revised daily subsistence allowance (DSA).



EXAMPLE

The Malawi Network of HIV and AIDS Service Organizations (MANASO)

The Malawi Network of HIV and AIDS Service Organizations (MANASO) exists to coordinate, build capacity, mobilize resources, enhance networking, and advocacy among civil society involved in HIV and sexual and reproductive health issues in Malawi. It is a membership organization with close to 1,000 members spread nationwide out of which 795 (80%) are Community Based Organizations (CBOs), 100 (10%) Local Non-Governmental Organization, and 30 (3%) International Non-Governmental Organizations (INGOs) and other private AIDS Service Organizations.

Its activities are to:

- Improve coordination among civil society organizations implementing HIV and AIDS programs.
- Enhance networking and communication among civil society organizations implementing HIV and AIDS programs.



At the launch of Malawi's Community Charter on getting to 90:90:90. Credit: MANASO

- Increase the capacity of MANASO and AIDS Service Organisations to implement HIV and AIDS programs through effective programming, acceptable financial, administrative measures and effective governance for accountability.
- Conduct joint advocacy.

One of its key achievements in 2015 was the coordination of CSOs to develop the Malawi Community Charter on getting to 90-90-90. This is a framework which will align the work of CSOs to the new NSP and defines what will need to happen in and by the community for the 90-90-90 targets to be achieved. The charter outlines the linkages between health facilities and their communities to implement a '90-90-90 community package'.

Engaging Community and Faith Based Leaders

Faith and community leaders in Malawi play a key role in how their communities make decisions around health service utilisation and influence stigma related to HIV and gender based issues. They are given respect as opinion leaders in their communities and have a public platform from which to challenge stigma.

"In Malawi community leaders have been engaged in HIV programming to fight against stigma and discrimination, and to encourage care and support of HIV infected individuals, OVCs and the elderly; mobilising communities to access HIV prevention; promoting PMTCT and male involvement in PMTCT; and demanding accountability from HIV service providers." Interview with Pilira Ndaferankhande, MIAA M&E Officer

While community by-laws and penalization of unwanted health choices are easily created and enforced, in order to play their rightful role, faith and community leaders need to be provided with a rights-based and gender transformative capacity building approach. They should be provided with appropriate tools and be involved in monitoring and reporting of HIV programmes and activities within their jurisdiction.

The Malawi Interfaith AIDS Association (MIAA) a grouping of mother bodies for all faith denominations in collaboration with the District Interfaith AIDS Committees are implementing a Tiyeni Tisintho (let us change) model whose objective is to prevent the spread of HIV infection and mitigate the impact of HIV and AIDS on individuals and families, within the faith community in Malawi. Activities include training for traditional and faith leaders in HIV prevention, treatment, care and support (with 36 faith leaders having disclosed their HIV positive status), modifying negative faith and cultural practices that interfere with ART adherence and perpetrate HIV and AIDS related stigma, promotion of HTC, VMMC, disclosure, gender, human rights, impact mitigation and community mobilization including formation of support groups (9).

Creating a national policy framework for community based strategies

There are a wide range of community based interventions implemented in Malawi. A clear framework is needed to identify and prioritize those interventions that target the 90-90-90 goals and that should be systematically implemented in all sites regardless of which partner is supporting. Placement of a new cadre by different NGOs may also cause conflict within staff in a facility due to differences in salary, “preferential treatment” and lack of clarity in management lines. Harmonisation of job descriptions, training and salaries would help to support the accountability of service providers.

The development of the job description and role out of the HIV Diagnostic Assistants may serve as an example of how a national coordinating mechanism can guide implementing partners on a particular intervention with the long term goal of the ministry absorbing the new cadre into the health staffing establishment list.

EXAMPLE

Health Diagnostic Assistants (HDAs)

In 2015, aligned with the new NSP for 2015-2020 as well as PEPFAR’s priority of epidemic control, PEPFAR partners together with other implementing partners have begun hiring HIV Diagnostic Assistants (HDAs) to expand provider initiated testing and counselling throughout health services across Malawi. HDAs will complement the efforts of existing HTC counsellors to expand Provider Initiated Testing and Counselling (PITC) services in health facilities where many HIV positives are yielded. Over 900 HDAs are expected to be hired and deployed. The Ministry of Health (MOH) has clear policies, guidelines and protocols for the implementation of HIV Testing and Counselling (HTC), but the expansion of PITC on a larger scale (beyond ANC, TB and VMMC services, which are well established), still remains a challenge. The recommendations for the introduction of this cadre provide guidance on planning, recruitment and placement, monitoring and evaluation. There is a clear emphasis placed on collaboration with local DHMTs, ensuring equality for remuneration and maintaining the management line within the MOH health facility.

Chapter 4

Community strategies to enhance HIV prevention

Community Strategies to support interventions such as condom distribution and voluntary medical male circumcision (VMMC) were not analysed within the scope of this report. It is recognised however that the community plays an essential role in mobilising members to utilise these services. Malawi's condom distribution per capita is reported as 4 per person per year in the sexually active population and condom use among high risk populations is low. Hence within the NSP, condomise campaigns are planned utilising CBO clusters within traditional authority catchment areas.



A couple waiting at Likuni Health Centre. Credit: m2m

Chapter 5

Community strategies to enhance uptake of HIV testing and linkage to care

Globally in 2014 an estimated 19.9 million (54%) of people living with HIV knew their status. This testing gap is more marked for children, with only 32% of children living with HIV being aware of their diagnosis (1). This dramatic gap at the entry door of the cascade poses one of the greatest operational challenges. Current testing practices have limitations both in terms of their reach but also due to human resource and commodity constraints. To address this first step in the cascade, a strategic mix of testing approaches will be needed, based on an analysis of prevalence data in specific populations or geographical locations.

To further guide national HIV programmes on testing strategies, WHO released new guidelines for HIV testing services in July 2015 (10). Two strong recommendations included:

- In generalised epidemics a strategic combination of community based HIV testing and counselling is recommended in addition to PITC.
- In all epidemic settings community based HIV testing and counselling is recommended for key populations in addition to PITC.

Other key points highlighted in the guidelines are that lay workers should be allowed to provide HIV testing services, PITC should be scaled up beyond ANC and TB settings, and that a new strategy for community based testing may be considered called test for triage (a single HIV test is offered in the community with linkage to a facility for confirmatory testing and linkage to clinical care if needed). Self testing is also outlined as an option that may be considered.

In Malawi by the end of 2014, 724 static and 188 outreach sites were providing HTC. In 2014 1,895,058 people received HIV testing, however only 31% were first time testers and 9% were less than 15 years old. By the end of 2014, the MDG population based survey indicated that 43.3% of females and 40% of males reported undergoing HIV testing in the previous 12 months(2). To address this gap community engagement in the proposed testing strategies will be key.

Provider initiated testing and counselling (PITC): the role of the community

Routinely offering an HIV test during clinical encounters at hospitals or primary care settings has to date been focused in ANC and TB settings. A systematic review examining the operational implementation of PITC in sub-Saharan Africa noted that the translation of policy into practice was very mixed, with wide variations in the uptake of testing and that linkage to care and treatment was often poor (11). WHO recommends that in generalised epidemics PITC should be offered for all clients in

all services (STI, viral hepatitis, TB, children under 5, immunization, malnutrition, antenatal care and all services for key populations) as an efficient way of identifying people with HIV (10).

In Malawi, PITC to date has not yet been systematically implemented except within ANC, TB and STI services. This represents significant missed opportunities. The Malawi NSP emphasizes that PITC in the highest priority settings should be the testing model to be immediately strengthened. This includes routine testing within adult and paediatric inpatient wards, nutrition units, ANC, TB, STI and family planning clinics. In addition, specific populations at highest risk of HIV infection including sex workers, men who have sex with men, young women 15-24, fishermen, estate workers and prisoners should be specifically targeted for testing along with children, where coverage of testing remains low (8).

In 2015 a new cadre, the HIV Diagnostic Assistants, were introduced at national level. Although initially this cadre will be supported by implementing partners, MOH has spearheaded the development of the strategy and harmonised the job description. However in order for PITC to be accepted as a component of every visit to a health care setting, community mobilisation will be needed. Awareness raising may be performed through community health workers, support groups and community leaders.

Community based HIV testing and counselling

Community based testing models have high rates of acceptability, are important for increasing early diagnosis, reaching first-time testers and for people who otherwise seldom attend clinical services such as men, adolescents and key populations (12). However these approaches generally yield a lower positivity rate than facility based approaches. Community HTC includes a number of approaches including door to door home based testing (either targeted to families of index HIV positive clients or offered to all in a geographical area) and mobile outreach campaigns with testing in workplaces, bars, places of worship and educational establishments. To date 93 of 124 countries in 2014 included national policies to support community based HTC (10).

A study in Uganda performed between 2003 and 2005 comparing stand alone, hospital based PITC, household index client home based testing and door to door HTC demonstrated that household member and door to door strategies reached the largest proportion of untested clients whilst hospital based PITC yielded the highest positivity rates. Costs per client were \$19.26 for stand alone, \$11.8 for hospital based, \$13.85 for household member HTC and \$8.29 for door to door HTC (13). In a more recent study performed in Swaziland, in 2012 home based HTC cost \$11 per person tested compared with \$24 per person tested in mobile HTC outreach strategies (14). In a study from Malawi performed in 2006, the cost per person tested in a home based testing strategy was reported at \$12.2 per person tested (15).

In Malawi there have been several successful HTC outreach campaigns, however there are concerns about the costs of such activities in comparison to the yield. Hence a more targeted approach to community testing has been proposed, specifically targeting female sex workers and clients, men who have sex with men, fishermen, estate workers, discordant couples, areas of high prevalence/geographical hotspots, young women 15-24, children including OVCs and prisoners.

Three community based HTC models in Malawi were identified through the field work for this report: door to door HTC, targeted community outreach HTC and integrated community based HTC.

Door to Door HTC in Malawi

The door to door HTC model targets areas with high HIV prevalence, low up-take of HTC services, and areas that are hard to reach. HTC counsellors are recruited from within and reside in the community. Each HTC counsellor is assigned a population area of around 8,000 people (approximately 1,400 households) and is responsible for community mobilisation, health education including nutrition, condom distribution, HTC and linkage to care.



A field officer conducting door to door HIV testing and counseling. Credit: DAPP

This approach considers the family as the entry point for the service aiming to reduce stigma and discrimination in the family and the community as a whole. The volunteer, in liaison with the community, organises sensitisation meetings for traditional and other community leaders. Associated activities alongside the door to door HTC include:

- Organising and facilitating periodic HTC Counsellors' meetings which address pertinent issues affecting areas of operation and training of HTC counsellors in door to door approaches.
- Household HIV/AIDS pre-and post-test health education.
- Support and follow-up counselling, facilitating the formation of support and post-test groups and provision of training to support and post-test groups.

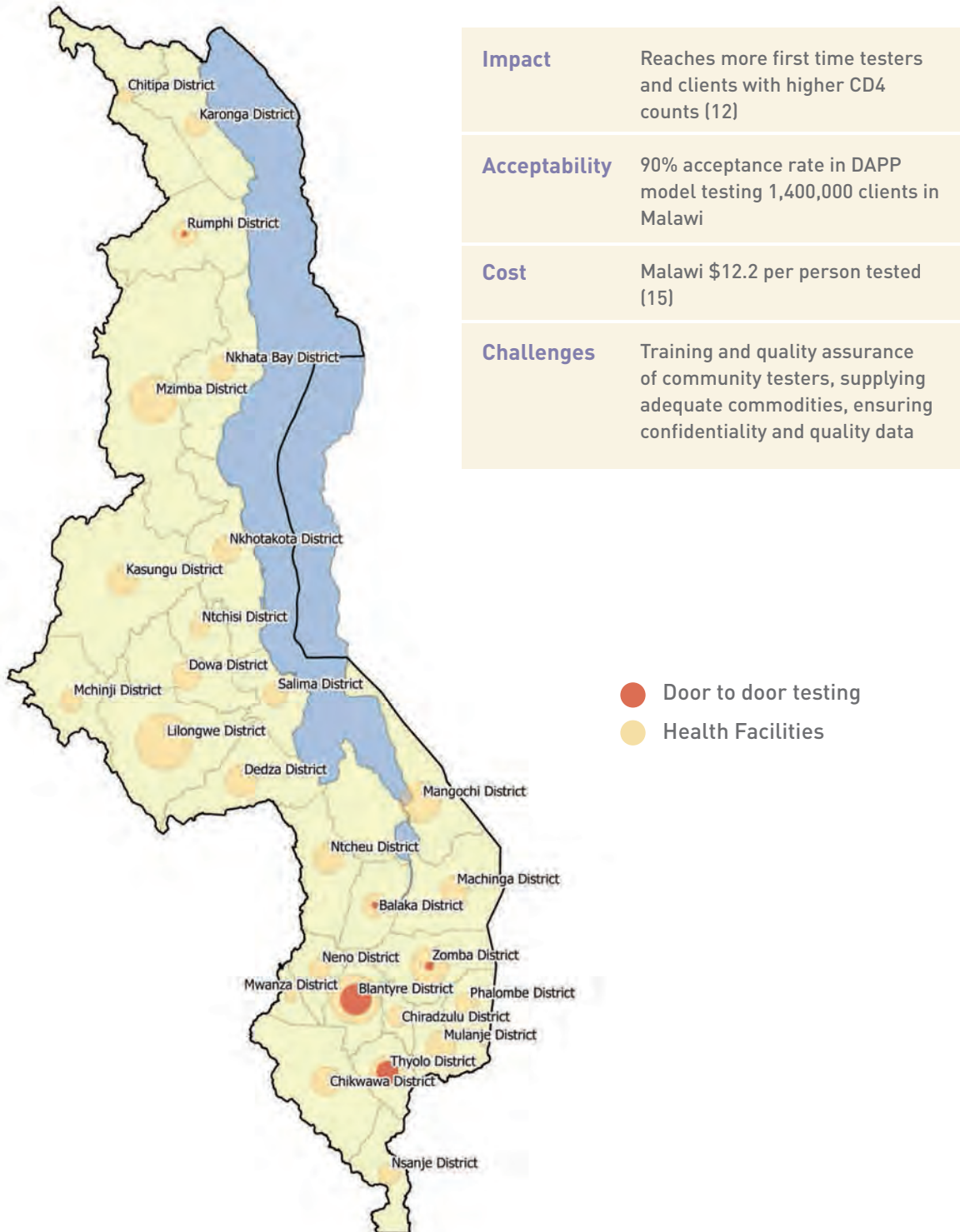
Organisations interviewed that are supporting door to door HTC are the Development AID from People to People (DAPP) in Zomba, Blantyre, Thyolo and Mulanje, St Luke's Hospital in collaboration with Dignitas in Zomba and Management Sciences for Health (MSH) Community Based Family Planning and HIV Project.

EXAMPLE

Door to door Testing in Malawi

DAPP offers door to door HTC and facilitates access and retention in care. The DAPP door to door model has led to increased demand for HTC services. 1,400,000 individuals (39% Males and 61% females) were mobilised for testing between 2007 to 2013 in Blantyre, Thyolo, Mulanje and Zomba districts yielding a 90% acceptance rate (16).

Figure 3: Door to Door Testing



Targeted and integrated community outreach HTC in Malawi

Community outreach HTC targets all social, age and gender groups. In addition, utilising community mobilisation and possible outreach testing during expanded programme on immunization (EPI) visits may also serve to promote increased infant diagnosis. Outreach testing is implemented by public sector and civil society organizations using health facility outreach teams, CBOs, NGOs and organizations of PLHIV.

A team from the health facility or CSO, community based counsellors, volunteers and HSAs offer HTC services at a community venue such as a club, church, school or workplace. HIV testing may be offered as a stand-alone service or as part of a general health promotion approach. At such events, partners distribute IEC materials and arrange various activities such as theatre groups, motivational speeches on HTC, treatment literacy and STIs. Counsellors refer HIV positive individuals to the health facility for confirmatory testing and enrolment into pre-ART, ART or other health services. Test kits for community outreach HTC are sourced from the District Health Office.

The Malawi AIDS Counselling and Resource Organization (MACRO), Banja La Mtsogolo (BLM), Population Services International (PSI), Family Planning Association of Malawi (FPAM) and AIDS Service Organizations have been key players in the community outreach HTC service delivery.

EXAMPLE

Integrated Community Outreach HTC

The CRS IMPACT Project (2009-2014) implemented community health days to bring hard-to-reach communities a wide array of health services, and to refer these populations into facility-based care. The health services provided include HIV testing and counselling, hypertension and tuberculosis screening, growth monitoring, malnutrition screening and immunization updates for children under five. Other services were prioritized according to the geographic area. These “one-stop-shops” were staffed by expert clients and MOH facility staff including HTC counselors, nurses and clinicians. Individuals who tested HIV-positive or those requiring additional care were referred to the nearest health facility. Expert clients assisted by giving personal testimonies, conducting health talks, and supporting HTC by giving HIV-positive clients a copy of their referral forms, and collecting referral forms to be filed at the facility (17).

Partners In Health also offers a broad-based integrated community program in Neno District. In early 2015, the community programs and clinical teams paired up to host twice weekly integrated outreach events in remote areas (Screening for Health and Referral in the Community, or the SHARC program). These events host comprehensive screening including testing for HIV, TB, malnutrition, and NCDs. All patients without an HIV test in the preceding 3 months are offered HIV testing. This is possible after discussions that concluded to forego guidelines for HTC counsellors that dictate risk assessment preceding testing, and often can result in patients being turned away if they are not deemed at risk. Patients with positive test results are then referred to the nearest health centre for treatment. Additionally, the community programs team holds bimonthly large-scale support events for patients with HIV. An HTC counsellor is included in many of the community events to encourage community-based testing.

Early Infant diagnosis and pediatric HIV testing

In 2013 only 15 of the 21 Global Plan priority countries were able to report data on coverage of early infant diagnosis (EID). In those that did only 42% of exposed infants received EID in their first two months of life (1). In Malawi, ART coverage for children (< 15 years) is 42% compared to 71% for adults using current eligibility criteria (18). Access to effective testing is one of the greatest barriers contributing to this low coverage with only 37% of exposed infants less than 2 months old receiving HIV DNA PCR results (2).

Barriers to paediatric testing have been classified as client related (caregivers not seeing the need to test a healthy child or wanting to protect the child from the stigma of HIV), provider related (distance to facility, long waiting times, long turn around for EID results, lack of commodities) and policy related (for example the age of consent to test without a guardian) (19). Missed opportunities for testing have been reported in many settings. A study from South Africa assessed procedures for delivering EID in 625 facilities and revisited 565 of these sites to assess the HIV status of 4-8 week old infants receiving their 6 weeks EPI. EID services were available in more than 95% of sites and in 72% of immunisation service points (ISPs). However only 9% of ISPs offered provider initiated counselling and testing for infants (or mothers) of unknown HIV exposure. Interviews with self-report of HIV positive mothers at ISPs showed only 55% had their HIV status documented and 35% intended to request EID. Reasons for not requesting EID were fear of discrimination, poor adherence to ARVs and inadequate knowledge of mother to child transmission (20).

Testing of older children is also a challenge. A recent study assessing the provision of PITC for children in out-patient settings in Zimbabwe demonstrated that the lack of availability of trained staff, perceived unsuitability of the guardian and lack of commodities were the main reasons for not offering PITC. Children who were asymptomatic, older or attending with a male or younger guardian had significantly lower odds of being offered HIV testing (21).



A young child at Nkhoma Health Centre. Credit: m2m

A study on barriers and facilitators to EID in Malawi highlighted significant challenges when using the health passport to identify HIV-exposed infants, shortages of health care workers and lack of supervision of health surveillance assistants (HSAs). Health care workers reported shortages of dry blood spot (DBS) test kits and difficulties getting blood from infants. Sample collecting and processing was hindered by a lack of transport and fuel. Parents and caregivers complained of how long it took to get to and from the clinic, and lack of confidentiality at the clinics (22).

These assessments identify a range of challenges affecting the EID cascade. Some relate to supply, sample transport and laboratory limitations, however several aspects (stigma reduction, identification of exposed infants for testing, tracing positive babies) can be directly strengthened by enhancing community engagement both at the facility and within the community.

Service Integration and enhanced referrals for EID

Integration of ANC and PMTCT has been shown to improve retention but is performed less systematically postpartum. Implementation of mother baby pair clinics where mothers and exposed babies are seen simultaneously has served to increase uptake of EID. In addition, “enhanced referrals” where nurses or lay workers accompany postpartum women and their infant directly to the location where EID is carried out (even if nearby) has been shown to increase EID uptake (25.6% to 54%) (23).

In Malawi, several lay cadres are employed to assist with the running of mother baby pair clinics, including the identification of those infants due for testing and with escorting clients between various points of care in facilities. These programmes include CHWs in the Tingathe Program, Mentor Mothers in the m2m programme, and Dignitas’ expert clients. CRS IMPACT’s expert clients previously also assisted with this.

Role of the community in PITC beyond PMTCT services

With the scale up of PMTCT B+, greater efforts to identify the infants of those mothers who have dropped out of PMTCT or who may have seroconverted during pregnancy and breastfeeding should be made. Strategies proposed to identify these high risk infants include scale up of opt-out PITC in a range of non-PMTCT settings (OPD, EPI, IPD and nutrition services). The highest positivity rates have been shown within inpatient and malnutrition settings (24). In Malawi, where PITC was systematically offered in an inpatient paediatric ward, 8.5% of children were identified as HIV positive and 6.5% as HIV exposed (25). Currently systematic screening of all children attending non-PMTCT services is not implemented. If this is considered in addition to investment in training for paediatric disclosure counselling, investment in community mobilisation to increase acceptance of this strategy is needed.

Community based testing for children

Evidence on community based strategies specifically aimed at identifying HIV positive children is lacking. Door to door testing does encourage couple and family testing but in particular targeted community based testing of children and family members of identified HIV positive cases (index client testing) may be more cost effective. A survey carried out in 2010 in Malawi reported greater than 80% of children of adult patients on ART had not been tested for HIV.

EXAMPLE

Targeted community based testing for infants and children

Baylor College of Medicine Children's Foundation-Malawi's Tingathe Community Outreach programme in Lilongwe uses community health workers (CHWs) to provide support for PMTCT, EID and paediatric HIV services. Some of these CHWs are also trained to perform HTC. Based in facilities, these CHWs provide HIV testing and counselling services with the goal to increase paediatric HIV identification and enrolment into care. While primarily facility-based, these counselors also provide community-based testing. Initially the community-based testing was provided on a door-to-door basis and was later honed to



Mother and child at Nkhoma Hospital. Credit m2m

families of index cases. The CHWs are also deployed to give support to mothers enrolled in PMTCT and provide integrated PMTCT and exposed infant follow up. The study found that the CHW intervention increased child enrolment six-fold (from 3.2 to 19.8 per month), with a seven-fold increase in enrolment per month for infants. This resulted in 1,667 infants enrolled with a younger median age at enrolment (5.2 vs. 2.5 months). This study highlights the important role that CHWs can play in improving paediatric HIV identification and enrolment

into care by conducting HIV testing, linking children to care, and providing support to PMTCT mothers through a multi-pronged CHW led testing strategy which improves retention into care (26).

While very effective, the model requires intensive supervision, a full-time dedicated CHW cadre, intensification of human resource monitoring, capacity building (training, quality assurance, data, confidentiality) and infrastructure to support service delivery at the facility. Finally, the model may not suit all locations (one size does not fit all) as some areas may have topographical challenges where riding a bike may not be feasible.

Impact	Lay worker tasked to work both at facility and in community to identify HIV infected pregnant women and exposed infants (and provide PMTCT support) and test family members of index clients either in the facility or community.
Acceptability	Child enrolment increased six fold and infants were enrolled in care approximately 2 months earlier (26).
Cost	In this model testing rates increased significantly. Cost \$9 per newly identified infant (DNA PCR) through community testing .
Challenges	Training and quality assurance of community testers, supplying adequate commodities, ensuring confidentiality and quality data for community based testing.

HIV Self Testing (HIVST)

HIV self-testing may be an additional strategy to reach those not reached by other HTC services. Studies, many of which have been performed in Malawi, suggest HIVST is acceptable (in Blantyre 93% of those randomly selected were willing to perform self-testing), accurate (27,28) and to date there are no reports of serious adverse events (29). Confirmation of a HIV positive result will still need conducting at facility level. A number of models have been proposed as to where and how to best offer self-tests, ranging from within the facility where the test is fully supervised or where a test is accessible in the community, distributed by community health workers or freely available at community pharmacies. Studies are ongoing to determine efficiencies and cost effectiveness of a variety of self-testing models both in Malawi and elsewhere.

Linkage to care

It is no longer sufficient that clients just test for HIV. It is important that those that test HIV positive are linked to care and treatment services whilst those testing negative are linked to preventive services such as VMMC, SRH and family planning. Data on linkages to care are limited, however one systematic review following patients from diagnosis to ART initiation demonstrated only 25% initiating ART. Loss to follow up prior to initiation was higher among men, in patients with low CD4 counts and low socioeconomic status (30).

In a study performed in Swaziland where home based HTC and mobile HTC were implemented, of those testing positive only 34% enrolled in HIV care and of those eligible only 52% initiated treatment within 6 months (14). In rural South Africa, 62% of a cohort of clients testing positive through home based testing linked to care (defined as having a CD4 at a facility). Factors predictive of decreased linkage were younger age (15-24), not believing the test result, not having time to seek health care, belief that ARVs make you sick and drinking alcohol (31).

A number of strategies to enhance linkage between community based testing and clinical assessment in a facility have been documented. Examples include referral forms being given to patients, strengthened post-test counselling, community health workers or other peer workers accompanying positive patients to the facility, use of immediate CD4 testing in the community or implementation of reminders using M-health. However, strong evidence for impact is currently lacking.

EXAMPLE

Community-level Linkages to Care

In Malawi organisations implementing community based testing have also demonstrated the role of community health workers in supporting linkage of those testing positive to enrolment in care. An example is the formation of TRIOs (the infected client, the partner and a family member or friend) at community level and who support the initial linkage to care as well as ongoing retention and adherence. In Neno District, Village Health Workers (VHWs) paid through Partners In Health, play an integral role in linking patients to care who are diagnosed at community events. VHWs also refer clients directly from their households to facilities for testing.



KEY MESSAGE

HIV testing and linkage to care

- Community sensitisation and mobilisation will be essential to increase acceptability of PITC as an integral part of any OPD and IPD service.
- Door to door and outreach testing strategies should be coordinated by the Ministry of Health to ensure geographical hot spots and high risk populations are accessed.
- Self-testing should be considered in the future and must integrate linkage to care strategies.
- District HTC Coordinators should take the lead to improve communication and coordination between facilities, CBOs and NGOs to ensure that coverage of HTC and linkage is achieved.
- The Ministry of Health must strengthen commodity supply chains for both PITC and community based testing for any strategy to be effective.
- As self-testing is being considered, stakeholders must develop and integrate linkage to care strategies.
- Any outreach testing strategy must incorporate and monitor linkage interventions.

Chapter 6

Facility based strategies for enhancing retention and adherence

Starting people on ART alone is not enough. Retaining them in care with a suppressed viral load is the ultimate goal of a successful ART programme. Data reported from 154 cohorts representing 1,554,773 patients in 42 countries reported retention of 78%, 71% and 69% at 12, 24 and 36 months on ART respectively (32). In Malawi by the end of December 2014, 706 sites were providing ART with 552,808 alive and on ART. Retention rates at 12, 24 and 60 months were reported as 78%, 73% and 59% respectively (2).

Adherence support needs to go beyond treatment education given at ART initiation and be tailored to address the challenges faced by clients identified to be failing. This requires assessing behavioural, emotional, cognitive and socio-economic issues. To do this, adequate time needs to be spent with each client. In addition, all sites should be able to deliver tailored adherence support for pregnant and breastfeeding women and disclosure counselling for children. With the massive scale up of ART initiation envisioned with the implementation of universal eligibility for treatment, the challenge of delivering effective adherence support and timely defaulter tracing within already overburdened health care facilities will only increase.

Hence in order to adapt to the growing cohort, a critical review of patient case management approaches along with consideration of innovative ART delivery strategies are both urgently needed. The following section outlines some specific strategies employed that address the second and third “90” targets.

Expert patients, lay counsellors and community health workers to support patient education and counselling

Patient education and adherence counselling are essential both when ART is initiated and throughout the treatment journey especially when treatment failure, ideally detected with routine viral load, is identified.

Several systematic reviews have found that counselling and treatment education as well as the use of peer supporters improves adherence (33, 34). Who performs this role in many resource limited settings, where human resources for health are limited, is not always clear. Furthermore the complexities of the counselling required to deal with patients identified with a high viral load, those embarking on PMTCT B+, or a child requiring disclosure of their status, places increasing technical demands on the lay cadres who are performing this role.

1. Estimated from Pre ART plus ART clients alive and in care HIV Unit Quarter 1 2015 Report



Life Concern (LICO) is one of the CBOs that EGPAF has worked with to improve community to facility linkages and referrals. LICO's Executive Director Peter Gondwe is pictured here going through referral figures with Sydney Lusare, an Antiretroviral Therapy Counsellor at Bolero Rural Hospital, Rumphu. Credit: Robin Wyatt

In Malawi the provider who performs this task varies across sites and is often dependent on the support of the implementing partner. Some responsibility lies with the nurses and/or HSAs but in many partner supported sites an additional cadre, commonly known as expert clients or in some sites community health workers, have been recruited and are separately funded to perform this task. Expert Clients may be HIV positive volunteers with some being paid between 20,000-42,000MWK. In addition to patient education and adherence counselling they are often responsible for (35):

- Improving patient flow by assisting with checking weight, pulling of mastercards (patient records) and packing of medications.
- Guiding patients to various departments within health facilities.
- Identifying very sick patients from the outpatient department to ensure they are fast tracked for service.
- Referring patients to CBOs for further support. Every health facility has a list of all referral options posted in the Senior HSA's office which eases referrals to support groups, and, both government and civil society services operating locally including social welfare and safety net programs.
- Providing health education on basics of HIV, ART, adherence, preventing opportunistic infections, PMTCT, safer sex and risk reduction, living positively, nutrition, and disclosure to ART and PMTCT clients (and their family members) through group and one-on-one sessions.
- Tracing ART patients who miss appointments (through phone calls, SMSs or home visits).
- Tracing contacts of index patients for testing.
- Providing group pre-test education.
- Conducting TB screening and referrals.

- Encouraging pregnant women to test for HIV, supporting PMTCT follow up and increasing uptake of EID.
- Education on cervical cancer.

However, the exact range of activities varies according to which implementing partner is supporting. Expert Clients are/were employed by many NGOs such as Catholic Relief Services Consortium, m2m, Dignitas International, Bridge II, Baylor College of Medicine and Clinton Health Access Initiative (CHAI). Higher level psychosocial support is also provided in some settings.

EXAMPLE

Dignitas International

Dignitas International supports 240 expert clients in 102 health facilities in the South East Zone. From January to March 2015, 55 of the supported facilities (including district hospitals) registered 328 defaulters and expert clients traced 288 (88%). 241 (73%) returned to care, and 36 (13%) had transferred out to other facilities. Expert clients in Dignitas supported sites also support PMTCT implementation. Expert clients traced all 75 pregnant women who had defaulted and found 60 with 58 (97%) returning to care. 5 had died and 10 had transferred out.

Since the start of the expert client program, 377,653 people have been reached with health promotion and education on the importance of testing, nutrition, positive living for PLHIV, drug and substance abuse and lifestyle management aimed at reducing the development of complications of non-communicable diseases. Expert clients have also provided counselling to over 45,000 individuals with identified poor adherence. As of June 2015, expert clients have provided support to over 5,000 HIV positive pregnant women registered in these health facilities.



An Expert client welcoming a woman who defaulted from treatment and is back into care. Credit: Dignitas

EXAMPLE

St. John of God Hospitaller Services

St. John of God Hospitaller Services provides psychosocial counselling to HIV infected and affected individuals who are experiencing a range of psychosocial issues such as denial, fear, anxiety, depression, anger, challenges with disclosure, stigma, discrimination and marital problems arising due to HIV and AIDS. Counsellors in this service have a higher level of training and the service provides a confidential and specific environment for those who may have difficulties accessing appropriate counselling services within the public system. The Hospitaller also orients health service providers and community lay HIV and AIDS support group counsellors in basic HIV and AIDS counselling skills for identification of psychosocial issues and provision of counselling to PLWHA and other affected individuals. Awareness sessions to in-and-out of school youths regarding drug and substance abuse have also been facilitated by the organisation.

Key achievements made by St. John of God in psychosocial counselling from 2011 to 2014 (36):

- 330 health service providers (HTC, ART and PMTCT) have been trained in basic psychosocial counselling skills.
- 294 CBO volunteers benefited from basic psychosocial counselling sessions.
- 164 faith leaders trained in basic counselling skills.
- 306 youths had been referred for HTC services.
- 25 youth leaders trained as trainer of trainers for drug and substance abuse in relation to HIV.
- 30 teachers had been trained as trainers of trainers for drug and substance abuse in relation to HIV.

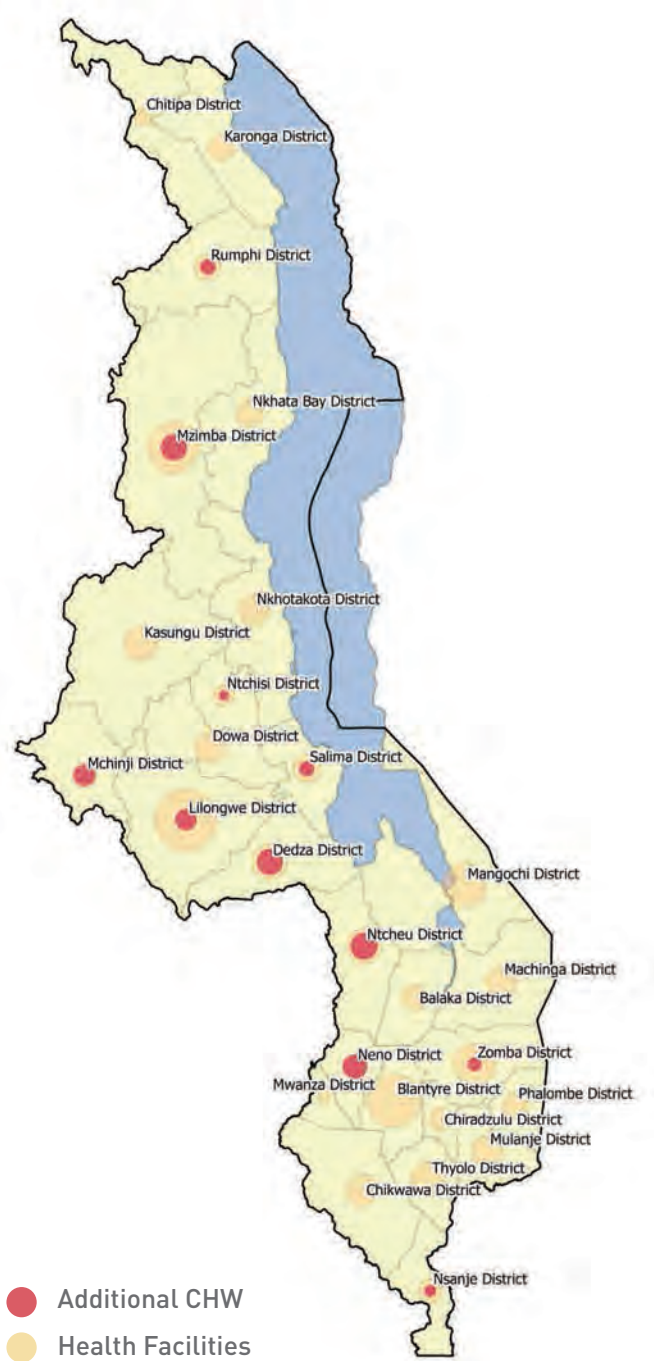


Individual Counselling Session by CBOs Members in Nkhata Bay. Credit: St John of God

Figure 4: Expert Clients



Figure 5: Additional Community Health Care Workers



Intervention for adherence and psychosocial support	Lay worker with specific job description to provide structured adherence counselling to patients early in their treatment and when identified with a high viral load. The same cadre could be trained to perform paediatric disclosure and specific PMTCT counselling.
Impact	Lay adherence interventions have been shown to impact on adherence (31,32). Re-suppression rates after enhanced adherence range from 40-55% (see chapter 8).
Acceptability	This additional cadre as has been added by implementing partners in approximately 32% of all ART sites in Malawi.
Cost	Cost of trained expert client per annum \$540.
Challenges	Currently no harmonization of job description, training or remuneration of this cadre. Emphasis of activity currently dependent on the implementing partner.

Appointment systems and client tracing

Defaulter tracing of patients who do not attend for their ART refill is a common strategy but is often not systematically implemented in national programs. In some settings clients are only traced once defined as lost to follow up within the ART register whilst others employ more rapid tracing strategies (within 3-7 days of a missed appointment). To perform more rapid tracing an appointment diary must be implemented or lists of clients with missed appointments generated, utilizing the electronic medical records available in some sites. A systematic review including 54 cohorts representing 187,666 patients divided between cohorts with tracing or non-tracing, demonstrated that cohorts that employed physical tracing had lower estimated loss to follow up (LTFU) (7.6% v15.1%) , higher retention on ART (80% v 75.8%) and higher retention at the original site (80 v 73%) (37).

In Malawi a review of clinics where appointment diaries were implemented for PMTCT patients in 23 health facilities and missed appointments tracked through text messages, phone calls and home visits demonstrated that 332 clients who missed appointments were identified, a 163% increase compared to the system previously used to identify missed appointments (38). In a second study in Malawi performed to determine true outcomes of loss to follow up, 70% of those documented LTFU were able to be traced (39). Tracing also impacted transmission, as demonstrated in a modelling study to compare the impact of immediate or delayed tracing on HIV transmission using two large cohorts in Malawi. Immediate tracing prevented 3.6 new infections per 1000 versus 2.5 for those having delayed tracing, concluding that tracing enhances the preventive effect of ART (40).

In Malawi the time frame for triggering tracing activities varies across sites. Tracing may be performed by community health workers, expert clients or HSAs who hence form an essential link with the community to perform this task. Clients who have missed their appointment may be identified through automatic lists in centres with electronic medical records or in paper based facilities through the use of an appointment diary. Outcomes of tracing activities should be reflected in the client master cards and systematically reviewed.

A number of implementing partners are supporting tracing activities across the country illustrated in Table 1. However there should be coordination by the health facility staff to improve completeness of information and harmonisation of these systems. All patients should be in a diary and traced (not only PMTCT clients) and this should be a standard practice across all sites and not only in those are supported by an implementing partner.

4. Extrapolated from project accounts of implementing partners. Volunteer living allowance ranges from 20,000 to 42,000 MWK per month. A weighted average annual financial cost is presented in US\$ equivalents

Implementing Entity	Appointments tracked	Methods of identifying clients to trace	Timing when follow up is initiated	Tracers	Catchment areas	Transportation
CHAI	Any missed PMTCT appointment	PMTCT appointment register at ANC and maternity wards	Within 2 weeks of missed appointment	CHWs and HSAs	Facility catchment area	Bicycle
Dignitas	ART missed appointments and defaulters	Booking diaries and MOH master cards clinic registers	Tracing conducted weekly	Expert clients and HSAs	Facility catchment area	On foot
DREAM	Any missed PMTCT appointment	DREAM computerized system	Tracing conducted weekly	Volunteer activists	Facility catchment area	On foot
Lighthouse	ART defaulters only	Baobab computerized system	Tracing list generated every 2 months	Full time tracers	Facility catchment area	Motorcycles
M2m Malawi	2nd ANC Exposed infant follow-up	m2m logbooks Clinic registers	3 days after missed appointment	Mentor mothers	5km radius	Bicycles
MSF Belgium	Any missed PMTCT appointment ART missed appointments	Appointment diary Health Centre tracing register	Weekly after 5 days after missed appointments	HSAs	Facility catchment area	On foot
Partners In Health	Any missed PMTCT appointment ART missed appointment	Tracing forms Electronic medical record	Every 2 weeks	VHWs ART clinic staff	Facility catchment area	Motorbikes (ART team) On foot (VHWs)
Baylor (Tingathe)	Any missed PMTCT/ART appointment	Tingathe master cards Clinic registers Appointment booking diaries	Within several days of missed appointment (maximum of 2 weeks)	CHWs	Facility catchment area	Bicycles (less than 18km) Motorcycles (more than 18km)

Adapted from m2m Malawi Report on Current Practices to Improve Uptake, Retention and Adherence for Option B+ in Malawi, October 2014



Intervention	Lay worker with specific job description completes appointment diary and follows patient tracing guidelines (could be the same cadre as responsible for adherence counselling hence having an overall responsibility for patient case management).
Impact	Tracing interventions shown to have impact on retention (estimated loss to follow up (LTFU) of 7.6% v 15.1% in sites with and without tracing respectively) and impact on transmission (37-40).
Acceptability	This activity has been implemented by a range of cadres in approximately 32% of ART sites in Malawi supported by implementing partners.
Cost	Cost per HIV treatment defaulter traced per annum: US\$7.3 (41). Main additional costs are for communications and transportation.
Challenges	Currently no harmonization of use of appointment systems or defaulter strategies No single cadre across all sites dedicated for this task. Some sites select only specific populations (e.g. PMTCT mothers). Tracing is triggered after variable periods of time.

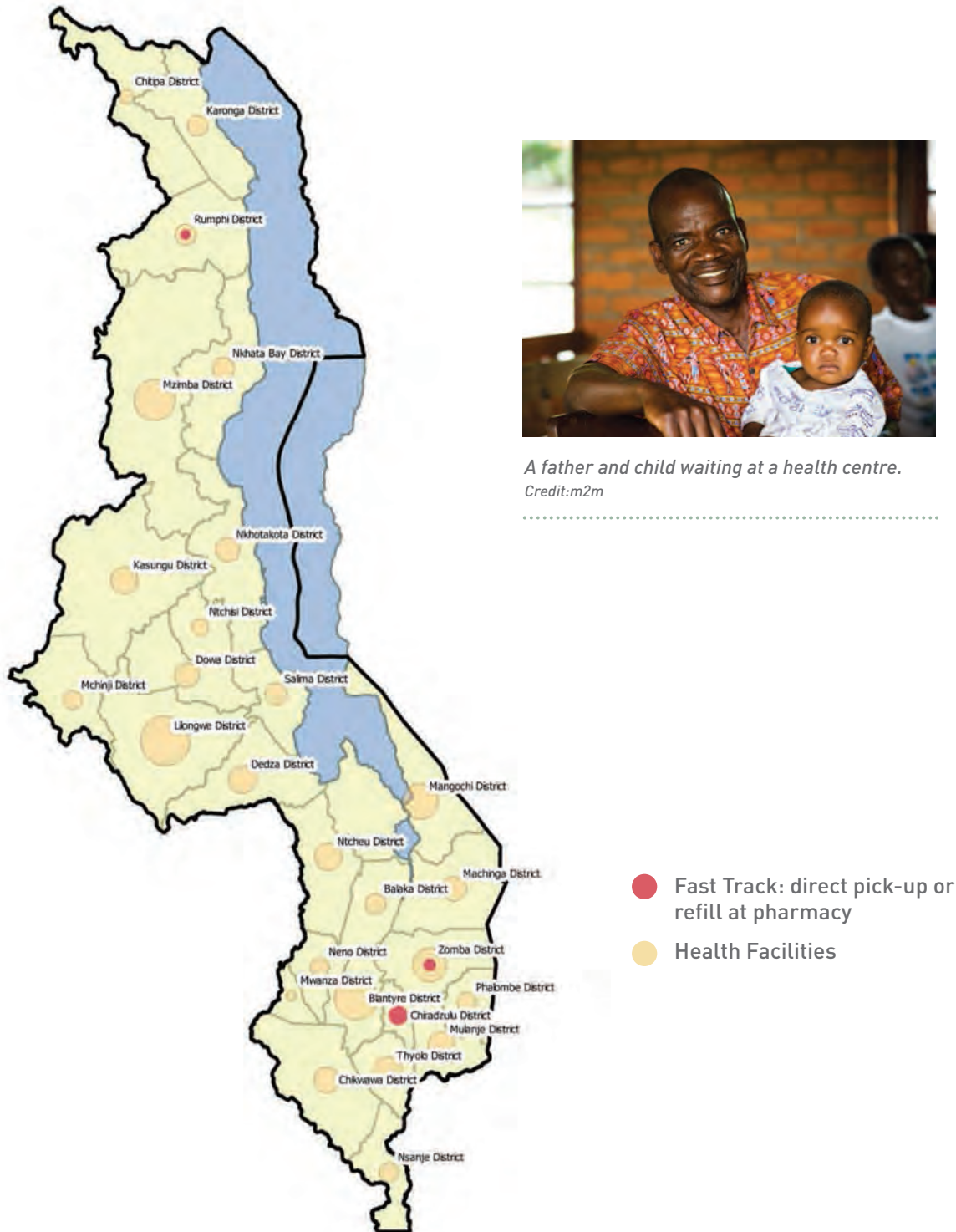
Appointment spacing and fast track drug refill strategy

The appointment spacing and fast track ART refill model is a health facility based model where stable patients attend the clinic for clinical consultation once every six months and return for ART refill every three months in between. Health Surveillance Assistants (HSAs) who are already part of the health system provide the quarterly antiretroviral refills at health centres. They also check client adherence according to a standardized assessment tool. When problems arise, the HSAs refer clients back to the medical staff for clinical consultations (7).

In Chiradzulu District where this has been implemented since 2008, retention for those enrolled in the fast track was 97% at 12 months follow up and as of 31 March 2015 over 50% of the total ART cohort, more than 15,000 patients, were enrolled in this strategy. Reports from both health care workers and clients highlight the benefits, such as reduced workload and reduced time spent at the clinic (42). A once a year clinical appointment system is now being piloted.

Intervention	Appointment spacing and service intensity reduction through individual facility based pharmacy fast track.
Impact	Retention rates of 97% for those enrolled in the strategy.
Acceptability	50% of the total ART cohort have enrolled in the model.
Challenges	Only documented in one district to date. Ensuring clear definition of inclusion and exclusion criteria for this model. “Change management” for the staff to ensure the paperwork and M and E are completed. Persuading staff to “let go” and adopt concept of patient self management.

Figure 6: Fast Track: direct pick-up or refill at pharmacy



Service integration

Integrating services aims to reduce missed opportunities for initiation of ART, enhance long term adherence support and optimize client retention in care. TB, as the most common co-infection, has raised the challenge of one client simultaneously needing to be treated for two infectious diseases usually managed by two different programmes. Furthermore, as people live longer with HIV the challenge of managing other co-morbidities such as hypertension and diabetes will also need to be incorporated into the service provision for clients on ART.

An assessment of HIV/TB and HIV/non-communicable disease service integration was not carried out for this report. Examples of HIV/SRH integration are given under the PMTCT specific interventions in the following section. Aiming for a one stop service however (patient seen under the same roof, on the same day, by the same health care professional) should be the goal particularly in decentralised sites.

Specific interventions for PMTCT

Providing integrated SRH /HIV services for PMTCT

Integration of ANC/SRH and HIV services for the provision of PMTCT aims to facilitate the delivery of services to the woman and reduce losses across the PMTCT cascade (from testing through to virological suppression on lifelong ART, with a baby successfully tested negative after cessation of breastfeeding). A recent cluster randomised controlled trial in Kenya comparing integrated with non-integrated services demonstrated higher (69% versus 36%) and faster (0 versus 8 days) rates of enrolment on ART along with more frequent testing of the infant (43). Additional studies have also supported integration (44) and a review of integration strategies in Malawi, Mozambique and Uganda found this approach to be cost effective (45).

In Malawi, integration of PMTCT within ANC has been effectively implemented in a number of settings. However the greater challenge has been the integration of services for mother and exposed infant postpartum. Mother–infant pair clinics (MIPCs) have been one example of an attempt to enhance follow up postpartum and increase the rates of infant testing and quality of exposed baby follow up. MIPCs are one stop services designed to provide HIV positive women and their exposed infants all the services, including EPI, that they need to protect the woman’s and child’s health. The MIPC is typically run once a week at the facility, and is the designated day for all services to be focused on PMTCT and MNCH care. A typical MIPC visit for a HIV-positive mother and her infant would consist of an education session, often with songs and interaction, a nutritional assessment and under five check-up for the infant and a supply of ART and cotrimoxazole refills for mother and baby respectively. Both the mother’s and infant’s master cards are kept together and updated when each service is provided. At any point during an MIPC day, expert clients or mother mentors (see example) are available to counsel or consult clients who may need assistance. A randomised controlled trial, promoting retention among infant and mothers effectively (PRIME) is currently being conducted to evaluate retention in the PMTCT cascade.

EXAMPLE

Nsanje District

MSF Belgium has performed PMTCT cascade reviews in all clinics in Nsanje district and implemented a PMTCT/SRH integration strategy including MIPCs to tackle some of the gaps in the cascade. Mother–baby care days have been established and mothers’ and babies’ master cards are kept together, enabling pairs to be tracked. Appointment diaries are kept at these points to enable tracking of missed appointments for client tracing three days after a missed appointment. EID is also supported as nurses review master cards each time a mother and/or baby visits, and check whether the baby is due for testing (46).

The mentor mother model

PMTCT Option B+ has been implemented in Malawi since 2011. The proportion of HIV positive mothers on Option B+ retained in care at 24 and 30 months respectively is reported as 67.2% and 62.6% respectively. Most patients were lost within the first few months on ART and many did not return after the first visit (47). Barriers to uptake of PMTCT services include discrimination and stigma, domestic violence at the hands of their partners, travel expenses, moving away from the facility, not understanding the initial adherence session, being too weak and the effect of ART side effects (48). Ensuring adequate counselling and appropriate peer support in often overcrowded ANC and PNC facilities is seemingly a challenge. One model implemented which aims to overcome these challenges is the mentor mother model. This concept is where a HIV positive woman who has been exposed to PMTCT works in a facility but maintains close links with her community to ensure the community-facility continuum of care for PMTCT activities. Activities include pre-test education, one to one psychosocial support, adherence support, defaulter tracing and in some instances home visits to provide psychosocial support in particular around disclosure within the family. A recent study performed in South Africa randomised sites to this



A mentor mother with her clients at Mtenthela Health Centre. Credit: m2m

intervention or the standard of care. A significant impact on retention at 12 months on ART (91 % v 64%), disclosure rates (82% v 69%) and return of the infant for early infant diagnosis (60% v 31%) was demonstrated for those sites with a mothers2mothers (m2m) intervention (49). A similar mentor mother model implemented in Zimbabwe also reported improved retention and adherence (50).

The mentor mother programmes in Malawi empower mothers living with HIV by working alongside health personnel to encourage early uptake of ANC, initiation into Option B+ with adherence and disclosure support, retention through support of defaulter tracing, encouraging facility based delivery, postnatal attendance for early infant diagnosis and supporting male involvement activities. Health facility service delivery points are antenatal clinics (ANC), outreach clinics, ART clinics, post-natal wards, under 5 clinics and outpatient departments. Activities include group education, one to one and couples interaction, support groups, and phone/home based follow up.

The primary target groups for the model are expectant mothers, lactating mothers and exposed babies. Secondary targets are spouses of HIV positive pregnant women and lactating mothers. Mentor mothers are either paid community workers, unpaid volunteers or in some cases similar services are provided through a community health worker or expert client. However, while the mentor mother concept is the same across organisations, the scope and duration of training (and in some cases roles) of mentor mothers differ from one organisation to the other. Standardised training duration and content and precise job descriptions are warranted for optimal use of the mentors. In Kenya a national mother mentor programme has been adopted.

The Mentor Mother Model is promoted by organizations such as mothers2mothers (m2m), Mai-khanda, Millenium Villages, Dream, Partners in Health and other CSOs supporting PMTCT programmes at health facility and with support groups.

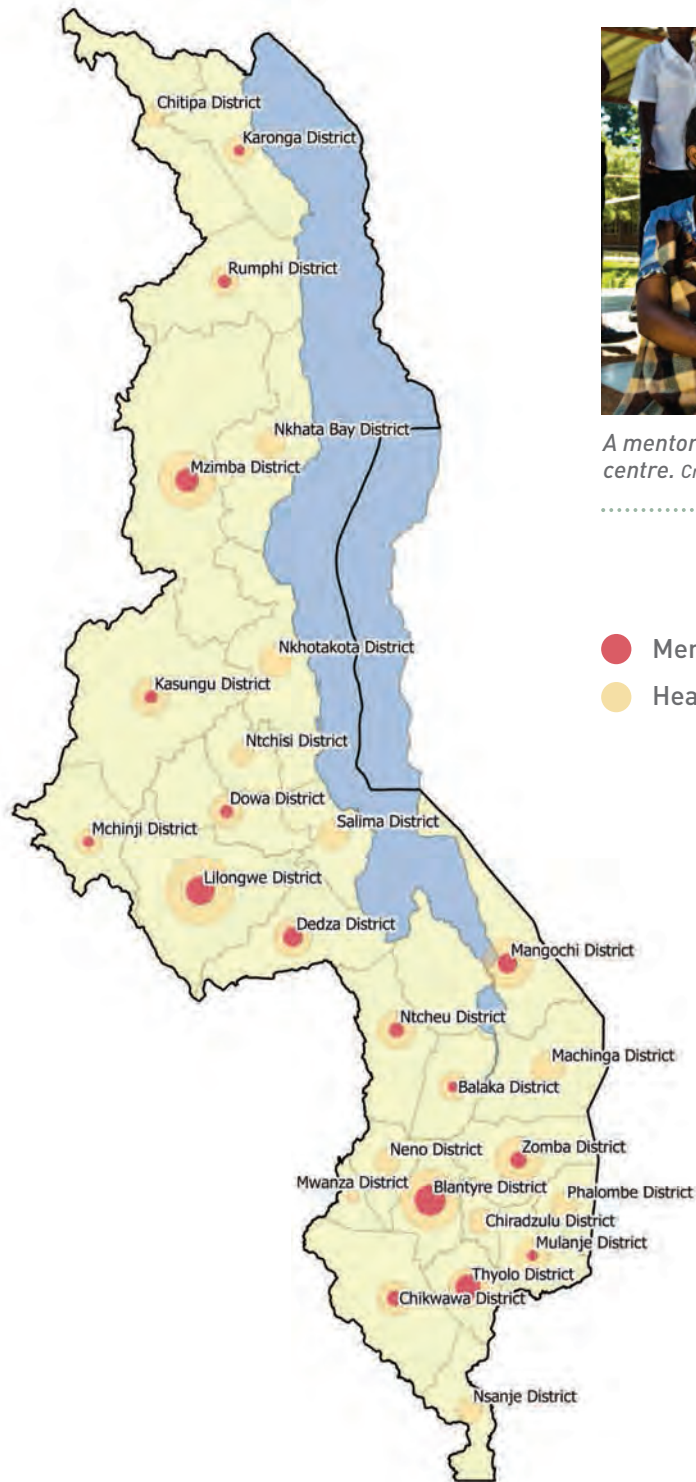


EXAMPLE

mothers2mothers

Results from the Malawi based mother2mothers 2014 evaluation assessing clients enrolled in care between June-November 2012 showed that 97% of antenatal clients were successfully initiated on Option B+, 88% had disclosed their status and 96% delivered in a health facility. 80% of infants had been tested at least once and of these infants, 74% received their test results. This compares to approximately 37% of infants who received HIV DNA PCR results within the overall national programme (2).

Figure 7: Mentor Mothers



A mentor mother and client at Mtenthera health centre. Credit:m2m

- Mentor Mothers
- Health Facilities

Intervention	Mentor mother model. Activities include pre-test education, one to one psycho-social support, adherence support, defaulter tracing and in some instances home visits to provide psychosocial support in particular around disclosure within the family.
Impact	Randomised controlled trial in South Africa showing impact of intervention (49). In Malawi 74% of exposed infants received their test versus 37% overall in the national program.
Acceptability	14% of sites in Malawi have a dedicated mentor mother. PMTCT support is also provided by expert client and community health workers in some sites.
Challenges	Currently no harmonization of job description, training or remuneration of this cadre. Staff often supervised by implementing partner and not by facility manager. Model is focused on period of PMTCT and once completed no similar patient case. management approach is taken for the continuation of lifelong ART.

Male involvement

Male involvement has been reported to be beneficial in the provision of PMTCT programmes. A study from Kenya reported that male attendance at antenatal care reduced risk of vertical transmission and infant mortality by up to 40% (51). Male involvement was also found to positively impact infant feeding practices and mortality. In a study from Tanzania 64% of women whose partners participated in care adhered to infant feeding guidelines compared to 28% whose partners were not engaged (52).

However barriers to male involvement clearly exist. A systematic review of barriers and facilitators to male involvement identified 21 studies from sub-Saharan Africa. Barriers to male involvement were mainly at the level of the society, the health system and the individual. The most common was the societal perception of antenatal care and PMTCT as a woman's activity, and it was unacceptable for men to be involved. Health system factors such as long waiting times at the antenatal care clinic and the male unfriendliness of PMTCT services were also identified. There was also unwillingness of women to involve their partners due to fear of domestic violence, stigmatization or divorce. Actions shown to facilitate male PMTCT involvement were either health system actions or factors directly tied to the individuals. Inviting men to the hospital for voluntary counselling and HIV testing and offering of PMTCT services to men at sites other than antenatal care were key health system facilitators (53).

In Malawi a qualitative study to explore the relevance of male involvement documented that lack of male involvement in PMTCT was reported to result in non-disclosure of HIV test results and non-compliance with PMTCT interventions (54). One intervention to address the poor male attendance at ANC clinics in Blantyre was to give invitation cards to invite partners to antenatal clinic. Although attendance overall still remained low (28.3% in the intervention arm compared to 19.0% in the standard of care) there was an 50% increase in the chance of attendance for the women given invitation letters (55).

Programmatic implementation of male involvement strategies were introduced in Malawi from 2003 with engagement of health facility personnel, NGOs, PLHIV, CBOs, support groups, expert clients, mentor mothers and men to men clubs. Strategies documented across the implementing agencies in Malawi that support male involvement include extending a written invitation to the spouse (the "love letter" intervention), home visits by community health workers or mother mentors where male partners are engaged in discussion, provision of letters from community chiefs, training of male

volunteers to provide group or one on one health education, telephone invitations and IEC strategies such as radio motivational talks and leaflets. However, robust research on the impact of these programmes is still lacking. Furthermore, engaging men needs to be guided by a framework that consider men's cultural norms around access to health care.

One important point that must be considered is that women who are unable to attend with a partner should not be penalised and the ethical implications of any system that prioritises those women attending with their partner should be carefully considered.

EXAMPLE

Male motivators

In 2012 UNICEF implemented the male championship programme which mobilizes men to engage in ANC, couples testing, PNC, family planning and growth monitoring through facility and community based interventions. The program trains volunteer "male motivators" who are married, have been tested for HIV, have pregnant partners and are in good standing in the community. They are trained to conduct health education including PMTCT and visit two households each week to provide education to men in the community (56).

Specific interventions for children and adolescents

The provision of ART to children and adolescents poses specific clinical and adherence challenges. The treatment gap between adults and children globally (38% [36-40%] of adults living with HIV obtained antiretroviral therapy in 2013, compared with only 24% [22-26%] of children (ages 0-14) (57), is even wider in Malawi, with ART coverage for children (< 15 years) 42% compared to 71% for adults using current eligibility criteria (15).

Adolescents have their own specific challenges with HIV prevention, care and treatment. Globally 1.2 billion people are adolescents (age 10-19) with 2.1 million adolescents living with HIV. AIDS remains the leading cause of death amongst this age group in Africa and is the only age group that has not shown a decline in mortality. As they mature, adolescents must learn not only about sex but also about how the virus will shape their future sexual behaviour. Reliable information is required for them to feel in control of their own health and to be able to disclose to others. Community support is key in this process in order to address issues of stigma and discrimination. In February 2015, UNAIDS and UNICEF launched the ALLIN to end adolescents AIDS campaign – setting the following ambitious targets of reducing new HIV infections among adolescents by 75% , reducing AIDS related deaths among adolescents by 65% and moving towards zero discrimination (58).

Lack of training and confidence of health care workers to initiate and follow children on ART remains a barrier to achieve the "second 90" for children. Achieving virological suppression in children compared to adults is also a programmatic challenge that needs significant investment. In five countries implementing routine viral load paediatric failure ranged from 20-30% of the cohort – double that of adults (59). Addressing this "silent epidemic" of paediatric treatment failure through ensuring disclosure counselling is performed (60) and through a tailored enhanced adherence intervention has resulted in children successfully re-suppressing their virus (61).

Community interventions to support retention and adherence for children and adolescents must focus on empowering the caregivers, reduction of stigma both within families, schools and the wider community along with specific interventions for children left orphaned or in vulnerable family settings. In addition to the communities' role for those children who are already positive there must be a wider engagement to provide prevention messages, promote condom use, family planning and in the future pre-exposure prophylaxis for this age group.

Teen club model

The teen club model brings together groups of adolescents both for the purpose of ART refills and peer psychosocial support (although not all clubs are systematically linked to provision of ART refills). Club activities include adherence sessions, theatre and drama, HIV education, life-skills, art sessions, sports and personal finance management. Events are facilitated by health care workers and community volunteers in collaboration with teen leaders. Clinicians attend to the adolescents during club activities (including collecting ARVs and other medications, TB and malnutrition screening). Teen leaders and volunteers in the community are responsible for mentoring, referrals and follow up. They are trained in peer education, leadership, HIV prevention and adherence.

Even where activities requiring additional funding are not feasible, the booking of children of similar age and disclosure status together on the same day for their ART refill, ideally at a time out of school hours, will immediately allow a degree of peer support. It may also allow the health care worker to focus on the needs of this specific age group. Training of health care workers on adolescent care, in particular their sexual and reproductive health needs, is essential to provide quality services for this age group.



EXAMPLE

Teen Club at Baylor Clinic

Since 2005, the Baylor International Paediatric AIDS Initiative (BIPAI) has been providing care to HIV-infected and exposed children from a clinic on the grounds of Kamuzu Central Hospital in Lilongwe. Teen Clubs were established in 2006 to empower HIV-positive adolescents to build positive relationships, improve their self-esteem and acquire life skills through peer mentorship, adult role-modelling and structured activities, ultimately leading to improved clinical and mental health outcomes as well as a healthy transition into adulthood. Disclosed adolescents aged 10-19 years were seen monthly on a Saturday to get ART refills and participate in psychosocial activities. From an original 10 members, Teen Club at Baylor Clinic now has over 800 members and is divided into older and younger teens. Due to the success of the Teen Club model, Baylor has been introducing the model to central hospitals, district hospitals, community hospitals, CHAM facilities, and other health centres since 2010. Baylor trains healthcare staff and volunteers at each site to set up a Teen Club and provides mentorship and technical assistance until the Teen Club is running independently. Baylor also collaborates with other NGOs and DHOs to train them to independently establish Teen Clubs. To date, Baylor has helped support the establishment of over 50 Teen Clubs throughout Malawi, either directly or through other NGOs.

Although the Teen Club model has been extremely successful in providing psychosocial support to adolescents living with HIV, gaps in care have been identified by both healthcare workers and adolescents. Supplemental programming has been developed to address these gaps and barriers. To provide support to adolescents with HIV in between Teen Clubs, a 24-hour free hotline called Teen Support Line (TSL) was established. Disclosure trainings are being developed to improve the disclosure process, as well as to disseminate the TSL number to adolescents not able to be enrolled in Teen Clubs. To address the needs of older teens and young adults graduating from Teen Club, a 6-week Transition Training program was established. Selected healthcare staff from Teen Clubs have been trained in provision of contraception to improve integrated HIV and sexual and reproductive health services at Teen Club and nutrition education has been incorporated in response to the high rates of malnutrition identified in adolescents living with HIV. In addition, teacher trainings have been conducted to address high rates of stigma and discrimination towards HIV-infected adolescents in schools. Through these interventions, Baylor Teen Club has

developed comprehensive clinical and psychosocial programming targeting HIV-infected adolescents.

Challenges in scaling up these comprehensive interventions include coordination between ART clinics, Youth Friendly Health Services, and community based organizations at each health centre. Running the groups out of school hours, ideally on weekends, requires addressing human resource issues and willingness to extend working hours. Currently, some Teen Clubs have funding for transport and refreshments. Baylor Teen Club staff encourages provision of ART refills and clinical visits on Teen Club day, although this is not done systematically due to logistical issues at each individual site. Several Teen Clubs do not provide transport or refreshments, and these continue to run successfully with growing numbers of adolescents.

National operational and service delivery guidance on encouraging collaboration between the facilities and the community would facilitate the Teen Club model and its supplemental programming being taken to scale.

EXAMPLE

Dignitas International

Dignitas International in collaboration with Baylor established 11 Teen Clubs in the South East Zone. A review of the Teen Club programme at Zomba Central Hospital in 2012 showed that adolescents participating in Teen Clubs have better medication adherence and

retention in care than teens not in the programme. In 2015, 1,112 HIV positive adolescents were recruited into Teen Clubs in the South East Zone. Outcomes demonstrated:

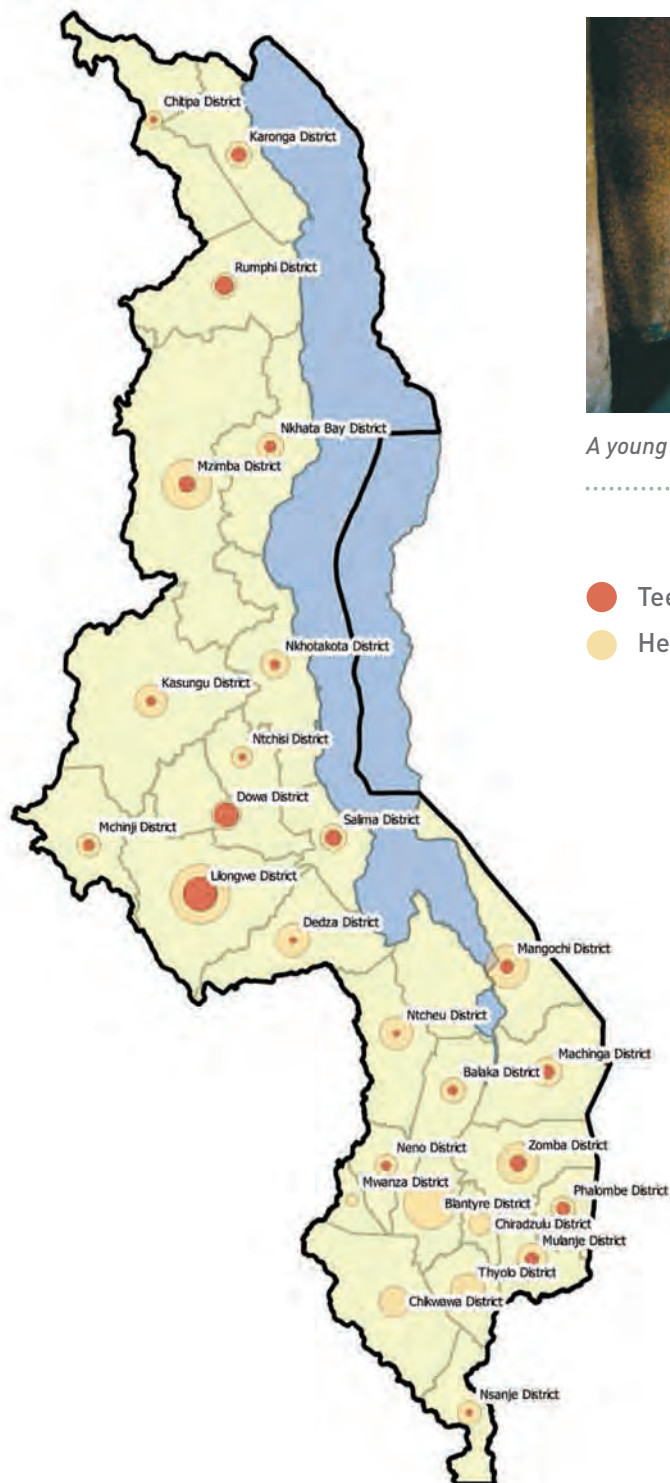
- 97.3% retention on treatment and care for adolescents on ART/Pre ART.
- >95% adherence in 96.7% of adolescents living with HIV in the teen club.
- At Zomba District Hospital, adolescents living with HIV enrolled in the Teen Club were three times less likely to become defaulters.

To date 15% of all facilities in Malawi provide a teen club service.



A young member of a Teen Club. Credit: Dignitas

Figure 8: Teen Clubs



A young member of a Teen Club. Credit: Gael Turine

- Teen Clubs
- Health Facilities

Male friendly services

In many contexts fewer men attend for testing, present later with lower CD4 counts and have lower rates of retention. A recent study from Zimbabwe showed males had more documented active tuberculosis (12% vs. 9%; $p < 0.02$) and a lower median CD4 cell count (117 cells/ μ l vs. 143 cells/ μ l; $p < 0.001$) at ART initiation. Males had a higher risk of attrition (adjusted hazard ratio (AHR) 1.28, 95% confidence interval (CI) 1.10-1.49) and mortality (AHR 1.56, 95% CI 1.10-2.20) (62).

Various operational interventions have been suggested to address this, such as offering male only clinics, integrating HIV services with provision of other services for other chronic diseases or male health concerns and offering clinic services at times and locations more likely to be convenient for men, especially those working.

Specific examples of strategies adapted to address the challenges of male retention and adherence were not documented within this assessment.

Facility based ART delivery strategies not implemented in Malawi

Facility based ART adherence clubs

ART adherence clubs are a strategy developed in the Western Cape province in South Africa and which are now being scaled up across South Africa by the Department of Health (63). Groups of 20 to 30 clients who are stable on ART (defined by a viral load < 1000 copies/ml with no intercurrent TB or OI) meet at a facility for less than an hour every 2-3 months depending on the duration of drug refill available. The groups are facilitated by a lay worker who provides a quick clinical assessment and dispenses pre-packed ART. The group members establish a group dynamic and give peer support as well as supporting tracing of any member that does not attend. Clinical assessment, including review of viral load, is performed once per year. Outcomes to date have been positive with 97% of club patients remaining in care compared to 85% in a matched group receiving standard clinic care. Loss to care was reduced by 57% and virologic rebound in clients who were initially suppressed reduced by 67% (64). A costing analysis also showed cost savings with adherence clubs costing \$296 per patient year versus \$374 for the standard of care (65).



KEY MESSAGE

Facility based strategies to support retention and adherence

- Decision making on what strategies to implement should be harmonized by the Ministry of Health and then adapted at local level with engagement of both local health care workers and community representatives. Implementing partners should still be able to innovate regarding service delivery in collaboration with their respective Ministry of Health partners.
- Facility and District ART/PMTCT Coordinators should take ownership of these interventions in collaboration with partners.
- Supporting patient case management through a dedicated cadre responsible for adherence counselling and patient tracing will become increasingly important to achieve quality care and virological suppression as further scale up of ART is made.
- All facilities regardless of implementing partner support should implement an appointment system with a systematic and timely defaulter tracing strategy. Where feasible the use of m-health to support appointment reminders and tracking should be leveraged.



- Facility based fast track strategies are an ART delivery model that can decongest clinics for health care workers and reduce the burden of clinic visits for patients. This option should be available in all sites as the default facility based option. The maximum duration of refill available through MoH supply should be provided.
- Having a specific lay cadre responsible for individual case management in PMTCT (antenatal and postnatal care) has a significant impact on outcomes of the PMTCT cascade. This intervention should be considered across all sites.
- Integration of PMTCT with ANC and PNC services, for example through the mother baby care clinics, should be systematically implemented across all sites.
- All sites should be able to ensure there is a skilled and routinely available member of staff available to perform disclosure counselling for children.
- Children and adolescents should be booked on specific days in order to form immediate peer support through the “teen club” approach.
- Adherence clubs are a promising model with documented impact on retention, virological suppression and have been shown to be cost effective in a South African setting.

Chapter 7

Community based strategies to support retention and adherence

Support groups

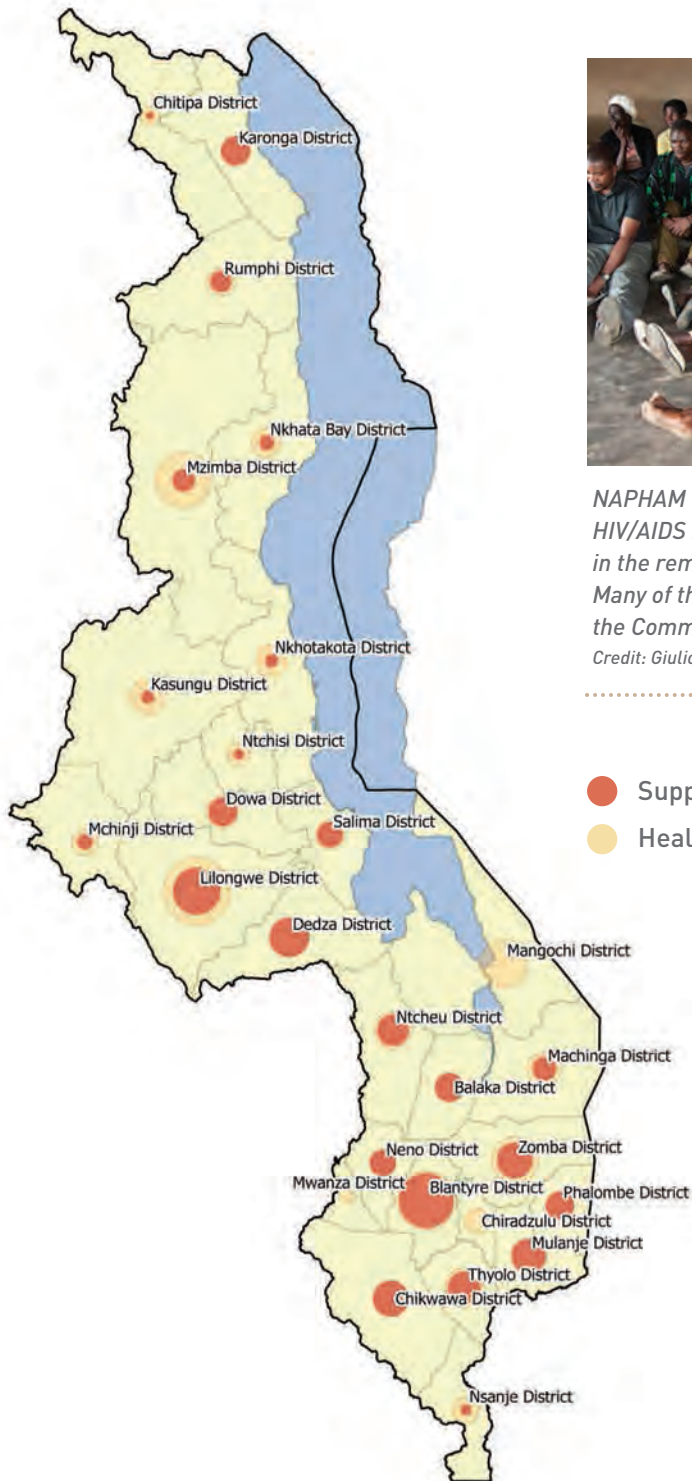
The WHO acknowledges support groups as an intervention to address retention and adherence among PLHIV receiving ART (66). A systematic review on the impact of support groups for PLHIV concluded that as an intervention they are expected to have a high impact on morbidity and retention, a moderate impact on mortality and quality of life and improve disclosure. Evidence on cost effectiveness was lacking (67).

Support groups have been instrumental in the management of HIV positive individuals in Malawi. This community based intervention, which is implemented nationwide, aims to ensure that PLHIV have comprehensive knowledge on HIV, lead productive lives, access essential services and that the number of new HIV infections is reduced. A number of supporting organisations aim to empower support groups to provide psychosocial support to members and their community. Support groups are provided with training that covers group dynamics, HIV prevention, positive living, psychosocial care, effects of drug and alcohol abuse, impact mitigation, treatment adherence, opportunistic infections, male involvement, home based care, income generating activities and monitoring and reporting. Membership of PLHIV support groups is voluntary and members are encouraged to pay an annual registration fee of approximately 100mk (USD 0.25).

The following are some of the benefits reported:

- Support groups for PLHIV have been effective in linking clients to facilities, providing care and support services at home and in the community; sharing information, condom distribution, addressing stigma and discrimination through promotion of positive health, psychosocial support and human rights education.
- The model has created opportunities for increased initiation of PLHIV to ART.
- Participation of men in support groups promotes role modelling and mentoring for other men and increased involvement in PMTCT.
- Some HIV support groups have used outputs from their income generating activities such as soya, maize as food, to improve the nutritional status of HIV patients and OVCs in home based care centres.
- Mobilizing or identifying other PLHIV to form support groups and access services.

Figure 9: Support Groups



NAPHAM National Association for People Living with HIV/AIDS in Malawi (NAPHAM) support group meeting in the remote village of Chidothe in Thyolo District. Many of these patients receive their drugs through the Community ART Group (CAG) model of care.

Credit: Giulio Donini

- Support Groups
- Health Facilities

An excerpt from a FGD with a support group illustrates the previously stated benefits: *'NAPHAM conducts group psychosocial therapy sessions for adults and youths. These sessions have helped us to adhere to ART and continue leading productive lives.'*

An area of concern identified was the lack of real systematic linkage between support groups and the facility. Improving this would maximise the input these groups could have on the quality of care of both newly diagnosed clients and those on chronic ART medication. In addition, improved coordination between organisations running support groups and the district and health facility ART coordinators has been highlighted as an area to be strengthened.

From this assessment organizations that give assistance to support groups are the National Association of People Living with AIDS in Malawi (NAPHAM), Coalition of Women Living with HIV and AIDS (COWLHA), Teachers Living with HIV organization, Association of Young People Living with HIV and Malawi Network for Religious Leaders Living with AIDS (MANERELA).

EXAMPLE

The Ndife Amodzi Programme- Linking the facility with support groups

The Lighthouse Trust Malawi implements the Ndife Amodzi (we are all one) program which is a community-led project providing ongoing educational, treatment adherence and psychosocial support to stable ART clients in Lilongwe City. Under the programme, communities work together to support PLHIV with involvement of community volunteers under the guidance of Lighthouse community care workers. Ndife Amodzi focuses on psychosocial support rather than medical support. Enrolment in the programme is facilitated by community volunteers that work in the waiting areas of Lighthouse clinics at Kamuzu Central Hospital (KCH) and Martin Preuss Centre located at Bwaila Hospital, in addition to three public health facilities within the city. The volunteers sensitize clients to the programme and they are given an opportunity to select a volunteer of their choice from the area that they live. Patients who agree to become involved in Ndife Amodzi select their own volunteer from a list of photographs of volunteers in their community



Patients in the Ndife Amodzi project. Credit: Lighthouse Trust

Once clients are enrolled in the programme, they are not discharged. Their condition may periodically worsen such that they require medical attention, but assuming they recover, their Ndife Amodzi services will resume. Client confidentiality is maintained throughout the referral and visitation process. Volunteers visit their respective clients twice in a month. Services offered by volunteers include; discussion of client's current health and personal problems – provision of support, counselling and advice as appropriate, encouraging patient self empowerment, support for medication adherence and to make clear and prompt referrals where appropriate. The programme collaborates with PLHIV support groups that Lighthouse established, which are also registered with NAPHAM. A total of 10,780 (74% female) clients have ever since been registered and 7,802 clients were active in the programme by July 2015, of which 95% were on ART.

Community health workers, TRIOS and Treatment supporters

These strategies are based on the person living with HIV having an assigned person at community level that guides them through their treatment journey. The TRIO concept uses a community based worker to facilitate the disclosure of the infected person's status to their partner and to one other family member or friend. This "TRIO" continues to support the infected client through their HIV care and treatment pathway.



A TB/HIV patient who is being supported by two members of his family in a TRIO group. Credit: DAPP

Some organisations also promote the role of treatment buddies. Patients are encouraged to identify someone close to them who will accompany them to the facility, provide psychological support, be an additional point of contact if the patient defaults and on occasions be able to collect medication on behalf of the patient. Although disclosure to such a treatment buddy is encouraged, the inability to identify a treatment buddy should not deter initiation of ART or ongoing care.



EXAMPLE

Partners In Health

Partners In Health employs 931 community health workers in Neno District. All HIV patients who accept are assigned a CHW in their home village who provides social support, daily accompaniment, adherence support, accompaniment to the hospital when sick, and defaulter tracking. The HSA to population ratio in Neno is approximately 1:2000 compared with a ration for the CHWs of approximately 1:150. CHWs and HSAs routinely work together as CHWs assist HSAs with household level data, defaulter tracking, referrals, and outreach activities.



Community health worker with patient. Credit: Nandi Bwalani

Home Based Care (HBC) Model

Although the roll-out of ART has improved the quality of life for PLHIV and transformed HIV into a chronic condition home based care services may still be needed. In Malawi, home based care is offered by organizations of PLHIV, FBOs, and CBOs under the guidance and supervision of a community nurse or community health practitioner. Community volunteers are linked to a support group. The model targets chronically ill patients and their households regardless of sero-status. PLHIV and non PLHIV care groups identify chronically ill patients within the community. Most of the patients supported under HBC are those unable to contribute to household work or who are bed ridden. Implementing partners and support groups provide training in HBC to care groups on topics that include leadership skills and care for the chronically ill. With the roll-out of ART, the number of severely unwell clients has declined and these volunteers have also been engaged in adherence and retention strategies. Services provided to patients under HBC include:

- Identifying and referring patients to community and facility health workers for appropriate nursing and clinical services within the hospital such as ART, PMTCT, TB diagnosis and treatment, pediatric care and treatment.
- Providing basic care and nutrition (ready to eat fortified foods), psychosocial support, insecticide treated bed nets, water guard for malaria and diarrhoea prevention respectively.
- Promoting and monitoring treatment adherence by assisting in patient follow-up through linkages with community-based services and improved tracing mechanisms for patients lost to follow-up.
- Accompanying patients to the health facility for HIV and OI treatment.
- Linking orphans to impact mitigation services especially education support and providing food and transport to needy PLHIV to collect ARVs from health facilities.

Community based ART delivery strategies

The 2014 supplement to the 2013 WHO guidelines for the treatment of HIV in resource poor settings has recognised the value of extending ART delivery beyond the facility into the community (6). Key messages highlighted in the supplement include:

- Community-based models of ART delivery can benefit people living with HIV and decongest facilities in settings with a high burden of HIV infection.
- There is no one-size fits all approach to community models of ART delivery. The context in which they operate is important and models need to be flexible and responsive to the needs of people living with HIV.
- Bidirectional referral is essential so that people in a stable condition can be moved out of the clinic into the community and those who experience health problems can be referred back to facility care.
- A conducive national policy and regulatory framework around providing ARV drugs is essential to the success of community based ART delivery.
- Countries should consider measures to retain and enhance the performance of community-based staff with new or increased responsibilities.

Community ART Groups (CAGs)

Community ART Groups are self-formed groups of clients on ART. They are usually from the same geographical area and are willing to disclose their status to each other. The system ensures that all members attend the clinic for their clinical visits and monitoring blood tests as per protocol but for refill appointments the group members take turns to collect each other's drugs. Each group nominates a group representative. At each refill date when they meet in the community a "ART Group Refill form" is completed. This includes some red flag clinical questions (symptoms of TB, weight loss, diarrhoea, side effects specific to the patients regimen) and documentation of the pill count.

The nominated group member then attends the clinic. The Nurse discusses with the representative if there are any problems and assesses the details of the CAG group refill form. If all is in order he/she completes the refill form, the patients' mastercards and treatment booklets, dispenses the drugs and completes the ART register. The next CAG appointment is then booked in the appointment diary. The CAG representative then returns to their group in the community to distribute the drugs and collects signatures confirming receipt on the refill form (68).

From a patient perspective, the CAG model reduces the financial and time costs associated with frequent clinic visits, provides peer support and outcomes have been shown to be better than conventional care. Data from Mozambique demonstrated retention in CAG of 97.7%, 96.0%, 93.4% and 91.8% at 12, 24, 36 and 48 months respectively (69). Similar outcomes have been published from



A community ART Group meeting after ART collection.

Credit: Marco Longari

Lesotho where among 596 stable patients 199 (33%) had joined a CAG and one year retention among CAG members was 98.7% (95% CI, 94.9-99.7) compared to 90.2% (95% CI, 86.6-92.9) for non CAG members (70). From a health service perspective the CAG model decongests the health facility and leads to reduced workload for the health service provider (clinician, nurse, pharmacist, counsellor and expert client) allowing them to refocus their time and resources towards managing sick patients with complex clinical problems. The CAG model has been adopted by the Mozambique Ministry of Health. More recently Lesotho has developed a national level CAG toolkit and Zim-

babwe has included the model as one option for ART refill within their national operational and service delivery manual.

Community ART Groups have been operational in Malawi since 2012 in two districts, Thyolo and Nsanje. At the community level, PLHIV are informed about CAGs through existing support groups run by NAPHAM, while others are informed during health talks at the ART clinic. The PLHIV then meet at community level to voluntarily form a CAG and choose their focal person. Thereafter, the group members present themselves to the CAG focal person at the ART clinic who gives them an appointment for screening. Upon meeting the criteria, their group name is registered into the CAG register.

To date 18 out of 29 (62%) of facilities in Thyolo district are offering CAGs. A retrospective cohort study performed in 2013 in Thyolo district reported decongestion at health facilities with the overall frequency of clinic visits decreased from 8.02 to 4.58 per patient per year. Retention in care at 24 months was 96.8% among CAG members and 94% among those in the comparison group (71). A qualitative study is currently ongoing to assess perceptions of this strategy by health care workers,

CAG members and non-members. Findings from the field work carried out for this report identified CAG Members at Chikwende and Nkaonda clinics who testified to the positive gains they have enjoyed following the introduction of this approach with reduced numbers of visits to the clinic, resulting into reduced travel costs, ability to undertake other activities, peer support and income generating activities.

The group’s Chair narrated that: *“The coming in of CAG has really changed our life, we are able to support one another and it is less burdensome to share turns in drug refills”*.

A toolkit documenting lessons learnt from implementing CAGs, in Thyolo Malawi can be found online at: <http://samumsf.org/blog/portfolio-item/lessons-learnt-in-thyolo-malawi-from-implementing-cags/>

Figure 10: **Community ART Groups (CAGs)**



“I want treatment closer to where I live” says Fanny Mkwepu from Thyolo District. Credit: Simon Van Laar

- CAGs
- Health Facilities



Intervention	Community ART Group for ART distribution
Impact	Evidence for improved retention and reduced health facility appointments (69-71).
Acceptability	Qualitative studies in and beyond Malawi support acceptability.
Challenges	<p>Starting up a CAG model: The initial implementation of CAGs requires strong support from the district HIV coordinator Consultation should be carried out with local health care providers, PLHIV, CBOs and community leaders before implementation is started. A clear focal person needs to be identified in every clinic who will spearhead the start up Having a clearly identified lay worker (also usually responsible for adherence counselling activities)</p> <p>Funding: Funding is required for the initial start up and small recurrent cost for printing of the CAG community form. This should be considered in global fund / donor proposals.</p> <p>Perception of increased workload by health care workers as having to pull all 6 files monthly compared to clients coming individually every 3 months: The group of 6, with a one month refill model derives from Mozambique where only one month refills are available. In other settings with longer refills the CAG model has been adapted. For example in Zimbabwe CAGs are groups of 4-12 people. Every 3 months a member is nominated to collect drugs. Once a year the group attends together for clinical consult and viral load. This system means mastercards are only pulled for each member once every 3 months, the same as if each member attended individually.</p> <p>Concerns for safety of community drug distribution and drug security: To avoid incorrect distribution or loss of drugs a number of steps are taken: Inclusion of community leaders and CBOs representing PLHIV from the initiation of the programme. All CAG members have their treatment literacy assessed and it is ensured they know the name of their regimen and what the formulation looks like. Drugs are pre-packed at the clinic with the individual patient name on the bag or bottle. Patients need to sign off on the community CAG form that they have received their drugs If patients are not receiving their drugs members must refer immediately back to the health facility and to their local leaders (who have been involved in the introduction of this model) for this to be followed up. To date in the five countries where CAGs have been implemented to scale this has never been reported.</p> <p>Maintaining quality M and E: At each CAG refill, mastercards of all CAG members are completed and the ART register filled in exactly the same way as for individual refill. Completion of the CAG community form is the one additional form needed to ensure communication between the group and the clinic. ART retention analysis is unchanged. A minimal set of indicators may be considered (number of CAGs, number of patients on ART in the CAG) and disaggregation of retention outcomes may be considered in sentinel sites. In other settings one additional variable has been added to the electronic register at each ART refill "CAG/Club refill: Yes/No".</p>

Community based ART delivery strategies not implemented in Malawi

The facility based adherence clubs described in chapter 6 have recently been expanded to distribute ART in community venues and also at patients' homes. The annual blood collection and clinical assessment is also performed in the community venue by an outreach nurse. The ART refills are collected from the clinic or "wellness hub" by a group member and the clubs are facilitated by a community health worker. After 12 months in a community adherence club, 6% of patients were lost to follow-up and fewer than 2% experienced virological rebound [72].

A further example of community based ART delivery are the community ART distribution points implemented in Kinshasa DRC. Members of a PLHIV network man the distribution points which are strategically positioned and have been trained to provide ART refills for stable patients, measure weight and conduct a symptom based screen. Drug pick up is done on an individual basis with peer support provided by this "expert patient". Patients attend the distribution point every three months for refill and report annually to the clinic for consultation and blood monitoring. Defaulters are traced through the network of PLHIV and support groups. HTC is also performed by these lay-workers at these sites. Transport costs for patients are reduced and patients at the community ART distribution points spend an average of 12 minutes collecting ART refills compared with 85 minutes for those collecting at the hospital site [73]. This strategy does require a lay worker for staffing and poses the question of long term funding for these staff. Adapted secure spaces to store drugs are also needed as well as a distribution system to bring the drugs from the facility to these points.



KEY MESSAGE

Community based strategies for retention and adherence

- Community based peer support mechanisms facilitated through support groups or the link with an individual designated community worker or buddy enhances retention and adherence to ART.
- The impact of support groups on retention and adherence would be facilitated by ensuring a clear link for every group with a facility manager or HIV service delivery focal person.
- Support groups should be self-sustaining and have clear governance and management capacity. They should be strengthened to evolve into formal community structures potentially addressing topics beyond HIV such as leadership, income generating activities, nutrition, education, gender, water and sanitation.
- Relying on volunteerism has been raised as a challenge within the home based care model. For sustainable and quality community based services formalisation of roles and responsibilities and harmonisation of payment of lay workers should be considered.
- The community ART group model has demonstrated benefits both for the facility (decongestion) and for the clients (reduced transport costs, peer support).
- Having a dedicated lay worker, expert client or community health worker to drive the formation of CAGs greatly facilitates the scale up of this model.
- Additional strategies for community ART delivery have been implemented successfully elsewhere including community adherence clubs and community ART distribution points.

Chapter 8

The role of the community in the scale up and utilisation of viral load monitoring

Achieving virological suppression to achieve the third “90” is achievable through targeted interventions to improve retention and adherence. In most settings, where CD4 count testing has been the way patients have monitored their disease for many years, there has needed to be a paradigm shift in clients understanding of how treatment success is determined when moving to viral load monitoring. Even in settings where viral load has been available for years, surveys of patients have identified lack of knowledge of what the test result means, sometimes resulting in patients stopping their medication, believing undetectable equated to cure (74). Understanding their viral load result however has been shown to promote positive wellbeing and enhanced motivation for adherence whilst those with a high viral load may be provided with additional peer support (75).

Applying a patient case management approach for those clients with a high viral load (more than 1000 copies/ml) with a cadre such as lay counsellors or expert patients has been demonstrated to increase the chances of action being taken for abnormal results. Specific “enhanced adherence” content, tailored to explore behavioural, emotional, and social elements affecting adherence and delivered by such cadres has also been shown to successfully re-suppress (to less than 1000 copies/ml) between 38-43% of patients failing a first line regimen in a multi-site study (76, 77).

In Malawi monitoring of ART has primarily been through clinical symptoms and signs and to date uptake of viral load in Malawi is low with only 18% of eligible patients receiving viral load testing in 2014 (2). Although laboratory capacity is in need of further scale up, ensuring PLHIV and the community are aware that viral load is the most accurate way of assessing ART treatment success is an integral part of any national viral load implementation strategy (78).

Hence key elements in the scale up of viral load testing that will necessitate community engagement include:

- Patient education both at the facility and within the community through lay counsellors/expert patients and support groups. This is needed to create demand for viral load testing and to ensure PLHIV have the correct action taken when their viral load is high (more than 1000 copies/ml).
- Training of clinicians and lay counsellors/expert clients to deliver enhanced adherence counselling.
- Provision of specific tools (high viral load register, high viral load summary form) to assist the follow up of these patients.

 **EXAMPLE****MSF Belgium's Community Based Viral Load Campaign**

MSF Belgium in Thyolo has promoted a community based campaign when introducing viral load. Sensitisation was carried out in the waiting areas and also at community gatherings. Community ART group members supported these community activities and drama was developed to explain viral load. Each month approximately 10-12% of patients receiving viral load testing require enhanced adherence counselling. HSAs have been trained in enhanced adherence counselling and are provided with registers to track patients with high viral load to ensure they complete the adherence intervention, have repeat viral load testing and are switched according to the national algorithm.



An HIV patient in Thyolo who's just received her viral load results showing she's now undetectable.

Credit: Sydelle Smith Willow

Chapter 9

Community based strategies to target key populations

Recognition of the role that key populations (sex workers (SW) , men who have sex with men (MSM), transgender people, people who inject drugs (PWID) and people in prisons) play as drivers of the epidemic has gathered new focus. Between 40-50% of all new HIV infections among adults worldwide may occur in key populations and their partners. In 2013, 70,000 new infections occurred in SW, 330,000 in MSM, and 110,000 in PWID worldwide (79). Within each of these groups it is also recognized that the adolescent and young adults within these groups are most at risk from new infections (80).

In 2014 WHO released specific guidelines on the prevention, diagnosis, treatment and care for key populations outlining a core package of services that should be available for each group (81). These interventions can be divided into health sector interventions (condom and lubricant programming, harm reduction interventions, behavioral interventions, HTC, HIV treatment and care, prevention of co-morbidities and sexual and reproductive health interventions) and factors to create an enabling environment (supportive legislation, addressing stigma, community empowerment, addressing violence against key populations).

In Malawi some positive trends have been reported in these groups, for example HIV prevalence in FSW has dramatically decreased from 77% to 25% between 2006 and 2014. Prevalence has also decreased in MSM from 21% to an estimated 15.4% between 2009 and 2014. However 30-45% reported not knowing their status and targeted prevention education reached only a minority (8). In addition in terms of new infections, the modes of transmission analysis carried out for Malawi suggested high incidence among MSM, FSW and their partners. These findings sit amidst the environment that In Malawi MSM are criminalized and FSW may be subject to legal penalties in some instances. There is also growing evidence of violence targeting men and boys who have sex with men, both from members of the general population (including friends and family) as well as in the context of intimate partner relationships (82). Barriers to health seeking behaviour for MSM in Malawi include disclosure fears, criminalization and stigma and discrimination even when MSM know they need to seek health services. Addressing these issues and improving access for these populations has been recognised within the Malawi NSP.

The following outlines some existing practices documented during the mapping exercise. Activities within prisons were not within the scope of this assignment but to note that a technical working group has been established to support the provision of comprehensive HIV/TB and STI services within prisons in Malawi.


EXAMPLE

Pakachere Institute for Health and Development Communication (IHDC)

Pakachere Institute for Health and Development Communication (IHDC) is a Malawian non-governmental organisation dedicated to the provision of innovative social and behaviour change communication programs. The organisation has worked with female sex workers as a key population since 2011 with the aim of increasing access and utilization of quality HIV-STI prevention, information and health services among sex workers in Mwanza, Blantyre, Zomba, Mangochi, Nkhata Bay, Mchinji and Dedza.

Pakachere IHDC offers a minimum social and behaviour change communication (SBCC) package to individual sex workers consisting of materials such as leaflets, posters, booklets, radio programs and brochures. The IEC component is complemented by interpersonal communication approaches such as peer education, motivational counselling, one-on-one counseling, group sessions and trainings on key thematic areas such as condom use, HTC, STI prevention and treatment. The SBCC package is aligned to link with key health services which Pakachere implements in partnership with MACRO and District Health Offices. Thus Pakachere facilitates mobile outreach clinics that offer HIV testing and counselling, STI screening and Treatment, condom distribution and contraceptives. Pakachere IHDC has adopted “moonlight” testing, a concept championed by MACRO where services are taken to sex worker spaces at the time that they are more comfortable to access them (6pm-12 midnight). Pakachere’s approach is further enhanced by a robust mobilization plan that includes audio-visual communication and health cards that are distributed among sex workers prior to accessing the services.

Pakachere IHDC’s interventions also include working with health care providers and the Malawian police service in creating an environment where sex workers access services without prejudice, stigma and discrimination. Pakachere IHDC trains health care workers and the Malawi police service in working in partnership with sex workers to achieve results. Some of the key achievements include:

- Increased uptake of HTC among sex workers in targeted sites.
- Increased availability of male and female condoms in high risk areas within the project sites.
- Open discourse to address stigma and negative attitudes through radio programs and mass media campaign.
- Capacity building among sex workers: a minimum of 110 sex workers have been capacitated in peer education and advocacy.
- 90 sex workers have been trained in leadership for HIV prevention and SRH.
- Over 1,000 sex workers have been reached with peer sessions that were conducted by trained peer educators.
- Nearly 80 police officers in the Malawi police service have been engaged and oriented on sex workers rights and access to justice.
- 100 health workers have been trained in sex workers access to health.
- 1 national sex workers alliance was formed and related district structures in 5 districts.
- FSW in the 5 target districts have become part of the District AIDS Coordination as well as condom committees.



EXAMPLE

Peer educators for Key Populations

The Centre for Development of People (CEDEP) has been active in highlighting minority group issues and advocating for their rights through epidemiologic research and access to HIV prevention, treatment and care services. CEDEP works with key populations (MSM and FSW) through peer education targeting MSM in five target districts Lilongwe, Nkhosakota, Nkhata Bay, Mzuzu and Mangochi. The model engages a peer education approach in order to achieve its goals and objectives. Key activities include:

- Mapping and identification of hot spots.
- Demand generation for HIV services, community based HTC, making tracked referrals of clients to sexually transmitted infections (STI) and ART services.
- Conducting outreach programmes in places where FSW and MSM meet including peer education sessions and behaviour change communication.
- Condom and lubricant promotion and access.
- Training health providers about MSM specific health needs and how to improve MSM access to care and provide advocacy on facilitated referrals.
- Advocacy sessions with policy makers and District AIDS Coordination Committees on rights of sexual minority groups in Malawi.
- Strengthening networks for MSMs and FSW.

CEDEP has recruited and trained MSM and FSW as peer educators. The peer educators mobilize MSM and FSW in selected districts. The peer educators work with health service providers in ensuring that the referral systems are operational and are effectively being utilized. In 2014 alone, 3,713 MSM and 3,597 FSW were reached with HIV and AIDS messages, condoms and lubricants, HTC services and linkage to care. A directory of service providers “friendly” to key populations is available and the organisation continues advocacy for MSM and SW friendly health services within the health facilities (83).



EXAMPLE

Adapting clinic services and community outreach clinics for FSW

In addition to mobilisation and HIV education a tailored medical package is required for these groups. MSF in Nsanje district has developed a sex worker friendly clinic run only for FSW. The hospital clinic opens late in the afternoon, a time assessed to be convenient for FSWs during focus group discussions. Health care workers received additional training on the medical and psychosocial needs of sex workers. Outreach clinics are performed in specified community locations where the sex workers feel comfortable gathering and peer educators are used to mobilise clients to attend these outreach clinics. The comprehensive HIV package of care is provided including STI management, HTC (offered 3 monthly), ART, family planning and hepatitis B vaccination. Post-exposure-prophylaxis and emergency contraception is also available for those who come forward after episodes of unprotected sex. Condoms and lubricant is provided from these clinics but also through peer educators. More recently night time HTC services have been offered at bars and other hot spots where FSW and their clients are present.



KEY MESSAGE

Community based strategies to target key populations

- HIV incidence in key populations remains high, with the youth amongst these groups remaining the most vulnerable.
- Targeted interventions for key populations are essential and are recognized in the NSP.
- MSM and SW peer educators have been an effective intervention to provide education, distribute condoms and lubricant and mobilise these populations to utilize services.
- Facility based services may need to be provided at adapted times and health care workers require additional training to provide the comprehensive medical package of care for these groups.
- Outreach clinics in the community have encouraged uptake of services by FSW.



A VCT counselor (Voluntary Counseling and Testing) explaining to a woman how the use of condoms can prevent the spread of STDs. The counseling session occurs in the community, close to the workplace of the women. Credit: Felco Calderin



Chapter 10

Conclusions and way forward

This report describes a range of community orientated strategies across the HIV prevention care and treatment cascade. Many show great promise to contribute to the 90-90-90 goals. Although categorised as facility or community based, what is key are the inter-linkages between the two and the potential to integrate HIV activities with the management of other diseases in order to achieve maximum efficiencies.

Essential components for the success of such interventions include:

- Clear policy guidance to create and promote an enabling environment through
 - implementing the elements of differentiated care
 - ensuring local ownership of the interventions by health care workers and their communities
 - adequately supporting CBOs and engaging community and faith based leaders.
- Strengthening of programme linkages between community structures and health facilities across the cascade of care to avoid duplication of activities and maximise the impact of interventions.
- Recognition of lay counsellors, expert patients and the work of volunteers is urgently needed. Harmonisation of roles, responsibilities training requirements and salaries should be led by the MOH.
- Ensuring the technical capacity of community groups and individuals through coordinated training, mentorship and supervision.
- Providing adequate oversight and stewardship of community based interventions by MoH and National AIDS Council.

Taking successful interventions to scale

The majority of the described interventions in this report are partner-led, hence leading to disparities in service provision across the country. Several cadres are providing similar services with lack of harmonisation of job description, salaries and training. Although coverage of certain models (e.g. expert clients) is significant, the question now should be posed as to which of these interventions should be taken to scale. To take any one of these interventions to scale will require leadership of the MoH in order to define roles and responsibilities of existing staff and for any new cadres to



Malawi's future – working towards an AIDS-free generation. Credit: UNAIDS

harmonise the job profile, training requirements, salary and management line. Clearly defined operational and service delivery guidance will be needed from national level and then should be locally adapted by district teams after consultation with their communities and health care workers.

What is clear is that achieving the 90-90-90 targets by 2020 will only be feasible by adapting our community orientated service delivery strategies to complement conventional facility based service provision. By enhancing the interaction between community actors and the health care system, and ensuring that the person living with HIV is placed firmly at the centre of all our interventions in the national HIV response, the goals of the 2015-2020 Malawi NSP can be achieved.

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Annex 1: List of participants interviewed

1. District Health Management Team (DHMT)	Rumphi
2. Life Concern Organization (LICO)	Rumphi
3. Rumphi Education Awareness on AIDS Programme	Rumphi
4. Saint John of God (SJOG)	Mzuzu
5. Mtisunge AIDS and Community Development Support Organization (MACODESA)	Nkhatabay
6. Tovwirane Community Based Organization	Mzimba
7. Dignitas International	Mangochi, Zomba
8. mothers2mothers	Mangochi, Lilongwe
9. Namwera AIDS Coordinating Committee (NACC)	Mangochi
10. Tiyende Pamodzi AIDS Support Group	Mangochi
11. Dedza DHMT	Dedza
12. Catholic Health Commission	Dedza
13. Nampala AIDS Support Group	Dedza
14. Mchinji District Hospital	Mchinji
15. Home of Hope, Mchinji Children's Home	Mchinji
16. Salima DHMT	Salima
17. District AIDS Coordinator (DAC)	Salima
18. Salima AIDS Service Organization (SASO)	Salima
19. District Interfaith AIDS Committee	Salima
20. Chimwemwe Support Group	Salima
21. Malawi Red Cross	Dowa
22. Dowa DHMT	Dowa
23. Dowa DAC	Dowa
24. Mponela AIDS Information and Counselling Centre (MAICC)	Dowa
25. Mchinji Home of Hope Children's Home	Mchinji
26. Millennium Promise Alliance and Mwandama Millennium Village	Zomba
27. Medicines Sans Frontiers (MSF)	Thyolo
28. DAC- Blantyre City	Blantyre
29. College of Medicine (Campus)	Blantyre
30. Concerned Youth Organisation (CYO) Kachere	Blantyre
31. Bangwe HIV and AIDS Initiative (BAHASI) Bangwe	Blantyre
32. Drug Enhancement against HIV/AIDS and Malnutrition (DREAM)	Balaka, Lilongwe
33. Sue Ryder International	Balaka
34. Save the Children	Balaka
35. DAC/DHMT	Neno
36. Partners In Health (PIH)	Neno
37. Malawi Interfaith AIDS Association	Lilongwe
38. NAPHAM	Lilongwe
39. MACRO	Lilongwe
40. Elizabeth Glaser Paediatric AIDS Foundation (EGPAF)	Lilongwe
41. Centre for Development of People (CEDEP)	Lilongwe
42. Lighthouse	Lilongwe
43. National AIDS Commission	Lilongwe
44. UNAIDS	Lilongwe
45. UNFPA	Lilongwe
46. Baylor College of Medicine Children's Foundation - Malawi	Lilongwe

Annex 2: Framework of Community Oriented Service Delivery Models across the HIV Cascade

NSP GOAL		FACILITY BASED		COMMUNITY BASED	
		Intervention	Resource Partner	Intervention	Resource Partner
90% of all people living with HIV know their status	HIV testing and linkage			Door to door	DAPP, Millennium Village
				Targeted Community Outreach HTC Model in Malawi	Baylor, LICO, MACRO, Millennium Village, MOH, PIH
90% of those knowing their status are initiated and maintained on ART	Enhancing retention and adherence at facility	Lay adherence counsellors and expert clients	CEDEP, Dignitas, EGPAF, MANASO Millennium Village, NAPHAM, PIH		
		Mentor Mother Model	m2m, Millennium Village, NAPHAM		
		Teen Clubs	Baylor, Dignitas, EGPAF, LICO, MANASO, MSF, NAPHAM, PIH		
		Fast Track Refill strategy	Dignitas, MSF		
90% of those on ART are virologically suppressed	Enhancing retention and adherence in the community			Community Health Workers	Baylor, EGPAF, LICO, Lighthouse, m2m, Millennium Village, MOH, PIH
				Support groups	DAPP, EGPAF, LICO, m2m, MACRO, MANASO, Millennium Village, MOH, NAPHAM, PIH
				Community ART Groups	MSF

Annex 3: Geographic coverage of Community Oriented Service Delivery Models across the HIV Cascade, per facility and district

Parent Concept	HEALTH FACILITIES				INTERVENTION @ HF			INTERVENTION BY COMMUNITY @ HF				INTERVENTION BY COMMUNITY @ COMMUNITY			
	District	Site	Facility type	Fast track direct pick-up or refill @ pharmacy	Health Diagnostic Assistants	Expert Clients	Mentor Mothers	Teen Clubs	Door to Door Testing	Targeted Outreach Testing	Additional CHW	Community ART Groups	Support Groups		
Northern Region	Chilipa	Chilipa District Hospital	Umoyo Clinic	-	-	-	-	-	-	-	-	-	MANASO		
Northern Region	Chilipa	Kaseye Mission Hospital	Public	-	-	-	-	-	-	-	-	-	-		
Northern Region	Chilipa	Nthalire Health Centre	Public	-	-	-	-	-	-	-	-	-	-		
Northern Region	Chilipa	Karame Health Centre	Public	-	-	-	-	-	-	-	-	-	-		
Northern Region	Chilipa	Wenya Health Centre	Public	-	-	-	-	-	-	-	-	-	-		
Northern Region	Chilipa	Chambo Health Centre	Public	-	-	-	-	-	-	-	-	-	-		
Northern Region	Chilipa	Ilumbo Health Centre	Public	-	-	-	-	-	-	-	-	-	-		
Northern Region	Chilipa	Kapenda Health Centre	Public	-	-	-	-	-	-	-	-	-	-		
Northern Region	Karonga	Chilumba Rural Hospital	Public	-	-	NAPHAM	NAPHAM	NAPHAM	-	MACRO	-	-	NAPHAM		
Northern Region	Karonga	Karonga District Hospital	Public	-	-	NAPHAM	NAPHAM	MANASO	-	-	-	-	NAPHAM		
Northern Region	Karonga	Kapoto Rural Hospital	Public	-	-	NAPHAM	NAPHAM	MANASO	-	-	-	-	MANASO		
Northern Region	Karonga	Nyungwe Health Centre	Public	-	-	NAPHAM	-	-	-	-	-	-	NAPHAM		
Northern Region	Karonga	Iponga Health Centre	Public	-	-	NAPHAM	-	-	-	-	-	-	NAPHAM		
Northern Region	Karonga	Fulinwa Health Centre	Public	-	-	-	-	-	-	-	-	-	NAPHAM		
Northern Region	Karonga	Chilumba Barracks Clinic	Public	-	-	-	-	-	-	-	-	-	NAPHAM		
Northern Region	Karonga	Lupembe Health Centre	Public	-	-	-	-	-	-	-	-	-	NAPHAM		
Northern Region	Karonga	Mpata Health Centre	Public	-	-	-	-	-	-	-	-	-	NAPHAM		
Northern Region	Karonga	Sangilo Health Centre	Public	-	-	-	-	-	-	-	-	-	NAPHAM		
Northern Region	Karonga	Wiliro Health Centre	Public	-	-	-	-	-	-	-	-	-	NAPHAM		
Northern Region	Karonga	Mgana Health Centre	Public	-	-	-	-	-	-	-	-	-	NAPHAM		
Northern Region	Karonga	Lwetsga Health Centre	Public	-	-	-	-	NAPHAM	-	-	-	-	NAPHAM		
Northern Region	Karonga	St Anne's Health Centre	Public	-	-	-	-	-	-	-	-	-	NAPHAM		
Northern Region	Karonga	Atupele Health Centre	Public	-	-	-	-	-	-	-	-	-	NAPHAM		
Northern Region	Karonga	Kasoba Health Centre	Public	-	-	-	-	NAPHAM	-	-	-	-	NAPHAM		
Northern Region	Nkhata Bay	Chintheche Rural Hospital	Public	-	-	-	-	MANASO	MACRO	-	-	-	NAPHAM		
Northern Region	Nkhata Bay	Nkhatabay District Hospital	Public	-	-	-	-	MANASO	MACRO	-	-	-	MANASO		
Northern Region	Nkhata Bay	Bim Nkhatabay	Private	-	-	-	-	MANASO	-	-	-	-	MANASO		
Northern Region	Nkhata Bay	Mzenega Health Centre	Public	-	-	-	-	-	MACRO	-	-	-	MACRO		
Northern Region	Nkhata Bay	Usisya Health Centre	Public	-	-	-	-	-	-	-	-	-	-		
Northern Region	Nkhata Bay	Kachera Health Centre	Public	-	-	-	-	-	-	-	-	-	-		
Northern Region	Nkhata Bay	Maula Health Centre	Public	-	-	-	-	-	-	-	-	-	-		
Northern Region	Nkhata Bay	Chikwina Health Centre	Public	-	-	-	-	-	-	-	-	-	-		
Northern Region	Nkhata Bay	Kande Health Centre	Public	-	-	-	-	-	-	-	-	-	-		
Northern Region	Nkhata Bay	Mgamba Health Centre	Public	-	-	-	-	-	-	-	-	-	-		
Northern Region	Nkhata Bay	Bula Health Centre	Public	-	-	-	-	-	-	-	-	-	-		
Northern Region	Nkhata Bay	Luzi Health Centre	Public	-	-	-	-	-	-	-	-	-	-		
Northern Region	Nkhata Bay	Chisala Health Centre	Public	-	-	-	-	-	-	-	-	-	-		
Northern Region	Nkhata Bay	Chitambwe Health Centre	Public	-	-	-	-	-	-	-	-	-	-		
Northern Region	Nkhata Bay	Nihungwa Health Centre	Public	-	-	-	-	-	-	-	-	-	-		
Northern Region	Nkhata Bay	Luwazi Health Centre	Public	-	-	-	-	-	-	-	-	-	-		
Northern Region	Nkhata Bay	Kavazi Health Centre	Public	-	-	-	-	-	-	-	-	-	-		
Northern Region	Nkhata Bay	Nkhatabay Private Clinic	Private	-	-	-	-	-	-	-	-	-	-		
Northern Region	Rumphi	Rumphi District Hospital	Public	-	MACRO	-	m2m	EGPAF, MANASO	MACRO	EGPAF	-	-	MACRO, MANASO		
Northern Region	Rumphi	Livingstonia Mission Hospital	Public	-	-	EGPAF	-	-	-	-	-	-	-		
Northern Region	Rumphi	Bolero Rural Hospital	Public	-	MACRO	-	-	LICO, MANASO	LICO, EGPAF	-	-	-	LICO, MANASO		
Northern Region	Rumphi	Bim Rumphi	Private	-	-	-	-	MANASO	-	-	-	-	MANASO		
Northern Region	Rumphi	Kalowo Health Centre	Public	-	MACRO	EGPAF	-	MANASO	MACRO	EGPAF	-	-	MANASO		
Northern Region	Rumphi	Mvuju Rural Hospital	Public	-	MACRO	-	-	LICO, MANASO	LICO, MACRO	LICO, EGPAF	-	-	LICO, MANASO		

Annex 3: Geographic coverage of Community Oriented Service Delivery Models across the HIV Cascade, per facility and district

HEALTH FACILITIES			INTERVENTION BY COMMUNITY & HF			INTERVENTION BY COMMUNITY & COMMUNITY						
Parent Concept	District	Site	Fast track direct pick-up or refill @ pharmacy	Health Diagnostic Assistants	Expert Clients	Menior Mothers	Teen Clubs	Door to Door Testing	Targeted Outreach Testing	Additional CHW	Community ART Groups	Support Groups
Central Region	Central West Zone	Mchinji District Hosp. Mwal Clinic	-	-	EGPAF	-	EGPAF	-	-	EGPAF	-	m2m, MANASO
Central Region	Central West Zone	Kapiri Mission Hospital	-	-	EGPAF	-	-	-	-	EGPAF	-	MANASO
Central Region	Central West Zone	Mikundi Health Centre	-	-	EGPAF	-	-	-	-	EGPAF	-	-
Central Region	Central West Zone	Mkanida Health Centre	-	-	EGPAF	-	-	-	-	EGPAF	-	-
Central Region	Central West Zone	Tembwe Health Centre	-	-	EGPAF	-	-	-	-	EGPAF	-	-
Central Region	Central West Zone	Guillima Mission Hospital	-	-	EGPAF	-	MANASO	-	-	EGPAF	-	MANASO
Central Region	Central West Zone	Kapanga Health Centre	-	-	EGPAF	-	-	-	-	EGPAF	-	-
Central Region	Central West Zone	Kochilira Health Centre	-	-	EGPAF	-	-	-	-	EGPAF	-	-
Central Region	Central West Zone	Nikwazi Health Centre	-	-	EGPAF	-	MANASO	-	-	EGPAF	-	MANASO
Central Region	Central West Zone	Kaigwazaaga Health Centre	-	-	-	-	-	-	-	-	-	-
Central Region	Central West Zone	Chishya Health Centre	-	-	EGPAF	-	-	-	-	EGPAF	-	MANASO
Central Region	Central West Zone	Chipumi Health Centre	-	-	EGPAF	-	-	-	-	EGPAF	-	-
Central Region	Central West Zone	Ludzi St. Josephs Health Centre	-	-	EGPAF	-	-	-	-	EGPAF	-	-
Central Region	Central West Zone	Gumbia Health Centre	-	-	EGPAF	-	-	-	-	EGPAF	-	-
Central Region	Central West Zone	Dedza District Hospital	-	-	EGPAF, CEDEP	m2m	EGPAF	-	-	EGPAF	-	m2m, MANASO
Central Region	Central West Zone	Mua Mission Hospital	-	-	EGPAF	m2m	-	-	-	EGPAF	-	m2m, MANASO
Central Region	Central West Zone	Kaphuka Health Centre	-	-	EGPAF	-	-	-	-	EGPAF	-	MANASO
Central Region	Central West Zone	Lobi Rural Hospital	-	-	EGPAF	m2m	-	-	-	EGPAF	-	MANASO
Central Region	Central West Zone	Kanyazi Health Centre	-	-	EGPAF	-	-	-	-	EGPAF	-	MANASO
Central Region	Central West Zone	Mtendere Health Centre	-	-	EGPAF	-	-	-	-	EGPAF	-	MANASO
Central Region	Central West Zone	Mtakataka Health Centre	-	-	EGPAF	m2m	-	-	-	EGPAF	-	m2m, MANASO
Central Region	Central West Zone	Chikuse Health Centre	-	-	EGPAF	-	-	-	-	EGPAF	-	MANASO
Central Region	Central West Zone	Golomoti Health Centre	-	-	EGPAF	m2m	-	-	-	EGPAF	-	MANASO
Central Region	Central West Zone	Kaundu Health Centre	-	-	EGPAF	-	-	-	-	EGPAF	-	MANASO
Central Region	Central West Zone	Mayani Health Centre	-	-	EGPAF	m2m	-	-	-	EGPAF	-	m2m, MANASO
Central Region	Central West Zone	Nakalazi Health Centre	-	-	EGPAF	-	-	-	-	EGPAF	-	MANASO
Central Region	Central West Zone	Bembeke Health Centre	-	-	EGPAF	-	-	-	-	EGPAF	-	m2m, MANASO
Central Region	Central West Zone	Kalele Health Centre	-	-	-	-	-	-	-	-	-	MANASO
Central Region	Central West Zone	Tsoya Dispensary	-	-	EGPAF	-	-	-	-	EGPAF	-	MANASO
Central Region	Central West Zone	Kanyama Health Centre	-	-	EGPAF	-	-	-	-	EGPAF	-	MANASO
Central Region	Central West Zone	Kasina Health Centre	-	-	EGPAF	-	-	-	-	EGPAF	-	MANASO
Central Region	Central West Zone	Chiphwanya St. Joseph Health Centre	-	-	EGPAF	-	-	-	-	EGPAF	-	m2m, MANASO
Central Region	Central West Zone	Chitowo Health Centre	-	-	EGPAF	-	-	-	-	EGPAF	-	MANASO
Central Region	Central West Zone	Chongoni Health Centre	-	-	EGPAF	-	-	-	-	EGPAF	-	MANASO
Central Region	Central West Zone	Dzindweu Health Centre	-	-	EGPAF	-	-	-	-	EGPAF	-	MANASO
Central Region	Central West Zone	Matumba Health Centre	-	-	-	-	-	-	-	-	-	MANASO
Central Region	Central West Zone	Mikonodo Dispensary	-	-	-	-	-	-	-	-	-	MANASO
Central Region	Central West Zone	Mphati Health Centre	-	-	-	-	-	-	-	-	-	MANASO
Central Region	Central West Zone	Mphunzi Health Centre	-	-	-	-	-	-	-	-	-	MANASO
Central Region	Central West Zone	Police College Health Centre	-	-	-	-	-	-	-	-	-	MANASO
Central Region	Central West Zone	Chimoto Health Centre	-	-	-	-	-	-	-	-	-	MANASO
Central Region	Central West Zone	Triyese Private Maternity	-	-	-	-	-	-	-	-	-	MANASO
Central Region	Central West Zone	Mganyia Health Centre	-	-	EGPAF	m2m	EGPAF	-	-	EGPAF	-	MANASO m2m, MANASO
Central Region	Central West Zone	Nicheu District Hospital	-	-	-	-	-	-	-	-	-	-
Central Region	Central West Zone	Sister Theresa Comm. Hosp. Mikoke	-	-	-	-	-	-	-	-	-	-
Central Region	Central West Zone	Billira Health Centre	-	-	EGPAF	-	-	-	-	EGPAF	-	MANASO
Central Region	Central West Zone	Kasinje Health Centre	-	-	EGPAF	-	-	-	-	EGPAF	-	MANASO

HEALTH FACILITIES				INTERVENTION @ HF			INTERVENTION BY COMMUNITY @ HF			INTERVENTION BY COMMUNITY @ COMMUNITY				
Parent Concept	District	Site	Facility type	Fast track direct pick-up refil @ pharmacy	Health Diagnostic Assistants	Egert Clients	Mentor Mothers	Teen Clubs	Door to Door Testing	Targeted Outreach Testing	Additional CHW	Community ART Groups	Support Groups	
Central Region	Central West Zone	Nicheu	Katsikera Health Centre	Public	-	EGPAF	-	-	-	-	EGPAF	-	m2m, MANASO	
Central Region	Central West Zone	Nicheu	Lizulu Health Centre	Public	-	EGPAF	m2m	-	-	-	EGPAF	-	m2m, MANASO	
Central Region	Central West Zone	Nicheu	Ganya Health Centre	Public	-	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Central Region	Central West Zone	Nicheu	Mzonda Health Centre	Public	-	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Central Region	Central West Zone	Nicheu	Bwanje Health Centre	Public	-	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Central Region	Central West Zone	Nicheu	Tsangano Health Centre	Public	-	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Central Region	Central West Zone	Nicheu	Chigodi Health Centre	Public	-	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Central Region	Central West Zone	Nicheu	Chikande Health Centre	Public	-	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Central Region	Central West Zone	Nicheu	Kandau Health Centre	Public	-	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Central Region	Central West Zone	Nicheu	Kapem Health Centre	Public	-	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Central Region	Central West Zone	Nicheu	Lakewey Health Centre	Public	-	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Central Region	Central West Zone	Nicheu	Nsipe Health Centre	Public	-	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Central Region	Central West Zone	Nicheu	Nsiyaludzu Health Centre	Public	-	EGPAF	m2m	-	-	-	EGPAF	-	m2m, MANASO	
Central Region	Central West Zone	Nicheu	Nzama Health Centre	Public	-	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Central Region	Central West Zone	Nicheu	Sharpe Valley Health Centre	Public	-	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Central Region	Central West Zone	Nicheu	Masasa Health Centre	Public	-	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Central Region	Central West Zone	Nicheu	Mlanda Health Centre	Public	-	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Central Region	Central West Zone	Nicheu	Gowa Health Centre	Public	-	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Central Region	Central West Zone	Nicheu	Mlanda Health Centre	Public	-	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Central Region	Central West Zone	Nicheu	Seozani Health Centre	Public	-	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Central Region	Central West Zone	Nicheu	Mangochi Health Centre	Public	-	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Central Region	Central West Zone	Nicheu	Mangawira Maternity	Public	-	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Central Region	Central West Zone	Nicheu	Birwiri Health Centre	Public	-	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Central Region	Central West Zone	Nicheu	Champili Health Centre	Public	-	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Southern Region	South West Zone	Chiradzulu	Chiradzulu District Hospital	Public	-	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Southern Region	South West Zone	Chiradzulu	St. Joseph Mission Hospital, Ngulufi	Public	-	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Southern Region	South West Zone	Chiradzulu	Bilal Clinic	Public	MSF	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Southern Region	South West Zone	Chiradzulu	Chitira Health Centre	Public	MSF	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Southern Region	South West Zone	Chiradzulu	Mauwa Health Centre	Public	MSF	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Southern Region	South West Zone	Chiradzulu	Mbulumbuzi Health Centre	Public	MSF	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Southern Region	South West Zone	Chiradzulu	Milepa Health Centre	Public	MSF	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Southern Region	South West Zone	Chiradzulu	Namadzji Health Centre	Public	MSF	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Southern Region	South West Zone	Chiradzulu	Namitambo Health Centre	Public	MSF	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Southern Region	South West Zone	Chiradzulu	Ndanda Health Centre	Public	MSF	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Southern Region	South West Zone	Chiradzulu	Nkalo Health Centre	Public	MSF	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Southern Region	South West Zone	Chiradzulu	Thumbwe Health Centre	Public	MSF	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Southern Region	South West Zone	Chiradzulu	Pim Health Centre	Public	MSF	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Southern Region	South West Zone	Chiradzulu	Bangwe Health Centre	Public	MSF	EGPAF	m2m	-	-	MACRO	EGPAF	-	MANASO, DIAPP	
Southern Region	South West Zone	Blantyre	Chilomoni Health Centre	Public	-	EGPAF	m2m	-	DIAPP	MACRO	EGPAF	-	MANASO, DIAPP	
Southern Region	South West Zone	Blantyre	Limbe Health Centre	Public	-	EGPAF	m2m	-	DIAPP	MACRO	EGPAF	-	MANASO, DIAPP	
Southern Region	South West Zone	Blantyre	Mlambe Mission Hospital	Public	-	EGPAF	m2m	-	DIAPP	MACRO	EGPAF	-	MANASO, DIAPP	
Southern Region	South West Zone	Blantyre	Ndirande Health Centre	Public	-	EGPAF	m2m	-	DIAPP	MACRO	EGPAF	-	MANASO, DIAPP	
Southern Region	South West Zone	Blantyre	Queen Elizabeth Central Hospital	Public	-	EGPAF	m2m	-	DIAPP	MACRO	EGPAF	-	MANASO, DIAPP	
Southern Region	South West Zone	Blantyre	Masini Medi Clinic Limbe	Private	-	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Southern Region	South West Zone	Blantyre	Blantyre Adventist Hospital	Private	-	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Southern Region	South West Zone	Blantyre	Blantyre Water Board Clinic	Private	-	EGPAF	-	-	-	-	EGPAF	-	MANASO	
Southern Region	South West Zone	Blantyre	Chitawira Private Hospital	Private	-	EGPAF	-	-	-	-	EGPAF	-	MANASO	

Annex 3: Geographic coverage of Community Oriented Service Delivery Models across the HIV Cascade, per facility and district

HEALTH FACILITIES			INTERVENTION @ HF			INTERVENTION BY COMMUNITY @ HF			INTERVENTION BY COMMUNITY @ COMMUNITY			
Parent Concept	District	Site	Fast track direct pick-up or refill @ pharmacy	Health Diagnostic Assistants	Expert Clients	Menior Mothers	Teen Clubs	Door to Door Testing	Targeted Outreach Testing	Additional CHW	Community ART Groups	Support Groups
Southern Region	South West Zone	Chikwawa	-	-	-	-	-	-	-	-	-	MANASO
Southern Region	South West Zone	Ndakwa Health Centre	-	-	-	-	-	-	-	-	-	MANASO
Southern Region	South West Zone	Chipwala Health Centre	-	-	-	-	-	-	-	-	-	MANASO
Southern Region	South West Zone	Dolo Health Centre	-	-	-	-	-	-	-	-	-	MANASO
Southern Region	South West Zone	Gega Health Centre	-	-	-	-	-	-	-	-	-	MANASO
Southern Region	South West Zone	Kakoma Health Centre	-	-	-	-	-	-	-	-	-	MANASO
Southern Region	South West Zone	Mfira Health Centre	-	-	-	-	-	-	-	-	-	MANASO
Southern Region	South West Zone	Misomali Health Centre	-	-	-	-	-	-	-	-	-	MANASO
Southern Region	South West Zone	Mkumaniza Health Centre	-	-	-	-	-	-	-	-	-	MANASO
Southern Region	South West Zone	Ngabu Sda Health Centre	-	-	-	-	-	-	-	-	-	MANASO
Southern Region	South West Zone	Nkombedzi Health Centre	-	-	-	-	-	-	-	-	-	MANASO
Southern Region	South West Zone	Mangulenje Health Centre	-	-	-	-	-	-	-	-	-	MANASO
Southern Region	South West Zone	Lengwe Health Centre	-	-	-	-	-	-	-	-	-	MANASO
Southern Region	South West Zone	Kalulu Health Centre, Chikwawa	-	-	-	-	-	-	-	-	-	MANASO
Southern Region	South West Zone	Alumenda Health Centre	-	-	-	-	-	-	-	-	-	MANASO
Southern Region	South West Zone	Mwanza Clinic Area 3	-	-	-	-	-	-	-	-	-	MANASO
Southern Region	South West Zone	Chithumba Health Centre	-	-	-	-	-	-	-	-	-	MANASO
Southern Region	South West Zone	Nsanje District Hospital	-	-	-	-	-	-	-	-	MSF	MANASO
Southern Region	South West Zone	Trinity Mission Hospital	-	-	-	-	-	-	-	MOH	MSF	-
Southern Region	South West Zone	Kalamba Community Hospital	-	-	-	-	-	-	-	-	-	-
Southern Region	South West Zone	Mdamera Health Centre	-	-	-	-	-	-	-	-	-	-
Southern Region	South West Zone	Tengani Health Centre	-	-	-	-	-	-	-	MOH	MSF	-
Southern Region	South West Zone	Sorgin Health Centre	-	-	-	-	-	-	-	MOH	MSF	-
Southern Region	South West Zone	Nyamthuru Health Centre	-	-	-	-	-	-	-	-	-	-
Southern Region	South West Zone	Masenje Health Centre	-	-	-	-	-	-	-	-	-	-
Southern Region	South West Zone	Mbenje Health Centre	-	-	-	-	-	-	-	-	-	-
Southern Region	South West Zone	Phokera Health Centre	-	-	-	-	-	-	-	-	-	-
Southern Region	South West Zone	Sankhulani Health Centre	-	-	-	-	-	-	-	-	-	-
Southern Region	South West Zone	Chididi Health Centre Nsanje	-	-	-	-	-	-	-	-	-	-
Southern Region	South West Zone	Lulwe Health Centre	-	-	-	-	-	-	-	-	-	-
Southern Region	South West Zone	Tikondane Private Clinic	-	-	-	-	-	-	-	-	-	-
Southern Region	South West Zone	Neno District Hospital	-	-	PIH (health)	PIH (health)	PIH (health)	PIH (health)	PIH (health)	PIH (health)	-	PIH (health), MANASO
Southern Region	South West Zone	Lisingwi Community Hospital	-	-	PIH (health)	PIH (health)	PIH (health)	PIH (health)	PIH (health)	PIH (health)	-	PIH (health), MANASO
Southern Region	South West Zone	Tedzani Escrom Clinic	-	-	-	-	-	-	PIH (health)	PIH (health)	-	PIH (health), MANASO
Southern Region	South West Zone	Matope Health Centre	-	-	-	-	-	-	PIH (health)	PIH (health)	-	PIH (health), MANASO
Southern Region	South West Zone	Magareta Health Centre	-	-	-	-	-	-	PIH (health)	PIH (health)	-	PIH (health), MANASO
Southern Region	South West Zone	Msambe Health Centre	-	-	PIH (health)	PIH (health)	PIH (health)	PIH (health)	PIH (health)	PIH (health)	-	PIH (health), MANASO
Southern Region	South West Zone	Chilunga Health Centre	-	-	-	-	-	-	PIH (health)	PIH (health)	-	PIH (health), MANASO
Southern Region	South West Zone	Malandani Health Centre	-	-	-	-	-	-	PIH (health)	PIH (health)	-	PIH (health), MANASO
Southern Region	South West Zone	Neno Parish Health Centre	-	-	-	-	-	-	PIH (health)	PIH (health)	-	PIH (health), MANASO
Southern Region	South West Zone	Nkula Health Centre	-	-	-	-	-	-	PIH (health)	PIH (health)	-	PIH (health), MANASO
Southern Region	South West Zone	Luwani Health Centre	-	-	-	-	-	-	PIH (health)	PIH (health)	-	PIH (health), MANASO
Southern Region	South West Zone	Ligowe Health Centre	-	-	PIH (health)	PIH (health)	PIH (health)	PIH (health)	PIH (health)	PIH (health)	-	PIH (health), MANASO

Parent Concept	HEALTH FACILITIES			INTERVENTION @ HF			INTERVENTION BY COMMUNITY @ HF				INTERVENTION BY COMMUNITY @ COMMUNITY			
	District	Site	Facility type	Fast track direct post-op or refill @ pharmacy	Health Diagnostic Assistants	Expert Clients	Menor Mothers	Teen Clubs	Door to Door Testing	Targeted Outreach Testing	Additional CHW	Community ART Groups	Support Groups	
Southern Region	South West Zone	Zolewa Pih	Public	-	-	PIH (health)	-	-	-	PIH (health)	-	-	PIH (health), MANASO	
Southern Region	South East Zone	Mangochi District Hospital	Public	-	-	Dignitas, CEDEP	m2m	Dignitas	-	-	-	-	-	
Southern Region	South East Zone	Monkysbay Community Hospital	Public	-	-	CEDEP	m2m	Dignitas	-	-	-	-	-	
Southern Region	South East Zone	St Martins Mission Hospital	Public	-	-	-	m2m	Dignitas	-	-	-	-	-	
Southern Region	South East Zone	Assalaam Clinic	Private	-	-	CEDEP	m2m	-	-	-	-	-	-	
Southern Region	South East Zone	Mulibwanji Hospital	Public	-	-	Dignitas	-	-	-	-	-	-	-	
Southern Region	South East Zone	Billy Riordan Memorial Health Clinic	Public	-	-	Dignitas	-	-	-	-	-	-	-	
Southern Region	South East Zone	Makanjira Health Centre	Public	-	-	-	-	-	-	-	-	-	-	
Southern Region	South East Zone	Maldeco Fisheries Clinic	Private	-	-	Dignitas, CEDEP	-	-	-	-	-	-	-	
Southern Region	South East Zone	Katuli Health Centre	Public	-	-	Dignitas	-	-	-	-	-	-	-	
Southern Region	South East Zone	Chilipa Health Centre Mangochi	Public	-	-	-	m2m	-	-	-	-	-	-	
Southern Region	South East Zone	Malawi Army Marine Camp Hospital	Public	-	-	-	-	-	-	-	-	-	-	
Southern Region	South East Zone	Katema Health Centre	Public	-	-	Dignitas	-	-	-	-	-	-	-	
Southern Region	South East Zone	Kulalanga Health Centre	Public	-	-	Dignitas, CEDEP	-	-	-	-	-	-	-	
Southern Region	South East Zone	Malombe Health Centre	Public	-	-	Dignitas	m2m	-	-	-	-	-	-	
Southern Region	South East Zone	Namwera Health Centre	Public	-	-	Dignitas	-	Dignitas	-	-	-	-	-	
Southern Region	South East Zone	Nancholi Dispensary	Public	-	-	-	-	-	-	-	-	-	-	
Southern Region	South East Zone	Nikopa Health Centre	Public	-	-	Dignitas	-	-	-	-	-	-	-	
Southern Region	South East Zone	Namalaka Health Centre	Public	-	-	Dignitas	-	-	-	-	-	-	-	
Southern Region	South East Zone	Nangalamu Health Centre	Public	-	-	Dignitas	-	-	-	-	-	-	-	
Southern Region	South East Zone	Nankhwali Health Centre	Public	-	-	-	-	-	-	-	-	-	-	
Southern Region	South East Zone	Nankumba Health Centre	Public	-	-	-	m2m	-	-	-	-	-	-	
Southern Region	South East Zone	Kapire Health Centre	Public	-	-	-	-	-	-	-	-	-	-	
Southern Region	South East Zone	Kochie Health Centre	Public	-	-	Dignitas, CEDEP	-	-	-	-	-	-	-	
Southern Region	South East Zone	Ngapani Health Centre	Public	-	-	-	-	-	-	-	-	-	-	
Southern Region	South East Zone	Chikole Dispensary	Public	-	-	-	-	-	-	-	-	-	-	
Southern Region	South East Zone	Lugola Health Centre	Public	-	-	Dignitas	-	-	-	-	-	-	-	
Southern Region	South East Zone	Lulanga Health Centre	Public	-	-	Dignitas	-	-	-	-	-	-	-	
Southern Region	South East Zone	Lungwena Health Centre	Public	-	-	Dignitas	-	-	-	-	-	-	-	
Southern Region	South East Zone	Chumbangame Health Centre	Public	-	-	-	-	-	-	-	-	-	-	
Southern Region	South East Zone	Luwilika Health Centre	Public	-	-	Dignitas	-	-	-	-	-	-	-	
Southern Region	South East Zone	Phirilongwe Health Centre	Public	-	-	-	-	-	-	-	-	-	-	
Southern Region	South East Zone	Sinyaka Health Centre	Public	-	-	-	-	-	-	-	-	-	-	
Southern Region	South East Zone	Mase Health Centre	Public	-	-	Dignitas	-	-	-	-	-	-	-	
Southern Region	South East Zone	Jalasi Health Centre	Public	-	-	-	m2m	-	-	-	-	-	-	
Southern Region	South East Zone	Mimabii Health Centre	Public	-	-	Dignitas	-	-	-	-	-	-	-	
Southern Region	South East Zone	Mkumba Health Centre	Public	-	-	-	m2m	-	-	-	-	-	-	
Southern Region	South East Zone	Mpondasi Health Centre	Public	-	-	-	-	-	-	-	-	-	-	
Southern Region	South East Zone	Malembo Health Centre Mangochi	Public	-	-	Dignitas	-	-	-	-	-	-	-	
Southern Region	South East Zone	Sister Martha Hospital	Public	-	-	-	-	-	-	-	-	-	-	
Southern Region	South East Zone	Kadango Dispensary	Private	-	-	-	-	-	-	-	-	-	-	
Southern Region	South East Zone	Chunda Health Centre	Public	-	-	-	-	-	-	-	-	-	-	
Southern Region	South East Zone	Mama Khadija Private Clinic Namwera	Private	-	-	-	-	-	-	-	-	-	-	
Southern Region	South East Zone	Kapire Dream Centre	Public	-	-	-	-	-	-	-	-	-	-	
Southern Region	South East Zone	Chiponde Health Centre	Public	-	-	-	-	-	-	-	-	-	-	
Southern Region	South East Zone	Chilloonga Health Centre	Public	-	-	Dignitas	-	-	-	-	-	-	-	
Southern Region	South East Zone	Malikula Health Centre	Public	-	-	Dignitas, CEDEP	-	-	-	-	-	-	-	
Southern Region	South East Zone	Somba Health Centre	Public	-	-	-	-	-	-	-	-	-	-	
Southern Region	South East Zone	Machinga District Hospital	Public	-	-	Dignitas	-	Dignitas	-	-	-	-	-	

HEALTH FACILITIES				INTERVENTION @ HF			INTERVENTION BY COMMUNITY @ HF			INTERVENTION BY COMMUNITY @ COMMUNITY				
Parent Concept	District	Site	Facility type	Fast track direct pick-up or refill @ pharmacy	Health Diagnostic Assistants	Expert Clients	Mentor Mothers	Teen Clubs	Door to Door Testing	Targeted Outreach Testing	Additional CHW	Community ART Groups	Support Groups	
Southern Region	South East Zone	Namkanga Health Centre	Public	-	-	Dignitas, Millennium Promise Alliance and Mwandama Millennium Village	Millennium Promise Alliance and Mwandama Millennium Village	-	Millennium Promise Alliance and Mwandama Millennium Village	Millennium Promise Alliance and Mwandama Millennium Village	Millennium Promise Alliance and Mwandama Millennium Village	-	MANASO, Millennium Promise Alliance and Mwandama Millennium Village	
Southern Region	South East Zone	Lambulira Health Centre	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	
Southern Region	South East Zone	Chingala Health Centre	Public	-	-	Dignitas	Dignitas	-	MACRO	-	-	-	MANASO	
Southern Region	South East Zone	Magomero Health Centre	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	
Southern Region	South East Zone	Makwapala Health Centre	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	
Southern Region	South East Zone	City Clinic Zomba	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	
Southern Region	South East Zone	Chingalume Barracks Clinic	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	
Southern Region	South East Zone	Naisi Health Centre	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	
Southern Region	South East Zone	Machinjiri Health Centre	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	
Southern Region	South East Zone	H. Parker Sharp Health Centre	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	
Southern Region	South East Zone	Chamba Health Centre	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	
Southern Region	South East Zone	Mmambo Health Centre	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	
Southern Region	South East Zone	Zomba Mental Hospital	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	
Southern Region	South East Zone	Masem Medi Clinic Zomba	Private	-	-	-	-	-	-	-	-	-	MANASO	
Southern Region	South East Zone	Zilundo Health Centre	Public	-	-	-	-	-	-	-	-	-	MANASO	
Southern Region	South East Zone	Makera Health Centre	Public	-	-	Millennium Promise Alliance and Mwandama Millennium Village	Millennium Promise Alliance and Mwandama Millennium Village	-	Millennium Promise Alliance and Mwandama Millennium Village	Millennium Promise Alliance and Mwandama Millennium Village	Millennium Promise Alliance and Mwandama Millennium Village	-	MANASO, Millennium Promise Alliance and Mwandama Millennium Village	
Southern Region	South East Zone	Mwandama Health Centre	Public	-	-	Millennium Promise Alliance and Mwandama Millennium Village	Millennium Promise Alliance and Mwandama Millennium Village	-	Millennium Promise Alliance and Mwandama Millennium Village	Millennium Promise Alliance and Mwandama Millennium Village	Millennium Promise Alliance and Mwandama Millennium Village	-	MANASO, Millennium Promise Alliance and Mwandama Millennium Village	
Southern Region	South East Zone	Sadzzi Health Centre	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	
Southern Region	South East Zone	Namadidi Health Centre	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	
Southern Region	South East Zone	Mulanje District Hospital	Public	-	-	Dignitas	Dignitas	-	MACRO	-	-	-	MANASO	
Southern Region	South East Zone	Mulanje Mission Hospital	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	
Southern Region	South East Zone	Lujeri Health Centre	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	
Southern Region	South East Zone	Mbiza Health Centre	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	
Southern Region	South East Zone	Namassilima Health Centre	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	
Southern Region	South East Zone	Namphungo Health Centre	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	
Southern Region	South East Zone	Milonde Health Centre	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	
Southern Region	South East Zone	Mulomba Health Centre	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	
Southern Region	South East Zone	Chonde Health Centre	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	
Southern Region	South East Zone	Chambe Health Centre	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	
Southern Region	South East Zone	Mpala Health Centre	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	
Southern Region	South East Zone	Thuchisa Health Centre	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	
Southern Region	South East Zone	Kambenje Health Centre	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	
Southern Region	South East Zone	Namulenga Health Centre	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	
Southern Region	South East Zone	Naphimba Health Centre	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	
Southern Region	South East Zone	Bondo Health Centre	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	
Southern Region	South East Zone	Chinyama Health Centre	Public	-	-	Dignitas	Dignitas	-	-	-	-	-	MANASO	



Mother and child at a post natal clinic, Nsanje. Credit: Marco Longari



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