



*Government of Malawi Ministry of Health*

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# **Integrated HIV Program Report January-March 2022**

- *Integrated HIV Program Supervision*
- *HIV Testing Services / Early Infant Diagnosis*
- *Blood Safety*
- *Post Exposure Prophylaxis*
- *HIV Exposed Child Follow-Up*
- *Prevention of Mother to Child Transmission /  
Antiretroviral Therapy*
- *TB / HIV*
- *Sexually Transmitted Infections*
- *Supply of HIV Program Commodities*

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# 1 Executive Summary (January-March 2022)

## COVID-19 Disruptions to the HIV Program

*The first cases of COVID-19 in Malawi were confirmed on 2<sup>nd</sup> April 2020 and early epidemiological models predicted rapid spread and severe impact of COVID-19 in Malawi.*

*The DHA issued 5 editions of a circular to all HIV service delivery sites (on 3<sup>rd</sup>, 17<sup>th</sup> April, 15<sup>th</sup> June, 17<sup>th</sup> August and 14<sup>th</sup> January) with specific infection prevention guidance for COVID-19, and policy recommendations aimed at decongesting facilities, and reducing travel and contact exposure for patients and health workers. This included a temporary suspension of non-essential services: routine scheduled viral load monitoring for stable adult patients; VMMC; active index partner tracing; new initiation of IPT and PrEP; Teen clubs and other ART support groups involving social gatherings. The DHA also recommended an enhanced implementation of 6-month ARV dispensing for almost all patient groups. As the COVID-19 impact remained much lower than initially feared, the suspended services were successively reintroduced.*

*However, modified service recommendations were re-instated with the 5<sup>th</sup> edition of the DHA circular in response to the 2<sup>nd</sup> wave of COVID-19 that emerged from late December 2020 / early January 2021. This included the temporary suspension of community activities that involve travel or gatherings and most training activities. All facility-based HIV services were recommended to continue as normal provided adequate personal protective equipment (PPE) was available for health workers. In case of PPE shortages, the circular specified a list of non-essential activities that should be deprioritized (community-based HIV testing; recency surveillance; demand creation for VMMC and PrEP; VMMC campaigns; new initiation of PrEP; community condom distribution; initiation of TB preventive therapy for stable ART patients; ART teen clubs).*

*During 2021 Q4, the number of cases had dropped as the second wave had ended beginning April 2021. Anecdotal observations suggest that many people resumed accessing health services during the quarter and there was no noticeable disruptions attributed to Covid-19 in the HIV services.*

### Program performance highlights by the end of March 2022 include:

- Scale-up of integrated HIV services had reached the following number of sites:
  - **754** static and **227** outreach HIV testing sites.
  - **787** (static) ART sites; **626** of these started at least one pregnant or breastfeeding woman.
  - **716** sites with HIV-exposed children in follow-up.
- **717,316** persons were tested for HIV by a trained provider and received their results; **149,358 (21%)** accessed HIV testing for the first time; **567,958 (79%)** were repeat testers and **22,045 (4%)** of these received confirmatory testing (after having tested positive in the past). **19,944 (3.0%)** clients received a positive result for the first time<sup>1</sup>.

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<sup>1</sup> The crude number of new diagnoses is based on the self-reported previous testing history documented in the HTS registers. Model-based estimates of the “1<sup>st</sup> 90” suggest that undisclosed repeat positives account for about half of these. This implies the true yield of new diagnoses may be only around **1.4%**.

- A total of **122,135** people received **202,946** self-test kits; **98,800 (49%)** of these were for use by the recipient and **103,796 (49%)** for onward distribution to sex partners or other people.
- **23,038 (92%)** of **25,140** blood units collected were screened for (at least) HIV, hepatitis B and syphilis.
- A cumulative total of **21,550** clients were referred for PrEP eligibility screening and **19,687 (91%)** were found eligible. **17,086 (87%)** were enrolled in PrEP and **10,784 (63%)** clients were retained on PrEP at the end of the December 2021.
- **167,127 (97%)** of 173,413 women at ANC had their HIV status ascertained; **8,595 (6%)** of these were HIV positive. **139,409 (95%)** of 147,830 at maternity had their HIV status ascertained **8,361 (6%)** of these were HIV positive.
- **19,687** patients started ART this quarter; **87%** were classified as asymptomatic / in WHO stage 1 and started under the “Test & Treat” policy.
- **909,284** patients were alive and on ART by end of March 2022.<sup>2</sup> This means that **92%** of the estimated 985,346 HIV positive population was on ART. <sup>3</sup> ART coverage was **78%** (42,909/ 53,225) for children<sup>4</sup> and **92%** (866,375 / 932,121) for adults.
- **54,998 (93%)** of viral load results from routine monitoring were <1000 copies/ml. Viral suppression rates for routine samples among children (0-14 years) and adults (15+ years) were **80%** and **93%**, respectively.
- **80%** of adults and **81%** of children were retained alive on ART at 12 months after initiation.<sup>5</sup>
- Out of **906,149** patients on first line adult ART **865,861 (97%)** had transitioned to TDF/3TC/DTG and only **1,157 (<1%)** were on TDF/3TC/EFV.
- **11,290** <sup>6</sup> (**>99%**) of an estimated 9,363<sup>Error! Bookmark not defined.</sup> HIV infected pregnant women in Malawi were on ART this quarter. **8,573 (76%)** of these were already on ART when getting pregnant and **2,753 (24%)** started ART during pregnancy/delivery.
- An additional **684** breastfeeding women (re-)started ART in WHO stage 1 or 2.
- **86%** and **82%** of women started while pregnant or breastfeeding were retained on ART at **6 and 12 months** after initiation, respectively.
- **7,871 (7%)** of infants discharged alive from maternity were known to be HIV exposed, **7,554 (96%)** of these received ARV prophylaxis (nevirapine).
- A total of **12,455 HIV** exposed children were newly enrolled for follow-up this quarter; **10,250 (82%)** of these were enrolled before age 2 months.
- Out of the total 985,346 estimated PLHIV by end March 2022:

<sup>2</sup> 909,284 patients were reported as alive on ART at their registered site. In contrast to previous reports, no adjustment for patients in transit can be made this quarter. Tens of thousands of patients who were previously marked as lost to follow-up have been re-classified as transferred out in the context of active tracing undertaken by implementing partners. This precludes the calculation of new transfers out from cumulative cohort data.

<sup>3</sup> 2022 Spectrum Model estimates for the HIV population in March 2022.

<sup>4</sup> Number of children (0-14 years) on ART extrapolated from age-disaggregated cohort reports from sites with electronic medical record systems (see section 11.3 on page 25).

<sup>5</sup> Actual retention rates are thought to be about **10%** higher due to misclassification of ‘silent transfers’ as defaulters in clinic-based survival/retention analysis. (see section 11.4)

<sup>6</sup> Adjusted for double counting due to patient transfers / ‘failed ART initiations’ among women lost to follow-up within 6 months of ART registration.

- An estimated **94%** of PLHIV knew their status (diagnosed)
  - **99%** of whom were on ART
  - **93%** of whom were virally suppressed.<sup>7</sup>
- This means that the Q1 2022 scale-up target for the population diagnosed was achieved. The increase in the proportion of PLHIV who knew their status was higher than what was reported in the previous 2021 Q3 quarter's MPHIA 2020/21 result (88%). This is likely due to the Estimation of "awareness of HIV status" in household surveys is subject to misclassification due to non-disclosure of previous diagnosis. It is likely that misreporting of previous diagnosis is particularly common among PLHIV who have never started or interrupted ART due to social desirability and denial. The MPHIA survey adjusted the awareness estimate with biological markers (ARVs in blood samples) to compensate for this known bias. 20% of study participants who reported to be not previously diagnosed had ARVs in their blood. However, this adjustment method does not identify previously diagnosed PLHIV who have never started or interrupted ART for a longer period (more than a few weeks ago)
  - Consequently, the gap between the estimated number of PLHIV diagnosed and those on ART has declined to 12,588. The great majority of people diagnosed and not on ART have been previously on treatment and interrupted.
  - The 93% VL suppression is lower than what was reported in the last quarter's MPHIA 2020/21 result (97%). This is likely due to the fact that the programmatic and model estimation of cohort-level VLS is based on extrapolating from VLS rates among patients who have received a routine VL test in the program. There are inherent limitations with this extrapolation because annual VL monitoring coverage has remained low (around 65% in 2021) and patients receiving a VL may not be fully representative of the entire national treatment cohort. In addition, All VL testing in the MPHIA survey was done from plasma samples and these are known to be more accurate because the eluted DBS samples can include platelet-bound viral DNA, which can be amplified and lead to false-high VL results.
  - Malawi has already surpassed all of the 90-90-90 targets which were set for December 2020. In line with the new National Strategic Plan 2020-25, the current and future

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<sup>7</sup> Estimation methods for progress towards the 95-95-95 treatment targets

**'First 95'** (921,872 diagnosed): Calibrated to the UNAIDS Shiny90 model estimates; the 88.3% MPHIA estimate for adults (15+) diagnosed (self-reported and/or presence of ARVs in blood sample) is assumed to represent the status for all PLHIV (Spectrum) by end of Q1 2020 ( $990,074 \times 88.3\% = 874,235$ ); add: 82,616 = 52% of 158,877 people reported as newly diagnosed between March 2020 – March 2022 (HTS program data adjusted for an estimated 48% of repeat testers misclassified as newly diagnosed); subtract: 4,527 as the estimated deaths among the diagnosed PLHIV on and off ART (2022 Spectrum model) .

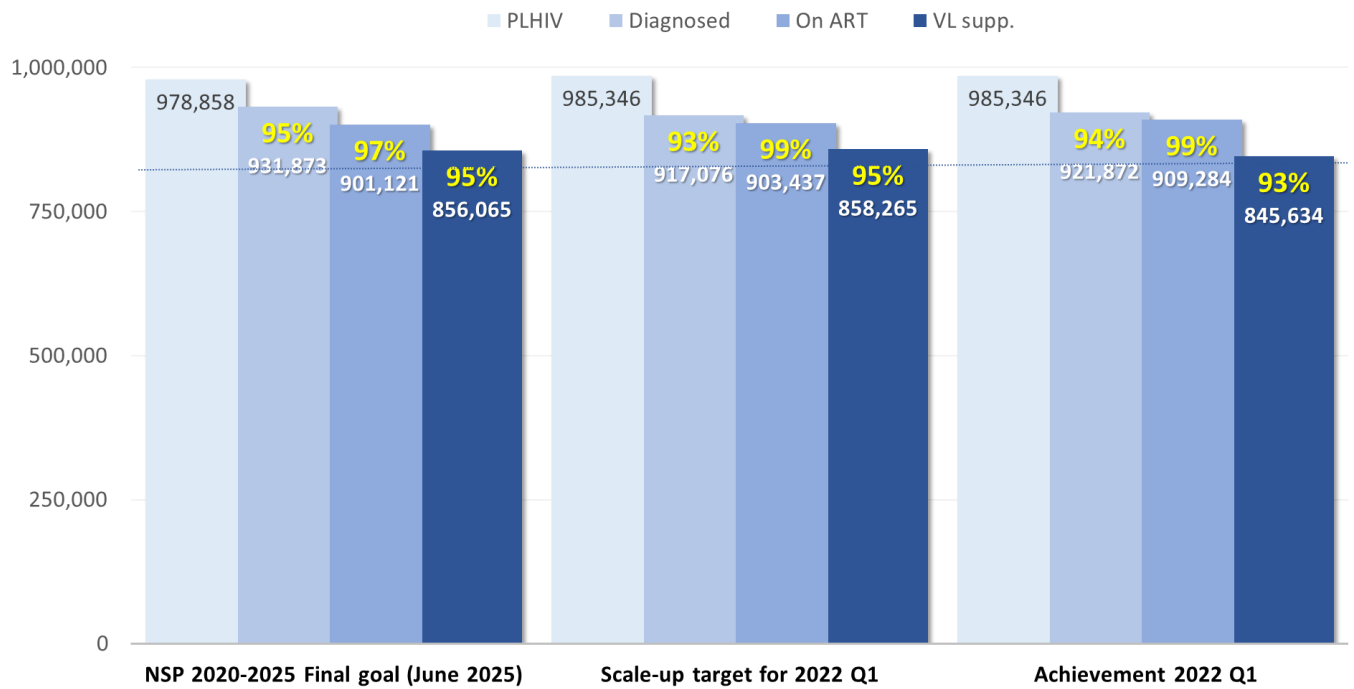
**'Second 95'** (909,284 on ART): patients retained alive on ART by end Q1 2022 from routine ART program reports.

**'Third 95'** (845,634 virally suppressed): extrapolated from the 94% of patients with a routine VL monitoring result <1000 copies/ml this quarter, applied to the 898,132 patients on ART.

reports will measure progress against the UNAIDS fast-track 95-95-95 targets. See **Figure 1** below:

**Figure 1**

**Malawi progress towards the 95-95-95 HIV treatment targets (March 2022)**



## 2 Integrated HIV Program Overview

Malawi's National HIV Program has undergone several important policy changes since its inception in 2004. The 4<sup>th</sup> Edition of the **Malawi Integrated Clinical HIV Guidelines** was published in **July 2018** and some policies /components were revised. Training for nationwide implementation is underway and refresher training for the revised components have been planned. The following are the policies/components of policy that were revised and endorsed for implementation and scale up in Malawi by the Ministry of Health and Population beginning in April 2019:

- Introduction of **dolutegravir- (DTG) based first line ART** regimens for all: Transition of new and existing eligible patient groups weighing 20kg +.
- Phasing out of **NNRTI-Based (NVP)** regimens: Transitioning of clients on NVP to DTG or PI Based regimen.
- **Differentiated Service Delivery (DSD)** Model: Introduction of Six-Monthly ART dispensing.
- **Viral Load Monitoring**: transition from 2-yearly to annual scheduled monitoring.
- Pre-exposure prophylaxis (**PrEP**): Oral PrEP as additional preventative method for HIV-negative clients at substantial risk of HIV infection.
- TB Preventive Therapy (TPT): Dispense **IPT or 3HP** to all eligible adult PLHIV newly initiated on ART who have not previously completed a course of TPT.

The **decentralization of ART services** continues as new health facilities are established and existing facilities attain minimum staffing and infrastructure requirements for ART.

## 3 Supportive Site Supervision

### 3.1 Methods

The Department for HIV and AIDS has coordinated quarterly supportive supervision visits to all health facilities with ART services since the start of the national treatment program in 2004. Supervision teams are composed of: experienced HIV clinicians; nurses and M&E staff from health facilities in the public and private sector; district and zonal PMTCT and ART coordinators; program officers and technical staff from the Department for HIV and AIDS; technical staff from implementing partners. The TB and HIV programs have fully integrated their respective site supervision exercises since April 2015.

Each quarter, a one-day pre-supervision meeting is organised for all supervisors participating in the upcoming round to share program updates, discuss observations from the previous round, distribute materials and organise logistics, transport and accommodation.

Standard supervision forms are used to guide implementation of the supervision protocol, to update site information and collect M&E reports. Custom forms with previous data for each site are printed from the Department of HIV and AIDS Management Information System (DHA-MIS). Supervision forms include:

- Contact details of HIV service providers at each site
- Quality of service checklist
- Follow up on action points noted during the previous visit
- Next visit date
- M&E reports from HIV testing, ANC, maternity, exposed child and pre-ART follow-up, ART and TB
- Physical drug stock-level assessment
- Identification of sites in urgent need of clinical mentoring
- Semi-structured feedback and performance rating for the supervision teams by facility staff

One copy of the supervision form is returned to the Department for HIV and AIDS, where data are entered in a custom SQL Server / MS Access database (Department of HIV and AIDS Management Information System; DHA-MIS) to produce national reports and to manage program logistics and the commodity supply chain. A second copy of the supervision form is left at the sites.

The supervision protocol includes a systematic review and verification of primary records (patient cards and registers) at all sites. This effectively provides a quarterly quality audit for M&E records, which has resulted in exceptional accuracy and completeness of HIV Program data in Malawi. At the same time, the systematic chart review helps to identify complex cases or deviations from clinical protocol, allowing the supervision team to provide targeted mentoring and clinical advice. The quarterly supervision exercise also aims to boost staff morale and motivation through *Certificates of Excellence* that are awarded by MOH to sites with an excellent score on the quality of service checklist. A growing number of health workers from sites all over the country participate as supervisors in this quarterly exercise and this has strengthened the national HIV Program identity and has greatly facilitated communication between program staff at the national, zonal, district and facility level.



The HIV testing program usually conducts a separate supportive site supervision exercise each quarter, targeting a sample of HTC sites both within and outside of health facilities. Supervision teams consist of district, zonal and national level HTC coordinators, supported by implementing partners.

### 3.2 Supervision Outcomes

791 public and private sector facilities were visited for **biomedical HIV program supervision** between 17<sup>th</sup> and 28<sup>th</sup> of December 2022.

The large number of sites was covered by **272** supervisors working in **32** teams that spent **2,079 working hours** at the sites. Each site visit lasted on average 2.5 hours, but up to 2 days were spent at the busiest sites. **575 (73%)** sites were awarded a *certificate* for **excellent performance**. This is the same as results from the previous quarter (575). **91 (12%)** sites had significant weaknesses and were rated to require **intensive mentoring**. Mentoring capacity will need to be further expanded.

**Table 1**

**Table 1:** Outcomes of integrated HIV services supervision for 2022 Q1

Zone	Total facil. visited*	Supervision hours spent at facilities		Performance (# and % of sites)	
		Total	Average per site	Excellent perform.	Mentoring needed
NZ	151	329	2.2	112 74%	18 12%
CEZ	112	238	2.1	84 75%	17 15%
CWZ	177	460	2.6	135 76%	20 11%
SEZ	181	488	2.7	148 82%	17 9%
SWZ	179	458	2.6	129 72%	19 11%
<b>Malawi</b>	<b>800</b>	<b>1,973</b>	<b>2.4</b>	<b>608 76%</b>	<b>91 11%</b>

\* includes facilities that were visited for assessment of readiness, but that may have not (yet) been designated to provide integrated HIV services.

**Table 1** summarizes the supervision outcomes by zone. Most facilities were using the standard national M&E tools. **257** sites had cumulatively registered more than 2,000 ART patient and **92** of these had registered more than 5,000. **210 (81%)** of these high burden sites were using point-of-care electronic medical records (EMR) systems. **207** low- and medium-burden sites were using a back-data entry solution of laptops to capture patient visits recorded on the paper patient cards. Some NGO-supported sites were using custom tools compatible with the national standard reporting requirements.

## 4 Inventory of Sites and Services

### 4.1 Sites and Services

There were **740** static and **222** outreach HIV testing sites in Q1 2022.

**Table 2**

Facilities with integrated HIV services in the 5 Zones. Availability of services defined by performance (at least 1 patient enrolled) during 2022 Q1

Zone	Total fac.(1)	Facilities providing HIV services						CD4 count machines (2)						urine-LAM			serum CrAg			
		Exp. child	PMTCT B+	ART		Installed	Functional	Tot.Results	Results <200	Total	Res. Pos	Total	Res. Pos							
SEZ	182	168	92%	160	88%	177	97%	21	12%	18	86%	2,149	538	25%	942	183	19%	1,012	41	4%
SWZ	182	162	89%	140	77%	178	98%	34	19%	30	88%	3,964	728	18%	1,193	165	14%	1,414	88	6%
CWZ	184	149	81%	136	74%	176	96%	34	18%	30	88%	2,723	856	31%	1,291	265	21%	1,274	79	6%
CEZ	112	108	96%	90	80%	112	100%	23	21%	21	91%	859	196	23%	405	40	10%	257	17	7%
NZ	155	129	83%	100	65%	144	93%	26	17%	24	92%	1,346	461	34%	534	69	13%	378	29	8%
Malawi	815	716	88%	626	77%	787	97%	138	17%	123	89%	11,041	2,779	25%	4,365	722	17%	4,335	254	6%

(1) Total facilities in the public/ private sector designated to provide integrated HIV services in this quarter. Individual site selection is reviewed and may change each quarter.

(2) CD4 machines that have produced at least 1 result during the reporting period are defined as functional.

**Table 2** shows the distribution of the **815** sites designated to provide clinical HIV services in Q1 2022, by zone. At the national level, there were **787** (static) sites with at least one patient on ART; **623** sites had enrolled women under PMTCT Option B+; **716** had enrolled HIV exposed children for follow-up. ART services were now available at almost all designated sites in the 5 zones.

CD4 count machines (including 'point of care' machines) were installed at 138 sites, and **138 (89%)** of these had produced at least 1 result during Q1 2022. The total number of CD4 results produced (**11,041**) was slightly lower than the previous quarter's (11,091). **2,779 (25%)** of the 11,041 CD4 results were 200 cells/ml or less and these patients were therefore eligible for routine urine LAM and serum CrAg. With the introduction of the 'Test & Treat' policy, routine CD4 count testing to determine when to start ART has been deprioritized. However, the 2018 Malawi HIV guidelines introduced routine baseline CD4 counts at ART initiation where available and outputs are expected to increase further.

4,365 clients were screened for urine LAM and 722 (17%) of these were positive and were eligible to be treated for TB. A total of 4,335 patients were screened using serum CrAg and out of these 254 (6%) had a positive result and according to the 2018 ART guidelines, they were eligible for active meningitis assessment with the intention of either treating or giving pre-emptive antifungal therapy

## 4.2 Staffing of HIV Services

### 4.2.1 HIV Testing Services

The Department for HIV and AIDS has maintained a dedicated system for professional registration and performance tracking for HIV testing providers since 2011. This separate registration system is needed because HIV testing providers include lay persons with HIV testing training who are not registered with any other professional body. All testing providers are issued with a unique ID and a professional logbook for documentation of duty stations, trainings, sit-in observation and proficiency testing results. Logbook holders are requested to record the total number of tests done at the end of each month. Logbook holders are requested to record the total number of tests done at the end of each month. Logbooks were not routinely reviewed during the 2022 Q1 supervision and key performance data for each provider were not summarized on the site supervision form.<sup>8</sup>

### 4.2.2 ART/PMTCT

Integrated HIV program supervision has included a staffing census for ART clinics since Q3 2014. This census is undertaken during the site visits, indicating all staff members who actually worked at the ART clinic on the most recent clinic day. The census is designed to provide an accurate snapshot of the actual staffing of ART services each quarter. The numbers collected may be slightly lower than longer term averages, because around 200 service delivery staff are themselves participating in the supervision exercise and will not be counted as having worked in their ART clinic during the supervision period. The table below shows that overall staffing levels have slightly declined over the last 2 quarters. However, the number of ART clinicians decreased by 58 from 1,016 to 958 from the previous quarter.

Among the other cadres, **1,491** were nurses and **843** were auxiliary staff (health surveillance assistants, clerks, etc.)

**Table 3**

	2021 Q2		2021 Q3		2021 Q4		2022 Q1	
Clinicians	1,007	27%	1,031	27%	1,016	27%	958	27%
Nurses	1,441	39%	1,520	40%	1,542	41%	1,491	41%
Pharmacy staff	339	9%	349	9%	328	9%	302	8%
Auxiliary Staff	904	24%	881	23%	848	23%	843	23%
<b>Total</b>	<b>3,691</b>		<b>3,781</b>		<b>3,734</b>		<b>3,594</b>	

An estimated 4.0 million ART patient visits are currently managed at the 787 ART sites per annum, based on 909,284 patients alive on ART and an average dispensing interval of 2.5 months. With 260 working days per year, an average of 16,786 patient visits is therefore managed by the ART sites per working day. At current staffing levels, this translates into an average of **18** ART patient visits per clinician and **11** per nurse per day. This approximate HRH capacity assessment does not take account of site-specific differences in patient burden and staffing levels and there are several medium and high burden sites with sub-optimal staffing. However, the national treatment program is fully decentralized to the health centre level and

<sup>8</sup> The logbook review was temporarily suspended to minimize the workload for the supervision teams

the program continues to devolve the growing patient burden to peripheral facilities. Since 2011, the steepest increase in ART patient numbers has been recorded at the 300 small peripheral sites that have the largest collective staffing capacity (see **Figure 13** on **page 35**).

## 5 HTS Program Outputs

HIV testing protocols were revised in 2016. A new HIV testing register was implemented in the course of a national re-training campaign for all HTC providers between May and November 2013. Protocol revisions include:

- Clear recommendations for re-testing based on the client's test result and risk assessment
- Proper documentation of confirmatory testing for clients with a prior positive result (usually performed at enrolment into care).

The HIV testing program observed a number of challenges. First, although quality control (QC) samples were available at most sites, some sites had not carried out any QC testing. Space constraints are common and remain a challenge. Providers have to share the testing rooms at most facilities. Some mentors supported by partners are not adequately trained and the mentorship provided is therefore not comprehensive. 'Conveyor-belt' (batched) HIV testing is still being practised in some facilities despite ongoing attempts to reinforce the one-client-in-session testing policy. Finally, some implementing partners have introduced modified M&E tools at facilities they are supporting that are adding considerable work load and distraction.

### 5.1 Quality Control (QC) Testing

The national HIV testing protocol requires all sites to perform QC testing at least once per week. Additional QC is required when a new consignment of test kits is received; when starting a new lot; when a new provider joins the facility, when test kits have been exposed to temperatures above manufacturer recommendations. The QC procedure involves testing each of the 2 rapid test kits used in the national algorithm with a known negative and a known positive serum to confirm that the tests show the expected results. This means that 2 positive and 2 negative results are expected for each complete QC set. QC results have been documented in a dedicated section in the standard HIV testing register since 2013. From Q3 2016, QC results have been systematically reviewed during the integrated HIV program supervision.

**297 (39%)** of the 754 active testing sites had documented at least 1 QC set this quarter and **246 (83%)** had recorded the minimum of 12 sets (one for each week). At **289 (97%)** of sites, all samples produced the expected result.

### 5.2 HIV Testing and Counselling Outputs

**717,316** people<sup>9</sup> were tested and counselled for HIV between January and March 2022. This is a 4% increase from the previous quarter (687,267).

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<sup>9</sup> Reports from the HTC register are based on client encounters. It is not possible to de-duplicate people who access HTC multiple times in the reporting period. However, very few individuals come for repeat testing in less than 3 months and the number of HTC encounters in one quarter is therefore assumed to represent individuals.

**678,161 (95%)** of all tests were performed at health facilities, **4,308 (1%)** were done in stand-alone HTC sites, **33,629 (5%)** were done outside of facilities / in the community and **1,218 (<1%)** were from self-test returning clients tested at the facility. **19,994** people were reported as newly diagnosed with HIV this quarter. Out of these, **18,629 (93%)** were diagnosed at health facilities; **160 (1%)** at stand-alone HTC sites; **1,153 (6%)** through community-based testing and **52 (<1%)** were from self-test returning clients tested at the facility. The reported 'yield' for new diagnoses was **3.0%** (excluding clients who disclosed a previous positive result from the denominator).

However, based on UNAIDS "Shiny90" model triangulation of population survey results and program data, **at least 53%** of all clients classified as "new positive" in HTS registers are assumed to be undisclosed repeat testers. Discounting 53% from the 19,994 reported "new positives" results in an estimated **9,397** genuine new diagnoses this quarter. This reduces the true 'yield' of new diagnoses in the HTS program to **1.4%**.

### 5.3 HIV testing access type

**569,290 (79%)** of people tested were patients receiving provider-initiated testing and counselling (PITC); **114,486 (16%)** accessed voluntary testing and counselling, door-to-door, community-based testing and **33,540 (5%)** came for testing with a *Family HTC Referral Slip* (FRS) that was issued to a family member at a prior HTS encounter. 33,540 family members or contacts presented with an FRS for testing to the facilities and this represents successful referral rate of 157% based on the total number of FRS issued this quarter (28,256). The over 100% rate can be attributed to challenges in documentation in the HTS registers.

### 5.4 Age and sex distribution among HIV testing clients

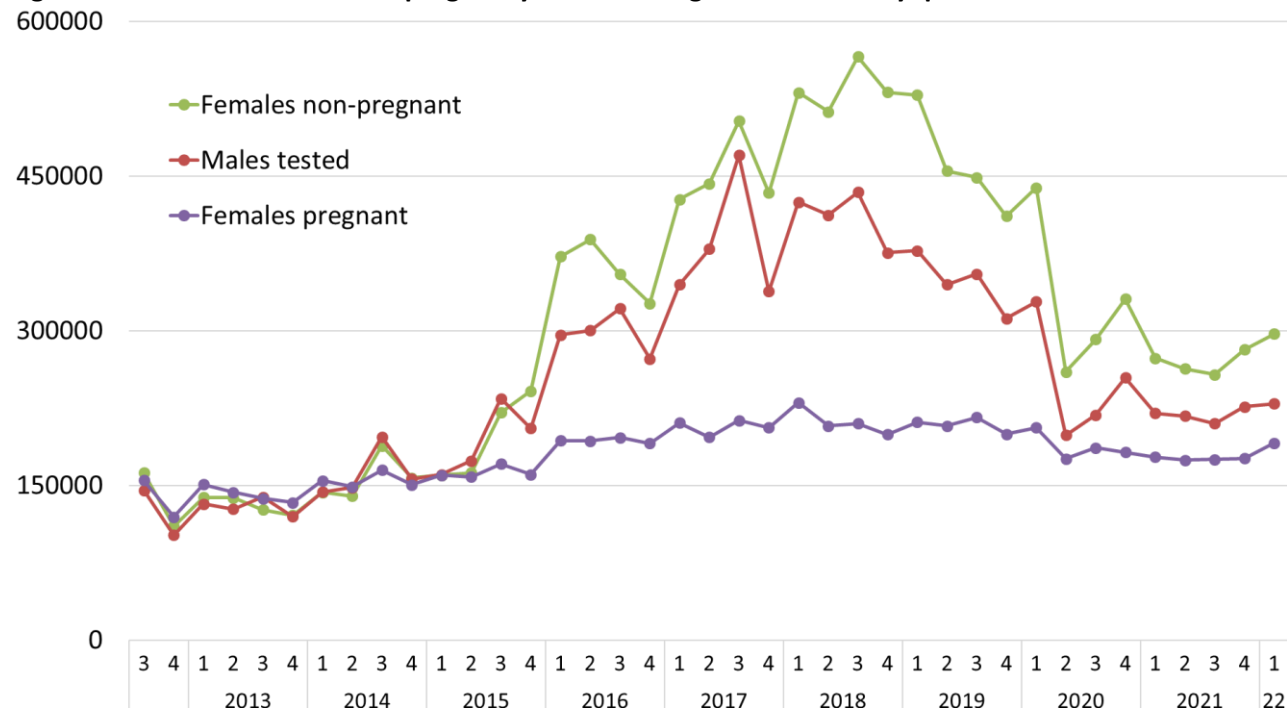
Out of **617,316** people tested and counselled, **32%** were males and **68%** were females. **39%** of females were pregnant. The ratio of males (**44%**) to non-pregnant females (**56%**) has remained constant. Testing among pregnant women is almost entirely provider-initiated and there is no comparable access route targeting males.

**153,226 (22%)** of all people tested accessed HTC with their partners (as a couple).

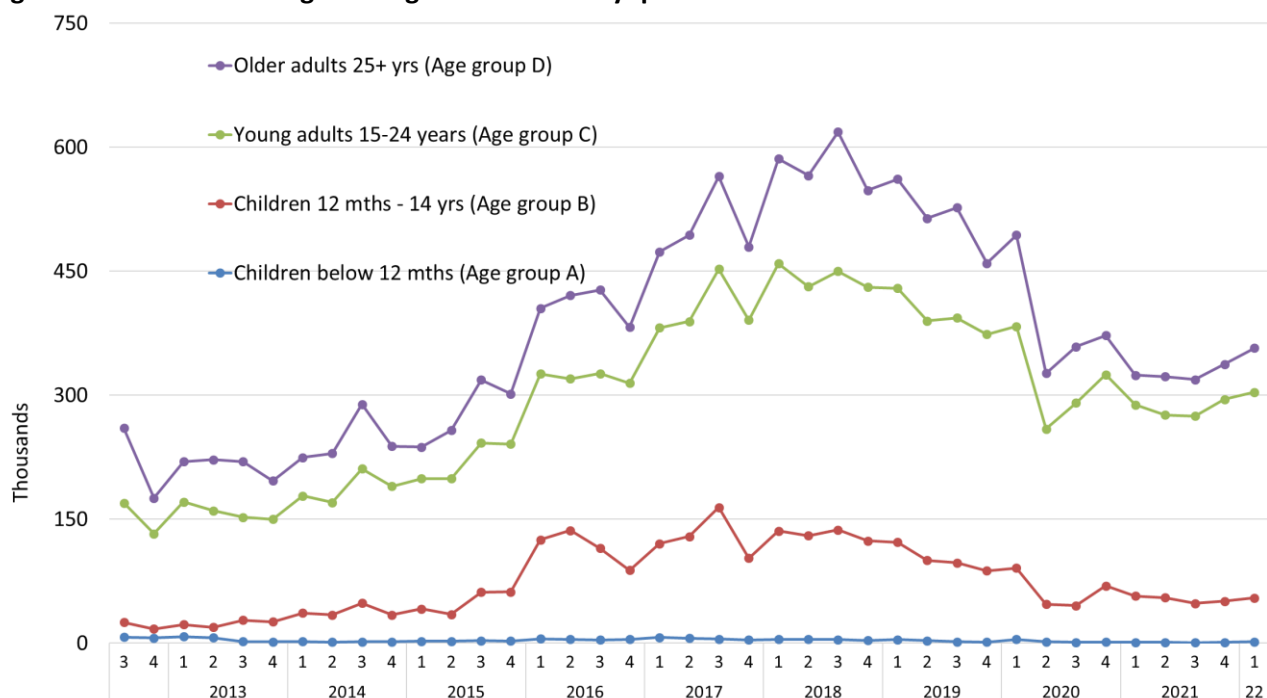
**50%** of all people tested and counselled were 25 years and above, **42%** were adolescents or young adults (15-24 years) and **8%** were children (<15 years). **1,601 (<1%)** of rapid tests done were among infants.

**Figure 2** and **Figure 3** show that the absolute increase in testing output since introduction of the HDA cadre in 2016 was mainly driven by non-pregnant females, males and the age groups 15-24 and 25 years and above. From 2021 Q4 to 2022 Q1, the number of males, pregnant women and non-pregnant females tested changed by 4%, -4% and 8% respectively.

**Figure 2: Distribution of sex and pregnancy status among clients tested by quarter**



**Figure 3: Distribution of age among clients tested by quarter**



### 5.5 First-time, repeat and confirmatory test results

All HIV positive patients enrolled in care need a confirmatory HIV test to rule out any possibility of mix-up of test results or fraudulent access to ART. Confirmatory testing is done when starting ART. National guidelines require a confirmatory DNA-PCR at the time of starting ART for all children under 24 months, regardless if the initial diagnosis was based on a positive DNA-PCR or a rapid antibody test. Follow-up rapid antibody testing for children is no longer recommended.

**149,358 (21%)** of all clients tested accessed testing for the first time and **567,958 (79%)** were repeat testers. Based on the cumulative number of people who accessed HTC for the first time, a total of **12,778,238** people have been tested since introduction of the *first time HTC access* indicator in July 2007. The classification of first-time and repeat testers is likely to be affected by misreporting and non-disclosure of previous diagnoses.

**19,994 (3.0%)** out of all clients were recorded as receiving a positive result for the first time, but it is assumed that about half of these may be undisclosed repeat diagnoses (see above). Positive rapid test results among infants (**56**) and inconclusive test results (**1,175**) both accounted for **<1 %** of new results given to clients.

**567,958 (96%)** of 590,450 repeat testers reported a *last negative* result. **22,045 (4%)** were reported as *previous positives* and all of these should have been classified as receiving a confirmatory test. For most of these *previous positives*, testing was probably initiated by a health worker before ART initiation. As expected, the number of *confirmatory test results (21,987)* was very close to the number of previous positive clients. **21,987 (>99%)** of 22,089 confirmatory test results were concordant positive and **102 (<1%)** were classified as *confirmatory inconclusive*. This category includes parallel concordant negative and discordant test outcomes (Determine HIV1/2 and Uni-Gold HIV1/2 are used in parallel for confirmatory testing). Clients who did not have a concordant positive confirmation may be explained by selective confirmatory testing among clients with doubts about their previous positive status, but it also underscores the importance of routine confirmatory testing before ART initiation and the need to strengthen quality assurance.

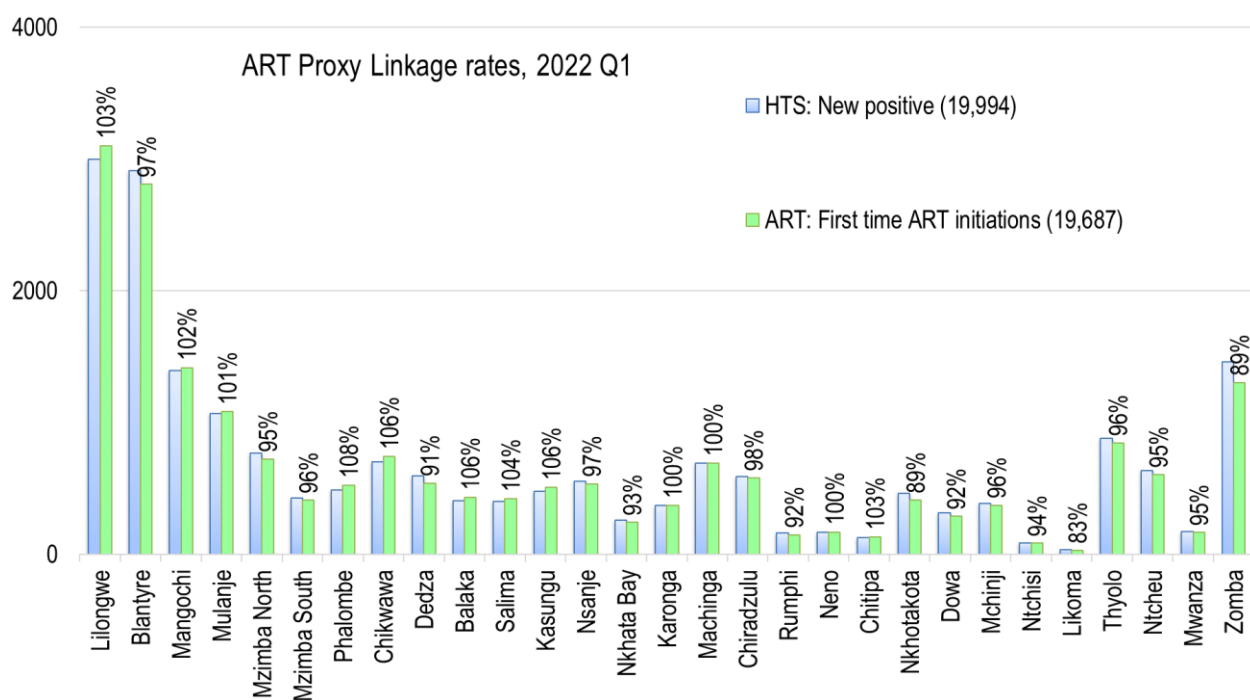
## 5.6 Linkage from HIV diagnosis to ART

**Figure 4** shows a triangulation of HIV testing and ART program data by district. At the national level, the **19,687** patients who initiated ART this quarter represent **98%** of the **19,994** clients tested positive for the first time. Proxy linkage rates ranged from 83% in Likoma to 108% in Phalombe. Lilongwe had the highest number of new diagnoses (**2,998**) and ART initiations were at 3,101 implying a district-level linkage of **103%**. Very high or low linkage rates suggest that cross-border access to testing and ART was seen in several districts (e.g. Dowa, Blantyre, Likoma, Salima, Sanje etc.).

The number of confirmatory positives exceeded the number of new positives by 1,993 at the national level. This means a large number of clients who disclosed their previous positive status were getting tested again. Lilongwe recorded the greatest excess (440) of confirmatory positives compared with the number of new positives. Lilongwe, Blantyre, Mangochi, Mulanje, Mzimba South, Mzimba North, Phalombe and Chikwawa accounted for **1,470 (74%)** out of the 1,993 excess confirmatory positives in the whole country this quarter. At the national level, the number of confirmatory positives exceeded the number of ART initiations by 2,300 (10%).



**Figure 4: Number of new positives, confirmatory positives and new ART initiations in Q1 2022 by district (percentages represent ART initiations over new positives for each district)**



## 5.7 HIV Self-Testing (HIVST)

The implementation of the National HIVST program started in December 2018 with an aim of facilitating access to HIV testing for hard-to-reach populations. Distribution of HIVST kits to index clients for secondary distribution to sexual partners is one important modality for index testing.

After a practical demonstration by a trained HIVST distributor, oral fluid self-tests are given to the end-user for self-testing or for onward distribution to a sexual partner, or any other person considered in need of HIV testing. HIVST may be done under supervision by an HTS provider but is most commonly done in private. Counselling includes information about the interpretation of test results and a reminder to seek confirmation of any positive HIVST result by a professional provider using the standard blood based rapid testing algorithm. The HIVST program does not attempt to capture results of self-testing but returning self-testing clients are recorded in a dedicated professional HIV testing register and a separate report is available for these (see below). Routine HST reports are limited to the attributes of the direct recipients and age and sex of the intended end-user.

### 5.7.1 HIV-Self Test Kits Recipients Details

Between January and March 2022, **122,135** people were counselled and given a total of **202,596** oral fluid self-test kits, either for self-use or for secondary distribution to sexual partners or others. This is equivalent to an average of 1.7 kits given to each recipient. **47%** of the 130,070 recipients were males and **53%** were females. **15%** of the females were pregnant.

Out of all recipients, **13,334 (11%)** had never been tested for HIV before and **108,801 (89%)** reported a previous test result. **106,316 (98%)** of previously tested recipients were negative and **2,480 (2%)** were positive. **1,717 (69%)** of the positives were on ART and **31%** were not



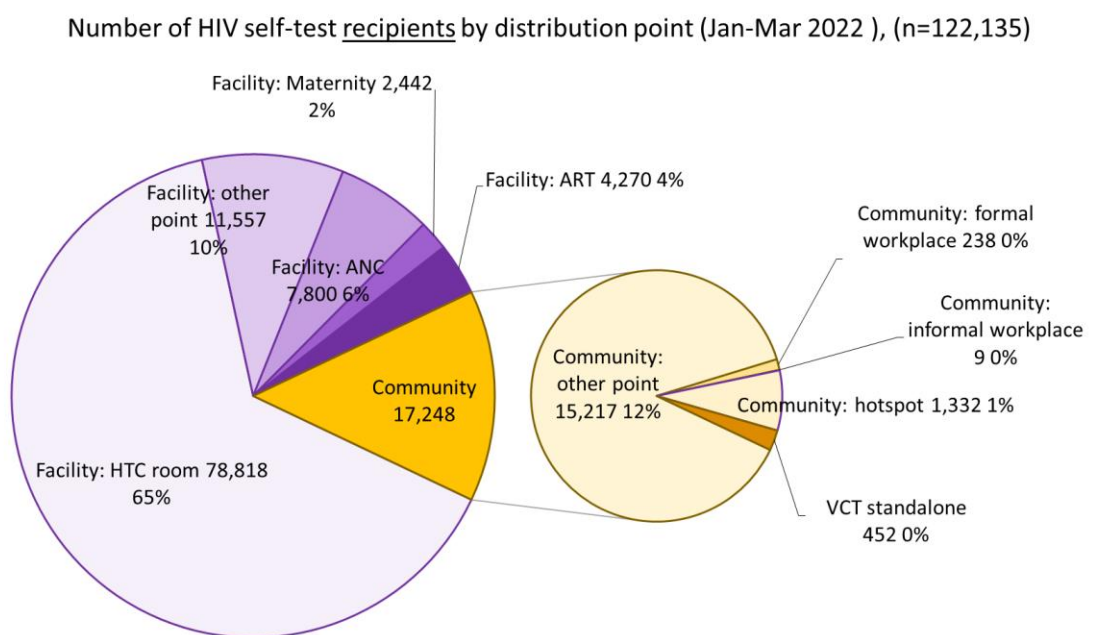
(yet) on ART. The **763** HIV positive recipients who were not yet on ART most likely received ST kits for their sexual partners in the context of index testing. **5 (<1%)** recipients reported an inconclusive previous test result.

### 5.7.2 Distribution Points of HIVST Kits

The national program recognizes 10 categories for HIVST distribution points. These are grouped under the three locations of **health facility** (ANC, maternity, ART clinic, HTC room, other), **stand-alone HTS site** (VCT) and **community** (formal workplace, informal workplace, hotspot, other). A dedicated distribution register is used for each type of distribution point and captures the details of recipients and the intended end users.

**Figure 5** shows the number of recipients by distribution points in 2022 Q1. **108,547 (87%)** of all **122,135** recipients were seen at health facilities and **13,692 (11%)** in community settings. HTC rooms were the most common distribution point in facilities with **78,818 (65%)** recipients, followed by other facility points (**11,557**), ANC clinics (**7,800**), ART clinics (**4,270**) and Maternity (**2,442**). **15,217 (12%)** of clients received HIVST at unspecified community distribution points, **1,332 (1%)** were at VCT standalone, the rest of the community distribution points accounted for less than 1% of the recipients

**Figure 5**



### 5.7.3 HIVST Distributed Kits: Intended User Attributes

Out of the **202,596** HIVST kits distributed in Q1 2022, **98,800 (49%)** were intended for self-use by the recipients and **103,796 (51%)** were for onward distribution. **81,639 (79%)** of the kits intended for secondary distribution were for sexual partners and **22,157 (21%)** were for others, such as friends or relatives of the recipients. **Table 4** below summarizes the HIVST kits distributed by distribution point and the end-user type. This shows the majority of HIVST kits distributed at health facilities were for self-use which is a deviation from the intended goal of

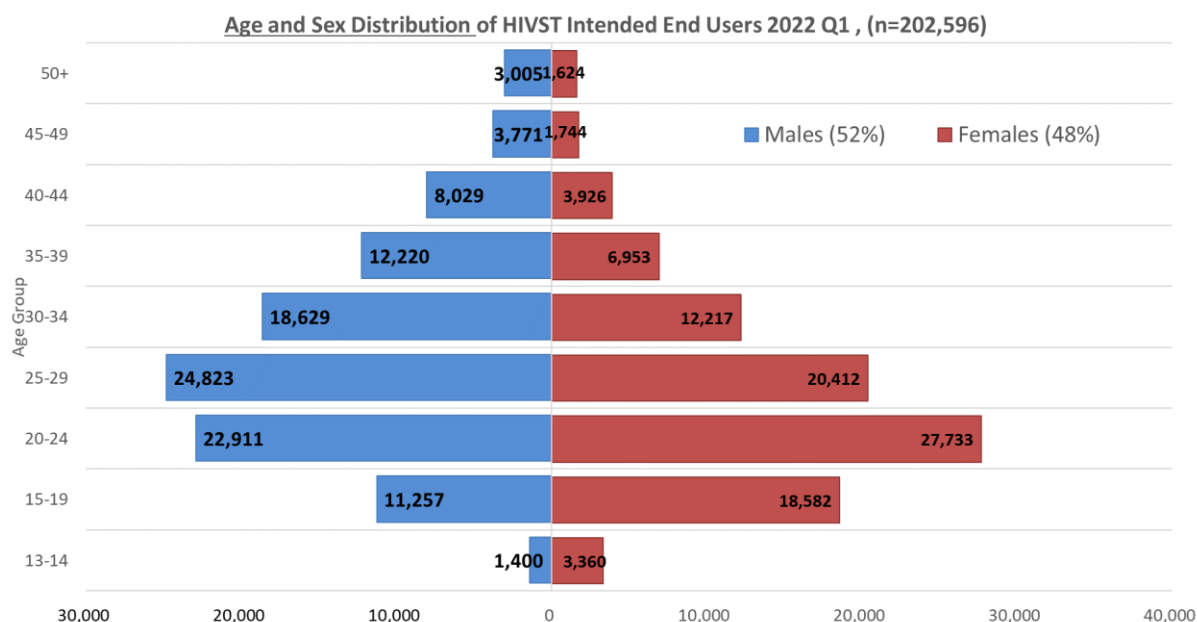
the HIVST programme in terms of targeting hard to reach populations who are not seen at health facilities.

**Table 4**

		End User Type						
		Self		Sexual Partner		Other		Total
Facility	HTC room	64,463	47%	56,410	42%	14,879	11%	135,752
	Other Point	9,983	51%	7,478	38%	2,017	10%	19,478
	ANC	4,416	34%	6,485	50%	2,040	16%	12,941
	Maternity	1,017	35%	1,885	64%	38	1%	2,940
	ART	2,750	35%	3,777	48%	1,330	17%	7,857
Community	Other Point	14,429	71%	4,338	21%	1,425	7%	20,192
	Formal workplace	217	57%	145	38%	20	5%	382
	Informal workplace	0	0%	18	82%	4	18%	22
	Hotspot	1,213	55%	681	31%	319	14%	2,213
	VCT standalone	312	38%	422	52%	85	10%	819
		<b>98,800</b>	<b>49%</b>	<b>81,639</b>	<b>40%</b>	<b>22,157</b>	<b>11%</b>	<b>202,596</b>

**Figure 6** below shows the intended end user age and sex category for all the test kits that were distributed during 2022 Q1. Out of 202,596 test kits distributed, 106,045 (52%) were for males and 96,551 (48%) for females. 74% of the male end users were 20-39 years and 69% of females were 15-29 years

**Figure 6**



## 6 DNA-PCR testing for Early Diagnosis of HIV in Infants (EID)

DNA-PCR testing is performed at 10 labs (Mzuzu Central Hospital, Mzimba District Hospital, Kamuzu Central Hospital, Queen Elizabeth Central Hospital, DREAM Blantyre, DREAM Balaka, Tholo District Hospital, Zomba Central Hospital, Nsanje District Hospital and Partners in Hope,

Lilongwe). HIV Diagnostic Assistants and EID counsellors collect infant blood samples as dried blood spots on filter paper. Health facilities are requested to fill a standard EID DNA-PCR logbook to document EID samples and to track results. The logbook includes the dates of collection, dispatch, receipt of result from the lab and communication of the result to the mother. Supervision teams were asked to collect basic data from these logbooks.

**9,915** DNA PCR samples were drawn in the reporting period and documented in the facility DNA-PCR sample registers. **9,357 (94%)** of these were for the initial DNA-PCR test for exposed infant; **432 (4%)** were for the confirmatory testing of exposed children under 24 months when starting ART; **92 (<1%)** were for repeat DNA-PCR for patients whose previous collected samples did not produce a valid result, and **92(1%)** were tie-breaker samples after repeat-inconclusive rapid antibody testing.

**8,724 (88%)** of 8,910 samples were collected using Dried Blood Spot (DBS); **1,168 (12%)** were collected directly in the device cartridge for Point of Care Machines (POCs) and **23 (<1%)** were collected using other methods, e.g. plasma.

Results were received at the facility for 8,910 (**90%**) of the 9,915 samples collected; for **919 (9%)** of all samples the result missing or still pending 12 weeks after the samples were collected. **86 (<1%)** samples were rejected at the lab due to poor quality or analysis failure. **42%** of patients were notified of their result within 4 weeks of sample collection, **14%** were notified within 5-8 weeks and 3% within 9-12 weeks. **4,087 (41%)** patients were either notified after 12 weeks or the notification was still pending. **8,890 (100%)** of 9,915 samples with results were conclusive and **86 (1%)** were inconclusive. Out of the conclusive test results, **8,574 (96%)** were negative and **316 (4%)** were positive.

The analysis for the **10 central PCR laboratories** was not possible for this report due to an error in the Lab Information Management System (LIMS) which led to many critical data gaps and misclassification of results.

## **7 Blood Safety**

The Malawi Blood Transfusion Service (MBTS) is striving to provide safe blood products for the entire country using voluntary non-remunerated donors and quality assured screening for transfusion transmissible infections (TTIs). For the last years, MBTS has not been able to meet the national demand and several hospitals continue to supplement or rely entirely on blood units collected from replacement donors. Complete reports from MBTS have been available throughout, but blood safety reports from health facilities have not been consistently available and it has been challenging to compile national reports relying on the data passively submitted by the sites. Therefore, the HIV program supervision teams were tasked with active collection of blood donor and cross-matching data from all visited health facilities. Some of the visited laboratories were not using the standard MOH registers and the aggregation of data for reporting may have been affected by incomplete documentation at some sites.

A total of **25,140** blood units were collected in Malawi during Q1 2022. MBTS collected **23,038 (92%)** of these, **100%** of which were screened comprehensively for the relevant TTIs (HIV, Hepatitis B, Hepatitis C, syphilis, malaria). In addition, **49** hospitals in Malawi collected a total of **2,102** units from replacement donors. **1,828 (87%)** of these units were screened for at least the 3 key TTIs (HIV, HepB and syphilis) and **1,506 (87%)** of these were also screened

for HepC and malaria. This means that a total of **24,886 (99%)** of all units collected this quarter were screened at least for HIV, HepB and syphilis. Based on the blood donor registers at the sites that collected blood from replacement donors, **570** were screened with any other combination of tests for TTIs.

A total of **3,933** potential replacement donors were documented in the blood donor registers at the facilities and **2,102 (65%)** of these ended up donating. Facilities may have used different screening algorithms and potential donors may have been excluded on the basis of different criteria, including TTIs, blood group, haemoglobin concentration and/or clinical conditions. Testing for less prevalent TTIs may have only been carried out for donors who passed the screening for more common conditions. In total, 76% of potential donors were tested for HIV, 77% for HepB, 77% for syphilis, 66% for malaria and 61% for HepC. Detailed data on outcomes of individual tests among all potential blood donors are presented in the Appendix

## 8 Preventive Services

### 8.1 Pre-Exposure Prophylaxis (PrEP)

PrEP roll-out has started at several implementing partner supported facilities in Q4 2020, and the supervision team included a review of PrEP client cards and registers for the first time this quarter. The reporting was affected by some gaps in the primary records and the data abstraction process. **154** sites had registered at least one client during 2022 Q1 reporting period.

#### 8.1.1 Assessment of potential PrEP clients during Q1 2022

A total of 7,588 individuals were assessed for PrEP provision after a negative HIV test result in Q1 2022. **7,313 (99%)** were assessed for Acute HIV Infection (AHI) and **65 (1%)** of the 7,588 clients were suspected with AHI.

**7,365 (97%)** of 7,588 potential PrEP clients had their samples collected for creatinine clearance at the nearest lab. **641 (9%)** of the 7,588 clients had their results available by the end of March 2022. **20 (3%)** of 641 had a <60 ml/min clearance and were not eligible to be initiated on PrEP.

**1,891 (25%)** of 7,588 potential clients were tested for Hepatitis B and **49 (3%)** of the 1,891 clients had a positive Hep B test result, and these were supposed to be referred to Hepatitis B program for assessment before initiating PrEP.

**912 (12%)** of 7,588 assessed potential clients were not eligible and were excluded from proceeding to start PrEP. **70 (4%)** of the 1,708 clients were excluded based on the initial HIV positive result, **55 (9%)** had AHI suspicion, **771 (80%)** were assessed to have low HIV risk and **16 (2%)** had suspected kidney failure.

**6,676 (88%)** were eligible to start PrEP after the assessment and **5,880 (88%)** out of 6,676 agreed to start PrEP. **796 (12%)** refused to start PrEP due to various reasons.

### 8.1.2 PrEP Registrations during Q1 2022

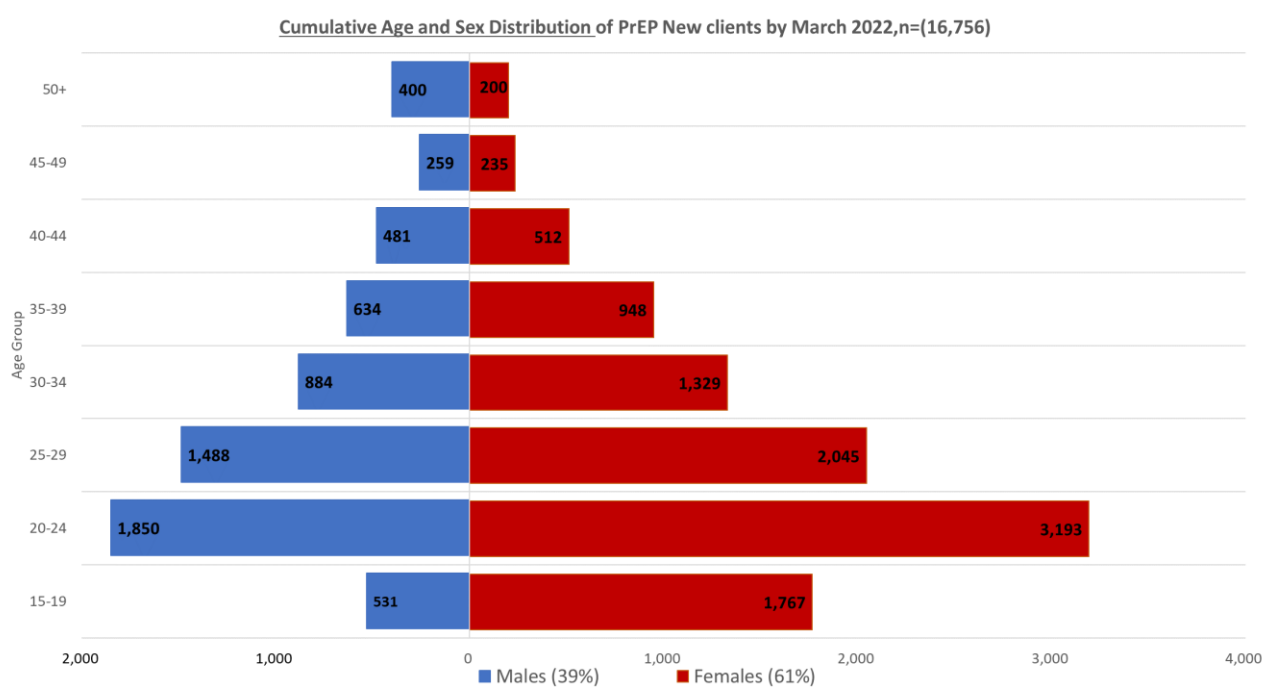
Out of **5,880** people enrolled to start PrEP, **39%** were males and **61%** were females. **53%** of males were circumcised and **6%** of the females were pregnant and breastfeeding. The 5,880 PrEP registrations include the **5,699 (99%)** clients newly initiating PrEP, but also **30 (1%)** clients previously started on PrEP who transferred between sites and **151 (1%)** clients who re-initiated PrEP after dose interruption.

### 8.1.3 Cumulative PrEP Registrations up to March 2022

By the end of March 2022, there were a cumulative total of **17,086** PrEP clinic registrations, **16,756 (98%)** of whom were patients newly initiated on PrEP; **79 (<1%)** were patients who transferred between clinics; **251 (1%)** re-initiated PrEP after dose interruption. Out of all registrations, **39%** were males and **61%** were females.

**Figure 7** below shows the distribution of all the cumulative PrEP new initiations by end of March 2022. Out of **16,756** cumulative new PrEP clients, **6,527 (39%)** were for males and **6,527 (61%)** for females. **36%** of the males were adolescent boys and young men 15-24 years and 64% were adults 25 + years. **4,960 (48%)** of 10,229 of the females were adolescent girls and young women 15-24 years and **52%** were adults 25+

**Figure 7**



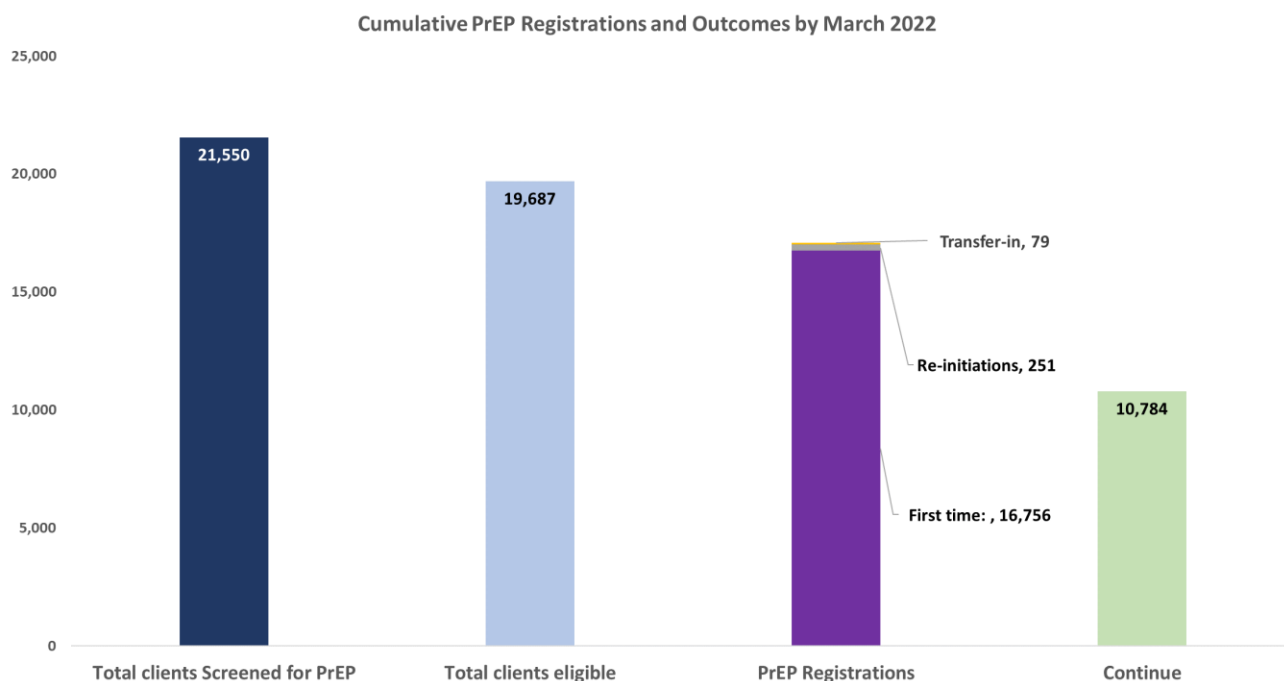
### 8.1.4 PrEP Cascade by end of March 2022

**Figure 8** below shows the PrEP cascade with the cumulative registrations and outcomes. Out of the **21,550** clients who were cumulatively assessed for PrEP, **19,687 (91%)** were eligible to start PrEP. **1,863 (9%)** clients were not eligible and were excluded from receiving PrEP<sup>10</sup>. Out

<sup>10</sup> The 1,863 excluded non-eligible clients include 1,465 (78%) with low HIV risk, 196 (11%) with initial HIV positive result, 162 (9%) with suspected acute HIV infection and 40 (2%) with suspected kidney failure

of the 19,687 eligible clients, **17,086 (87%)** were enrolled on PrEP out of which **16,756 (98%)** were newly initiated, **330 (2%)** were re-initiations and transfer-ins on PrEP. **10,784 (63%)** clients were retained on PrEP by the end of March 2022

**Figure 8**



### 8.1.5 PrEP primary follow -up outcomes

Out of the 17,086 individuals ever initiated on PrEP, **10,784 (63%)** were retained on PrEP, **4,751 (28%)** were lost to follow-up and **29 (<1%)** were known to seroconverted, **181 (1%)** were advised to stop by the provider due to low HIV risk after follow-up visit assessment, **911 (5%)** had quit PrEP. **4 (<1%)** of the clients initiated on PrEP were known to have died, **16 (<1%)** were known to have had side effects.

## 8.2 Post Exposure Prophylaxis (PEP)

A total of **5,366** persons received PEP during Q1 2022. This is a 16% decrease from the previous quarter (4,491).

## 8.3 Provider-Initiated Family Planning (PIFP)

The Integrated Clinical HIV Guidelines encourage health workers to routinely provide condoms to all adults in ART clinics. Women should also be offered at least the standard injectable contraceptive (Depo-Provera) at any ART visit. This policy aims to address the significant unmet need for family 2 planning that had been observed among HIV patients in Malawi and to reduce the number of unwanted pregnancies among HIV-infected women (**PMTCT Prong 2**). HIV program reporting on PIFP is limited to women who received an injection of Depo-Provera in ART clinics during the last quarter. The report does not account for family planning need, nor does it include women who accessed family planning services outside of HIV clinics.

**Table 5** shows that **58,715 (12%)** of 471,918 women received Depo-Provera from ART clinics in Q1 2022. Patient coverage has remained the same from last quarter's 12%. **471 (60%) of 787 ART/PMTCT sites had stocks of Depo-Provera in April 2022.** This is an increase from the 562 sites with stocks in January 2022.<sup>11</sup> The HIV Program is no longer supplementing FP supplies through procurement and distribution of additional Depo-Provera to sites.

#### **8.4 Cotrimoxazole Preventive Therapy (CPT) and hypertension screening**

All patients in HIV care are universally eligible for CPT in order to reduce the frequency and severity of several HIV-related diseases. Patients with confirmed HIV infection are provided lifelong CPT in ART clinics. CPT is also given to HIV exposed children until exposure to breast milk has stopped and HIV infection has been ruled out (usually around age 24 months). Fewer than 5% of patients are expected to require stopping of CPT due to toxicity, so the targeted CPT coverage is around 93%.

**Table 5** shows that **515,927 (57%)** of 909,284 patients on ART were on CPT. Coverage was highest in Central East zone at **76%**.

**708,332 (78%)** of 909,284 patients on ART were estimated to be 30 years or older. National guidelines require screening for hypertension for all adults (30 years +) at the time of ART initiation and annually thereafter. **159,982 (22%)** of 708,322 were screened for hypertension at least once in 2022.

#### **8.5 TB Preventive Therapy (TPT)**

Following on from the 2016 policy of providing continuous isoniazid preventive therapy (IPT in the 5 districts with the highest TB burden (Lilongwe, Blantyre, Chiradzulu, Thyolo, Zomba) the national roll-out of a limited course of TPT for patients in all districts was started from 2019. The 2019 guideline addendum provides TPT for all new and existing patients on ART who have not previously completed at least 6 months of IPT. Implementation was planned in two phases to utilize remaining stocks of isoniazid and bridge the period until sufficient stocks of rifapentine were available in country to transition to the short course 3HP regimen (12 weekly doses of isoniazid and rifapentine).

In line with this policy change, the programme is now also collecting data on number of ART patients newly started on IPT in each quarter. A total of **17,320** were newly started on TPT during Q1 2022. **6,543 (38%)** of these received a single 6-month course of isoniazid and pyridoxine (6H) and **10,777 (62%)** were given 12 weekly doses of isoniazid and rifapentine (3HP). Data on TPT completion will be available from the next quarters.

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<sup>11</sup> Many Mission hospitals do not provide family planning.



**Table 5**

Zone District	Patients on ART (all)			Women (18-49) on ART			Adults (30+) on ART		
	Total	On CPT	%	Total	Given FP*	%	Total	BP screened**	%
Malawi (National)	909,284	515,927	57%	471,918	58,715	12%	708,332	159,982	23%
Northern Zone	90,352	64,273	71%	46,893	5,527	12%	70,384	17,862	25%
Chitipa	5,895	4,327	76%	2,966	651	22%	4,436	1,195	27%
Karonga	16,872	12,400	73%	8,757	1,553	18%	13,143	3,465	26%
Nkhata Bay	11,831	6,703	58%	6,036	564	9%	9,061	2,365	26%
Rumphi	9,126	4,036	44%	4,736	393	8%	7,109	990	14%
Mzimba North	28,167	22,327	79%	14,619	1,084	7%	21,942	5,754	26%
Mzimba South	17,968	13,604	76%	9,325	1,177	13%	13,997	3,367	24%
Lkoma	893	875	98%	483	105	23%	696	696	100%
Central East Zone	70,003	53,422	76%	36,332	3,164	9%	54,532	8,014	15%
Nkhosakota	13,814	10,588	77%	7,109	460	6%	10,761	4,242	39%
Kasungu	19,257	16,770	87%	9,994	1,375	14%	15,001	621	4%
Ntchisi	5,022	3,736	74%	2,606	64	2%	3,912	148	4%
Dowa	13,776	9,937	72%	7,150	751	11%	10,732	701	7%
Salima	18,134	12,390	68%	9,412	513	5%	14,126	2,302	16%
Central West Zone	186,912	96,950	52%	97,007	11,015	11%	145,604	45,860	31%
Lilongwe	116,339	57,760	50%	60,380	7,038	12%	90,628	38,172	42%
Mchinji	19,335	7,191	37%	10,035	235	2%	15,062	3,214	21%
Dedza	21,083	11,307	54%	10,942	645	6%	16,424	1,282	8%
Ntcheu	30,155	20,691	69%	15,650	3,097	20%	23,491	3,192	14%
South West Zone	289,482	167,233	58%	150,241	21,839	15%	225,506	47,187	21%
Chiradzulu	43,980	24,560	56%	22,826	3,244	14%	34,260	2,631	8%
Blantyre	114,085	65,543	57%	59,210	8,931	15%	88,872	19,120	22%
Mwanza	7,375	3,948	54%	3,828	56	1%	5,745	837	15%
Thyolo	59,451	27,050	45%	30,855	1,544	5%	46,312	9,532	21%
Chikwawa	31,672	20,564	65%	16,438	1,839	11%	24,672	4,200	17%
Nsanje	23,888	18,378	77%	12,398	3,215	26%	18,809	4,425	24%
Neno	9,031	7,190	80%	4,687	3,011	64%	7,035	6,441	92%
South East Zone	272,535	134,051	49%	141,446	17,171	12%	212,305	41,059	19%
Mangochi	58,150	29,366	51%	30,180	2,788	9%	45,299	5,347	12%
Machinga	32,829	18,134	55%	17,038	3,364	20%	25,574	2,371	9%
Zomba	63,811	34,675	54%	33,118	4,962	15%	49,709	13,837	28%
Mulanje	59,482	22,418	38%	30,871	1,954	6%	46,336	13,220	29%
Phalombe	35,001	14,979	43%	18,166	2,765	15%	27,266	3,103	11%
Balaka	23,262	14,477	62%	12,073	1,338	11%	18,121	3,182	18%

\* Given FP: Number of women (18-49 years) on ART who received a modern family planning method from their ART clinic in the reporting period.  
 \*\* BP screened: Number of adults (30 years+) who had at least one blood pressure reading recorded on their patient card this calendar year.

## 8.6 Intensified TB Case Finding (ICF)

TB is one of the most important HIV-related diseases in Malawi and a considerable proportion of (mainly early) deaths on ART are attributed to undiagnosed TB. ICF is carried out using a standard symptom checklist at every HIV patient visit. ICF outcomes are documented on HIV exposed child, ART patient cards, but routine M&E reporting is currently limited to ART patients in order to reduce the burden of reporting secondary cohort outcomes. It is assumed that implementation of ICF is similar in exposed child follow-up.

**898,048 (>99%)** of all patients retained on ART were screened for TB at their last visit before end of March 2022. Out of these, **3,957 (<1%)** patients were classified as new TB suspects. **3,123 (<1%)** patients were confirmed to have TB (clinical or lab based) and **3,064 (98%)** of these were on TB treatment; the remaining 41 had either not yet started or interrupted TB treatment. An excerpt from the data in the **Annex (Cumulative ART outcomes)** is shown below.



#### Current TB status among ART patients (ICF)

ICF not done (Current TB status unknown/ not circ)	4,156	0%
ICF done	905,128	100%
TB not suspected	898,048	99%
TB suspected	3,957	0%
TB confirmed	3,123	0%
TB confirmed, not on treatment	59	2%
TB confirmed, on TB treatment	3,064	98%

## 8.7 HIV-Related Diseases

**Table 6** shows the number of patients treated for key HIV-related indicator diseases. **3,760** patients were started on TB treatment this quarter and HIV status was ascertained for **3,724 (99%)**; **1,701 (46%)** of these were HIV positive and **1,567 (92%)** of all HIV positives were already on ART when starting TB treatment. 70 patients with Kaposi sarcoma were registered for ART in this quarter.

**Table 6**

Number new cases of key HIV-related diseases registered per quarter (KS =Kaposi Sarcoma).

	TB				KS *
	Tot. cases	HIV status asc.	HIV positive	Already on ART	Tot. cases
2021 Q2	3,760	3,724 99%	1,701 46%	1,567 92%	70
2021 Q3	3,474	3,466 100%	1,498 43%	1,434 96%	74
2021 Q4	3,817	3,772 99%	1,670 44%	1,557 93%	92
2022 Q1	4,361	4,336 99%	2,006 46%	1,849 92%	113

## 9 HIV-Exposed Child Follow-Up

### 9.1 Methods and Definition of Indicators

There are multiple entry points into HIV exposed child follow up: children of HIV infected mothers may be enrolled at birth at maternity / postnatal ward; they may be found at Under 1 or Under 5 Clinics through active screening for HIV exposure; they may be identified when presenting sick to OPD; or they may be seen with their mothers in ART follow-up. Although the targeted enrolment age is below 2 months, children may theoretically be enrolled up to 23 months of age (when HIV infection can be ruled out by rapid antibody test and breast milk exposure is likely to have stopped).

Initial registration data and details for every visit are recorded on an *Exposed Child Patient Card* and a subset of the registration data is copied in the *HIV Care Clinic (HCC) register* (one record per patient). Registration data are reported from the HCC register on a quarterly basis. Follow-up outcomes are reported monthly, selecting children who were **2, 12 and 24 months** old in the respective reporting month. Outcomes are determined from the latest visit details recorded on each card. HIV infection status is evaluated as **known negative** if a negative DNA-

PCR or rapid test result was available at the last visit; HIV infection status is evaluated as **known positive** if a positive DNA-PCR result was available at any age or a positive rapid antibody test was available from age 12 months; HIV infection status is counted as **unknown** if HIV infection has not been confirmed and/or a negative test result pre-dated the last visit (assuming on-going HIV exposure through breast milk). All children under 24 months with confirmed HIV infection and those under 12 months with confirmed HIV infection through DNA-PCR or HIV antibody and symptoms of *presumed severe HIV disease* are **eligible for ART**.

The main outcome indicator for the HIV exposed child follow-up program is **HIV-free survival at 24 months of age**. This is defined as the proportion of children who were discharged as confirmed HIV uninfected by the age of 24 months.

## 9.2 HIV Exposed Child Registration Data

12,455 HIV exposed children were newly enrolled into follow-up during Q1 2022; **10,250 (80%)** of these were under the age of 2 months. The total number of new enrolments (12,455) exceeds by 4,901 (39%) the total number of known HIV exposed children discharged from maternity (7,554). This apparent discrepancy may be explained by delayed enrolment of infants born in previous quarters; by double-counting of infants who transferred between sites; or by identification and enrolment of additional HIV exposed infants after birth. Overall, enrolment into follow-up for known HIV exposed infants appears to be almost complete.

The documentation of follow-up outcomes, particularly the updating of DNA-PCR results on patient cards, remained incomplete at several sites. This has led to an underreporting of ascertainment of HIV status among the 2-month-old cohort.

## 9.3 Birth Cohort Outcomes

There were **9,354** infants in the **2-month age cohort**. **7,087 (76%)** had received a DNA-PCR result. **871 (1%)** of these were confirmed HIV infected. **1** infant was *presumed to have severe HIV disease (PHSD)*, which means that a total of 72 infants were eligible for ART. **60 (83%)** infants had started ART. Out of the entire 2-month age cohort, **7,810 (94%)** were retained in exposed child follow-up, **60 (1%)** had started ART and 110 (**1%**) were discharged confirmed uninfected<sup>12</sup>. **45 (1%)** were known to have died and **279 (4%)** had been lost to follow-up.

There were **12,218** children in the **12-month age cohort**. Current HIV infection status was known for 9, (**78%**) children (DNA-PCR or rapid antibody test) and **136 (1%)** of these were confirmed HIV infected. 3 (**<1%**) additional children had been diagnosed with *presumed severe HIV disease*, which means that a total of **139** children were eligible for ART. **138 (99%)** had started ART. Out of the entire age cohort, 9,053 (**86%**) were retained in exposed child follow-up, **138 (1%)** had started ART and 125 (**1%**) were discharged confirmed uninfected.<sup>12</sup> **1,074 (10%)** were lost to follow-up and 84 (**1%**) were known to have died.

There were **12,714** children in the **24-month age cohort**. Current HIV infection status was known for **9,480 (78%)** children (DNA-PCR or rapid antibody test) and **141 (1%)** of these were confirmed HIV infected. **15** additional children had been diagnosed with *presumed severe HIV*

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<sup>12</sup> A small number of children may be rightfully discharged as 'confirmed uninfected' by 2 or 12 months of age if HIV exposure through breast milk has definitely stopped (e.g. maternal death) and a negative HIV test was obtained at least 6 weeks thereafter.

disease, which means that a total of **156** children were eligible for ART. **134 (86%)** of these had started ART. Out of the entire age cohort, **9,528 (89%)** were retained in exposed child follow-up, **134 (8%)** had started ART and **105 (1%)** were discharged confirmed uninfected. **837 (8%)** were lost to follow-up and **96 (1%)** were known to have died.

**Confirmed HIV-free survival at age 24 months** in this quarter was **79%**. This was related to the fact that only **71%** in this cohort had a known HIV status. **3,590 (29%)** children were classified as ‘*current HIV infection status unknown*’ and many of these may be among the **1,607** children lost to follow-up and the **168** children who had died. Only **327 (3%)** were retained in follow-up beyond age 24 months and a final rapid test was not available for these children, possibly due to continued breast feeding. Much progress has been made with scheduled HIV testing (and documentation of test results) at 6 weeks, 12 and 24 months of age.

## 10 PMTCT / ART

The implementation of **PMTCT Option B+** effectively integrated PMTCT and ART services already in 2011. ART may be started and continued at ANC, labour and delivery, and at ART clinics. All infants born to HIV-infected women are supposed to start daily nevirapine prophylaxis for the first 6 weeks of life. Nevirapine syrup is given to women at ANC at the earliest opportunity to take home with instructions how to give it to the new-born.

### 10.1 Data Sources and Reporting Methods

New standard M&E tools for ANC and maternity were implemented in January 2010 and revised in Q2 2012 to reflect the Option B+ policy. ANC and maternity clinic registers and reporting forms include patient management information and all relevant data elements for the maternal and child health and HIV programs. The ANC register was specifically designed to avoid data duplication that previously affected PMTCT reports from ANC due to the inability to account for individual women’s outcomes in the course of multiple visits. The cohort reporting system is designed to aggregate women’s outcome data after they have completed their ANC visits. The outcome report is completed for women who started ANC 6 months before the reporting period.

From **Q2 2015**, the PMTCT data elements (HIV ascertainment and ART status) were also added to the first section of ANC reporting form that captures women’s status at their first (booking) visit. The ANC report now includes the HIV and ART status at the first visit for women starting ANC in the reporting period and the final HIV and ART status of women who had completed ANC by the end of the reporting period. This addition aims to monitor PMTCT service implementation more closely in time, allowing for corrective action in the course of subsequent visits.

Data from ANC and maternity are collated and presented separately because records do not allow identification of individual women and hence are subject to double counting if not separated.

All patients starting ART are recorded using standard program monitoring tools (ART patient treatment cards and ART clinic registers). **ART baseline data** for all patients registered are reported each quarter from ART clinic registers. **ART outcomes** of all patients ever registered

are reported after reviewing the cards of all new patients and of those who were on ART at the end of the previous quarter, updating the status of patients who have subsequently died, stopped or been lost to follow-up. Secondary outcomes such as current regimen, CPT status, side effects, adherence and TB status are reported for all patients retained on ART.

ART scale-up has resulted in a growing proportion of HIV-infected women who are already on ART when getting pregnant. Implementation of *Test & Treat* will further increase ART coverage in this group. **Maternal ART coverage** is estimated from the number of pregnant women who were already on ART when getting pregnant (**maternity reports**) plus those who newly started ART when pregnant (**ART reports**).

**Maternity reports** capture ART status at the time of delivery (up to the time of discharge from the postnatal ward). The timing of ART initiation is categorized into: (any time) before pregnancy; during 1<sup>st</sup> / 2<sup>nd</sup> trimester; during 3<sup>rd</sup> trimester; during labour. About 97% of pregnant women in Malawi attend ANC, but only 83% of women in the general population deliver at a health facility in Malawi. Maternity reports therefore have the potential for undercounting the number of mothers and infants receiving ARVs. However, there is evidence from ANC and maternity reports that almost all the known HIV infected women deliver at health facilities.

Between 2011 and 2020, ART coverage before pregnancy was based on maternity reports. However, there have been repeated observations during supervision that women who started ART during pregnancy were systematically misclassified as "already on ART when getting pregnant" at maternity, leading to a potential overcount. Due to the very high ART coverage rates achieved in Malawi, this overcount has also become apparent in the previous Spectrum model estimates for maternal PMTCT coverage that exceeded 100%. From 2021, the number of women who had started ART before pregnancy is based on the data element "already on ART when starting ANC" in the ANC service reports. This new method has also been used in the 2022 Spectrum model estimates for PMTCT coverage.

**ART program reports** capture pregnancy (and breastfeeding) status at the time of *ART initiation*, providing information on the number of new women starting ART while pregnant (or while breastfeeding). ART reports do not capture women who become pregnant after starting ART. For the estimation of maternal ART coverage, the number of women starting ART in pregnancy is **adjusted for**:

**a) Double counting** of women starting ART in pregnancy and subsequently transferring to another site. These women are counted multiple times as 'pregnant at the time of starting ART' in the quarterly ART cohort reports because the disaggregation of age, sex and reason for starting ART applies to all patients newly registered in the quarter, including transfers in. Separate *ART 'survival' analyses* are collected each quarter for women started under Option B+. The proportion of women transferred within 12 months of registration is used to adjust the quarterly number of pregnant women starting ART for transfers.

**b) Failed ART initiation** is thought to be the main underlying reason for early loss to follow-up among the Option B+ cohort. Patients are recorded on patient cards and in clinic registers when the first supply of ARVs is dispensed and all new entrants are counted as ART initiations in the quarterly ART cohort report. Recent operational studies indicate that most pregnant

women lost to follow-up within the first 6 months never return after this first dispensing visit and many of these may have never actually started taking ART. The proportion of women lost to follow-up in the 6-month survival analysis is therefore used to adjust the number of pregnant women starting ART in the quarterly ART cohort reports for *failed initiations*.

**Infant PMTCT coverage** is estimated from maternity reports, based on the number of infants born to known HIV-infected women and discharged alive who started nevirapine prophylaxis.

Coverage is calculated by dividing the number of patients served by population denominators. The denominators are derived from expected pregnancies based on population projections and HIV prevalence from epidemiological surveillance (source: Spectrum model for Malawi). There are an estimated 9,363 HIV infected pregnant women in the population per quarter (1/4 of 37,450 in 2022).<sup>13</sup>

## 10.2 ARV Coverage among Pregnant / Breastfeeding Women and Exposed Infants

**11,290 (>99%)** of the estimated 9,363 HIV infected pregnant women in Malawi this quarter were on ART. This is based on **8,537** women were already on ART when starting ANC and **2,753**<sup>14</sup> women who newly initiated ART in pregnancy. ART coverage was similar in the previous quarter (>99%).

An additional **684**<sup>15</sup> breastfeeding women started ART while breastfeeding (in WHO clinical stage 1 or 2), bringing the total number newly started on ART while pregnant or breastfeeding to **4,431**. Most women starting ART while breastfeeding were probably identified late in maternity or early in the postnatal period, but this group may also include some women who re-initiated after interrupting ART in pregnancy. **7,554 infants** were confirmed to have started NVP prophylaxis at maternity.

**Figure 9** shows the estimated maternal PMTCT coverage between 2010 and the current quarter. All program data have been adjusted for potential double-counting of women who attended more than one ANC clinic in the course of pregnancy, transfers between ART clinics and misclassification of women who initiated ART in pregnancy but were not retained at 6 months after the initiation visit (presumed “failed ART initiations”). The (less effective) single dose NVP regimen and AZT combination prophylaxis had been phased out by April 2012. The average number of pregnant women registered for ART each quarter **increased almost 6-fold** from **1,221** in the 12-month period before introduction of Option B+ to an average of around **6,500** since Q4 2011.

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<sup>13</sup> 2022 Spectrum model estimates for HIV infected pregnant women in 2021.

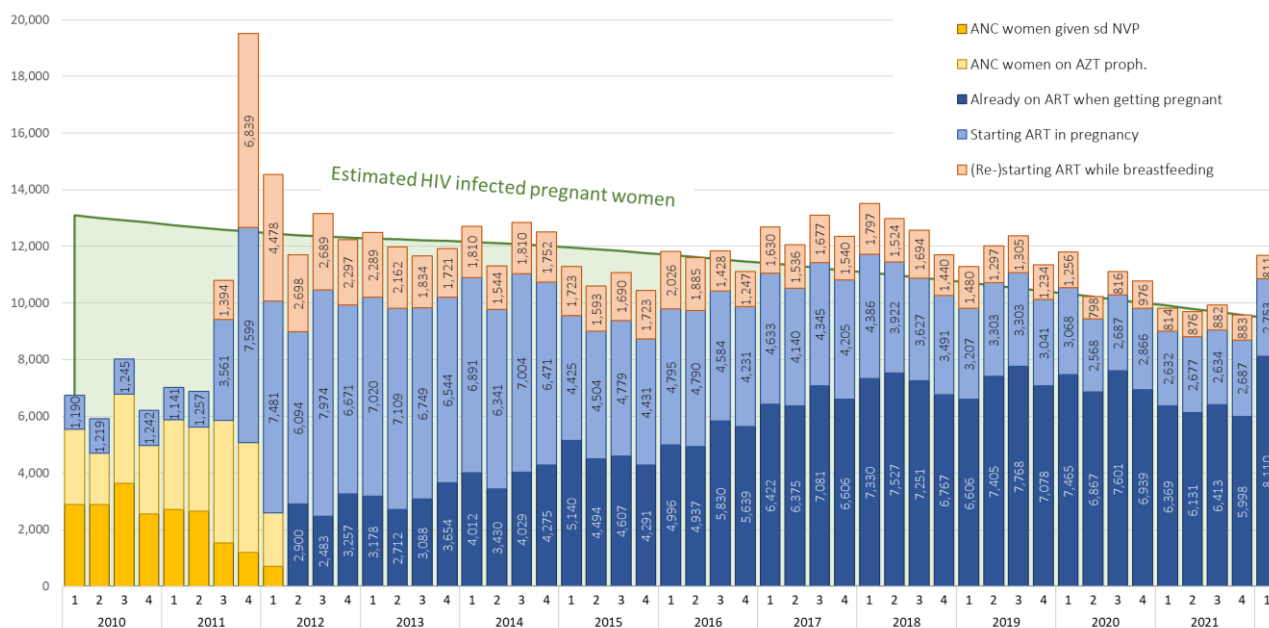
<sup>14</sup> 3,747 women registered at ART clinics who were pregnant at the time of starting ART; a) 18.0% are discounted to adjust for double-counting of transfers based on 763 of 4,274 women who transferred within 12 months of registration (12-month Option B+ survival analysis); b) 11.1% are discounted to account for presumed failed ART initiations based on 457 of 4,328 women lost to follow-up within 6 months of registration (6-month Option B+ survival analysis).

<sup>15</sup> 833 women registered at ART clinics who were breastfeeding at the time of starting ART; reduced by 18.0% to adjust for double-counting of transfers based on 763 of 4,274 women who transferred within 12 months of registration (12-month Option B+ survival analysis). Failed ART initiations are thought to be less common among this group, so no further adjustment is made.

**Figure 9**

**Maternal PMTCT coverage in Malawi**

Women who moved to Option B+ from sdNVP / AZT were double counted between Q3 2011 - Q1 2012. It is likely that <12,000 total women were on ARVs during these quarters. ANC and ART data adjusted for double counting from patients attending more than one clinic. ART data adjusted for 'failed initiations' among pregnant women with no 2nd ART visit.



### 10.3 HIV Services at ANC

The full national data from ANC are presented in the **Appendix**.

#### 10.3.1 HIV Ascertainment and ART Coverage

##### Booking cohort:

**173,413** women attended ANC for their first visit between January and March 2022. This is slightly higher than the estimated 162,337 pregnant women in the 2022 population during one quarter.<sup>16</sup> **167,127 (96%)** of women in this cohort had their HIV status ascertained at the first visit. Out of these, **7,480 (4%)** presented with a valid previous test result and **159,647 (96%)** received a new test. A total of **8,595 (6%)** of women were found HIV positive: **6,446 (76%)** of these from a documented previous test and **2,149 (24%)** from a new test. **8,537 (99%)** of all positives received ART: **6,424 (75%)** of these were already on ART when starting ANC; **1,862 (22%)** initiated ART at their first ANC visit and **221 (3%)** started late at 28 + weeks during pregnancy.

##### Outcome cohort:

**161,793** women had started ANC between April and June 2021 and their outcomes were reported between January and March 2022.

**157,511(97%)** of the outcome cohort had their HIV status ascertained at least once during ANC. HIV ascertainment has remained consistently around 99% over the last quarters. **8,012 (5%)** presented with a valid documented previous HIV test result and **149,499 (95%)** received a new HIV test result at ANC. A total of **9,111 (6%)** women were found HIV positive. This is

<sup>16</sup> Estimated as ¼ of 649,351 births projected for 2022 (Demographic Projection from Spectrum 2022).



slightly higher than the latest Spectrum projections (5.9% HIV prevalence among pregnant women in 2022).<sup>13</sup>

**9,060 (99%)** of (known) HIV infected women were on ART by the end of ANC. This represents **>99%** coverage of the estimated 9,551 HIV positive pregnant women per quarter at the population level. Of the **9,060** ANC women who were known to receive ART **7,004 (77%)** were already on ART when starting ANC, **1,873 (21%)** initiated before 28 weeks of pregnancy and **183 (2%)** initiated during the last trimester of pregnancy. **9,071 (>99%)** of HIV infected women at ANC were on Cotrimoxazole Preventive Therapy. **9,042(99%)** of known HIV infected women attending ANC received the infant dose of ARVs (nevirapine syrup) to take home.

### 10.3.2 Syphilis Screening

**97,598 (60%)** of women in the outcome cohort were tested for syphilis and **2,660 (3%)** were syphilis positive. The syphilis testing rate was lower than last quarter's performance of 85%

## 10.4 HIV Services at Maternity

The full national data from maternity are presented in the **Appendix**.

Between January and March, **147,830** women were admitted for delivery to maternity; **13,119** of these were referred to another facility before delivery, resulting in **134,711** total admissions to maternity.

A total of **141,750** babies were born, **136,943(97%)** were singletons and **4,807 (3%)** were twins/multiples. There were **139,161 (98%)** live births and **2,589 (2%)** stillbirths. **138,173(97%)** of babies born alive were discharged alive and **988 (1%)** died before discharge.

### 10.4.1 HIV Ascertainment at Maternity

**139,409 (95%)** women had their HIV status ascertained at maternity. Out of these, **8,118 (6%)** presented with a valid previous HIV test result and **131,291 (94%)** received a new test. A total of **8,361 (6%)** women were HIV positive and **8,094 (97%)** of these had been previously diagnosed while **267 (3%)** received a new positive result at maternity. The **137,258** women whose HIV status was ascertained at maternity represent **86%** of the expected 159,536 women delivering in the population.

HIV exposure status was ascertained for **133,503 (97%)** out of **134,690** babies born and discharged alive. **7,871 (7%)** of these were born to a known HIV positive mother.

### 10.4.2 ARV Coverage at Maternity

A total of **8,361 (100%)** of known HIV infected women admitted to maternity received ART. Out of these, **7,961 (95%)** had started ART before pregnancy, **192 (2%)** initiated ART during the 1<sup>st</sup> or 2<sup>nd</sup> trimester, **70 (1%)** initiated during the 3<sup>rd</sup> trimester and **138 (1%)** initiated ART at maternity.

A total of **7,554 (96%)** of **7,871** infants who were known HIV exposed and discharged alive started daily NVP prophylaxis at maternity. This represents **79%** coverage of the estimated 9,551 HIV exposed infants born in the population in this quarter.

## 11 ART Access and Follow-Up Outcomes

The full national data from the ART Program are shown in the **Appendix**.

### 11.1 New ART Registrations during Q1 2022

By the end of March 2022, there were 787 static ART sites in Malawi. 63% of these sites were managed by government, 19% by CHAM, 5% by NGOs and 13% were private sector clinics that charge a nominal fee of MK500 per monthly prescription of drugs per patient.

Implementation of the Malawi Integrated Clinical HIV Guidelines, which adopted Option B+, started in July 2011, triggering a massive surge in new ART initiations (see Error! Reference source not found.). The new policy for universal ART eligibility (“**Test & Treat**”) was introduced in **May 2016**. This policy led to an unprecedented, transient increase in ART initiations in Q3 2016 when almost all remaining pre-ART patients-initiated ART.

A total of **19,687** initiated ART for the first time in Q1 2022. From 2019 Q1, routine reporting during supportive supervision has included a disaggregation of first-time initiations by sex and pregnancy status. In Q1 2022, **19,687 (100%)** out of 19,687 first time initiations were disaggregated by sex and pregnancy. Among these, **40%** were males and **60%** were females. Total number of pregnant women amongst first time initiating females was **2,724 (23%)**.

The total number of patients newly initiated on ART represents **99%** of the 19,944 people recorded as newly diagnosed with HIV during the quarter. Among all new ART clinic registrations<sup>17</sup> in Q1 2022, **39%** were males and **61%** were females. **3,781 (20%)** of the registered females were pregnant at the time of starting ART.

A total of **26,177 (87 %)** of all patients registered started in WHO stage 1 or 2 and **19,379 (79%)** of these started as ‘asymptomatic’ under universal ART eligibility policy. **23,062 (10%)** of patients registered started in WHO stage 3 and **942 (3%)** started in stage four. **7 (<1)** had no documented clinical stage at initiation.

**1,903** children were registered at ART sites in Q1 2022. **344 (18%)** of these were children aged 12-59 months in WHO stage 1 or 2. **27 (<1%)** infants started ART with presumed severe HIV disease. **83** infants in WHO stage 1 or 2 started due to confirmed HIV infection through DNA-PCR. Early infant treatment has remained at about half of the estimated infected infants seen at maternity: considering that 7,787 HIV exposed infants were identified at maternity and assuming a 2% transmission rate among the 100% of HIV positive mothers at maternity who received ART (and 20% transmission in the 4% who did not receive ART)<sup>18</sup>, only about 155 of these known HIV exposed infants may have been infected perinatally during Q1 2022. However, considering the projected 454 new infant HIV infections in the 2022 population per quarter<sup>19</sup>, early infant treatment coverage remains low at an estimated **29%** (155/533). The

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<sup>17</sup> These proportions include the 19,687 patients newly initiating ART, but also 10,191 patients previously started on ART who transferred between sites and 337 patients who re-initiated ART after treatment interruption.

<sup>18</sup> UNAIDS Reference Group on Estimates Modelling and Projections (2011). Working paper on mother-to-child-transmission rates for use in Spectrum. Geneva, UNAIDS.

<sup>19</sup> ¼ of the **2,133** estimated new infant infections in the population in 2022 (2022 Malawi Spectrum model)



most significant bottleneck for early infant treatment remains the identification of HIV (probably mostly recently) infected pregnant / breastfeeding women.

**678 (2%)** out of all ART clinic registrations were patients with TB: **437 (64%)** had a current and **241 (27%)** recent history of TB. **113 (<1%)** of patients registered had Kaposi's sarcoma.

## 11.2 Cumulative ART Registrations up to March 2022

By the end of March 2022, there were a cumulative total of **2,020,515** clinic registrations, **1,593,144 (79%)** of whom were patients newly initiated on ART; **400,359 (20%)** were patients who transferred between clinics; **27,009 (1%)** re-initiated ART after treatment interruption. Out of all registrations, **37%** were males and **63%** were females, **92%** were adults and **8%** were children (<15 years).

## 11.3 ART Outcomes

**909,284 patients were alive on ART** by the end of March 2022. This is equivalent to **92% ART coverage** among the estimated 985,346 HIV positive population in Malawi in 2022 and it means that the revised national ART scale-up target<sup>20</sup> for March 2022 (92% coverage) has been achieved.

Unlike in previous quarters, an adjustment for patients who were in transit between sites by the end of the quarter cannot be made due to the large-scale reclassification of registration status and outcomes in the context of active tracing initiatives described below.

Out of the 2,020,515 patients ever initiated on ART, **909,284 (45%)** were retained alive on ART, **143,677 (7%)** were known to have died, **433,651 (21%)** were lost to follow-up and **15,574 (<1%)** were known to have stopped ART.

An estimated **866,375** and **42,909** children (<15 years)<sup>21</sup> were alive on ART by the end of March 2022. This represents **82%** (42,909/ 53,225) and **93 %** (866,375/ 932,121) ART coverage among children and adults, respectively.

### 11.3.1 ART Outcomes Trend

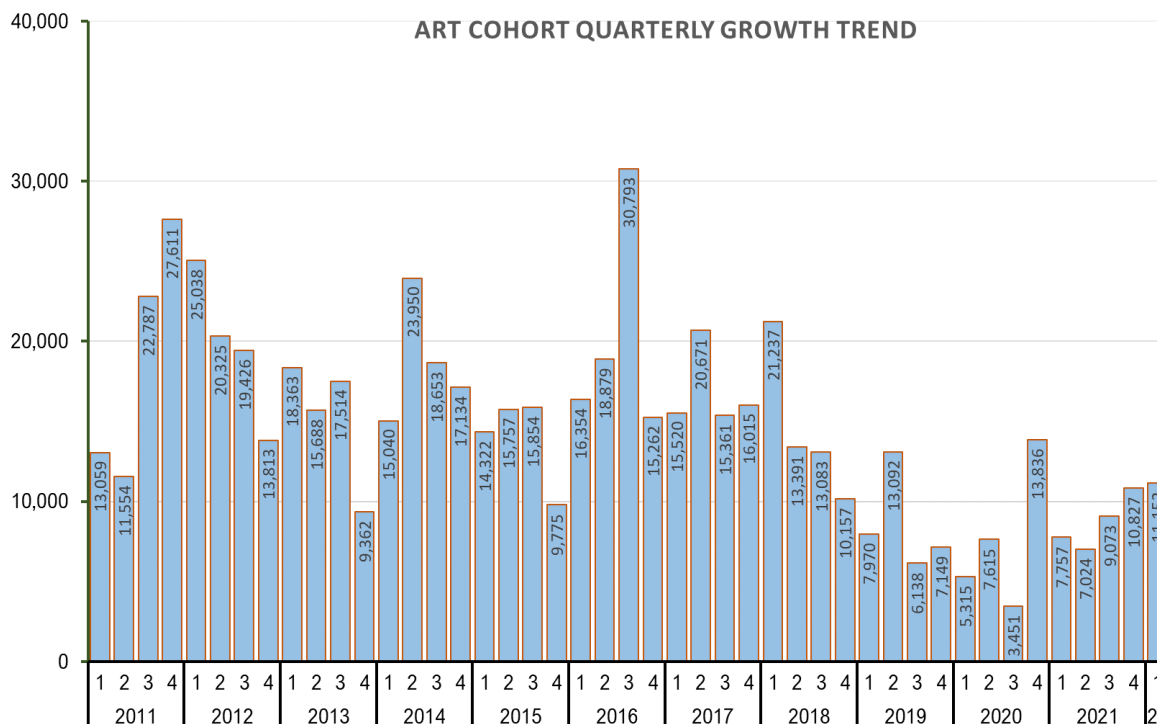
**Figure 10** shows the net increase of patients alive on ART by the end of each quarter. The number of patients retained on ART increased by **11,152** between January and March 2022. This was 21% higher than the net growth in the previous quarter (10,827).

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<sup>20</sup> End of 2019 baseline and subsequent targets from the 2020-2025 National Strategic Plan for HIV.

<sup>21</sup> The total national number of ART patients with current age <15 years is extrapolated from the (4.8%) of all patients at EMR sites who were <15 years at the end of Q1 2022.

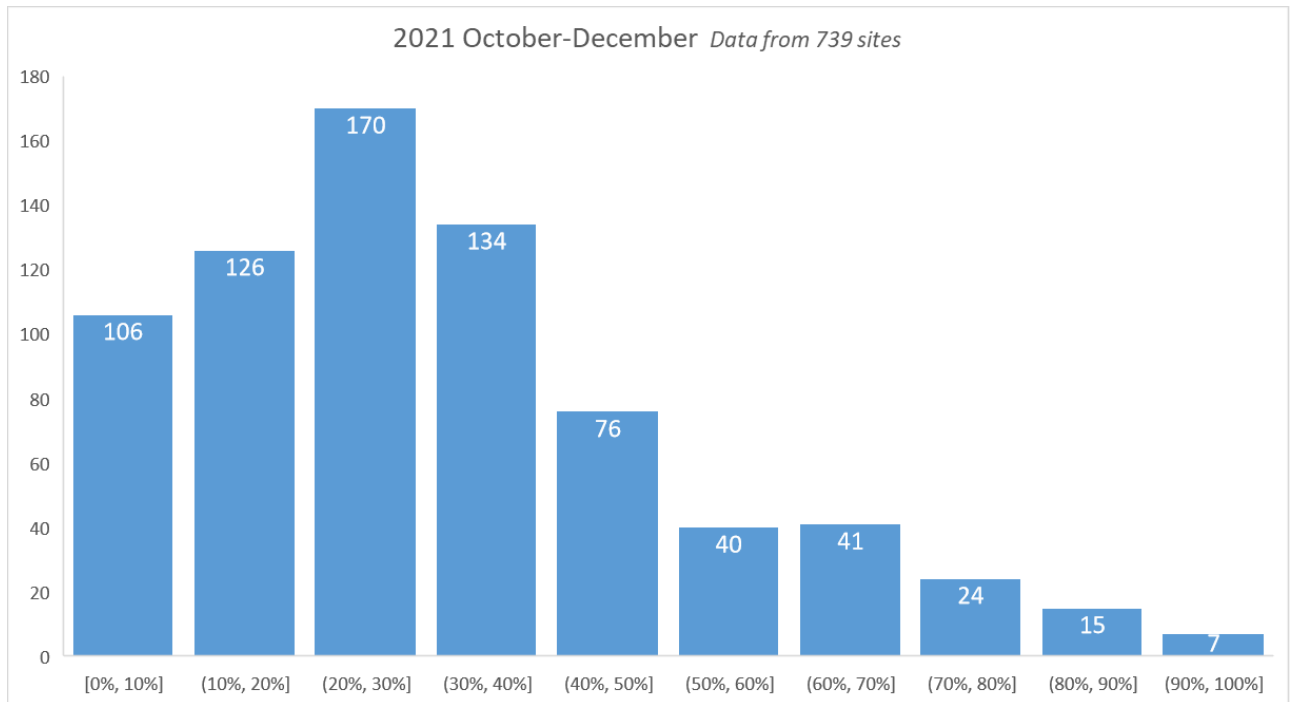
**Figure 10**



### 11.3.2 Differentiated Service Delivery (DSD)

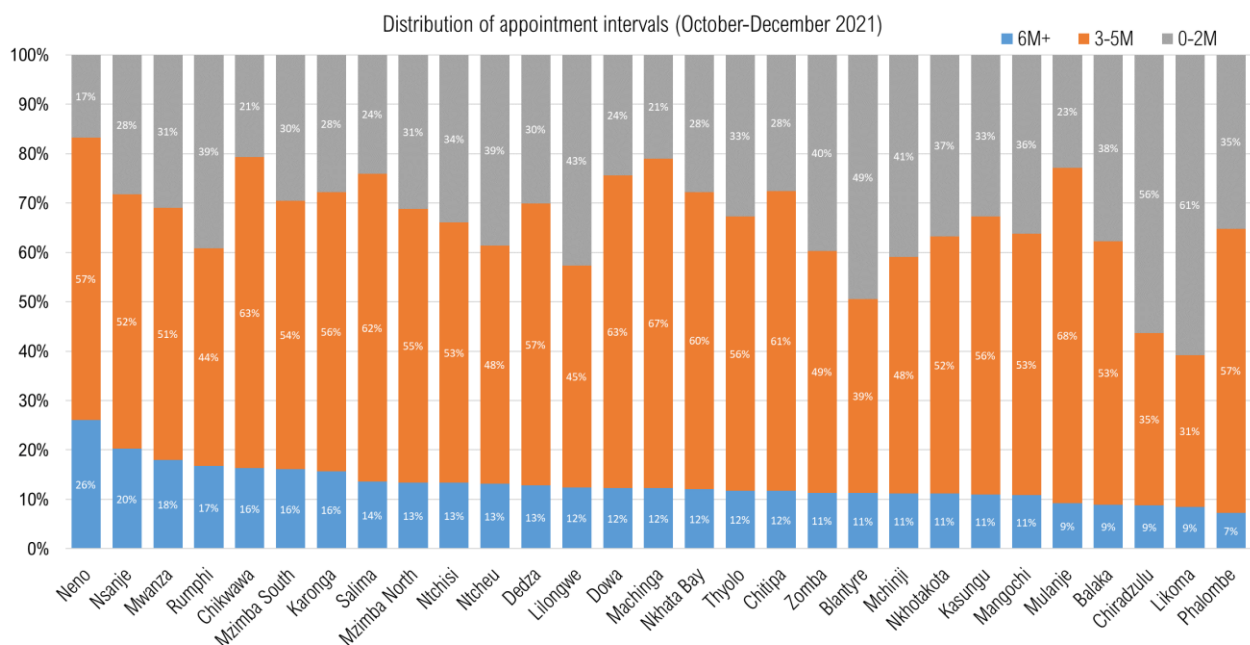
Data on ART dispensing and appointment intervals was available for 739 (94%) of 783 ART sites with EMR (both PoC and eMastercard), covering **882,761 (98%)** of 898,132 patients retained alive on ART. Only **12%** of these received ARVs for less than 3 months (presumably as they had recently started ART or were unstable), **52%** for 3-5 months and **320,090 (36%)** received ARVs for  $\geq 6$  months. As a social distancing measure during Covid-19, the DHA recommended an enhanced implementation of 6-month ARV dispensing for almost all patient groups as one way of decongesting the facilities and in the last few quarters, the proportion of patients on 6 months dispensation has reduced. **Figure 11** below shows the distribution of the 739 ART facilities by proportion of patients who were given 6 months ARVs at their last recent visit during Q4 2021. This shows that implementation of 6-month dispensing was widespread; **729 (99%)** of the 739 facilities had given  $\geq 6$  months of ARVs to more than half of their patients.

**Figure 11 Number of ART sites by proportion of patients who received 6 months of ARVs at their last clinic visit**

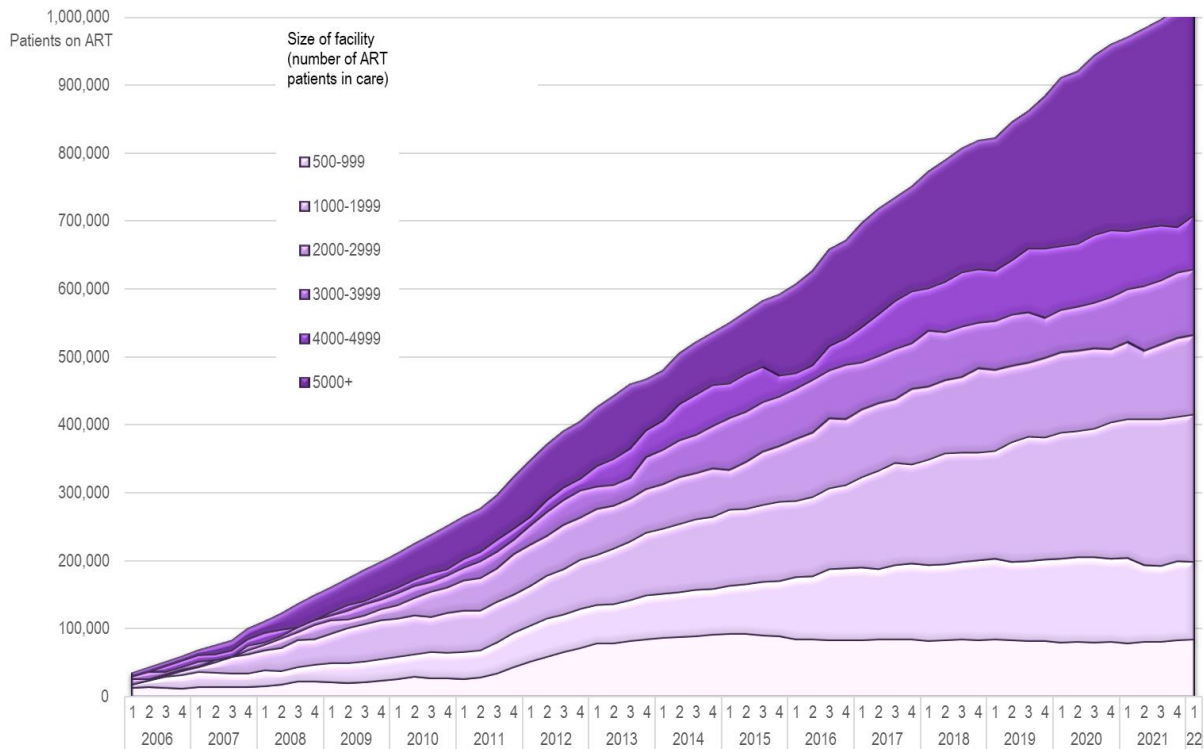


**Figure 12** below shows the distribution of the ART dispensing and appointment intervals by district. Uptake of 6-month dispensing was highest in Neno at 26% and lowest in Phalombe at 7%.

**Figure 12**



**Figure 13: Patients alive on ART at the end of each quarter, stratified by size of facility (number of patients alive on ART)**



**Figure 13** Figure 13 shows the decentralization of Malawi’s ART program that followed the opening of over 300 new ART sites with the introduction of Option B+ in Q3 2011. During 2012 and 2013, the greatest increase in ART patient numbers was seen at sites with fewer than 500 patients alive on ART. However, patient numbers at the high and ultra-high burden sites have continued to increase considerably in the more recent quarters. By the end of March 2022, **44%** of the national ART patient cohort was in care at sites with fewer than 2,000 patients.

There has been a considerable decrease of ART drop-out rates since the start of the national program, most of which was contributed by reduction in mortality. Quarterly defaulter rates appeared to have stabilized around 1.8% over the last 5 years, but the calculated attrition rates have fluctuated considerably since 2019. These changes are mainly explained by active tracing efforts organized by implementing partners that have resulted in many patients who were previously reported as LTFU being re-classified as “transferred out” or “died”. Previous active tracing efforts were usually unable to track down patients who were lost more than a few months ago and it is difficult to confirm the validity of this recent large-scale reclassification of follow-up outcomes at the program level.

However, this quarter there has been no change in the calculated defaulter rate (1%) from - 1% in 2021 Q4. Loss to follow-up (‘defaulters’) include undocumented ‘silent’ transfers, undocumented mortality and patients actually stopping treatment. Efforts to harmonize strategies for patient retention are currently ongoing, including national standard operating procedures (SOPs) and tools for linkage and retention aiming to better track patients who miss appointment and document outcomes.

At national level, there were **2,557** net new deaths, **6,493** net new lost to follow-up and **376** net new confirmed stops in Q1 2022. This translates into a quarterly death rate of **0.28%** and a defaulter rate of **0.71 %** among the patients alive and on treatment in this quarter.

#### 11.4 ART Cohort Survival Analysis

A 12 month ‘**cohort outcome survival analyses**’ was conducted for patients registered in Q1 of 2021, respectively. A separate 12-month cohort outcome analysis was conducted for children who were under 15 years at the time of ART initiation and who registered for ART in Q1 2021. A further subgroup analysis was done for women who started ART while pregnant or breastfeeding (Option B+).

**80% of adults** and **81% of children** were retained alive on ART after 12 months on treatment. 12-month retention rates were higher for adults (78%) and same for children (81%) in the previous quarter. These programmatic monitoring results remain below the WHO target of 85%, but actual retention rates are thought to be about **10%** higher due to this misclassification of ‘silent transfers’ as ‘defaulters’ in clinic-based survival/retention analysis. A population-based study in Karonga district with individual linkage showed that **92%** of patients started in 2011-2012 were retained after 12 months on ART while routine monitoring data showed **79%** retention rates for the same period.<sup>22</sup>

**6-month group cohort survival** outcomes were known for **4,328** women registered as having started ART under Option B+ in Q3 2021. This is 19 more than the number of women registered under Option B+ in the quarterly cohort analysis in Q1 2022. This discrepancy is likely due to errors in data abstraction.<sup>23</sup> The 4,328 women in this cohort survival analysis include 566 (13%) women who transferred between sites. These transfers are double counted and discounted from the denominator (3,270) from the calculation of retention rates.

**3,270 (87%)** women in this cohort were retained at 6 months after registration. Of those not retained, **457 (93%)** were lost to follow-up, **14 (3%)** were known to have stopped ART and **21 (4%)** were known to have died.

**12-month group cohort survival** outcomes were known for **4,274** women registered as having started ART under Option B+ in Q4 2021. This is 297 higher than the number of women registered under Option B+ in the quarterly cohort analysis in Q1 2021. This discrepancy is likely due to errors in data abstraction.<sup>24</sup> The **4,274** women in this cohort survival analysis include 663 (18%) women who transferred between sites. These transfers are double counted and discounted from the denominator (**3,511**) for the calculation of retention rates.

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<sup>22</sup> Koole, O., Houben, R. M. G. J., Mzembe, T., Van Boeckel, T. P., Kayange, M., Jahn, A., Crampin, A. C. (2014). Improved retention of patients starting antiretroviral treatment in Karonga District, northern Malawi, 2005-2012. *Journal of Acquired Immune Deficiency Syndromes* (2014), 67(1), e27–33. doi:10.1097/QAI.0000000000000252

<sup>23</sup> Group cohort survival analyses were not available from some sites with electronic data systems. ‘Reason for starting’ may be reclassified for some patients, leading to minor inconsistencies in patients included in group cohort survival analyses.

<sup>24</sup> Group cohort survival analyses were not available from some sites with electronic data systems. ‘Reason for starting’ may be reclassified for some patients, leading to minor inconsistencies in patients included in group cohort survival analyses.

**3,511 (82%)** of women in this cohort were retained at 12 months after registration. **578 (90%)** of those not retained were lost to follow-up, **46 (7%)** were known to have stopped ART and **19 (3%)** were known to have died.

#### 6 month survival OptionB+

##### Survival and retention in ART program

\*

##### ART cohort registration group outcomes

Total ART clinic registrations	4,328	100%
Transfers out (double counted)	566	13%
Total not transferred out (patients in cohort)	3,762	87%
Total alive on ART	3,270	87%
Total not retained	492	13%
Defaulted	457	93%
Stopped ART	14	3%
Died	21	4%

#### 12 month survival OptionB+

##### Survival and retention in ART program

\*

##### ART cohort registration group outcomes

Total ART clinic registrations	4,274	100%
Transfers out (double counted)	763	18%
Total not transferred out (patients in cohort)	3,511	82%
Total alive on ART	2,868	82%
Total not retained	643	18%
Defaulted	578	90%
Stopped ART	46	7%
Died	19	3%

## 11.5 Secondary outcomes of patients retained on ART

909,284 patients who were alive on ART and remained registered at their facilities have documented secondary outcomes.

### ART Regimens

**906,149 (>99%)** of patients were on NNRTI- or INSTI-based regimens. Due to the ongoing routine transition of patients from PI-based to DTG-based second line, the number of patients on PI-based 2nd line ART decreased by **188** from 2,400 in the previous quarter to **2,212** by the end of Q1 2022. **912 (<1%)** patients were on non-standard regimens. Non-standard regimens are not necessarily substandard regimens and include patients continuing an ART regimen that was started outside Malawi, patients in research programmes and patients in specialist care.

Among patients on NNRTI- or INSTI-based regimens, **17,958 (2%)** were on paediatric formulations. Most of these had transitioned from the previous standard first line for children; only **33 (<1%)** remained on regimen 2P: AZT/3TC/NVP. A total of **8,601 (52%)** were on regimen 15PP: ABC/3TC+DTG. **853,785 (97%)** patients on adult formulations patients on 1<sup>st</sup> line ART were on the new standard first/second line regimen **13A (tenofovir / lamivudine /dolutegravir)** and only **1,571(<1%)** remained on regimen **5A** (tenofovir / lamivudine / efavirenz).

## Adherence to ART

Completeness of adherence reporting has remained very high: **892,527 (98%)** of all patients retained in care had the number of missed doses documented at the most recent visit before end of the quarter evaluated. The classification of adherence levels is based on a combination of physical pill counts and self-reported number of doses missed in the last dispensing interval. **642,594 (72%)** of patients with documented adherence were classified as >95% adherent. The implausibly low proportion with good adherence is inconsistent with the high viral suppression rates in the overall cohort. The classification of 95% adherence based on pill counts has been affected by the long dispensing intervals that are now given to most patients. Therefore, manual and EMR-based classification of dose-adherence may be less reliable.

## ART Side Effects

**890,752 (98%)** patients on ART had information on drug side effects documented at their last clinic visit before end of March 2022. **1,526 (<1%)** of patients with information had documented side-effects. The prevalence of side effects had stabilized at low levels following the full transition to regimen 5A (tenofovir / lamivudine / efavirenz) that started in July 2013 and has declined further following the transition to DTG-based regimens.

### 11.5.1 Viral Load (VL) Monitoring

Routine VL monitoring for patients on ART was introduced in 2012 and the number of patients receiving VL testing has increased considerably over the last few quarters. The programme revised the routine VL monitoring schedules from bi-annual to annual and this means the schedules are at 6 months and 12 months after ART initiation and every year thereafter.

### 11.5.2 Facility data from VL Sample Logbooks and High VL Registers

Facility VL registers were designed to facilitate tracking of samples and results and to improve appropriate follow-up action on high VL results.

**108,444** VL samples were drawn in the reporting period and documented in the facility sample logbook. **89,853 (83%)** of these were for routine/scheduled VL monitoring; **16,049 (15%)** were extra-schedular and **2,542 (2%)** were replacements of lost samples. **20%** of the extra-schedular samples were targeted (suspected treatment failure) and **80%** were follow-up samples after an initial high VL.

Routine reporting of VL results and patient management outcomes is based on a cohort analysis of samples registered 6 months before the reporting period, assuming that all results and follow-up outcomes are complete after this period.

### Final Results from Sample Logbooks

**166,998** samples were drawn by facilities between July and September 2021 and outcomes were documented for **all** of these samples. **57,607 (30%)** results were received at the facility within 4 weeks of sample collection; **35%** were received between 5-8 weeks and **17%** between 9-12 weeks. The remaining **20%** were received after 12 weeks or were still missing. **8%** of patients were notified of their result within 4 weeks of sample collection, **15%** were notified within 5-8 weeks and **22%** within 9-12 weeks. **113,552 (51%)** of 206,497 were either notified after 12 weeks or the notification was still pending. **97%** of the results were printed in the lab



and delivered at the facility and **3%** were electronically transmitted (including point-of-care device results).

**178,023 (86%)** of samples produced valid VL test results. **2,138 (1%)** samples were rejected, or the results were invalid and **26,336 (13%)** of samples had outstanding or missing results. **163,524 (92%)** results were suppressed below 1000 copies/ml and **14,499 (8%)** were high ( $\geq 1000$  copies/ml).

### Outcomes from High VL Registers

Between January and March, **12,928** high VL results ( $\geq 1000$  copies/ml) were received at facilities and entered in the High VL Registers. **11,053 (85%)** of these were from routine monitoring samples, **1,454 (11%)** from targeted samples and **421 (3%)** from repeat samples. **10,232 (79%)** patients had completed intensive adherence support by March 2022 and follow-up samples were drawn for **6,969 (54%)**. Valid results were recorded for **4,349 (62%)** of follow-up samples and **71%** of these were re-suppressed ( $< 1000$  copies/ml).

A final treatment decision was available for **4,718** high VL patients. **4,442 (94%)** were maintained on the current regimen, **276 (6%)** were switched to second line and **81 (2%)** were referred to HIV specialist.

The overall patient-level impact of the VL monitoring program remained sub-optimal this quarter. The HIV program is planning targeted interventions to reduce turn-around times and to improve health worker capacity for appropriate patient management based on VL results. However, following the mass-transition to DTG-based regimens, there are also implementation challenges with the policy of obtaining a genotype resistance test for all patients with a non-suppressed follow-up VL results on DTG- and PI-based regimens.

### 11.5.3 VL Data from the Laboratory Information Management System (LIMS)

The number of VL results produced decreased from 114,638 in 2021 Q4 to **73,986 in Q1 2022**. Malawi now has a total of **13** PCR platforms in **10** molecular labs. All labs used the MOH lab information management system (LIMS) for registration of samples and storage of results. The Diagnostics Department is also piloting the use of point-of-care (POC) VL machines at 10 facilities and the validation results are currently being analysed. The POC data are not included in this report. The following results are based on an analysis of exported LIMS data.

**73,986** VL results were dispatched from the labs to **664 sites** between January and December 2022. **69 sites** accounted for half of all results released this quarter.

**20,525 (28%)** of 73,986 samples processed were plasma and **53,461 (72%)** were DBS.



Lab	Samples Processed			Turn-around Time (Days) <sup>§</sup>
	Plasma	DBS	Total	
DREAM Blantyre	751	1,970	<b>2,721</b>	51
DREAM Balaka	294	3,413	<b>3,707</b>	66
Kamuzu CH	11,969	7,826	<b>19,795</b>	25
Mzimba DH	0	4,381	<b>4,381</b>	83
Mzuzu CH	0	7,171	<b>7,171</b>	53
Nsanje DH	0	5,296	<b>5,296</b>	91
Partners in Hope	1,961	545	<b>2,506</b>	23
QECH	2,182	9,401	<b>13,685</b>	42
Thyolo DH	0	6,490	<b>6,490</b>	90
Zomba CH	3,368	6,968	<b>10,336</b>	34
<b>Total</b>	<b>20,525</b>	<b>53,461</b>	<b>73,986</b>	<b>50</b>
<b>§ Median days between sample collection and printing of results in lab</b>				

Partners in Hope, Zomba CH, Kamuzu CH and DREAM Blantyre produced 58 % of all VL results. The median interval between sample collection and printing of results was **50 days** at the national level, ranging from **23 days** at Partners in Hope to **90 days** at Thyolo DH. The most significant delays occurred between sample receipt and process run in the lab (median 30 days), while on average only 5 days elapsed between samples draw and sample receipt in the lab. The overall system capacity remains challenged by the high number of samples and competing priorities as the same labs are also handling the Covid-19 samples.

**59,138 (80%)** of VL results released this quarter were classified as *routine scheduled*<sup>25</sup>. This is **36%** of the estimated 227,321 ART patients passing a VL monitoring milestone this quarter. **13,502 (18%)** of samples were classified as *targeted (suspected treatment failure / repeat)* and for **1,346 (2%)** the reason for the sample was 'other' or not specified. **93% (54,998)** of patients with a routine viral load result this quarter achieved viral suppression <1,000 copies/ml. This mean the target for the "3<sup>rd</sup> 95" was slightly missed.

Viral suppression rates were significantly lower for routine samples among children (0-9 yrs: **81%**) and adolescents (10-19 yrs: **81%**) compared with adults in the age groups 20-29, 30-39, 40+ years who had viral suppression rates of **90%**, **92%** and **94%**, respectively. Patient age was not recorded for 5,138 (7%) of routine samples.

Reason	Suppressed		Low-Level Viraemia		Viraemia 1000+		Total
Routine	49,136	<b>84%</b>	6,635	<b>9%</b>	3,367	<b>8%</b>	<b>59,138</b>
Targeted	9,489	<b>72%</b>	2,442	<b>14%</b>	1,571	<b>14%</b>	<b>13,502</b>
Other/unk	945	<b>71%</b>	233	<b>16%</b>	168	<b>13%</b>	<b>1,346</b>
<b>Total</b>	<b>59,570</b>	<b>82%</b>	<b>9,310</b>	<b>10%</b>	<b>5,106</b>	<b>8%</b>	<b>73,986</b>

**9,310 (10%)** VL results were classified as low level viraemia (200-999 copies/ml for plasma samples: <839 copies/ml or 840-999 copies/ml for plasma samples). Based on the 2019 national HIV guidelines addendum<sup>26</sup> these results are interpreted as potential treatment

<sup>25</sup> In addition to the reason specified on the lab form, samples were re-classified as 'follow-up' if another sample from the same patient was analysed within 1 year before the current one.

<sup>26</sup> Addendum to the 4<sup>th</sup> Edition of the Malawi Integrated Guidelines and SOPS for Clinical HIV services

failure and therefore in need for enhanced adherence support and a repeat VL sample collection after 3 months. **1,571 (14%) of 13,502** of targeted VL results were  $\geq 1000$  which is indicative of treatment failure and a potential indication for switching to 2<sup>nd</sup> line regimens.

The **13,502** targeted VL results this quarter are less than the 18,341 routine VL results  $\geq 1000$  copies/ml from the previous quarter and this can be attributed to the inclusion of patients with low-level viraemia. Patients with an initial routine VL result  $\geq 1000$  copies/ml are supposed to receive a follow-up VL test after 3 months of intensive adherence support (upon confirmation of good adherence). However, only 4,406 samples were marked as *confirmatory (follow-up)* and 1,398 as *targeted (treatment failure suspected)* on the lab request form. 6,163 were marked as 'routine' and retrospectively classified as *follow-up* due to a previous result collected from the same patient within 1 year before the current sample. This suggests challenges with the classification of reasons for testing, delayed follow-up and/or low utilization of VL results for patient management.

A large proportion of patients with an initial high VL are likely to re-suppress after intensified adherence counselling and the confirmation of treatment failure usually depends on a second VL result of  $\geq 1000$  after 3 months. There was a net decrease of 2,363 patients on protease inhibitor-based (PI) 2<sup>nd</sup> line ART<sup>27</sup> this quarter due to the ongoing routine transition of patients from PI-based to DTG-based 2<sup>nd</sup> line regimens. Regimen lines are no longer distinguishable as PI and INSTI are both used in 1<sup>st</sup> and 2<sup>nd</sup> line ART.

The time on ART was entered for **38,661 (65%)** of 59,138 routine samples registered on the LIMS and only **15,681 (27%)** of these were drawn on schedule (from 1 month before to 3 months after a VL milestone). The proportion of patients with VL  $< 1000$  was **90%, 89%, 92%, 93%** and **92%** at 6, 24, 72, 96 and 120 months on ART respectively. Viral suppression rates of samples drawn on schedule were similar to of 'catch-up' (extra-schedular) samples and samples with unknown timing both at 94%.

## 11.6 TB / HIV Management

**4,336, (99%)** of **4,361** new TB patients had their HIV status ascertained this quarter and **2,006 (46%)** of these were HIV positive. **1,849 (92%)** of HIV positives were already on ART at the time of TB treatment initiation. The number of new ART initiations during TB treatment is tracked by the National TB control program. Total ART coverage among co-infected patients at the end of TB treatment has consistently been  $>95\%$ .

## 12 STI Treatment

This quarter, supervision teams collected STI data from 735 out of 962 facilities offering STI management according to the *2018-19 Malawi Harmonized Health Facility Assessment (HHFA)*<sup>28</sup> in Malawi. The site-level reports included here may therefore only represent 75% of all STI services in Malawi. Supervision teams re-emphasized the importance of complete and accurate documentation at the sites and the data quality is expected to improve further with

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<sup>27</sup> Regimen 13A (tenofovir / lamivudine /dolutegravir) is being used as both 1<sup>st</sup> line and 2<sup>nd</sup> line regimen. Therefore, the classification of first- and second-line patients is no longer clear.

<sup>28</sup> Ministry of Health (2019). Malawi Harmonized Health Facility Assessment 2018-20 Preliminary Report

resumption of regular site supervision for the STI program. The complete set of STI program data collected is included in the Appendix.

## 12.1 Access to STI treatment and coverage

Based on the data collected at the facilities, a total of 94,284 STI cases were treated in Q1 2022. Considering the 75% site-level completeness of reporting, this number is estimated to represent a total of **125,721** STI cases treated. This is equivalent to **45%** of the estimated quarterly 281,075 STI cases in the population (extrapolation from 2015/16 MDHS) <sup>29</sup>.

Out of 94,284 documented clients treated, **38,179 (40%)** were male and of the males 12,599 were non-circumcised. 56,105 (**60%**) were female. 8,609 (**15%**) of female STI clients were pregnant. 12,599, were circumcised (**33%**) of male STI clients were circumcised. 63,216 (**67%**) clients were 25 years and above, **23,310 (25%)** were 20-24 years and 7,758 (**8%**) were under 20 years old.

## 12.2 Client Type and STI History

**84,805 (90%)** of clients were symptomatic and **9,479 (10%)** were asymptomatic (treated as partners). Among symptomatic clients, **78,138 (92%)** were index cases and **6,667 (8%)** were partners. A total of **24,089** partner notification slips were issued, equivalent to an average of **0.30** slips per index case. Considering the 24,089 partner notification slips issued, **67% (16,146)** of those notified presented to the clinic. **60,021 (73%)** of clients presented with their first lifetime episode of STI; **19,294 (76%)** clients out of 25,263 with previously treated STIs were reported to have had an STI more than 3 months ago and **5,696 (24%)** of clients reported having had an STI within the last three months. Re-occurrence of an STI after a recent episode may be due to re-infection or treatment failure.

## 12.3 HIV Status

HIV status was ascertained for 84,575 (**90%**) clients and **15,805 (19%)** of these were HIV positive. 1,847 (**12%**) of positives were identified through a new test initiated at the STI clinic, while **13,958 (88%)** presented with a documented previous positive HIV test result. **13,549 (97%)** of clients with a previous positive HIV test result were on ART.

Given the high risk of recent HIV infection among STI clients, all clients with unknown status and those with a new negative test result should be referred for (repeat) HIV testing and counselling. **45,492 (66%)** of the 69,179 STI clients with unknown or new negative test result were referred for repeat HTS. **5,104** patients were reported as “referred for ART”. This exceeds the sum of new positives (1,847) and previous positives not on ART (409) and is likely explained by wrong documentation of ART referrals for patients already on ART.

The rate of HIV status ascertainment at STI clinics has improved considerably over time and high rates have been maintained throughout the COVID-19 period. This is due to increased numbers of dedicated testing staff available at the sites (HDAs). Actual HIV ascertainment rates may be even slightly higher due to weaknesses with back-referral from HIV testing

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<sup>29</sup> According to the 2015/16 MDHS, 14.7% of women (15-49 years) and 9.6% of men (15-49 years) reported STI symptoms in the past 12 months. A total of 1,124,303 annual STI cases are estimated by applying these proportions to the 4.3 million men and 4.8 million women in these age groups in the 2018 population (NSO projections) for 2021. Quarterly STI cases are assumed as ¼ of the estimated annual cases in the population.

rooms at sites where testing is not provided directly in the STI clinic. It is worth noting that a substantial proportion of clients who are aware of their HIV infection present with a new episode of an STI. This may suggest poor translation of positive living strategies promoted during counselling but could also be in small part due to the increased risk of recurrence of HSV-2 and balanitis among HIV-infected clients.

## 12.4 STI Syndromes and Referrals

The most common syndrome was abnormal vaginal discharge (AVD) with **30,065 (31%)** cases, followed by ureteral discharge (UD, 26,484) cases, lower abdominal pain (LAP: **11,374** cases), genital ulcers (GUD, **13,334** cases) and Serologically confirmed syphilis accounted for 11% of the cases. Scrotal swelling, bubo and genital warts each accounted for 1% of cases.

## 13 Supply Chain Management of HIV Program Commodities

### Forecasting, Quantification and Procurement Planning

To ensure uninterrupted supply of HIV commodities, PSM with support from other sections within the department conducted the forecasting and quantification review for HIV test kits, ARVs, Diagnostic reagents and consumables and cotrimoxazole preventive therapy using service data, consumption and physical inventory/stock data obtained during the Q1 2022 HIV/TB quarterly supervision. The Quantification took into consideration the change in the policy such as testing algorithm from 2-Test to 3-Test; the service and logistics data; pipeline stock data from the Procurement Services Agents (PSA); in-country stocks available at the central warehouse; and the average monthly consumption (AMC) to determine the months of stock (MOS) on hand as a guide to the duration the total available stock would last the program and forecast the future needs based on current usage and issuance trends. The final quantification outputs were costed and shared with the Global Fund for approval and subsequently, commodity orders for 2022 were initiated through the Global Fund online ordering system (wambo online) for HIV testing kits including SD Bioline HIV test kits to support the 3-Test algorithm under the 2022 Rapid testing guideline, ARVs and other HIV Related commodities.

The total value of procurements initiated in the period under the Global fund's pooled procurement mechanism (PPM) was \$ 19,645,789.59 in various program categories:- HIV test kits (including SD Bioline-HIV) worth \$ 4,193,467.40, ARVs worth \$12,570,141.70, diagnostic reagents, consumables and other RDTs worth \$ 2,882,180.49,

Additionally, the Department for HIV,AIDS and Viral hepatitis received ARVs, OI/STI medicines, rapid testing kits, VMMC kits and Male condoms worth \$ 11,500,975.96 from January to March 2022 through PEPFAR – UMB & USAID, I-PLUS Solutions, and PFSCM. (PEPFAR – UMB \$ 41,170.18, USAID - \$628,950.00, i-Plus Solutions - \$ 9,752,790.34, and PFSCM - \$ 1,078,065.44.

### 13.1 Quarterly supply chain support during 2022 Q1 activities

During the Q1 2022 integrated ART/TB quarterly supervision, pharmacy personnel including pharmacists, pharmacy technicians, supply chain & logistics officers from district and central level conducted supervision and mentorship to pharmacy personnel at 792 health facilities in

inventory management – completion of transaction records for commodities movement from drugs stores including stock cards, issue/requisition vouchers; documentation management for warehouse receipts, interfacility relocations, consumption, damages, expiries and obsolete commodities; proper drug stores management (clean & organised products, well ventilated, monitoring temperatures/humidity, storage on shelves and pallets, with no pest/rodent infestations in the stores); stock management

Physical inventory counting was conducted at all sites and on the job mentoring of pharmacy personnel in stock management especially those with poor performance. There was overall improvement in site-level stock management for HIV commodities.

**Table 7.** shows the total in-country stocks for various commodities at the health facilities and in the central warehouse, months of stock on hand and the average monthly consumption rates.

### **13.2 Availability of standard first line ARVs**

Adequate stock levels of TLD in packs of 30 and 90 tablets were maintained at over 792 health facilities sites during this period, a total 911,857 packs of 30's and 822,742 packs of 90's were allocated for distribution round 65 and 66. This enabled sites to support patients eligible for 6-month dispensation with no stock out risk in country.

### **13.3 Bimonthly distribution of HIV Commodities**

Distribution of commodities to over 792 facilities was done in October and December as scheduled. Distribution round for ARVs, test kits, OI/STI medicines and other HIV related commodities (distribution rounds 65 in January and 66 in March 2022).

Additionally, the PSM team coordinated 2,397 individual commodity transactions between ART sites to avert stock outs and minimize expiries from stock piles ((ARVs -56%; RDTs-21%; Others- 23%). All transactions were managed and authorized using the HIV Department Supply Chain Hot Line, a toll-free facility that was set up to facilitate communication between the health facilities and the central level. Health workers can communicate supply chain and other HIV commodities related issues that need to be resolved by the technical team at the department in a timely manner and at the same time, virtual mentorship is offered to health care workers on supply chain related matters.

**Table 7**

Total stocks of HIV program commodities at all sites visited during the 2022 Q1 supportive site supervision. Stock positions are from the date of the visit (between 1-4 weeks after the end of the quarter). Warehouse stock positions are from 01/06/2022

Inventory unit	Item	Sites with any Stock	Total Physical Stock		Consumption/ Month	Months of Stock *	
			At Sites	In Warehouse		At Sites	Wareh.
tins	ABC / 3TC 120 / 60mg tins (30 tabs)	674	172,657	875,175	48,459	3.6	18.1
	ABC / 3TC 600 / 300mg tins (30 tabs)	625	52,180	96,817	13,129	4.0	7.4
	ATV / r 300 / 100mg tins (30 tabs)	581	60,276	45,557	1,544	39.0	29.5
	AZT / 3TC / NVP 300 / 150 / 200mg tins (60 tabs)	427	111,372		49	2272.9	
	AZT / 3TC / NVP 60 / 30 / 50mg tins (60 tabs)	571	197,085	4,881	83	2388.9	59.2
	AZT / 3TC 300 / 150mg tins (60 tabs)	738	65,128	24,228	9,927	6.6	2.4
	AZT / 3TC 60 / 30mg tins (60 tabs)	540	18,353	11,622	1,947	9.4	6.0
	DRV 150mg tins (240 tabs)	7	48	53	0	0.0	0.0
	DRV 600mg tins (60 tabs)	41	1,237	1,634	62	20.0	26.4
	DRV 75mg tins (480 tabs)	10	522	24	0	0.0	0.0
	DTG 10mg tins (90 tabs)	541	28,959	71,078	9,425	3.1	7.5
	DTG 50mg tins (30 tabs)	595	47,077	160,778	27,951	1.7	5.8
	EFV 200mg tins (90 tabs)	13	261	400	0	0.0	0.0
	EFV 600mg tins (30 tabs)	41	566	1,313	42	13.5	31.3
	Entecavir 0.5mg tins (30 tabs)	4	176				
	LPV / r 100 / 25mg tins (60 tabs)	608	71,973	30,563	710	101.4	43.0
	LPV / r 200 / 50mg tins (120 tabs)	708	15,723	12,851	201	78.2	63.9
	LPV / r 40 / 10mg tins (120 granules)	8	150	1,200	110	1.4	10.9
	NVP 200mg tins (60 tabs)	401	26,551		82	323.8	
	r 100mg tins (30 tabs)	34	939	862	155	6.1	5.6
	r 25mg tins (30 tabs)	13	439		40	11.0	
	RAL 100mg tins (60 tabs)	5	373	81	172	2.2	0.5
	RAL 25mg tins (60 tabs)	30	567	327	0	0.0	0.0
	TDF / 3TC / DTG 300 / 300 / 50mg tins (30 tabs)	767	618,244	600,899	173,172	3.6	3.5
TDF / 3TC / DTG 300 / 300 / 50mg tins (90 tabs)	715	365,289	559,998	230,890	1.6	2.4	
TDF / 3TC / EFV 300/300/400mg tins (30 tabs)	336	21,269	368,478	1,157	18.4	318.5	
TDF / 3TC 300 / 300mg tins (30 tabs)	266	46,212	5,010	11,505	4.0	0.4	
TDF/FTC 300/200mg tins (30 tabs)	72	5,577	18,934	7,539	0.7	2.5	
bottles	Erythromycin 125mg/5ml bottles (100 ml)	12	193	11,662			
	Erythromycin 250mg/5ml bottles (100 ml)	123	1,594		1,974	0.8	
	Fluconazole (generic) 50mg / 5ml bottles (35 ml)	3	54	800			
	NVP 50mg/5ml bottles (100 ml)	605	32,066	94,875	5,651	5.7	16.8
vials	Amphotericin B Liposomal 50mg vials (10 each)	45	5,047	6,040	0	0.0	0.0
	Benzathine Penicillin 144g vials (50 each)	581	71,663	224,750	15,098	4.7	14.9
	Bleomycine 15,000IU vials (1 each)	10	1,851	14,920	45	41.0	330.1
	Depo-Provera 150mg/1ml vials (25 each)	471	586,086		255,255	2.3	
	Fluconazole (Diflucan) 2mg / 1 ml vials (100 ml)	14	50	1,918	0	0.0	0.0
	Gentamicin 80mg / 2ml vials (50 each)	131	40,083		160,634	0.2	
	Paclitaxel 6mg/ml, 50ml vials (1 each)	32	4,954	18	0	0.0	0.0
	Streptomycin 1 g vials (50 each)	0	0				
Vincristine 1mg / 1ml vials (1 each)	25	4,580	6,111	271	16.9	22.5	
tabs	Aciclovir 200mg tins (100 tabs)	675	1,309,073	14,395,900	270,646	4.8	53.2
	Azithromycin 500mg blister packs (3 tabs)	564	54,258	39,429	3,782	14.3	10.4
	Ciprofloxacin 500mg blister packs (100 tabs)	462	750,330	1,514,100	56,853	13.2	26.6
	Clotrimazole 500mg boxes (1 each)	579	32,475	239,738	9,280	3.5	25.8
	Codeine 30mg tins (100 tabs)	8	128,996				
	Cotrimoxazole 100 / 20mg blister packs (1000 tabs)	707	38,921,935	185,748,000	6,452,070	6.0	28.8
	Cotrimoxazole 400 / 80mg tins (1000 tabs)	513	14,064,606		26,984,367	0.5	
	Cotrimoxazole 960mg blister packs (1000 tabs)	685	22,058,987	85,859,000	26,732,949	0.8	3.2



Inventory unit	Item	Sites with any Stock	Total Physical Stock		Consumption/ Month	Months of Stock *	
			At Sites	In Warehouse		At Sites	Wareh.
	Doxycycline 100mg blister packs (500 tabs)	18	64,086		10,286,954	0.0	
	Doxycycline 100mg tins (1000 tabs)	548	4,061,655	5,320,000	7,542,222	0.5	0.7
	E thambutol (E) 100 mg blister packs (100 tabs)	160	108,669				
	E thambutol (E) 400 mg blister packs (672 tabs)	23	19,035				
	Erythromycin 250mg tins (100 tabs)	308	154,062	68,100	172,534	0.9	0.4
	Fluconazole (Diflucan) 200mg blister packs (100 ca)	158	972,437	618,100	0	0.0	0.0
	Fluconazole (Diflucan) 200mg tins (28 tabs)	32	33,539		0	0.0	0.0
	Flucytosine 500mg blister packs (100 tabs)	17	5,868				
	Isoniazid (H) 100mg blister packs (100 tabs)	106	98,866				
	Isoniazid (H) 300mg blister packs (672 tabs)	707	11,516,352	28,321,440	973,916	11.8	29.1
	Isoniazid (H) 300mg tins (1000 tabs)	7	26,380		26,732,949	0.0	
	Isoniazid / Rifapentine 300 / 300mg blister packs (3)	657	916,833	2,562,012	224,432	4.1	11.4
	Metronidazole 200mg tins (1000 tabs)	696	13,905,237	14,990,000	7,819,843	1.8	1.9
	Morphine 10mg blister packs (60 tabs)	39	181,472		351,508	0.5	
	Morphine 30mg blister packs (30 tabs)	5	14,573		0	0.0	0.0
	Pyridoxine 25mg tins (100 tabs)	715	15,771,474	46,207,100	973,916	16.2	47.4
	RH 150 / 75 mg blister packs (672 tabs)	397	1,878,184				
	RH 75/50mg blister packs (84 tabs)	204	252,906				
	RHZ 75/50/150mg blister packs (84 tabs)	179	121,735				
	RHZE 150/75/400/275mg blister packs (672 tabs)	397	1,083,061				
	Rifapentine 150mg tins (24 tabs)	642	1,148,865	1,287,888	562,077	2.0	2.3
<b>sheets</b>	ART pat. card adult (yellow) Ver8 bundles (50 she	642	346,031		61,240	5.7	
	ART pat. card paed. (blue) Ver 8 bundles (50 she	618	63,838		4,070	15.7	
	Exposed child card (pink) Ver2 bundles (50 sheet	606	62,450	23,900	4,148	15.1	5.8
	Polythene sleeve bundles (100 sheets)	483	103,721		14,223	7.3	
<b>books</b>	Family HTC Referral Slip bundles (50 sheets)	635	49,669				
	STI Partner Referral Slip bundles (100 sheets)	115	10,463				
<b>tests</b>	Cryptococcal antigen CrAg bundles (50 each)	140	20,144	3,900	0	0.0	0.0
	DBS kit (filter paper, lancet, etc.) 70ul boxes (50 t	625	131,587	125,150	255,221	0.5	0.5
	Determine HIV1/2 boxes (100 each)	715	691,684	1,926,200	239,081	2.9	8.1
	Determine TB LAM Ag bundles (100 each)	92	5,912				
	Hepatitis B HBsAg rapid test SD Bioline boxes (3	113	68,040	612,750	3,579	19.0	171.2
	OraQuick HIV Self-test bundles (25 each)	609	516,434	635,050	122,135	4.2	5.2
	PIMA CD4 Cartidge boxes (100 each)	54	8,184	300			
	SD Bioline Syphilis boxes (30 each)	582	94,599	540,090	53,892	1.8	10.0
	Uni-Gold HIV1/2 boxes (20 each)	696	60,915	134,920	18,602	3.3	7.3
<b>pieces</b>	Condoms female boxes (1000 each)	422	321,504		302,063	1.1	
	Condoms male boxes (100 each)	524	17,006,038	19,144,600	886,180	19.2	21.6
	Condoms male boxes (144 each)	518	17,410,302	60,943,104	6,597,930	2.6	9.2

\* 'Consumption per month' and 'Months of stock' for ARVs, CPT, INH and HIV test kits are based on the respective patient-regimen groups in the standard service reports. Estimates are based on the number of patients on the respective regimen at the end of the quarter evaluated and do not account for potential (positive or negative) growth. Facility stock positions for OI and STI drugs include HIV Program and other supply sources. Total national consumption and MoS estimates are used for these commodity groups. 'Months of stock' is calculated from the day of the physical stock count, which is on average 1 month after the end of the quarter.



## 14 Participants in the Q1 2022 Supervision (25<sup>th</sup> April-6<sup>th</sup> May 2022)

Henry Mponde Banda (, moh)	Stella Chitawo (, MOH)	Angelina Kalonga (Nurse, MOH)
Knox Banda (TB Zonal Supervisor, MOH)	Samson Chitsulo (, other)	Mike Kalulu (CO, MOH)
Wells Banda (CO, MOH)	Willie Chiumbuzo (, MoH)	Richard Kamalizeni (, MOH)
Henry Banda Mponde (, MOH)	Mada Chiundira (, private)	Blessings Kamanga (Clerk, MOH)
Atupele Benesi (, MOH)	Dan Chiundu (, MOH)	Annie Kamoto (Nurse, Private)
Robert Beston (, MOH)	Merthwin Chiwaya (, MOH)	Gift Kamphika (MA, MOH)
Thomas Biseck (, MOH)	Paul Chiwekha (, moh)	Jacqueline Kamwana (, Moh)
Annie Biza (, moh)	Paul Chiwenkha (, moh)	Yvon Kamwana (, Lighthouse)
Regina Bwanali (, MOH)	Stuart Chuka (CO, MBCA)	Mercy Kamwera (, MOH)
Herbert Chafulumira (, MOH)	Tazinenani Diele (, Lighthouse)	Lameck Kandiero (, moh)
Demobry Chagomerana (, MoH)	Elita Diston (, MoH)	Annie Kanyemba (Nurse, MOH)
Lincy Chalunda (CO, MOH)	Mcdonald Domingo (, MOH)	Saulosi Kanyinji (, MoH)
Rachel Champiti (, MOH)	Peter Donda (CO, Dedza DH)	Anthony Kanyoma (, MSH)
Raymond Changamire (, Chemonics)	Lucious Donsa (, MOH)	Justice Kaphiri (, NTP)
Ephraim Charlie (, moh)	Bonaventure Dzanjalimodzi (, MOH)	Elisa Kapundi (NMT, MOH)
Paul Charlie (, moh)	Emma Emmanuel (, MoH)	Prosperina Kapwata (, Lighthouse)
Elizabeth Chatsika (CO, CHAM)	Richard George (, MOH)	Annie Kaseka (RNM, MOH)
Ronard Chawinga (nurse, MOH)	Symon Goliath (, Dignitas)	Paul Kaseka (, MOH)
Nyembezi Chibonga (, NTP)	Bertha Gombeza (, MOH)	Benard Kasinja (CO, I-TECH)
Maggie Chigona (, MoH)	Andrew Gompho (Clinician, MOH)	Bernald Kasinja (, private)
Margaret Chigona (CO, Blantyre DHO)	Chrissy Gondwe (, Dignitas)	Joseph Kasola (CO, MOH, Chitipa DH)
Grace Chikhwaya (, MOH)	Grant Gondwe (, NTP)	Bettie Kasonkanji (, Lighthouse)
Kondwani Chikoti (CO, MOH)	Mcperson Gondwe (, FHI360)	Catherine Kassam (, MOH)
Patrick Chikuni (, MoH)	Yananga Gondwe (, MoH)	Hope Katanga (, MOH)
Andrew Chikwakwa (, MOH)	Sidder Hambisa (ENM, MOH)	Absalom Kaunda (CO, MOH, Mzimba DHO)
Verydear Chilapondwa (, MOH)	Mirriam Hanjahanja (, cham)	William Kaunda (, Salima)
Chimwemwe Chimaliro (, MOH)	Natasha Harawa (, MoH)	Patrick Kavaya (, Bylor)
Dickens Chimatiro (, MOH)	Pious Hashim (, MoH)	Raymond Kawowa (, MoH)
Peter Chimphero (CO, MOH)	Chungano Hassan (, supervisor)	Felistus Kazingatchire (, MOH)
E Chimwele (, CHAM)	Louis Hawonga (, MOH)	Joseph Kenneth (, Lighthouse)
Edwin Chimwere (, MoH)	Benson Isake (, NTP)	Robert Khombe (, MOH)
Patience Chingwalungwalu (, MoH)	Rhoda Jamu (, CHAM)	Tapiwa Kumwenda (, Lighthouse)
Yunus Chiosa (, NTP)	Rhoda Jhamu (, Mlambe)	Wongani Kumwenda (, MOH)
Diana Chipande (, MOH)	Shadreck John (, MoH)	Monica Lali (, moh)
Grace Chipanga (Nurse, Private)	Emmanuel Jumbe (CO, NGO)	George Lipande (CO, MOH)
Clement Chiphota (CO, MoH)	Lucky Kabanga (Pharmacist, MOH)	Jesse Lobeni (Nurse, MOH)
Elvin Chipoya (, MOH)	Francis Kachali (, MoH)	Leonard Longwe (, Partners in Hope)
Exvin Chipoya (, MoH)	Lilian Kachali (Nurse, MOH)	Samuel Lunda (, MoH)
Emmanuel Chirambo (, Baylor)	Arlene Kachapira (, MoH)	Duncan Lupiya (CO, MOH)
Esnart Chirambo (, MoH)	Francis Kachapira (, moh)	Rose Mabviko (, MOH)
Ruth Chiroambo (, MOH)	Sungeni Kachere (, ITECH)	Chikayiko Majamanda (Nurse, MOH)
Samuel Chirwa (, moh)	Rankin Kachingwe (, MOH)	Mercy Makaika (Nurse, MOH)
Thomson Chirwa (, moh)	William Kachingwe (, MoH)	Linda Makata (, MOH)
Eggrey Chisanga (Nurse, NGO)	Fred Kachiponde (, cham)	Ellen Makawa (, MOH)
	Bright Kadyeremwana (, MoH)	Geoffrey Makhalira (, NTP)
	Blessings Kadzuwa (, MOH)	
	Chikhulupiliro Kainja (, MoH)	
	Merra Kaira (, MOH)	
	Vera Kajawa (Nurse, MOH)	
	Tamandani Kalima (, moh)	
	Konainge Kalitela (, MoH)	

Mwai Makina (, MOH)  
 Chifundo Makuluni (, MOH)  
 Kingsley Makwale (MA, MOH)  
 Felix Mala (, MOH)  
 Lusayo Malanga (, MoH)  
 Grey Malata (, MOH)  
 Emily Manda (Nurse, MOH)  
 Felicity Mangulenje (, Lighthouse)  
 Annusa Mangwilisa (, moh)  
 Annusa Mangwirisa (, MOH)  
 Ephraim Erick Mankhwala (, MOH)  
 Cecilia Manyawa (Nurse, MOH)  
 Chikondi Manyozo (, MOH)  
 Chikondi Manyozo (, MOH)  
 Fatsireni Mapulanga (, MOH)  
 Randof Maseya (, MOH)  
 Angela Masumba (, MoH)  
 Jake Mataya (, moh)  
 Jeke Mataya (, moh)  
 Yamikani Matiya (, MoH)  
 Chipiliro Matola (Nurse, MOH)  
 Rose Maviko (Nurse, Limbe HC)  
 Benjamin Mazalo (CO, SUCOMA Clinic)  
 Felix Mbalale (CO, MOH)  
 Nyuma Mbale (, MOH)  
 Kingsley Mbewa (CO, MOH)  
 Brenda Mbewe (, MoH)  
 Alice Mdolo (, MOH)  
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 Eustice Mhango (ART officer, MOH, Department of HIV and AIDS)  
 Henderson Mhone (, MOH)  
 Miliyasi Misoya (CO, MOH)  
 Portifer Mission (, moh)  
 Milos Mitumbu (CO, CHAM)  
 Joel Mkandawire (, MoH)  
 Taonga Mkandawire (, moh)  
 Merium Mkangala (, moh)  
 Matilda Mkwatula (, Dignitas)  
 Chimwemwe Mlenga (, MOH)  
 Yvonne Mnjeza (, MOH)  
 Eddie Moffo Phiri (, moh)  
 Doris Moyo Eliya (, moh)  
 Henry Mphonde (CO, Lighthouse)  
 Tryness Mponda (NMT, MOH)  
 Sosten Mtalika (, Dedza)  
 Angella Mtambalika (, MOH)  
 Egnatius Mtambalika (, DTO)  
 Rebecca Mtambo (, MoH)

Erick Mtemang'ombe (CO, CHAM)  
 Patience Mtenje (Nurse, MOH)  
 Temweka Mtenje (, MoH)  
 Joshua Mtonga (, SHHC)  
 Robert Mtopanyama (, moh)  
 Robert Mtupanyama (, MoH)  
 Davie Muhasiwa (, public)  
 Dave Muhasuwa (, MoH)  
 Agnes Mulilima (, moh)  
 Khwima Munthali (, MoH)  
 Fainala Muyila (Nurse, MOH)  
 Maxwell Mvona (, MoH)  
 Tereza Mvula (, MOH)  
 Theresa Mvula (, MOH)  
 Ruockia Mwachumu (Nurse, MOH Nsanje DHO)  
 Jeremiah Mwale (CO, EGPAF)  
 Thomas Mwale (, MOH)  
 Innocent Mwaluka (, moh)  
 Susan Mwalwanda (, MoH)  
 Shalom Mwamale (, Lighthouse)  
 Mirriam Mwansambo (, MoH)  
 Golden Mwachungu (MA, Press)  
 Anne Mwenye (, Private)  
 Annie Mwinama (, MoH)  
 Tuwepo Mwitha (, MOH)  
 Riff Mzava (Nurse, MOH)  
 Mercy Mziya (, MoH)  
 Peter Mzumala (, Mzimba North)  
 Peter Mzumara (ART clinician, MOH)  
 Fred Namalima (MA, MOH)  
 Austins Namondwe (CO, CHAM)  
 Felix Namwera (, Lighthouse)  
 Peter Namwera (, Lighthouse)  
 Francis Nangantani (, moh)  
 Pepsy Nangwale (Nurse, MOH)  
 Overton Ndhlovu (, MOH)  
 Patience Ndovi (, other)  
 Limbika Ndovie (, MoH)  
 Patience Ndovie (, Partners in Hope)  
 Youngson Ngonya (, MoH)  
 Mary Ngulama (, MOH)  
 Etta Ngulube (, MoH)  
 Charles Ngwira (, MoH)  
 Eunice Ngwira (, MOH)  
 Jephter Ngwira (, MoH)  
 Vincent Ngwira (, MoH)  
 Dumbo Njera (, MOH)  
 Merium Nkangala (, moh)  
 Grace Juma Nkhata (Nurse, MOH)

Angela Nkhoma (Nurse, MOH)  
 Lyse Nkhoma (, Lighthouse)  
 Joe Nkhonjera (, moh)  
 Vitu Nkhunga (, MOH)  
 Emmanuel Nkonde (, MoH)  
 George Nsitu (, MOH)  
 Judith Ntopa (Nurse, Cobbe Barracks)  
 Vincent Nyapigoti (NMT, MOH)  
 Aleka Nyasulu (, moh)  
 Shadreck Nyasulu (, pvt)  
 Steven Nyika (, MOH)  
 Catherine Nyirenda (, Private)  
 Feliya Nyirenda (, Machinga)  
 Janet Nyirenda (, MOH)  
 Veronica Nyirenda (, moh)  
 Mcjones Nyirongo (, MOH)  
 Abdul Richard Onani (, MOH)  
 Chrissy Padoko (, MOH)  
 Paul Petersen (, MoH)  
 Paul Peterson (, MOH)  
 Chikondi Phiri (, public)  
 Mackson Phiri (, PIH)  
 Moffo Eddie Phiri (, COM)  
 Precious Phiri (, MoH)  
 Tifera Phiri (, MOH)  
 Stanley Phombo (Nurse, MOH)  
 Enoch Phwitiko (, MoH)  
 Macleod Piringu (ART COORDINATOR, MOH)  
 Beston Robert (, MOH)  
 Dorica Sambo (Nurse, MOH)  
 Kendre Sandikonda (, EGAPAF)  
 Charles F Sekani (CO, EGPAF)  
 Hixy Sengani (, MoH)  
 Limbitso Sengani (, moh)  
 Kondwani Shaba (, MoH)  
 Maggie Shaba (, Thylo District Hospital)  
 John Shadreck (, moh)  
 Oscar Shaibu (, MoH)  
 Elizabeth Silungwe (, MoH)  
 George Sinkala (CO, LIGHTHOUSE)  
 Judith Sitima (, MoH)  
 Juliana Soko (ARV nurse, MOH, Livingstonia MH)  
 Elizabeth Sulungwe (, MOH)  
 Mark Suzumire (CO, MOH)  
 Faluness Tanganyika (, MoH)  
 Naomi Tanganyika (, PIH)  
 Harrison Tembo (, MoH)  
 Panganeni Tembo (, moh)  
 Vuso Tembo (, MoH)  
 Anne Thokozani (, lighthouse)

Harry Tsapa (CO, MOH)  
Steady Vinkhumbo (, moh)

Steady Vinkhumbo (, MOH)  
Shaibu Witman (, MOH)

Mabvuto Zondola (, MOH)

We thank all facility staff for their sincere welcome and co-operation with the HIV Department and its partners during these supportive visits. We congratulate all staff for their excellent work.

**June 2022**

## **15 Appendix (Full National HIV Program Data)**

# HTC site report

Malawi (National)

2022 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

## Clients at health facility (static)

### HTC client details

\*

#### Total HTC clients served

Total HIV tested	678,161	100%
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#### Sex

Males tested	212,826	31%
Females tested	465,335	69%
Females non-pregnant	<b>278,242</b>	60%
Females pregnant	<b>187,093</b>	40%

#### Age

Children 0-14 yrs	52,041	8%
Children below 12 mths (Age group A)	<b>1,570</b>	3%
Children 12 mths - 14 yrs (Age group B)	<b>50,471</b>	97%
Adults 15+ years	626,120	92%
Young adults 15-24 years (Age group C)	<b>287,492</b>	46%
Older adults 25+ yrs (Age group D)	<b>338,628</b>	54%

#### HTC access type

PITC	555,319	82%
Family Referral Slip (FRS)	27,517	4%
Other (VCT, etc.) HTC access	95,325	14%

#### HTC first time / repeat

Never tested before	117,735	17%
Previously accessed HTC	560,426	83%
Last negative	<b>539,033</b>	96%
Last positive	<b>20,956</b>	4%
Last exposed infant	<b>142</b>	0%
Last inconclusive	<b>295</b>	0%

#### Counseling session type / Partner present

Counseled with partner / partner present	152,092	22%
Counseled alone / Partner not present	526,069	78%

#### Outcome summary (HIV test)

Single test negative	637,055	94%
Single test positive	4	0%
Test 1&2 negative	284	0%
Test 1&2 positive	39,594	6%
Test 1&2 discordant	1,224	0%

## HTC site report

Malawi (National)

2022 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

### HTC client details

\*

#### Final result given to client

Results among clients never tested / last negative	657,129	97%
New negative	637,243	97%
New positive	18,629	3%
New positive (non-sex dissag)	561	3%
New positive (dissag by sex)	18,068	97%
New positive male	7,336	41%
New positive female	10,732	59%
New inconclusive	1,165	0%
New exposed infants	92	0%
Confirmatory results (previous positive clients)	21,032	3%
Confirmatory positive	20,941	100%
Confirmatory positive (non-sex dissag)	553	3%
Confirmatory positive (dissag by sex)	20,388	97%
Confirmatory positive male	8,316	41%
Confirmatory positive female	12,072	59%
Confirmatory inconclusive	91	0%

#### Partner / Family HTC referral slips

Sum of slips given	25,346	100%
Total clients presenting with referral slip	27,517	109%
Total failed referrals (slips not returned)	-2,171	-9%

### Clients tested in the community

#### HTC client details

\*

#### Total HTC clients served

Total HIV tested	33,629	100%
------------------	--------	------

#### Sex

Males tested	13,558	40%
Females tested	20,071	60%
Females non-pregnant	16,634	83%
Females pregnant	3,437	17%

#### Age

Children 0-14 yrs	3,920	12%
Children below 12 mths (Age group A)	23	1%
Children 12 mths - 14 yrs (Age group B)	3,897	99%
Adults 15+ years	29,709	88%
Young adults 15-24 years (Age group C)	14,323	48%
Older adults 25+ yrs (Age group D)	15,386	52%

#### HTC access type

PITC	11,655	35%
Family Referral Slip (FRS)	5,449	16%
Other (VCT, etc.) HTC access	16,525	49%

## HTC site report

Malawi (National)

2022 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

### HTC client details

\*

#### HTC first time / repeat

Never tested before	8,441	25%
Previously accessed HTC	25,188	75%
Last negative	24,837	99%
Last positive	342	1%
Last exposed infant	4	0%
Last inconclusive	5	0%

#### Counseling session type / Partner present

Counseled with partner / partner present	1,830	5%
Counseled alone / Partner not present	31,799	95%

#### Outcome summary (HIV test)

Single test negative	32,013	95%
Single test positive	15	0%
Test 1&2 negative	3	0%
Test 1&2 positive	1,462	4%
Test 1&2 discordant	136	0%

#### Final result given to client

Results among clients never tested / last negative	33,272	99%
New negative	32,080	96%
New positive	1,153	3%
New positive (non-sex dissag)	39	3%
New positive (dissag by sex)	1,114	97%
New positive male	564	51%
New positive female	550	49%
New inconclusive	39	0%
New exposed infants	0	0%
Confirmatory results (previous positive clients)	357	1%
Confirmatory positive	356	100%
Confirmatory positive (non-sex dissag)	23	6%
Confirmatory positive (dissag by sex)	333	94%
Confirmatory positive male	151	45%
Confirmatory positive female	182	55%
Confirmatory inconclusive	1	0%

#### Partner / Family HTC referral slips

Sum of slips given	605	100%
Total clients presenting with referral slip	5,449	901%
Total failed referrals (slips not returned)	-4,844	-801%

### Clients at stand-alone HTC sites

#### HTC client details

\*

#### Total HTC clients served

Total HIV tested	4,308	100%
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#### Sex

Males tested	2,492	58%
Females tested	1,816	42%
Females non-pregnant	1,409	78%
Females pregnant	407	22%

# HTC site report

Malawi (National)

2022 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

## HTC client details

\*

### Age

Children 0-14 yrs	344	8%
Children below 12 mths (Age group A)	4	1%
Children 12 mths - 14 yrs (Age group B)	340	99%
Adults 15+ years	3,964	92%
Young adults 15-24 years (Age group C)	1,605	40%
Older adults 25+ yrs (Age group D)	2,359	60%

### HTC access type

PITC	1,674	39%
Family Referral Slip (FRS)	463	11%
Other (VCT, etc.) HTC access	2,171	50%

### HTC first time / repeat

Never tested before	610	14%
Previously accessed HTC	3,698	86%
Last negative	3,585	97%
Last positive	113	3%
Last exposed infant	0	0%
Last inconclusive	0	0%

### Counseling session type / Partner present

Counseled with partner / partner present	457	11%
Counseled alone / Partner not present	3,851	89%

### Outcome summary (HIV test)

Single test negative	4,028	94%
Single test positive	0	0%
Test 1&2 negative	4	0%
Test 1&2 positive	273	6%
Test 1&2 discordant	3	0%

### Final result given to client

Results among clients never tested / last negative	4,196	97%
New negative	4,034	96%
New positive	160	4%
New positive (non-sex dissag)	24	15%
New positive (dissag by sex)	136	85%
New positive male	83	61%
New positive female	53	39%
New inconclusive	2	0%
New exposed infants	0	0%
Confirmatory results (previous positive clients)	112	3%
Confirmatory positive	112	100%
Confirmatory positive (non-sex dissag)	22	20%
Confirmatory positive (dissag by sex)	90	80%
Confirmatory positive male	56	62%
Confirmatory positive female	34	38%
Confirmatory inconclusive	0	0%



## HTC site report

Malawi (National)

2022 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

### HTC client details

\*

#### Partner / Family HTC referral slips

Sum of slips given	35	100%
Total clients presenting with referral slip	463	1323%
Total failed referrals (slips not returned)	-428	-1223%

### Clients returning to facility after self-test

#### HTC client details

\*

#### Total HTC clients served

Total HIV tested	1,218	100%
------------------	-------	------

#### Sex

Males tested	480	39%
Females tested	738	61%
Females non-pregnant	709	96%
Females pregnant	29	4%

#### Age

Children 0-14 yrs	47	4%
Children below 12 mths (Age group A)	4	9%
Children 12 mths - 14 yrs (Age group B)	43	91%
Adults 15+ years	1,171	96%
Young adults 15-24 years (Age group C)	310	26%
Older adults 25+ yrs (Age group D)	861	74%

#### HTC access type

PITC	642	53%
Family Referral Slip (FRS)	111	9%
Other (VCT, etc.) HTC access	465	38%

#### HTC first time / repeat

Never tested before	80	7%
Previously accessed HTC	1,138	93%
Last negative	503	44%
Last positive	634	56%
Last exposed infant	0	0%
Last inconclusive	1	0%

#### Counseling session type / Partner present

Counseled with partner / partner present	168	14%
Counseled alone / Partner not present	1,050	86%

#### Outcome summary (HIV test)

Single test negative	553	45%
Single test positive	3	0%
Test 1&2 negative	27	2%
Test 1&2 positive	631	52%
Test 1&2 discordant	4	0%

## HTC site report

Malawi (National)

2022 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

### HTC client details

\*

#### Final result given to client

Results among clients never tested / last negative	630	52%
New negative	576	91%
New positive	52	8%
New positive (non-sex dissag)	0	0%
New positive (dissag by sex)	52	100%
New positive male	27	52%
New positive female	25	48%
New inconclusive	2	0%
New exposed infants	0	0%
Confirmatory results (previous positive clients)	588	48%
Confirmatory positive	578	98%
Confirmatory positive (non-sex dissag)	3	1%
Confirmatory positive (dissag by sex)	575	99%
Confirmatory positive male	195	34%
Confirmatory positive female	380	66%
Confirmatory inconclusive	10	2%

#### Partner / Family HTC referral slips

Sum of slips given	102	100%
Total clients presenting with referral slip	111	109%
Total failed referrals (slips not returned)	-9	-9%

## HIV self-test (ST) distribution

Malawi (National)

2022 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

### ANC clinic

#### HIV self test client details

\*

##### Total HIV self-test kit

Total HIV self-test kit recipients	7,800	100%
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##### Sex

Male recipients	2,141	27%
Female recipients	5,659	73%
Non-pregnant	2,932	52%
Pregnant	2,727	48%

##### Last HIV test of recipient

Never tested	996	13%
Previously tested	6,804	87%
Last negative	6,543	96%
Last positive	261	4%
Not on ART	134	51%
On art	127	49%
Last inconclusive	0	0%

##### HIV ST kits given: Intended end user attributes

Total self-test kits distributed to end users	12,941	100%
---	--------	------

##### Intended end user distribution type

Self (recipient)	4,416	34%
Secondary distribution	8,525	66%
Sex-partner	6,485	76%
Other	2,040	24%

##### Intended end user sex / age category

Total males	7,156	55%
Boys 13-14 years old	90	1%
Adolescent boys and young men 15-24 years old	2,008	28%
Adolescent boys 15 - 19 years old	567	28%
Young men 20 - 24 years old	1,441	72%
Adults	5,058	71%
Young adults 25 - 35 years old	3,200	63%
Middle adults 36 - 49 years old	1,695	34%
Older adults 50+	163	3%
Total females	5,785	45%
Girls 13-14 years old	296	5%
Adolescent girls and young women 15-24 years	2,938	51%
Adolescent girls 15 - 19 years old	1,261	43%
Young women 20 - 24 years old	1,677	57%
Adults	2,551	44%
Young adults 25 - 35 years old	1,856	73%
Middle adults 36 - 49 years old	624	24%
Older adults 50+	71	3%

##### Total condoms

Total condoms distributed	36,753	100%
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## HIV self-test (ST) distribution

Malawi (National)

2022 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

### Maternity

#### HIV self test client details

\*

##### Total HIV self-test kit

Total HIV self-test kit recipients	2,442	100%
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##### Sex

Male recipients	345	14%
Female recipients	2,097	86%
Non-pregnant	2,074	99%
Pregnant	23	1%

##### Last HIV test of recipient

Never tested	116	5%
Previously tested	2,326	95%
Last negative	2,315	100%
Last positive	11	0%
Not on ART	7	64%
On art	4	36%
Last inconclusive	0	0%

##### HIV ST kits given: Intended end user attributes

Total self-test kits distributed to end users	2,940	100%
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##### Intended end user distribution type

Self (recipient)	1,017	35%
Secondary distribution	1,923	65%
Sex-partner	1,885	98%
Other	38	2%

##### Intended end user sex / age category

Total males	1,974	67%
Boys 13-14 years old	1	0%
Adolescent boys and young men 15-24 years old	770	39%
Adolescent boys 15 - 19 years old	152	20%
Young men 20 - 24 years old	618	80%
Adults	1,203	61%
Young adults 25 - 35 years old	841	70%
Middle adults 36 - 49 years old	318	26%
Older adults 50+	44	4%
Total females	966	33%
Girls 13-14 years old	2	0%
Adolescent girls and young women 15-24 years	433	45%
Adolescent girls 15 - 19 years old	195	45%
Young women 20 - 24 years old	238	55%
Adults	531	55%
Young adults 25 - 35 years old	324	61%
Middle adults 36 - 49 years old	162	31%
Older adults 50+	45	8%

##### Total condoms

Total condoms distributed	2,650	100%
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## HIV self-test (ST) distribution

Malawi (National)

2022 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

### ART clinic

#### HIV self test client details

\*

##### Total HIV self-test kit

Total HIV self-test kit recipients	4,270	100%
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##### Sex

Male recipients	1,619	38%
Female recipients	2,651	62%
Non-pregnant	1,712	65%
Pregnant	939	35%

##### Last HIV test of recipient

Never tested	277	6%
Previously tested	3,993	94%
Last negative	3,393	85%
Last positive	600	15%
Not on ART	322	54%
On art	278	46%
Last inconclusive	0	0%

##### HIV ST kits given: Intended end user attributes

Total self-test kits distributed to end users	7,857	100%
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##### Intended end user distribution type

Self (recipient)	2,750	35%
Secondary distribution	5,107	65%
Sex-partner	3,777	74%
Other	1,330	26%

##### Intended end user sex / age category

Total males	4,212	54%
Boys 13-14 years old	122	3%
Adolescent boys and young men 15-24 years old	1,356	32%
Adolescent boys 15 - 19 years old	456	34%
Young men 20 - 24 years old	900	66%
Adults	2,734	65%
Young adults 25 - 35 years old	1,582	58%
Middle adults 36 - 49 years old	975	36%
Older adults 50+	177	6%
Total females	3,645	46%
Girls 13-14 years old	262	7%
Adolescent girls and young women 15-24 years	1,706	47%
Adolescent girls 15 - 19 years old	811	48%
Young women 20 - 24 years old	895	52%
Adults	1,677	46%
Young adults 25 - 35 years old	1,068	64%
Middle adults 36 - 49 years old	545	32%
Older adults 50+	64	4%

##### Total condoms

Total condoms distributed	16,346	100%
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## HIV self-test (ST) distribution

Malawi (National)

2022 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

### HTC room

#### HIV self test client details

\*

##### Total HIV self-test kit

Total HIV self-test kit recipients	78,818	100%
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##### Sex

Male recipients	36,941	47%
Female recipients	41,877	53%
Non-pregnant	36,767	88%
Pregnant	5,110	12%

##### Last HIV test of recipient

Never tested	7,740	10%
Previously tested	71,078	90%
Last negative	69,806	98%
Last positive	1,267	2%
Not on ART	226	18%
On art	1,041	82%
Last inconclusive	5	0%

##### HIV ST kits given: Intended end user attributes

Total self-test kits distributed to end users	135,752	100%
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##### Intended end user distribution type

Self (recipient)	64,463	47%
Secondary distribution	71,289	53%
Sex-partner	56,410	79%
Other	14,879	21%

##### Intended end user sex / age category

Total males	68,532	50%
Boys 13-14 years old	753	1%
Adolescent boys and young men 15-24 years old	21,452	31%
Adolescent boys 15 - 19 years old	6,812	32%
Young men 20 - 24 years old	14,640	68%
Adults	46,327	68%
Young adults 25 - 35 years old	27,987	60%
Middle adults 36 - 49 years old	16,267	35%
Older adults 50+	2,073	4%
Total females	67,220	50%
Girls 13-14 years old	1,694	3%
Adolescent girls and young women 15-24 years	31,514	47%
Adolescent girls 15 - 19 years old	12,035	38%
Young women 20 - 24 years old	19,479	62%
Adults	34,012	51%
Young adults 25 - 35 years old	23,716	70%
Middle adults 36 - 49 years old	9,139	27%
Older adults 50+	1,157	3%

##### Total condoms

Total condoms distributed	425,945	100%
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## HIV self-test (ST) distribution

Malawi (National)

2022 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

### Other point in HF

#### HIV self test client details

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##### Total HIV self-test kit

Total HIV self-test kit recipients	11,557	100%
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##### Sex

Male recipients	5,492	48%
Female recipients	6,065	52%
Non-pregnant	5,424	89%
Pregnant	641	11%

##### Last HIV test of recipient

Never tested	1,549	13%
Previously tested	10,008	87%
Last negative	9,784	98%
Last positive	224	2%
Not on ART	28	13%
On art	196	88%
Last inconclusive	0	0%

##### HIV ST kits given: Intended end user attributes

Total self-test kits distributed to end users	19,478	100%
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##### Intended end user distribution type

Self (recipient)	9,983	51%
Secondary distribution	9,495	49%
Sex-partner	7,478	79%
Other	2,017	21%

##### Intended end user sex / age category

Total males	10,183	52%
Boys 13-14 years old	263	3%
Adolescent boys and young men 15-24 years old	3,759	37%
Adolescent boys 15 - 19 years old	1,545	41%
Young men 20 - 24 years old	2,214	59%
Adults	6,161	61%
Young adults 25 - 35 years old	3,855	63%
Middle adults 36 - 49 years old	1,993	32%
Older adults 50+	313	5%
Total females	9,295	48%
Girls 13-14 years old	484	5%
Adolescent girls and young women 15-24 years	4,389	47%
Adolescent girls 15 - 19 years old	1,924	44%
Young women 20 - 24 years old	2,465	56%
Adults	4,422	48%
Young adults 25 - 35 years old	3,029	68%
Middle adults 36 - 49 years old	1,193	27%
Older adults 50+	200	5%

##### Total condoms

Total condoms distributed	71,821	100%
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## HIV self-test (ST) distribution

Malawi (National)

2022 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

### VCT stand-alone

#### HIV self test client details

\*

##### Total HIV self-test kit

Total HIV self-test kit recipients	452	100%
------------------------------------	-----	------

##### Sex

Male recipients	108	24%
Female recipients	344	76%
Non-pregnant	333	97%
Pregnant	11	3%

##### Last HIV test of recipient

Never tested	16	4%
Previously tested	436	96%
Last negative	423	97%
Last positive	13	3%
Not on ART	4	31%
On art	9	69%
Last inconclusive	0	0%

##### HIV ST kits given: Intended end user attributes

Total self-test kits distributed to end users	819	100%
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##### Intended end user distribution type

Self (recipient)	312	38%
Secondary distribution	507	62%
Sex-partner	422	83%
Other	85	17%

##### Intended end user sex / age category

Total males	400	49%
Boys 13-14 years old	0	0%
Adolescent boys and young men 15-24 years old	105	26%
Adolescent boys 15 - 19 years old	19	18%
Young men 20 - 24 years old	86	82%
Adults	295	74%
Young adults 25 - 35 years old	208	71%
Middle adults 36 - 49 years old	78	26%
Older adults 50+	9	3%
Total females	419	51%
Girls 13-14 years old	2	0%
Adolescent girls and young women 15-24 years	205	49%
Adolescent girls 15 - 19 years old	52	25%
Young women 20 - 24 years old	153	75%
Adults	212	51%
Young adults 25 - 35 years old	176	83%
Middle adults 36 - 49 years old	36	17%
Older adults 50+	0	0%

##### Total condoms

Total condoms distributed	4,544	100%
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## HIV self-test (ST) distribution

Malawi (National)

2022 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

### Workplace formal

#### HIV self test client details

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##### Total HIV self-test kit

Total HIV self-test kit recipients	238	100%
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##### Sex

Male recipients	168	71%
Female recipients	70	29%
Non-pregnant	69	99%
Pregnant	1	1%

##### Last HIV test of recipient

Never tested	70	29%
Previously tested	168	71%
Last negative	163	97%
Last positive	5	3%
Not on ART	0	0%
On art	5	100%
Last inconclusive	0	0%

##### HIV ST kits given: Intended end user attributes

Total self-test kits distributed to end users	382	100%
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##### Intended end user distribution type

Self (recipient)	217	57%
Secondary distribution	165	43%
Sex-partner	145	88%
Other	20	12%

##### Intended end user sex / age category

Total males	220	58%
Boys 13-14 years old	1	0%
Adolescent boys and young men 15-24 years old	65	30%
Adolescent boys 15 - 19 years old	13	20%
Young men 20 - 24 years old	52	80%
Adults	154	70%
Young adults 25 - 35 years old	96	62%
Middle adults 36 - 49 years old	51	33%
Older adults 50+	7	5%
Total females	162	42%
Girls 13-14 years old	0	0%
Adolescent girls and young women 15-24 years	73	45%
Adolescent girls 15 - 19 years old	21	29%
Young women 20 - 24 years old	52	71%
Adults	89	55%
Young adults 25 - 35 years old	63	71%
Middle adults 36 - 49 years old	26	29%
Older adults 50+	0	0%

##### Total condoms

Total condoms distributed	493	100%
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## HIV self-test (ST) distribution

Malawi (National)

2022 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

### Workplace informal

#### HIV self test client details

\*

##### Total HIV self-test kit

Total HIV self-test kit recipients	9	100%
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##### Sex

Male recipients	6	67%
Female recipients	3	33%
Non-pregnant	3	100%
Pregnant	0	0%

##### Last HIV test of recipient

Never tested	0	0%
Previously tested	9	100%
Last negative	9	100%
Last positive	0	0%
Not on ART	0	
On art	0	
Last inconclusive	0	0%

##### HIV ST kits given: Intended end user attributes

Total self-test kits distributed to end users	22	100%
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##### Intended end user distribution type

Self (recipient)	0	0%
Secondary distribution	22	100%
Sex-partner	18	82%
Other	4	18%

##### Intended end user sex / age category

Total males	4	18%
Boys 13-14 years old	0	0%
Adolescent boys and young men 15-24 years old	0	0%
Adolescent boys 15 - 19 years old	0	
Young men 20 - 24 years old	0	
Adults	4	100%
Young adults 25 - 35 years old	2	50%
Middle adults 36 - 49 years old	2	50%
Older adults 50+	0	0%
Total females	18	82%
Girls 13-14 years old	0	0%
Adolescent girls and young women 15-24 years	6	33%
Adolescent girls 15 - 19 years old	0	0%
Young women 20 - 24 years old	6	100%
Adults	12	67%
Young adults 25 - 35 years old	12	100%
Middle adults 36 - 49 years old	0	0%
Older adults 50+	0	0%

##### Total condoms

Total condoms distributed	111	100%
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## HIV self-test (ST) distribution

Malawi (National)

2022 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

### Hotspot

#### HIV self test client details

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##### Total HIV self-test kit

Total HIV self-test kit recipients	1,332	100%
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##### Sex

Male recipients	409	31%
Female recipients	923	69%
Non-pregnant	923	100%
Pregnant	0	0%

##### Last HIV test of recipient

Never tested	85	6%
Previously tested	1,247	94%
Last negative	1,230	99%
Last positive	17	1%
Not on ART	1	6%
On art	16	94%
Last inconclusive	0	0%

##### HIV ST kits given: Intended end user attributes

Total self-test kits distributed to end users	2,213	100%
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##### Intended end user distribution type

Self (recipient)	1,213	55%
Secondary distribution	1,000	45%
Sex-partner	681	68%
Other	319	32%

##### Intended end user sex / age category

Total males	994	45%
Boys 13-14 years old	14	1%
Adolescent boys and young men 15-24 years old	343	35%
Adolescent boys 15 - 19 years old	109	32%
Young men 20 - 24 years old	234	68%
Adults	637	64%
Young adults 25 - 35 years old	385	60%
Middle adults 36 - 49 years old	225	35%
Older adults 50+	27	4%
Total females	1,219	55%
Girls 13-14 years old	55	5%
Adolescent girls and young women 15-24 years	579	47%
Adolescent girls 15 - 19 years old	240	41%
Young women 20 - 24 years old	339	59%
Adults	585	48%
Young adults 25 - 35 years old	416	71%
Middle adults 36 - 49 years old	165	28%
Older adults 50+	4	1%

##### Total condoms

Total condoms distributed	12,670	100%
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## HIV self-test (ST) distribution

Malawi (National)

2022 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

### Other community point

#### HIV self test client details

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##### Total HIV self-test kit

Total HIV self-test kit recipients	15,217	100%
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##### Sex

Male recipients	9,964	65%
Female recipients	5,253	35%
Non-pregnant	5,140	98%
Pregnant	113	2%

##### Last HIV test of recipient

Never tested	2,485	16%
Previously tested	12,732	84%
Last negative	12,650	99%
Last positive	82	1%
Not on ART	41	50%
On art	41	50%
Last inconclusive	0	0%

##### HIV ST kits given: Intended end user attributes

Total self-test kits distributed to end users	20,192	100%
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##### Intended end user distribution type

Self (recipient)	14,429	71%
Secondary distribution	5,763	29%
Sex-partner	4,338	75%
Other	1,425	25%

##### Intended end user sex / age category

Total males	12,370	61%
Boys 13-14 years old	156	1%
Adolescent boys and young men 15-24 years old	4,310	35%
Adolescent boys 15 - 19 years old	1,584	37%
Young men 20 - 24 years old	2,726	63%
Adults	7,904	64%
Young adults 25 - 35 years old	5,296	67%
Middle adults 36 - 49 years old	2,416	31%
Older adults 50+	192	2%
Total females	7,822	39%
Girls 13-14 years old	565	7%
Adolescent girls and young women 15-24 years	4,472	57%
Adolescent girls 15 - 19 years old	2,043	46%
Young women 20 - 24 years old	2,429	54%
Adults	2,785	36%
Young adults 25 - 35 years old	1,969	71%
Middle adults 36 - 49 years old	733	26%
Older adults 50+	83	3%

##### Total condoms

Total condoms distributed	68,551	100%
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# HIV DNA PCR sample log report

Malawi (National)

2022 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

## DNA PCR samples

\*

### Total DNA PCR samples

Total DNA PCR samples collected	9,915	100%
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### Reason for test

EID initial	9,357	94%
Confirmatory DNA-PCR	432	4%
Confirmatory after initial positive DNA-PCR	246	57%
Confirmatory after initial positive rapid test	186	43%
Tie-breaker	34	0%
Repeat	92	1%

### Sample type

DBS	8,724	88%
Point of care	1,168	12%
Other	23	0%

### Test result

Results received	8,910	90%
Conclusive	8,890	100%
Negative	8,574	96%
Positive	316	4%
Indeterminate	20	0%
Sample rejected	86	1%
Result missing	919	9%

### Mother - guardian notification

0 - 4 weeks	4,134	42%
5 - 8 weeks	1,437	14%
9 - 12 weeks	257	3%
13+ weeks	4,087	41%

## Blood safety

Malawi (National)

2022 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

### Infect. disease screening among potential donors

\*

#### HIV screening

HIV testing not done	767	24%
Tested for HIV	2,490	76%
HIV negative	2,434	98%
HIV positive	56	2%

#### Hepatitis B screening

HepB testing not done	765	23%
Tested for Hepatitis B	2,492	77%
HepB Negative	2,412	97%
HepB Positive	80	3%

#### Hepatitis C screening

HepC testing not done	1,272	39%
Tested for Hepatitis C	1,985	61%
HepC Negative	1,973	99%
HepC Positive	12	1%

#### Syphilis screening

Syphilis testing not done	765	23%
Tested for Syphilis	2,492	77%
Syphilis Negative	2,402	96%
Syphilis Positive	90	4%

#### Malaria screening

Malaria testing not done	1,117	34%
Tested for malaria	2,140	66%
Malaria Negative	1,977	92%
Malaria Positive	163	8%

#### Summary screening outcome

Not donated	1,155	35%
Donated	2,102	65%
Screened for at least HIV, HepB and syphilis	1,828	87%
Screened for HIV, HepB, HepC, Syphilis, Malaria	1,506	82%
Screened for HIV, HepB, Syphilis	322	18%
Screened for HIV, HepB	0	0%
Screened for HIV only	58	3%
Screened with any other combination of tests	216	10%

### Cross-matching report

\*

#### Blood group typing (for units and patients)

Total blood group typing done	21,906	100%
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#### Blood units cross-matched (by source)

Total blood units cross-matched	16,911	100%
Total units from MBTS (estimated)	14,809	88%
Total units from replacement donors	2,102	12%

#### Blood units cross-matched by patient group

Units cross-matched for maternity	3,959	23%
Units cross-matched for paediatrics	3,944	23%
Units cross-matched for other ward	9,008	53%



## Blood safety

Malawi (National)

2022 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

### Cross-matching report

\*

#### Transfusion reactions

Units transfused without adverse events	16,816	99%
Units with suspected transfusion reactions	11	0%
Units with confirmed transfusion reactions	84	0%

2022 Q1 (Quarter)

**Assessment details**

\*

**Potential PrEP clients assessed**

Total clients assessed	7,588	100%
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**Acute HIV infection assessment**

AHI assessment not done	210	3%
AHI assessment done	7,378	97%
AHI not suspected	7,313	99%
AHI suspected	65	1%

**Baseline renal function screening**

Creatinine sample not collected	223	3%
Creatinine sample collected	7,365	97%
Creatinine result pending	6,724	91%
Creatinine result available	641	9%
60+ ml/min clearance	621	97%
<60 ml/min clearance	20	3%

**Baseline Hep test**

Hep B test not done	5,697	75%
Hep B test done	1,891	25%
Negative	1,842	97%
Positive	49	3%

**PrEP assessment outcomes**

Total clients not eligible to start PrEP	912	12%
Initial HIV+ result	70	8%
Initial HIV- result	842	92%
Acute HIV infection suspected	55	7%
Acute HIV infection not suspected	787	93%
Low HIV risk	771	98%
High HIV risk	16	2%
Suspected kidney failure	16	100%
Total clients eligible to start PrEP	6,676	88%
Agreed to start PrEP	5,880	88%
Refused PrEP	796	12%

**Registration details**

\*

**PrEP clinic registrations**

Total PrEP clinic registrations	5,880	100%
---------------------------------	-------	------

**Sex**

Males	2,265	39%
Non-circumcised	1,057	47%
Circumcised	1,208	53%
Females	3,615	61%
Non-pregnant	3,118	86%
Pregnant	222	6%
Breastfeeding	275	8%

2022 Q1 (Quarter)

## Registration details

\*

## Registration type

First time (PrEP_New)	5,699	97%
Males	2,299	40%
Adolescent boys and young men 15-24 years	773	34%
Adolescent boys 15-19 years old	154	20%
Young men 20-24 years old	619	80%
Adults	1,526	66%
Young adults 25-35 years old	874	57%
Middle adults 36-49 years old	504	33%
Older adults 50+	148	10%
Females	3,400	60%
Adolescent girls young women 15-24 years	1,678	49%
Adolescent girls 15-19 years old	671	40%
Young women 20-24 years old	1,007	60%
Adults	1,722	51%
Young adults 25-35 years old	1,068	62%
Middle adults 36-49 years old	579	34%
Older adults 50+	75	4%
Re-initiation	151	3%
Transfer-in	30	1%

**Assessment details**

\*

**Potential PrEP clients assessed**

Total clients assessed	21,550	100%
------------------------	--------	------

**Acute HIV infection assessment**

AHI assessment not done	357	2%
AHI assessment done	21,193	98%
AHI not suspected	20,970	99%
AHI suspected	223	1%

**Baseline renal function screening**

Creatinine sample not collected	1,256	6%
Creatinine sample collected	20,294	94%
Creatinine result pending	17,812	88%
Creatinine result available	2,482	12%
60+ ml/min clearance	2,349	95%
<60 ml/min clearance	133	5%

**Baseline Hep test**

Hep B test not done	16,459	76%
Hep B test done	5,091	24%
Negative	4,941	97%
Positive	150	3%

**PrEP assessment outcomes**

Total clients not eligible to start PrEP	1,863	9%
Initial HIV+ result	196	11%
Initial HIV- result	1,667	89%
Acute HIV infection suspected	162	10%
Acute HIV infection not suspected	1,505	90%
Low HIV risk	1,465	97%
High HIV risk	40	3%
Suspected kidney failure	40	100%
Total clients eligible to start PrEP	19,687	91%
Agreed to start PrEP	17,494	89%
Refused PrEP	2,193	11%

**Registration details**

\*

**PrEP clinic registrations**

Total PrEP clinic registrations	17,086	100%
---------------------------------	--------	------

**Sex**

Males	6,522	38%
Non-circumcised	3,189	49%
Circumcised	3,333	51%
Females	10,564	62%
Non-pregnant	9,312	88%
Pregnant	628	6%
Breastfeeding	624	6%

**Registration details**

\*

**Registration type**

First time (PrEP_New)	16,756	98%
Males	6,527	39%
Adolescent boys and young men 15-24 years	2,381	36%
Adolescent boys 15-19 years old	531	22%
Young men 20-24 years old	1,850	78%
Adults	4,146	64%
Young adults 25-35 years old	2,372	57%
Middle adults 36-49 years old	1,374	33%
Older adults 50+	400	10%
Females	10,229	61%
Adolescent girls young women 15-24 years	4,960	48%
Adolescent girls 15-19 years old	1,767	36%
Young women 20-24 years old	3,193	64%
Adults	5,269	52%
Young adults 25-35 years old	3,374	64%
Middle adults 36-49 years old	1,695	32%
Older adults 50+	200	4%
Re-initiation	251	1%
Transfer-in	79	0%

**PrEP outcome details**

\*

**Primary follow-up outcomes**

Loss to follow-up	4,751	28%
Died	4	0%
Retained	11,921	71%
HIV positive	29	0%
HIV negative	11,892	100%
Side effects	16	0%
No side effects	11,876	100%
Low risk	181	2%
High risk	11,695	98%
Quit	911	8%
Continue	10,784	92%
Transfer out	250	2%
Here	10,534	98%
STI current	1,665	16%
STI none	7,735	73%
STI screening not done	1,134	11%

# HIV exposed child follow-up

Malawi (National)

2022 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

## Age 2 months

### Age cohort outcomes

\*

#### Total children in birth cohort

Total children registered	9,354	100%
---------------------------	-------	------

#### CPT status

On CPT	7,799	83%
Not on CPT	1,555	17%

#### HIV status

Current HIV infection status unknown	2,267	24%
HIV infection not confirmed, not ART eligible	2,266	100%
HIV infection not confirmed, ART eligible (PSHD)	1	0%
Current HIV infection status known	7,087	76%
Confirmed not infected	7,016	99%
Confirmed infected (ART eligible)	71	1%

#### ART eligibility summary

Not eligible for ART	9,282	99%
ART eligible	72	1%
ART not initiated	12	17%
Initiated ART	60	83%

#### Primary follow-up outcome

Discharged uninfected	110	1%
Continue follow-up	7,810	94%
Started ART	60	1%
Defaulted	279	3%
Died	45	1%

#### Transfers between sites

Total not transferred out	8,304	89%
Transferred out	1,050	11%

## Age 12 months

### Age cohort outcomes

\*

#### Total children in birth cohort

Total children registered	12,218	100%
---------------------------	--------	------

#### CPT status

On CPT	9,557	78%
Not on CPT	2,661	22%

#### HIV status

Current HIV infection status unknown	2,738	22%
HIV infection not confirmed, not ART eligible	2,723	99%
HIV infection not confirmed, ART eligible (PSHD)	15	1%
Current HIV infection status known	9,480	78%
Confirmed not infected	9,339	99%
Confirmed infected (ART eligible)	141	1%

# HIV exposed child follow-up

Malawi (National)

2022 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

## Age cohort outcomes

\*

### ART eligibility summary

Not eligible for ART	12,062	99%
ART eligible	156	1%
ART not initiated	22	14%
Initiated ART	134	86%

### Primary follow-up outcome

Discharged uninfected	105	1%
Continue follow-up	9,528	89%
Started ART	134	1%
Defaulted	837	8%
Died	96	1%

### Transfers between sites

Total not transferred out	10,700	88%
Transferred out	1,518	12%

## Age 24 months

### Age cohort outcomes

\*

#### Total children in birth cohort

Total children registered	12,504	100%
---------------------------	--------	------

#### CPT status

On CPT	428	3%
Not on CPT	12,076	97%

#### HIV status

Current HIV infection status unknown	3,590	29%
HIV infection not confirmed, not ART eligible	3,578	100%
HIV infection not confirmed, ART eligible (PSHD)	12	0%
Current HIV infection status known	8,914	71%
Confirmed not infected	8,724	98%
Confirmed infected (ART eligible)	190	2%

#### ART eligibility summary

Not eligible for ART	12,302	98%
ART eligible	202	2%
ART not initiated	15	7%
Initiated ART	187	93%

#### Primary follow-up outcome

Discharged uninfected	8,462	79%
Continue follow-up	327	3%
Started ART	187	2%
Defaulted	1,607	15%
Died	168	2%

#### Transfers between sites

Total not transferred out	10,751	86%
Transferred out	1,753	14%



## Antenatal Care

Malawi (National)

2022 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

### New ANC registrations in reporting period

\*

#### Women with first visit in reporting period

New women registered	173,413	100%
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### ANC cohort analysis

\*

#### HIV status ascertainment

HIV status not ascertained	6,286	4%
HIV status ascertained	167,127	96%
Valid previous test result	7,480	4%
Previous negative	1,034	14%
Previous positive	6,446	86%
New test at ANC	159,647	96%
New negative	157,498	99%
New positive	2,149	1%

#### HIV status summary

Total women HIV negative	158,532	95%
Total women HIV positive	8,595	5%

#### PMTCT regimen mother

No ARVs	58	1%
Any ARVs	8,537	99%
ART (by time of initiation)	8,537	100%
Already on ART when starting ANC	6,424	75%
Started ART at 0-27 weeks of pregnancy	1,892	22%
Started ART at 28+ weeks of preg.	221	3%

### ANC women after 6 months

#### ANC cohort analysis

\*

#### Total women completing ANC in the reporting period

Total women in booking cohort	161,793	100%
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#### Syphilis status

Not tested for syphilis	64,195	40%
Tested for syphilis	97,598	60%
Syphilis negative	94,938	97%
Syphilis positive	2,660	3%

#### HIV status ascertainment

HIV status not ascertained	4,282	3%
HIV status ascertained	157,511	97%
Valid previous test result	8,012	5%
Previous negative	971	12%
Previous positive	7,041	88%
New test at ANC	149,499	95%
New negative	147,429	99%
New positive	2,070	1%

#### HIV status summary

Total women HIV negative	148,400	94%
Total women HIV positive	9,111	6%

## Antenatal Care

Malawi (National)

2022 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

### ANC cohort analysis

\*

#### CPT status (among HIV pos)

Not on CPT	40	0%
On CPT	9,071	100%

#### PMTCT regimen mother

No ARVs	51	1%
Any ARVs	9,060	99%
ART (by time of initiation)	<b>9,060</b>	100%
Already on ART when starting ANC	<b>7,004</b>	77%
Started ART at 0-27 weeks of pregnancy	<b>1,873</b>	21%
Started ART at 28+ weeks of preg.	<b>183</b>	2%

#### Baby's ARVs dispensed

No ARVs dispensed for infant	69	1%
ARVs dispensed for infant	9,042	99%

# Maternity

Malawi (National)

2022 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

## Maternal details

\*

### Admissions in the reporting period

Total admissions (referrals double-counted)	147,830	100%
Not referred to other site (total women)	134,711	91%
Referred out before delivery (multiple admissions)	13,119	9%

### HIV status ascertainment

HIV status not ascertained	8,421	6%
HIV status ascertained	139,409	94%
Valid previous test result	8,118	6%
Previous negative	24	0%
Previous positive	8,094	100%
New test at maternity	131,291	94%
New negative	131,024	100%
New positive	267	0%

### HIV status summary

Total women HIV negative	131,048	94%
Total women HIV positive	8,361	6%

### ARVs during pregnancy (among HIV pos)

No ARV in pregnancy	0	0%
Any ARVs	8,361	100%
ART (by time of initiation)	8,361	100%
ART initiated before pregnancy	7,961	95%
ART initiated in 1st / 2nd trimester	192	2%
ART initiated in 3rd trimester	70	1%
ART initiated during labour	138	2%

## Infant details

\*

### Single babies / multiple deliveries

Total babies delivered	141,750	100%
Single babies	136,943	97%
Twin / multiple babies	4,807	3%

### Infant survival

Total live births	139,161	98%
Discharged alive	138,173	99%
Neonatal deaths	988	1%
Stillbirths	2,589	2%
Stillbirth, fresh	1,260	49%
Stillbirth, macerated	1,329	51%

### HIV exposure / ARV proph. (among discharged alive)

Infants with unknown HIV exposure status	4,670	3%
Infants with known HIV exposure status	133,503	97%
Not HIV exposed	125,632	94%
HIV exposed	7,871	6%
Received no ARVs	317	4%
Received ARVs	7,554	96%
Nevirapine	7,554	100%

2022 Q1 (Quarter, Cumulative)

**Registration details**

\*

**HCC clinic registrations**

Total HCC registrations	689,147	100%
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**Registration type**

Patients enrolled first time	636,228	92%
Patients re-enrolled	2,024	0%
Patients transferred in	50,895	7%

**Sex**

Males (all ages)	322,002	47%
Females (all ages)	367,145	53%
Non-pregnant	365,832	100%
Pregnant	1,313	0%

**Age at registration**

Adults 15+ yrs	154,975	22%
Children 0-14 yrs	534,172	78%
Children 24 months - 14 years	15,394	3%
Children below 24 months (exposed children)	518,778	97%
Children 2 - below 24 months	149,432	29%
Infants below 2 months	369,346	71%

**Reason for HCC registration**

Exposed infants	522,352	76%
Confirmed infected patients (pre-ART)	166,795	24%

# ART cohort analysis

Malawi (National)

2022 Q1 (Quarter)

## Registration details

\*

### ART clinic registrations

Total ART clinic registrations	30,215	100%
--------------------------------	--------	------

### Registration type

ART initiations, first time (total patients)	19,687	65%
ART initiations, first time (non sex-disagg.)	0	0%
ART initiations, first time (by sex)	19,687	100%
ART initiations, first time, males	7,958	40%
ART initiations, first time, females	11,729	60%
ART initiations, first time, females non-pregnant	9,005	77%
ART initiations, first time, females pregnant	2,724	23%
ART re-initiations	337	1%
ART transfers in	10,191	34%

### Sex

Males	11,661	39%
Females	18,554	61%
Non-pregnant	14,773	80%
Pregnant	3,781	20%

### Age at ART initiation

Adults 15+ yrs	28,312	94%
Children 0-14 yrs	1,903	6%
Children 2-14 yrs	1,382	73%
Children below 24 mths	521	27%

### Reason for starting ART

Presumed severe HIV Disease	27	0%
Confirmed HIV infection	30,188	100%
WHO stage 1 or 2	26,177	87%
CD4 below threshold	1,791	7%
CD4 unknown or >threshold	24,386	93%
PCR infants	83	0%
Children 12-59 mths	344	1%
Pregnant women	3,747	15%
Breastfeeding mothers	833	3%
Asymptomatic / mild	19,379	79%
WHO stage 3	3,062	10%
WHO stage 4	942	3%
Unknown / reason outside of guidelines	7	0%

### TB at ART initiation

Never TB / TB > 24 months ago	29,537	98%
TB within the last 24 months	241	1%
Current episode of TB	437	1%

### Kaposi's sarcoma at ART initiation

No KS	30,102	100%
Patients with KS	113	0%

# ART cohort analysis

Malawi (National)

2022 Q1 (Cumulative)

## Registration details

\*

### ART clinic registrations

Total ART clinic registrations	2,020,512	100%
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### Registration type

ART initiations, first time (total patients)	1,593,144	79%
ART initiations, first time (non sex-disagg.)	283,033	18%
ART initiations, first time (by sex)	1,310,111	82%
ART initiations, first time, males	497,538	38%
ART initiations, first time, females	812,573	62%
ART initiations, first time, females non-pregnant	648,467	80%
ART initiations, first time, females pregnant	164,106	20%
ART re-initiations	27,009	1%
ART transfers in	400,359	20%

### Sex

Males	755,813	37%
Females	1,264,699	63%
Non-pregnant	1,014,826	80%
Pregnant	249,873	20%

### Age at ART initiation

Adults 15+ yrs	1,855,759	92%
Children 0-14 yrs	164,753	8%
Children 2-14 yrs	123,324	75%
Children below 24 mths	41,429	25%

### Reason for starting ART

Presumed severe HIV Disease	4,509	0%
Confirmed HIV infection	2,016,003	100%
WHO stage 1 or 2	1,271,287	63%
CD4 below threshold	376,324	30%
CD4 unknown or >threshold	894,963	70%
PCR infants	5,018	1%
Children 12-59 mths	24,115	3%
Pregnant women	235,125	26%
Breastfeeding mothers	71,141	8%
Asymptomatic / mild	559,564	63%
WHO stage 3	600,451	30%
WHO stage 4	130,888	6%
Unknown / reason outside of guidelines	13,377	1%

### TB at ART initiation

Never TB / TB > 24 months ago	1,943,698	96%
TB within the last 24 months	36,976	2%
Current episode of TB	39,838	2%

### Kaposi's sarcoma at ART initiation

No KS	2,000,306	99%
Patients with KS	20,206	1%

# ART cohort analysis

Malawi (National)

2022 Q1 (Cumulative)

## ART outcomes

\*

### Primary follow-up outcomes

Total alive on ART	909,284	61%
Alive on ART at site of last registration	<b>909,284</b>	100%
Defaulted	433,651	29%
Stopped ART	15,574	1%
Total died	143,677	10%
Died month 1	<b>25,806</b>	18%
Died month 2	<b>15,675</b>	11%
Died month 3	<b>10,372</b>	7%
Died month 4+	<b>91,824</b>	64%

### Transfers between sites

Total not transferred out	1,501,124	74%
Transferred out	519,388	26%



# ART cohort analysis

Malawi (National)

2022 Q1 (Cumulative)

## ART outcomes

\*

### ART regimens

First line regimens	906,149	100%
Adult formulation	888,191	98%
Regimen 0A	6	0%
Regimen 2A	49	0%
Regimen 4A	19	0%
Regimen 5A	1,157	0%
Regimen 6A	82	0%
Regimen 13A	865,861	97%
Regimen 14A	8,883	1%
Regimen 15A	12,080	1%
Regimen 16A	31	0%
Regimen 17A	23	0%
Paed. formulation	17,958	2%
Regimen 0P	43	0%
Regimen 2P	33	0%
Regimen 4P	0	0%
Regimen 16P	48	0%
Regimen 17P	0	0%
Regimen 14PA	169	1%
Regimen 14PP	222	1%
Regimen 15PA	6,819	38%
Regimen 15PP	10,614	59%
Regimen 4PP	2	0%
Regimen 4PA	3	0%
Regimen 17PP	1	0%
Regimen 17PA	4	0%
Second line regimens	2,212	0%
Adult formulation	1,807	82%
Regimen 7A	557	31%
Regimen 8A	987	55%
Regimen 9A	77	4%
Regimen 10A	86	5%
Regimen 11A	38	2%
Regimen 12A	62	3%
Paed. Formulation	405	18%
Regimen 9P Tabs	354	87%
Regimen 9P Gran	44	11%
Regimen 11P Tabs	1	0%
Regimen 11P Gran	0	0%
Regimen 11PP	6	1%
Regimen 11PA	0	0%
Third line regimens	13	0%
Paed. formulation	13	100%
Regimen 12PP	3	23%
Regimen 12PA	10	77%
Other regimen (adult / paed)	912	0%

# ART cohort analysis

Malawi (National)

2022 Q1 (Cumulative)

## ART outcomes

\*

### Adherence

Adherence unknown (not recorded)	16,757	2%
Adherence recorded	892,527	98%
0-3 doses missed	642,594	72%
4+ doses missed	249,933	28%

### ART side effects

Side effects unknown (not recorded)	18,527	2%
Side effects recorded	890,757	98%
No side effects	889,231	100%
Any side effects	1,526	0%

### Current TB status among ART patients (ICF)

ICF not done (Current TB status unknown/ not circ)	4,156	0%
ICF done	905,128	100%
TB not suspected	898,048	99%
TB suspected	3,957	0%
TB confirmed	3,123	0%
TB confirmed, not on treatment	59	2%
TB confirmed, on TB treatment	3,064	98%

### Pregnant / Breastfeeding

Pregnant females	22,187	2%
Breastfeeding	50,730	6%
All others (not recorded)	836,367	92%

2022 Q1 (Quarter)

**12 month survival children****Survival and retention in ART program**

\*

**ART cohort registration group outcomes**

Total ART clinic registrations	1,740	100%
Transfers out (double counted)	350	20%
Total not transferred out (patients in cohort)	1,390	80%
Total alive on ART	1,123	81%
Total not retained	267	19%
Defaulted	174	65%
Stopped ART	23	9%
Died	70	26%

**12 month survival all ages****Survival and retention in ART program**

\*

**ART cohort registration group outcomes**

Total ART clinic registrations	27,123	100%
Transfers out (double counted)	5,140	19%
Total not transferred out (patients in cohort)	21,983	81%
Total alive on ART	17,684	80%
Total not retained	4,299	20%
Defaulted	3,477	81%
Stopped ART	226	5%
Died	596	14%

**6 month survival OptionB+****Survival and retention in ART program**

\*

**ART cohort registration group outcomes**

Total ART clinic registrations	4,328	100%
Transfers out (double counted)	566	13%
Total not transferred out (patients in cohort)	3,762	87%
Total alive on ART	3,270	87%
Total not retained	492	13%
Defaulted	457	93%
Stopped ART	14	3%
Died	21	4%

**12 month survival OptionB+****Survival and retention in ART program**

\*

**ART cohort registration group outcomes**

Total ART clinic registrations	4,274	100%
Transfers out (double counted)	763	18%
Total not transferred out (patients in cohort)	3,511	82%
Total alive on ART	2,868	82%
Total not retained	643	18%
Defaulted	578	90%
Stopped ART	46	7%
Died	19	3%

**TB/HIV program**

Malawi (National)

2022 Q1 (Quarter)

**TB program report**

\*

**TB clinic registrations**

Total TB patients registered	4,361	100%
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**HIV status ascertainment**

HIV status not ascertained	25	1%
HIV status ascertained	4,336	99%
HIV negative	2,330	54%
HIV positive	2,006	46%
Already on ART	1,849	92%
Not on ART when starting TB treatment	157	8%

**TB / ART program triangulation**

\*

**HIV-burden among TB patients (estimated)**

HIV negative (est. 40%)	1,744	40%
HIV positive (est. 60%) in need of ART	2,617	60%
Not on ART	768	29%
Total on ART (coverage)	1,849	71%
Already on ART (TB prog)	1,849	100%
Started ART within 24m of TB diagnosis (ART prog)	0	0%
ART initiations with current TB (ART prog)	0	
ART initiations after recent TB (ART prog)	0	

# Viral load monitoring cohort report

Malawi (National)

2022 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

## VL samples collected in the reporting period

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### VL samples collected

Total VL samples	108,444	100%
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### Reason for VL test

Routine / scheduled monitoring	89,853	83%
Extra-schedular	16,049	15%
Targeted (clinical suspicion of failure)	3,140	20%
Follow-up after high VL	12,909	80%
Replacement of lost sample / missing result	2,542	2%

## Results for VL samples collected 6 months ago

\*

### Total VL samples with outcomes

Total VL samples collected 6 months ago	206,497	100%
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### VL test results

Valid results	178,023	86%
<1000 copies / ml	163,524	92%
1000+ copies / ml	14,499	8%
Rejected samples / invalid results	2,138	1%
Missing / outstanding results	26,336	13%

### Result transmission type

Paper results	175,715	97%
Electronic results	5,149	3%

### Time from sample collection to receipt of results

0-4 Weeks	57,607	28%
5-8 Weeks	72,079	35%
9-12 Weeks	34,886	17%
13+ Weeks / still missing	41,925	20%

### Time from sample collection to client notification

0-4 Weeks	16,079	8%
5-8 Weeks	30,813	15%
9-12 Weeks	46,053	22%
13+ Weeks / pending	113,552	55%

## Patients with high VL: outcome after 6 months

\*

### Patients in high VL cohort

Total high VL patients evaluated after 6 months	12,928	100%
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### Initial high VL: reason for test

Routine / scheduled monitoring	11,053	85%
Targeted (clinical suspicion of failure)	1,454	11%
Repeat sample	421	3%

### Intensive adherence counselling

3 Sessions completed	10,232	79%
Sessions not completed	2,696	21%

# Viral load monitoring cohort report

Malawi (National)

2022 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

## Patients with high VL: outcome after 6 months

\*

### Follow-up VL test

Follow-up sample collected	6,969	54%
Valid results	4,349	62%
<1000 copies / ml	3,079	71%
1000+ copies / ml	1,270	29%
Rejected samples / invalid results	17	0%
Missing / outstanding results	2,603	37%
Follow-up sample pending	5,959	46%

### Preliminary opinion

Conclusion made	4,718	36%
Continue current regimen	4,442	94%
Switch to 2nd line ART	276	6%
Conclusion pending	8,210	64%

### Final treatment decision (2nd line prescriber)

Decision made	4,289	33%
Continue current regimen	3,932	92%
Switch to 2nd line ART	276	6%
Refer to HIV specialist	81	2%
Decision pending	8,639	67%

# STI site report

Malawi (National)

2022 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

## STI clients treated in the reporting period

\*

### Total STI clients

Total STI clients treated	94,284	100%
Index patients treated (symptomatic)	78,138	83%
Partners treated	16,146	17%

### Sex

Males	38,179	40%
Males Non-circumcised	25,580	67%
Males Circumcised	12,599	33%
Females	56,105	60%
Non-pregnant	47,496	85%
Pregnant	8,609	15%

### Age group

Age group A (0-19 years)	7,758	8%
Age group B (20-24 years)	23,310	25%
Age group C (25+ years)	63,216	67%

### Client type

Symptomatic cases	84,805	90%
Index cases	78,138	92%
Partners symptomatic	6,667	8%
Partners asymptomatic	9,479	10%

### STI treatment history

Never treated for STI	69,021	73%
Previously treated for STI	25,263	27%
Old >3 months ago	19,294	76%
Recent =3 months ago	5,969	24%

### STI syndromic diagnosis

GUD	11,334	11%
UD	26,484	26%
AVD	30,065	30%
Low risk	8,534	28%
High risk	21,531	72%
LAP	11,347	11%
SS	892	1%
BU	551	1%
BA	1,186	1%
NC	227	0%
Genital Warts	505	1%
Syphilis RPR VDRL	11,131	11%
Other STI	6,446	6%

### STI partner notification

Total partner notification slips issued	24,089	100%
Total partners returned	16,146	67%
Total partners not seen	7,943	33%



## STI site report

Malawi (National)

2022 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

### STI clients treated in the reporting period

\*

#### HIV test / ART status

HIV status not ascertained	9,709	10%
HIV status ascertained	84,575	90%
HIV negative (new test)	<b>68,770</b>	81%
HIV positive	<b>15,805</b>	19%
New positive	<b>1,847</b>	12%
Previous positive	<b>13,958</b>	88%
Not on ART	<b>409</b>	3%
On ART	<b>13,549</b>	97%

#### STI clients referred for services

Lab	1,651	3%
Gynae review	1,153	2%
Surgical review	448	1%
Repeat HTC	45,492	77%
ART (for assessment)	5,104	9%
Other (service referrals)	2,460	4%
VMMC	2,655	5%