



Government of Malawi Ministry of Health

Integrated HIV Program Report April-June 2020

- *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 (April – June 2020)

COVID-19 Disruptions to the HIV Program

The first cases of COVID-19 in Malawi were confirmed on 2nd April 2020, one week before the scheduled start of integrated HIV program supervision for Q1 2020. Early epidemiological models predicted rapid spread and severe impact of COVID-19 in Malawi. Fragile health services were not well prepared to prevent infections and deal with cases. The DHA therefore decided to suspend the established quarterly supportive supervision activity in April 2020 in order not to contribute to transmission at visited health facilities and to protect staff. The following report is based on data collected during the following supervision round in July 2020, which combined the Q1 and Q2 reporting periods. This combined quarterly supervision round was extended by one week (13-31 July) to cope with the added workload and the service disruptions. However, considerable challenges have affected the usual completeness and quality of service data.

The DHA issued 3 editions of a circular to all HIV service delivery sites (on 3rd, 17th April and 15th June) 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.

There was a noticeable reduction in some HIV service outputs in Q2 compared with Q1 2020:

- *Total HTS outputs declined by 35%*
- *New ART initiations declined by 32%*
- *The number of blood units collected reduced by 23%*
- *The number of routine viral load samples collected reduced by 5%*

However, program reports showed no indication for increased ART program attrition or lower adherence compared with previous quarters.

Scale-up of integrated Program performance highlights by the end of June 2020

- HIV services had reached the following number of sites:
 - **765** static and **68** outreach HIV testing sites.
 - **755** (static) ART sites; **590** of these started at least one pregnant or breastfeeding woman.
 - **691** sites with HIV-exposed children in follow-up.
- **634,564** persons were tested for HIV and received their results; **107,507 (17%)** accessed HIV testing for the first time; **527,057 (80%)** were repeat testers and **21,049**

(4%) of these received confirmatory testing (after having tested positive in the past). **18,882 (3.1%)** clients received a positive result for the first time¹.

- A total of **63,600** people received **105,211** self-test kits for either primary or secondary use.
- **16,049 (94%)** of 17,095 blood units collected were screened for (at least) HIV, hepatitis B and syphilis.
- **162,127 (99%)** of 164,354 women at ANC had their HIV status ascertained; **10,695 (7%)** of these were HIV positive. **138,394 (95%)** of 145,981 at maternity had their HIV status ascertained **10,075 (7%)** of these were HIV positive.
- **18,804** patients started ART this quarter; **88%** were classified as asymptomatic / in WHO stage 1 and started under the “Test & Treat” policy.
- **846,164** patients were alive and on ART by end of June 2020.² This means that **79%** of the estimated 1,072,534 HIV positive population was on ART. ³ ART coverage was **75%** (44,355/ 58,752) for children⁴ and **79%** (801,909 / 1,013,782) for adults.
- **76,921 (94%)** 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 **71%** and **95%**, respectively.
- **71%** of adults and **76%** of children were retained alive on ART at 12 months after initiation.⁵
- Out of **811,825** patients on first line adult ART **34,256 (4%)** were on TDF/3TC/EFV and **752,779 (94%)** had transitioned to TDF/3TC/DTG.
- **11,876** ⁶ (>99%) of an estimated 10,364³ HIV infected pregnant women in Malawi were on ART this quarter. **9,943 (84%)** of these were already on ART when getting pregnant and **2,293 (24%)** started ART during pregnancy/delivery.
- An additional **798** breastfeeding women started ART in WHO stage 1 or 2.
- **76%** and **70%** of women started while pregnant or breastfeeding were retained on ART at **6 and 12 months** after initiation, respectively.
- **9,112 (7%)** of infants discharged alive from maternity were known to be HIV exposed, **8,808 (97%)** of these received ARV prophylaxis (nevirapine). A total of **12,413 HIV** exposed children were newly enrolled for follow-up this quarter; **10,417 (84%)** of these were enrolled before age 2 months.
- Out of the total 1,072,534 estimated PLHIV by end June 2020:
 - An estimated **91%** of PLHIV knew their status (diagnosed)

¹ 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 “1st 90” suggest that undisclosed repeat positives account for about half of these. This implies the true yield of new diagnoses may be only around **1.5%**.

² 846,164 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.

³ 2020 Spectrum Model estimates for the HIV population in December 2019.

⁴ 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).

⁵ 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)

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

- **87%** of whom were on ART
 - **94%** of whom were virally suppressed.⁷
- This means that the Q2 2020 scale-up target for the population diagnosed was exceeded. The estimate for proportion of PLHIV who know their status was reduced from previous quarter (94%) based on a new standard model method for the “first 90” (UNAIDS “Shiny90” model). The new estimate implies that undisclosed repeat testers account for 53% of clients reported as “new positive” in routine HTS data between 2016 and 2020.
 - The apparent gap between the estimated number of PLHIV diagnosed and those on ART has slightly declined to 124,812 individuals diagnosed but not on ART. This gap may be explained by increasing challenges with early ART uptake and retention among the large number of PLHIV diagnosed over the last quarters, many of whom were asymptomatic when diagnosed.
 - Malawi has already achieved two of the 90-90-90 targets (for diagnosis and viral suppression) which were set for December 2020. In line with the new National Strategic Plan 2020-25, the current and future reports will measure progress against the UNAIDS fast-track 95-95-95 targets. See **Figure 1** below:

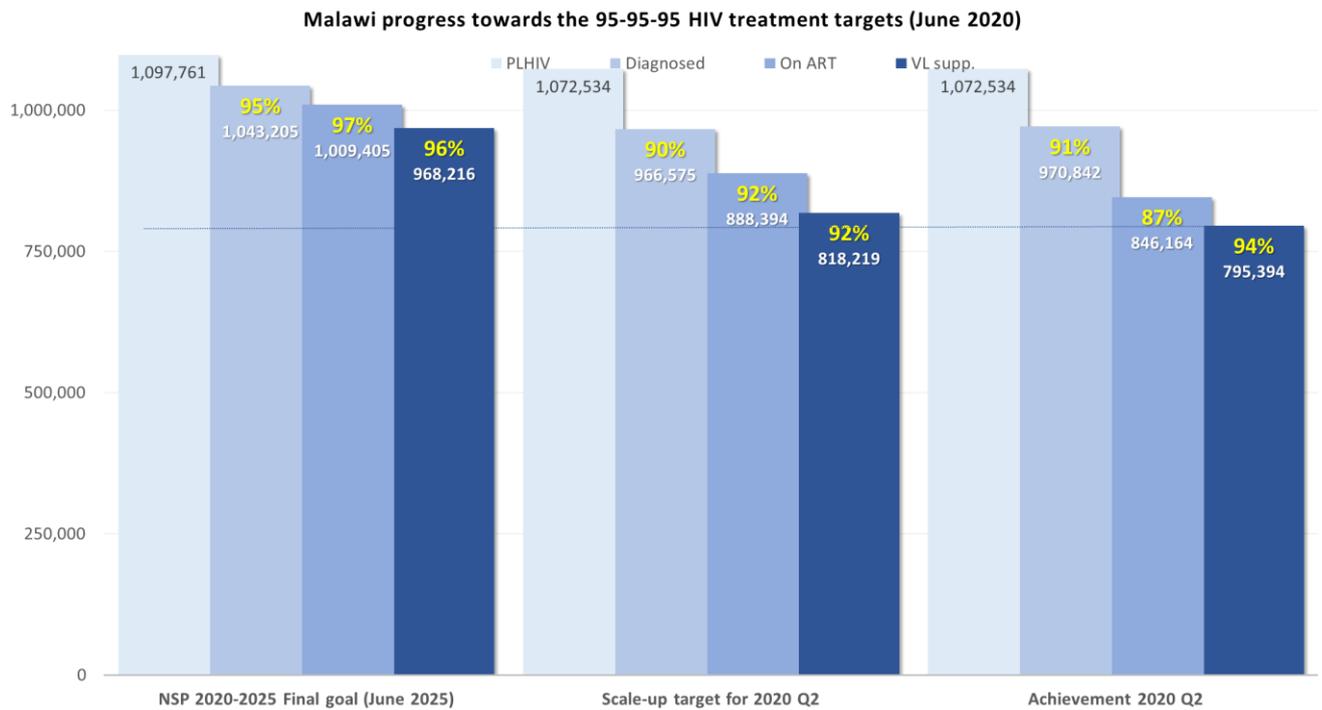
⁷ Estimation methods for progress towards the 95-95-95 treatment targets

‘First 95’ (970,842 diagnosed): the 76.8% MPHIA estimate for adults (15-64) 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 2016 (1,014,106 x 76.8% = 778,833); add: 262,675 = 47% of 558,883 people reported as newly diagnosed between April 2016 – June 2020 (HTS program data adjusted for an estimated 53% of repeat testers misclassified as newly diagnosed); subtract: 70,462 (82%) of 86,134 estimated deaths among all PLHIV (2020 Spectrum model) between April 2016 – June 2020 to account for deaths among the diagnosed population (on ART and not on ART).

‘Second 95’ (846,164 on ART): patients retained alive on ART by end Q2 2020 from routine ART program reports.

‘Third 95’ (795,394 virally suppressed): extrapolated from the 94% of patients with a routine VL monitoring result <1000 copies/ml this quarter, applied to the 846,164 patients on ART.

Figure 1



- Covid-19 disruptions comparing Q1 with Q2 2020
 - The Total HTS outputs declined by **35%**
 - New ART initiations declined by **32%**
 - Number of blood units collected reduced by **23%**
 - The number of routine viral load samples collected had reduced **5%**

2 Integrated HIV Program Overview

Malawi's National HIV Program has undergone several important policy changes since its inception in 2004. The 4th 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

759 public and private sector facilities were visited for **clinical HIV program supervision** between 13th and 31st of July 2020.

The large number of sites was covered by **241** supervisors working in **32** teams that spent 2,656 **working hours** at the sites. Each site visit lasted on average 3.5 hours, but up to 2 days were spent at the busiest sites. **518 (68%)** sites were awarded a *certificate* for **excellent performance**. This number is higher than the previous quarter (496). **89 (12%)** sites had significant weaknesses and were rated to require **intensive mentoring**. Mentoring capacity will need to be further expanded.

Table 1: Outcomes of integrated HIV services for 2020 Q2

Zone	Total facil. visited*	Supervision hours spent at facilities		Performance (# and % of sites)	
		Total	Average per site	Excellent perform.	Mentoring needed
NZ	135	467	3.5	86 64%	30 22%
CEZ	107	354	3.3	72 67%	15 14%
CWZ	171	524	3.1	114 67%	15 9%
SEZ	170	708	4.3	124 73%	19 11%
SWZ	176	603	3.4	122 69%	10 6%
Malawi	759	2,656	3.5	518 68%	89 12%

* 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. **230** sites had cumulatively registered more than 2,000 ART patient and **82** of these had registered more than 5,000. **207 (90%)** of these high burden sites were using point-of-care electronic medical records (EMR) systems, but EMR was also in use at 10 lower burden sites. **507** 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 **719** static and **75 outreach** HIV testing sites in Q2 2020.

Table 2

Facilities with integrated HIV services in the 5 Zones. Availability of services defined by performance (at least 1 patient enrolled) during 2020 Q2

Zone	Total fac.(1)	Facilities providing HIV services				CD4 count machines (2)		
		Exp. child	Pre-ART	PMTCT B+	ART	Installed	Functional	Results
SEZ	171	160 94%	0 0%	150 88%	169 99%	9 5%	5 56%	352
SWZ	177	162 92%	0 0%	133 75%	175 99%	23 13%	19 83%	1,788
CWZ	172	144 84%	0 0%	131 76%	171 99%	16 9%	8 50%	1,022
CEZ	107	102 95%	0 0%	78 73%	106 99%	13 12%	4 31%	145
NZ	137	123 90%	0 0%	98 72%	134 98%	13 9%	5 38%	188
Malawi	764	691 90%	0 0%	590 77%	755 99%	74 10%	41 55%	3,495

(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 **764** sites designated to provide clinical HIV services in Q2 2020, by zone. At the national level, there were **755** (static) sites with at least one patient on ART; **590** sites had enrolled women under PMTCT Option B+; **691** 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 74 sites, and **51 (55%)** of these had produced at least 1 result during Q2 2020. The total number of CD4 results produced (**3,495**) reduced by 40% from the previous quarter (5,849). 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.

4.2 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 2020 Q2 supervision and key performance data for each provider were not summarized on the site supervision form. ⁸

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 increased by 33 from 822 to 855 from the previous quarter.

Among the other cadres, **1,165** were nurses and **738** were auxiliary staff (health surveillance assistants, clerks, etc.)

Table 3

	2019 Q3		2019 Q4		2020 Q1		2020 Q2	
Clinicians	941	28%	915	27%	822	28%	855	30%
Nurses	1,349	40%	1,378	41%	1,149	40%	1,165	41%
Pharmacy staff	129	4%	137	4%	116	4%	112	4%
Auxiliary Staff	995	29%	967	28%	801	28%	738	26%
Total	3,414		3,397		2,888		2,870	

An estimated 4.0 million ART patient visits are currently managed at the 755 ART sites per annum, based on 846,164 patients alive on ART and an average dispensing interval of 2.5 months. With 260 working days per year, an average of 15,620 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 **13** 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 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 9 on page 33).

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

⁸ The logbook review was temporarily suspended to minimize the amount of work done by the supervisors since data collection was for both 2020 Q1 and 2020 Q2

- 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.

574 (93%) of the 720 active testing sites had documented at least 1 QC set this quarter and **478 (83%)** had recorded the minimum of 12 sets (one for each week). At **557 (97%)** of sites, all samples produced the expected result.

5.2 HIV Testing and Counselling Outputs

634,564 people ⁹ were tested and counselled for HIV between April and June 2020. This is a 35% decrease from the previous quarter (972,837). Similar to previous quarters, the high outputs were owed to the deployment of dedicated testing staff (HIV Diagnostic Assistants, HDAs) at about 200 facilities. HDAs are currently hired by PEPFAR implementing partner organizations and seconded to public sector facilities, primarily to ensure routine provider-initiated HIV testing for patients.

622,962 (98%) of all tests were performed at health facilities, **1,257 (<1%)** were done in stand-alone HTC sites, **9,933 (2%)** were done outside of facilities / in the community and **412 (<1%)** were from self-test returning clients tested at the facility. **18,882** people were reported as newly diagnosed with HIV this quarter. Out of these, **18,724 (98%)** were diagnosed at health facilities; **42 (<1%)** at stand-alone HTC sites; **102 (2%)** through community-based testing and **14 (<1%)** were from self-test returning clients tested at the facility. The reported ‘yield’ for

⁹ 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.

new diagnoses was **3.1%** (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 26,276 reported “new positives” results in an estimated **12,350** genuine new diagnoses this quarter. This reduces the true ‘yield’ of new diagnoses in the HTS program to **1.6%**.

5.3 HIV testing access type

489,385 (77%) of people tested were patients receiving provider-initiated testing and counselling (PITC); **135,776 (21%)** accessed voluntary testing and counselling, door-to-door, community-based testing, etc.; and **9,403 (1%)** came for testing with a *Family HTC Referral Slip* (FRS) that was issued to a family member at a prior HTS encounter. Based on a total of **28,753** FRS issued to index clients this quarter, the successful referral rate for family members was higher at **33%** (9,403 / 28,753) than last quarters at 38%. Issuance and utilization of FRS have increased considerably over the last quarters.

5.4 Age and sex distribution among HIV testing clients

Out of **634,564** people tested and counselled, **31%** were males and **69%** were females. **40%** of females were pregnant. The ratio of males (**43%**) to non-pregnant females (**57%**) has remained constant. Testing among pregnant women is almost entirely provider-initiated and there is no comparable access route targeting males.

164,775 (26%) of all people tested accessed HTC with their partners (as a couple).

51% of all people tested and counselled were 25 years and above, **41%** were adolescents or young adults (15-24 years) and **7%** were children (<15 years). **1,598 (<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 Q1 to Q2 2020, the number of males, pregnant women and non-pregnant females tested decreased by 39% , 41% and 15% respectively.

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

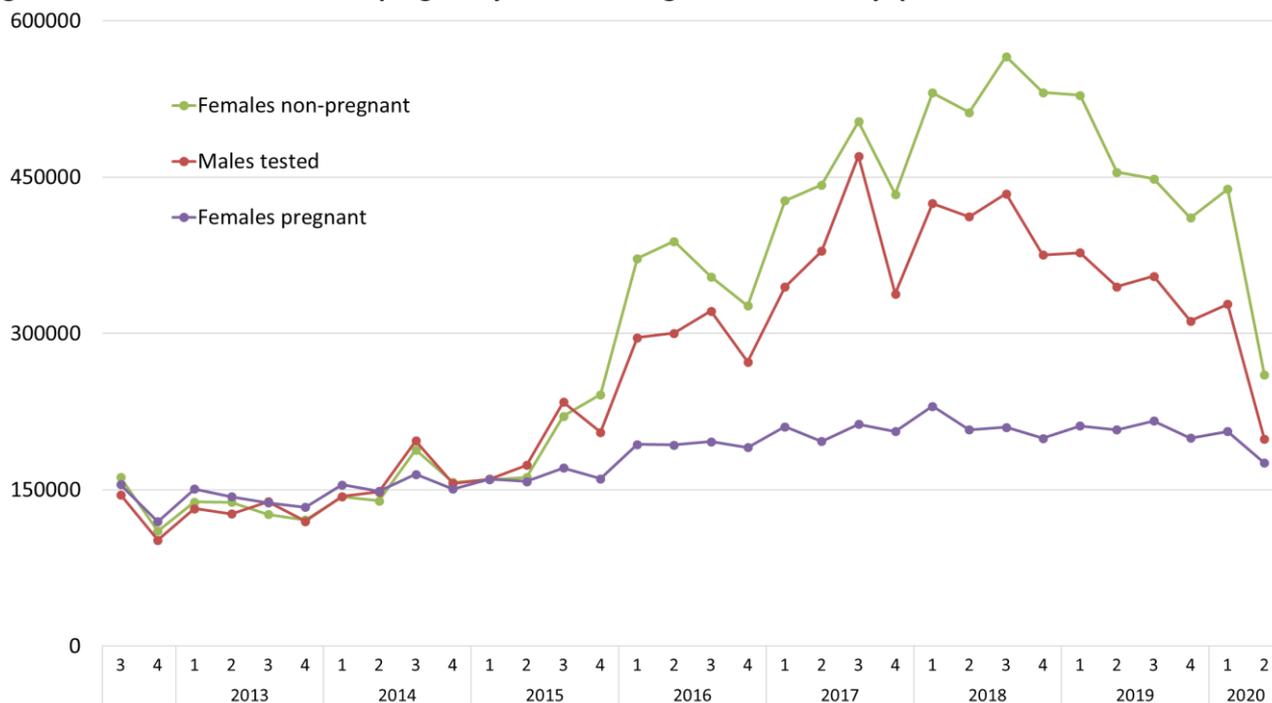
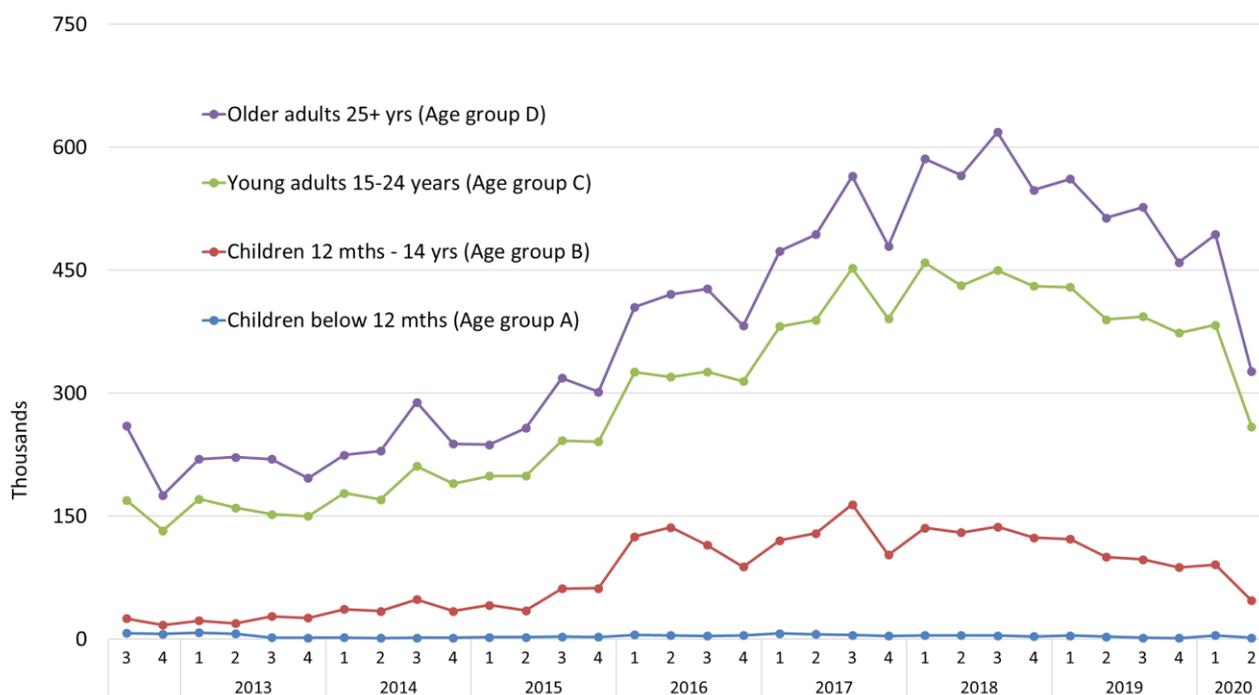


Figure 3: Distribution of age among clients tested by quarter



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.

107,507 (17 %) of all clients tested accessed testing for the first time and **527,057 (80%)** were repeat testers. Based on the cumulative number of people who accessed HTC for the first time, a total of **11,808,952** 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.

18,882 (3.1%) 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 (**120**) and inconclusive test results (**1,465**) both accounted for **<1 %** of new results given to clients.

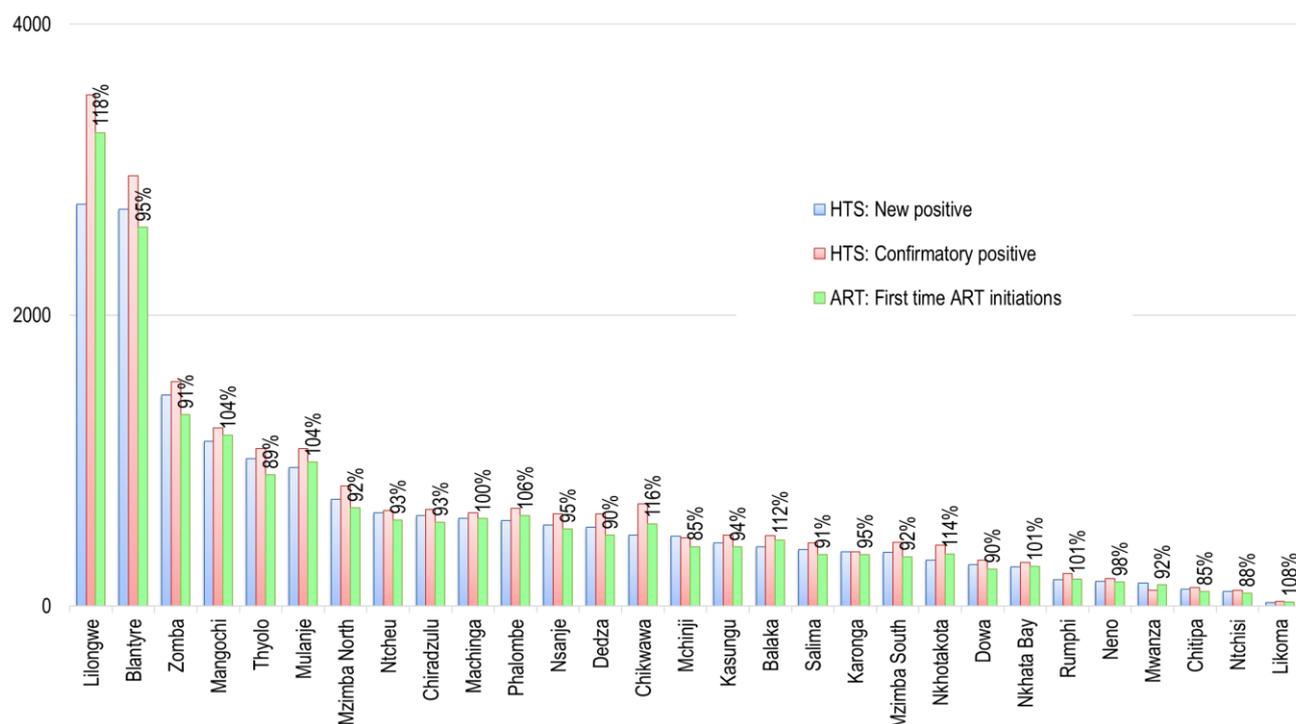
504,824 (96%) of 527,057 repeat testers reported a *last negative* result. **21,473 (4%)** were reported as *previous positives* and all of these should have been classified as receiving a confirmatory test. For most of these *previous positives*, testing was probably initiated by a health worker before ART initiation. As expected, the number of *confirmatory test results (21,571)* was very close to the number of previous positive clients. **21,349 (99%)** of 21,571 confirmatory test results were concordant positive and **222 (<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 **18,804** patients who initiated ART this quarter represent **99.6%** of the **18,882** clients tested positive for the first time. Proxy linkage rates ranged from 88% in Ntchisi and Kasungu to 116% in Chikwawa. Lilongwe had the highest number of new diagnoses (**2,764**) and ART initiations were at **3,254**, implying a district-level linkage of **118%**. Very high or low linkage rates suggest that cross-border access to testing and ART was seen in several districts (e.g. Nsanje, Nkhatabay, Neno, Blantyre, etc.).

The number of confirmatory positives exceeded the number of new positives by 2,545 at the national level. This means a large number of clients who disclosed their previous positive status were getting tested again. Blantyre recorded the greatest excess (356) of confirmatory positives compared with the number of new positives. Lilongwe, Blantyre, Zomba, Mangochi, Mulanje, Mzimba South, Mzimba North and Thyolo accounted for **1,691 (69%)** out of the 3,330 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 2,467 (12%).

Figure 4: Number of new positives, confirmatory positives and new ART initiations in Q2 2020 by district (percentages represent ART initiations over new positives for each district)



The full national HIV testing data are presented in the **Appendix**.

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.

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. Routine 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 April and June 2020, **66,300** people were counselled and given a total of **105,211** 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 1.6 kits given to each recipient. **41%** of the 66,300 recipients were males and **59%** were females. **26%** of the females were pregnant.

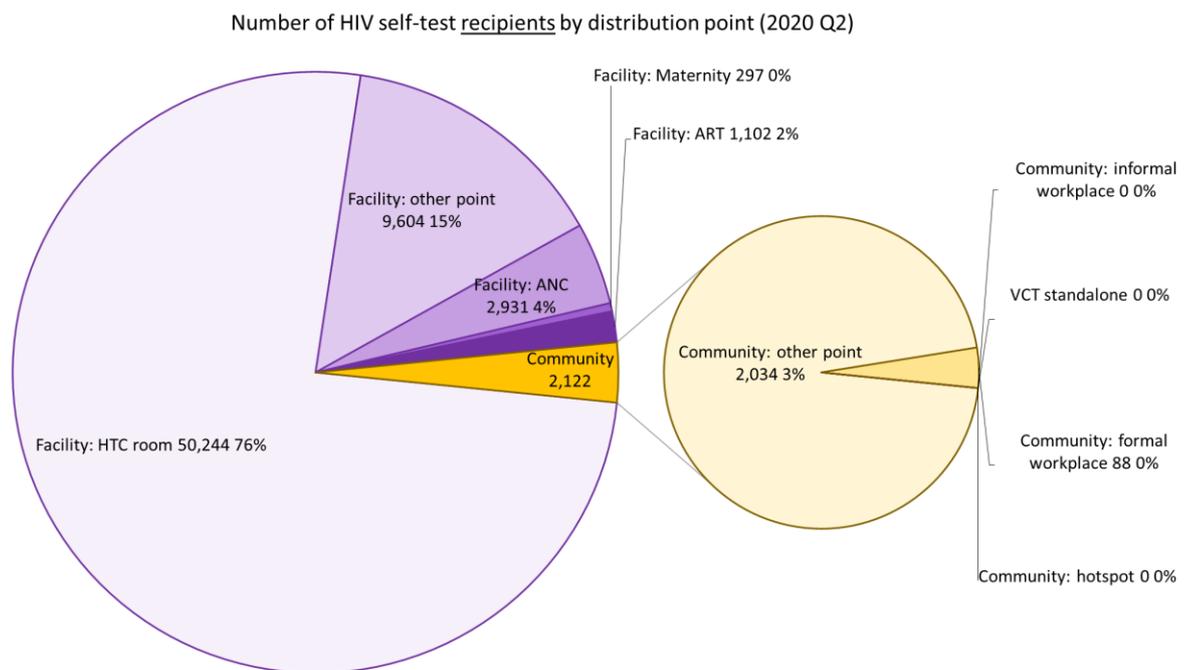
Out of all recipients, **6,717 (10%)** had never been tested for HIV before and **59,583 (90%)** reported a previous test result. **56,011 (94%)** of previously tested recipients were negative and **3,531 (4%)** were positive. **2,889 (82%)** of the positives were on ART and **18%** were not (yet) on ART. **41 (<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 2020 Q2. **64,187 (97%)** of all **66,300** recipients were seen at health facilities and **2,122 (3%)** in community settings. HTC rooms were the most common distribution point in facilities with **50,244 (76%)** recipients, followed by other facility points (**9,604**), ANC clinics (**2,931**), ART clinics (**1,102**) and Maternity (**297**). **2,034 (3%)** of clients received HIVST at unspecified community distribution points, while formal workplace setting accounted for <1% of recipients. None of the HIVST kits distributed were classified under community hotspot, VCT standalone, and informal workplaces

Figure 5

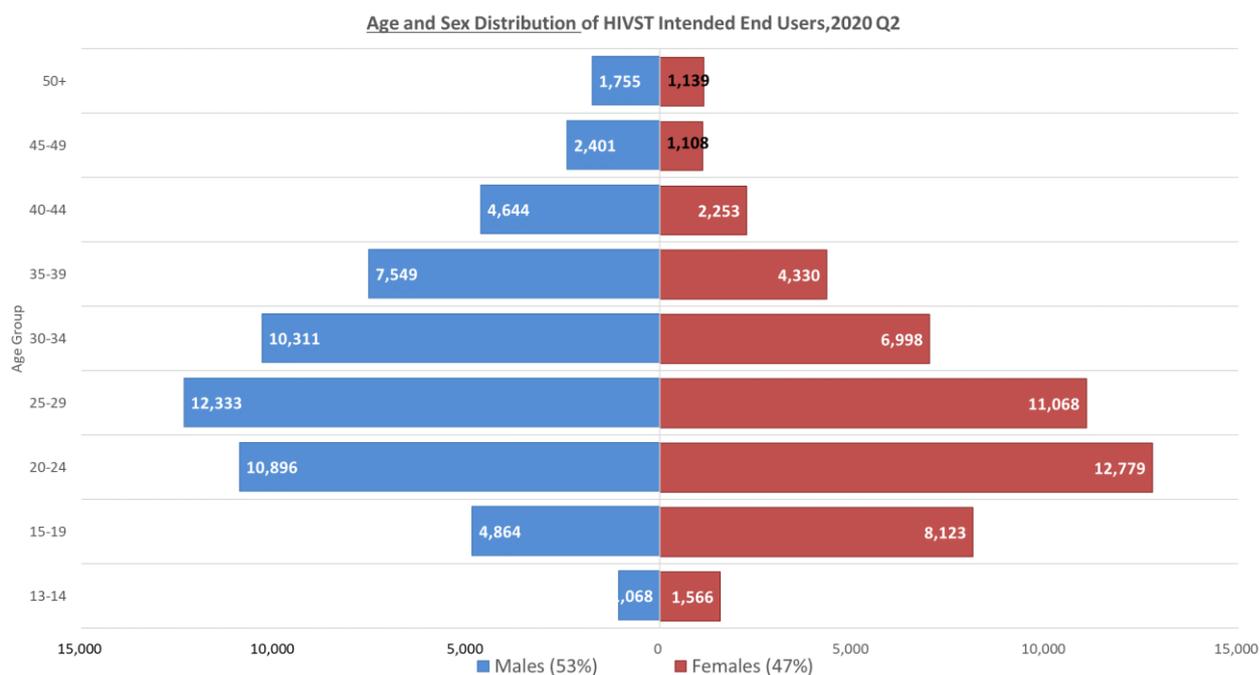


5.7.3 HIVST Distributed Kits: Intended User Attributes

Out of the **105,211** HIVST kits distributed in Q2 2020, **42,810 (41%)** were intended for self-use by the recipients and **62,401 (59%)** were for onward distribution. **47,138 (76%)** of the kits intended secondary distribution were for sexual partners and **15,263 (24%)** were for others, such as friends or relatives of the recipients.

Figure 6 below shows the intended end user age and sex category for all the test kits that were distributed during 2020 Q2. Out of **105,211** test kits distributed, **55,821 (53%)** were for males and **49,364 (47%)** for females. 74% of the male end users were 20-39 years and 65% 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.

(88%) of 691 sites with HIV exposed children in follow-up had collected and recorded at least 1 DNA-PCR sample during Q2 2020. **10,324** DNA-PCR samples were collected and recorded. By the time the logbooks were reviewed (between 1 and 3 weeks after the end of the quarter), results had been received at the sites for **7,411 (72%)** of these specimens and **4,287 (58%)** of these results had been communicated to the mother/guardian. The proportion of results received at the sites was **79%, 70%** and **66%** for samples collected in January, February and March, respectively. A total of **226 (4%)** results received at the sites were positive.

The **10 central PCR laboratories** registered the receipt of **1,746** DNA-PCR samples that were collected during Q3 2020. This represents **17%** of the 10,324 samples recorded in the logbooks at the sites. An additional **1,760** DNA-PCR samples were processed by point-of-care (POC) machines at 22 facilities in 9 districts (Blantyre, Lilongwe, Chikwawa, Machinga, Mangochi, Mulanje, Mzimba, Phalombe, Zomba). **107 (6%)** of these were positive. Patient attributes and reason for testing were not available from the electronic POC records uploaded to the central lab information management system.

A total of **1,746** valid DNA-PCR results were dispatched from the central PCR labs in Q2 2020. **(65%)** of the dispatched results were from samples collected in Q1 2020, while 35% were from samples collected in the previous quarters. The median time between sample collection and dispatch of the result was **35 days**; 50% of results were dispatched between 23 and 49 days after sample collection.

1,256 (72%) of all results were from infants under 2 months old at the time of sample collection. 376 (22%) were 2-5 months; 78 (4%) were 6-11 months; 14 (<1%) were 12-17 months; and 4 (<1%) were 18 months or older. The date of birth and/or specimen collection was missing for 125 samples, some of which may include ‘tie-breaker’ samples for patients with inconclusive rapid test results.

The number of positive DNA-PCR results has increased considerably since April 2016 when the new policy of routine confirmatory PCR testing for all children started on ART below age 2 years was introduced. Reliable identification of these confirmatory DNA-PCR results is currently not possible from the LIMS, leading to double counting of children with initial positive results.

Table 4

Age at sample collection	Tot. Results	Positives	
<2 months	1,349	7	0.5%
2-5 months	365	11	3.0%
6-11 months	65	13	20.0%
12-17 months	13	1	7.6%
18 months +	4	0	0.0%
(missing)	18	0	0.0%
Total	1,714	32	1.9%

32 (1.9%) of all results dispatched were positive. The age-specific number (%) of positive results is shown on the left. Receipt of the DNA-PCR result at the health facility is a prerequisite to updating of patient records and for appropriate clinical management. Considering the delays between sample collection and dispatch of the test result from the lab, the child’s age at the time of dispatch of the result from the lab is a useful indicator for early infant diagnosis and treatment. The table below shows the distribution of ages when results were dispatched from the lab.

Table 5

Age when result sent from lab	Tot. Res.	(Col %)	Positives	(Col %)
<2 months	140	8%	0	0%
2-5 months	1,462	83%	17	53%
6-11 months	94	5%	10	31%
12-17 months	27	2%	5	18%
18 months +	5	<1%	0	0%
(missing)	18	1%	2	16%
Total	1,714	100%	32	100%

Out of **32** positive results dispatched, none were sent before the child was 2 months old. A total of **17 (53%)** positive results were sent before the child was 6 months old and **27**

(84%) were sent before the child was 12 months old. A total of **77** infants were started on ART in WHO stage 1 or 2 on the basis of confirmed HIV infection (see ART section below). However, due to the potential for double counting of positive infants in the lab data, this ratio can no longer be interpreted for early infant ART linkage.

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 **17,095** blood units were collected in Malawi during Q2 2020. MBTS collected (**62%**) of these, **100%** of which were screened comprehensively for the relevant TTIs (HIV, Hepatitis B, Hepatitis C, syphilis, malaria). In addition, **54** hospitals in Malawi collected a total of **6,443** units from replacement donors. **5,397 (84%)** of these units were screened for at least the 3 key TTIs (HIV, HepB and syphilis) and **3,510 (65%)** of these were also screened for HepC and malaria. This means that a total of **16,049 (94%)** 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, **934** were screened with any other combination of tests for TTIs.

A total of **10,148** potential replacement donors were documented in the blood donor registers at the facilities and **6,443 (63%)** 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, 74% of potential donors were tested for HIV, 72% for HepB, 75% for syphilis, 70% for malaria and 53% for HepC. Detailed data on outcomes of individual tests among all potential blood donors are presented in the Appendix.

8 Preventive Services

8.1 Post Exposure Prophylaxis (PEP)

A total of 3,402 persons received PEP during Q2 2020. This is a slight decrease from the previous quarter's 3,510.

8.2 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 6 shows that **54,368 (12%)** of 439,131 women received Depo-Provera from ART clinics in Q2 2020. The Central West zone had achieved the highest coverage. Patient coverage has remained the same as with the previous quarter. 475 (63%) of ART/PMTCT sites had stocks of Depo-Provera in July 2020. This is only a slight increase from the 2019 Q4 with 469 sites with Depo in January 2020.¹⁰ The HIV Program is no longer supplementing FP supplies through procurement and distribution of additional Depo-Provera to sites.

8.3 Cotrimoxazole Preventive Therapy (CPT)

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 **603,346 (71%)** of 846,164 patients on ART were on CPT. Coverage was highest in the Central East zone at **85%**.

8.4 Isoniazid Preventive Therapy (IPT), Family Planning and BP Screening

ART patients with a negative screening outcome for TB symptoms in the 5 districts with the highest TB burden (Lilongwe, Blantyre, Chiradzulu, Thyolo, Zomba) were eligible for continuous IPT before the change of TPT policy. Currently the provision of IPT has also started in some districts amongst the newly initiated ART patients who have not completed the lifelong IPT.

Full transition to other districts for both IPT and 3HP is expected to happen from January 2021. **Table 6** shows that 54,640 (**6%**) of the 846,110 ART patients in the 5 both the high burden and other districts and were on IPT by the end of Q2 2020. IPT coverage ranged from **1%** in Neno to **26%** in Mangochi.

659,162 (78%) of 846,164 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. **124,281 (19%)** of 659,162 were screened for hypertension at least once in 2020.

¹⁰ Many Mission hospitals do not provide family planning.

Table 6

Zone District	Patients on ART (all)					Women (18-49) on ART			Adults (30+) on ART		
	Total	On CPT		On IPT		Total	Given FP*		Total	BP screened**	
Malawi (National)	846,164	603,346	71%	54,647	6%	439,159	54,368	12%	659,162	124,281	19%
Northern Zone	84,339	61,593	73%	2,010	2%	43,772	3,959	9%	65,700	18,895	29%
Chitipa	6,739	3,970	59%	294	4%	3,498	138	4%	5,250	1,584	30%
Karonga	14,842	11,242	76%	339	2%	7,703	616	8%	11,562	4,005	35%
Nkhata Bay	10,444	7,722	74%	421	4%	5,420	540	10%	8,136	2,199	27%
Rumphi	8,422	7,363	87%	142	2%	4,371	149	3%	6,561	1,128	17%
Mzimba North	26,765	20,398	76%	577	2%	13,891	2,089	15%	20,850	7,058	34%
Mzimba South	16,314	10,742	66%	239	1%	8,467	398	5%	12,709	2,893	23%
Likoma	813	158	19%	0	0%	422	27	6%	633	27	4%
Central East Zone	67,115	56,908	85%	2,665	4%	34,833	3,487	10%	52,283	9,700	19%
Nkhotakota	13,074	12,155	93%	56	0%	6,785	251	4%	10,185	1,470	14%
Kasungu	18,333	11,888	65%	332	2%	9,515	401	4%	14,281	3,071	22%
Ntchisi	4,952	4,401	89%	482	10%	2,570	726	28%	3,858	1,586	41%
Dowa	13,438	12,733	95%	209	2%	6,974	743	11%	10,468	1,670	16%
Salima	17,318	15,731	91%	1,585	9%	8,988	1,366	15%	13,491	1,903	14%
Central West Zone	174,362	127,269	73%	8,266	5%	90,494	15,328	17%	135,828	35,223	26%
Lilongwe	109,068	85,224	78%	6,089	6%	56,606	10,505	19%	84,964	27,553	32%
Mchinji	17,499	11,339	65%	465	3%	9,082	1,456	16%	13,632	1,780	13%
Dedza	19,924	11,526	58%	121	1%	10,341	1,413	14%	15,521	2,087	13%
Ntcheu	27,871	19,180	69%	1,591	6%	14,465	1,954	14%	21,712	3,804	18%
South West Zone	263,907	175,494	66%	21,331	8%	136,968	16,070	12%	205,584	29,833	15%
Chiradzulu	41,114	24,012	58%	5,065	12%	21,338	2,570	12%	32,028	1,011	3%
Blantyre	97,548	66,296	68%	8,581	9%	50,627	5,414	11%	75,990	15,445	20%
Mwanza	6,511	4,168	64%	150	2%	3,379	590	17%	5,072	0	0%
Thyolo	56,449	34,822	62%	5,180	9%	29,297	2,626	9%	43,974	1,740	4%
Chikwawa	31,036	21,438	69%	598	2%	16,108	2,642	16%	24,177	3,660	15%
Nsanje	22,344	16,799	75%	963	4%	11,597	1,494	13%	17,406	1,526	9%
Neno	8,905	7,960	89%	793	9%	4,622	734	16%	6,937	6,451	93%
South East Zone	256,441	182,082	71%	20,375	8%	133,093	15,524	12%	199,768	30,630	15%
Mangochi	53,001	39,089	74%	8,261	16%	27,508	1,864	7%	41,288	4,273	10%
Machinga	31,230	14,550	47%	0	0%	16,208	1,387	9%	24,328	729	3%
Zomba	57,189	39,501	69%	5,076	9%	29,681	3,882	13%	44,550	9,610	22%
Mulanje	57,010	47,329	83%	5,602	10%	29,588	3,068	10%	44,411	10,849	24%
Phalombe	35,720	26,338	74%	36	0%	18,539	2,865	15%	27,826	332	1%
Balaka	22,291	15,274	69%	1,401	6%	11,569	2,457	21%	17,365	4,837	28%

* 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.

8.5 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.

830,953 (98%) of all patients retained on ART were screened for TB at their last visit before end of June 2020. Out of these, **3,796 (<1%)** patients were classified as new TB suspects. **2,932 (<1%)** patients were confirmed to have TB (clinical or lab based) and **2,895 (99%)** of these were on TB treatment; the remaining 37 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)	15,157	2%
ICF done	830,953	98%
TB not suspected	824,225	99%
TB suspected	3,796	0%
TB confirmed	2,932	0%
TB confirmed, not on treatment	37	1%
TB confirmed, on TB treatment	2,895	99%

8.6 HIV-Related Diseases

Table 7 shows the number of patients treated for key HIV-related indicator diseases. **3,471** patients were started on TB treatment this quarter and HIV status was ascertained for **3,162 (91%)**; **1,287 (41%)** of these were HIV positive and **1,170 (91%)** of all HIV positives were already on ART when starting TB treatment. In Q2 2020, the patients that received Diflucan for acute cryptococcal meningitis and oesophageal candidiasis were not captured. **148** patients with Kaposi sarcoma were registered for ART in this quarter.

Table 7

Number new cases of key HIV-related diseases registered per quarter (KS = Kaposi Sarcoma, CM = cryptococcal meningitis, OC = oesophageal candidiasis).

	TB				KS *	CM *	OC *
	Tot. cases	HIV status asc.	HIV positive	Already on ART	Tot. cases	Tot. cases	Tot. cases
2019 Q3	4,008	3,977 99%	1,778 45%	1,702 96%	69	412	826
2019 Q4	3,886	3,858 99%	1,819 47%	1,659 91%	140	512	866
2020 Q1	2,471	2,400 97%	1,263 53%	1,229 97%	119	0	0
2020 Q2	3,471	3,162 91%	1,287 41%	1,170 91%	148	0	0

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

12,413 HIV exposed children were newly enrolled into follow-up during Q2 2020; **10,412 (84%)** of these were under the age of 2 months. The total number of new enrolments (12,413) exceeds by 3,301 (27%) the total number of known HIV exposed children discharged from maternity (9,112). 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 **11,448** infants in the **2-month age cohort**. **7,429 (65%)** had received a DNA-PCR result. **80 (1%)** of these were confirmed HIV infected. An additional **4** infants were diagnosed with *presumed severe HIV disease*, which means that a total of **84** infants were eligible for

ART. **61 (73%)** of these had started ART. This is a decrease from the previous quarter (94%). Out of the entire 2-month age cohort, **9,753 (94%)** were retained in exposed child follow-up, **61 (1%)** had started ART and **12 (<1%)** were discharged confirmed uninfected ¹¹. **47 (<1%)** were known to have died and **470 (5%)** had been lost to follow-up.

There were **12,283** children in the **12-month age cohort**. Current HIV infection status was known for **9,019 (73%)** children (DNA-PCR or rapid antibody test) and **214 (2%)** of these were confirmed HIV infected. **5 (<1%)** additional children had been diagnosed with *presumed severe HIV disease*, which means that a total of 219 children were eligible for ART. **198 (90%)** had started ART. Out of the entire age cohort, **9,176 (84%)** were retained in exposed child follow-up, **198 (2%)** had started ART and **47 (<1%)** were discharged confirmed uninfected.¹¹ **1,415 (13%)** were lost to follow-up and **96 (1%)** were known to have died.

There were **11,536** children in the **24-month age cohort**. Current HIV infection status was known for **8,271 (72%)** children (DNA-PCR or rapid antibody test) and **156 (2%)** of these were confirmed HIV infected. **6** additional children had been diagnosed with *presumed severe HIV disease*, which means that a total of **162** children were eligible for ART. **144 (89%)** of these had started ART. Out of the entire age cohort, **8,537 (83%)** were retained in exposed child follow-up, **144 (1%)** had started ART and **101 (1%)** were discharged confirmed uninfected. **1,357 (13%)** were lost to follow-up and **122 (1%)** were known to have died.

Confirmed HIV-free survival at age 24 months in this quarter was **71%**. This was related to the fact that only 66% in this cohort had a known HIV status. **4,235 (30%)** children were classified as '*current HIV infection status unknown*' and many of these may be among the **2,464** children lost to follow-up and the **168** children who had died. Only **356 (2%)** 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

¹¹ A small number of children may be rightfully discharged as 'confirmed uninfected' by 2 or 12 months of age, provided that HIV exposure through breast milk has definitely stopped (e.g. maternal death) and a negative HIV test was obtained at least 6 weeks thereafter.

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 1st / 2nd trimester; during 3rd 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 of the known HIV infected women deliver at health facilities. ART coverage among known positives is therefore reliably calculated from maternity reports. Women admitted at maternity who are referred to another facility before / after delivery are double counted in aggregated maternity data. Assuming the probability of referral is independent of ART status, the number of women already on ART when getting pregnant is therefore **adjusted** by the overall proportion of referrals among women admitted to maternity.

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 10,700 HIV infected pregnant women in the population per quarter (1/4 of 42,802 in 2019).¹²

10.2 ARV Coverage among Pregnant / Breastfeeding Women and Exposed Infants

11,873 (>99%) of the estimated 10,364 HIV infected pregnant women in Malawi this quarter were on ART. This is based on **9,339**¹³ women at maternity who were already on ART when getting pregnant and **2,535**¹⁴ women who newly initiated ART in pregnancy. ART coverage was similar in the previous quarter (>99%).

An additional **674**¹⁵ 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

¹² 2020 Spectrum model estimates for HIV infected pregnant women in 2020.

¹³ 9,943 women who started ART before pregnancy admitted at maternity; reduced by 6.1% to adjust for double counting of 8,874 referrals among 145,981 total admissions.

¹⁴ 3,749 women registered at ART clinics who were pregnant at the time of starting ART; a) 15.6% are discounted to adjust for double-counting of transfers based on 881 of 5,660 women who transferred within 12 months of registration (12-month Option B+ survival analysis); b) 19.9% are discounted to account for presumed failed ART initiations based on 1,081 of 5,424 women lost to follow-up within 6 months of registration (6-month Option B+ survival analysis).

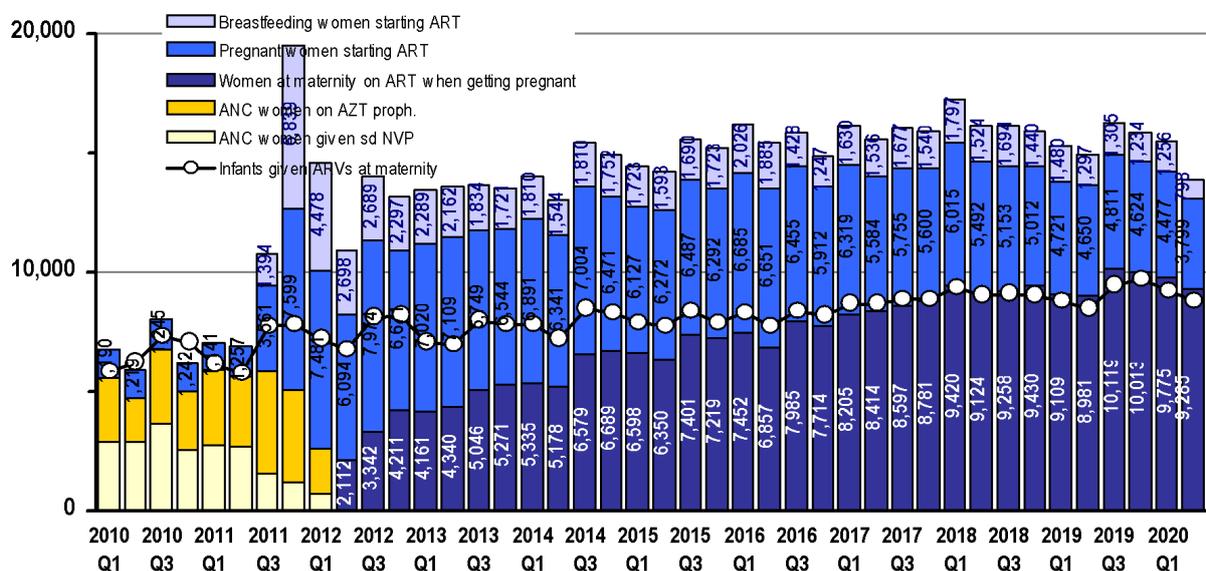
¹⁵ 798 women registered at ART clinics who were breastfeeding at the time of starting ART; reduced by 15.6% to adjust for double-counting of transfers based on 881 of 5,660 women who transferred within 12 months of

to **3,209**. 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. **8,808 infants** were confirmed to have started NVP prophylaxis at maternity.

Figure 7 shows the transition from prophylactic ARV regimens for HIV infected mothers to universal ART under **Option B+** which has now been superseded by universal ART (registration data; not adjusted as above). 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.

Figure 7

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. Data on women already on ART when getting pregnant are only available from Q2 2012.



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:

151,314 women attended ANC for their first visit between April and June 2020. This is 96% of the estimated 157,574 pregnant women in the 2020 population during one quarter.¹⁶ **147,887 (98%)** of women in this cohort had their HIV status ascertained at the first visit. Out of these, **9,100 (6%)** presented with a valid previous test result and **138,440 (98%)** received a new test. A total of **9,613 (7%)** of women were found HIV positive: **7,266 (76%)** of these from a documented previous test and **2,347 (24%)** from a new test. **9,474 (99%)** of all positives

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.

¹⁶ Estimated as ¼ of 630,187 births projected for 2020 (Demographic Projection from Spectrum 2020).

received ART: **7,228 (76%)** of these were already on ART when starting ANC; **2,260 (23%)** initiated ART at their first ANC visit and **308 (3%)** started late at 28 + weeks during pregnancy.

Outcome cohort:

164,354 women had started ANC between October and December 2020 and their outcomes were reported between April and June 2020.

162,127 (99%) of the outcome cohort had their HIV status ascertained at least once in the course of ANC. HIV ascertainment has remained consistently >97% over the last quarters. **10,277 (6%)** presented with a valid documented previous HIV test result and **151,850 (94%)** received a new HIV test result at ANC. A total of **10,965 (7%)** women were found HIV positive. This is consistent with the latest Spectrum projections (6.6% HIV prevalence among pregnant women in 2020).¹²

11,055 (99%) of (known) HIV infected women were on ART by the end of ANC. This represents >99% coverage of the estimated 10,700 HIV positive pregnant women per quarter at the population level. Of the **11,055** ANC women who were known to receive ART **8,109 (73%)** were already on ART when starting ANC, **2,576 (23%)** initiated before 28 weeks of pregnancy and **370 (3%)** initiated during the last trimester of pregnancy. **10,983 (98%)** of HIV infected women at ANC were on Cotrimoxazole Preventive Therapy. **10,878 (97%)** of known HIV infected women attending ANC received the infant dose of ARVs (nevirapine syrup) to take home

10.3.2 Syphilis Screening

144,367 (88%) of women in the outcome cohort were tested for syphilis and **3,418 (2%)** were syphilis positive. The syphilis testing rate has improved significantly from the last quarter (**71%**). This was mainly driven by the increased availability of SD Bioline syphilis test kits at facilities from **79%** in the previous to **91%** this quarter. The proportion of positive syphilis test results has remained similar to the syphilis prevalence estimated from the 2010 ANC sentinel surveillance.

10.4 HIV Services at Maternity

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

Between April and June 2020, **150,390** women were admitted for delivery to maternity; **8,874** of these were referred to another facility before delivery, resulting in **141,516** total admissions to maternity during Q2 2020.

A total of **140,434** babies were born, **135,783 (97%)** were singletons and **4,651 (3%)** were twins/multiples. There were **138,045 (98%)** live births and **2,389 (2%)** stillbirths. **137,067 (99%)** of babies born alive were discharged alive and **978 (1%)** died before discharge.

10.4.1 HIV Ascertainment at Maternity

138,394 (95%) women had their HIV status ascertained at maternity. Out of these, **10,891 (8%)** presented with a valid previous HIV test result and **127,503 (92%)** received a new test. A total of **10,075 (7%)** women were HIV positive and **9,698 (96.3%)** of these had been previously diagnosed while **377 (3.7%)** received a new positive result at maternity. The

138,394 women whose HIV status was ascertained at maternity represent **89%** of the expected 154,750 women delivering in the population.

HIV exposure status was ascertained for **132,957 (97%)** out of **140,434** babies born and discharged alive. **9,112 (7%)** of these were born to a known HIV positive mother.

10.4.2 ARV Coverage at Maternity

A total of **9,943 (99%)** of known HIV infected women admitted to maternity received ART. Out of these, **9,285 (93%)** had started ART before pregnancy, **286 (3%)** initiated ART during the 1st or 2nd trimester, **120 (1%)** initiated during the 3rd trimester and **252 (3%)** initiated ART at maternity.

A total of **8,808 (97%)** of **9,112** infants who were known HIV exposed and discharged alive started daily NVP prophylaxis at maternity. This represents **82%** coverage of the estimated 10,700 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 Q2 2020

By the end of June 2020, there were 755 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 **Figure 8**). The new policy for universal ART eligibility (“**Test & Treat**”) was introduced in **May 2016**. This policy has led to an unprecedented increase in ART initiations in Q3 2016 when almost all remaining pre-ART patients-initiated ART.

A total of **18,804** initiated ART for the first time in Q2 2020. From 2019 Q1, routine reporting during supportive supervision has included a disaggregation of first-time initiations by sex and pregnancy status. In Q2 2020, **18,713 (99%)** out of 18,804 first time initiations were disaggregated by sex and pregnancy.¹⁷ Among these, **39%** were males and **61%** were females. Total number of pregnant women amongst first time initiating females was **2,912 (23%)**.

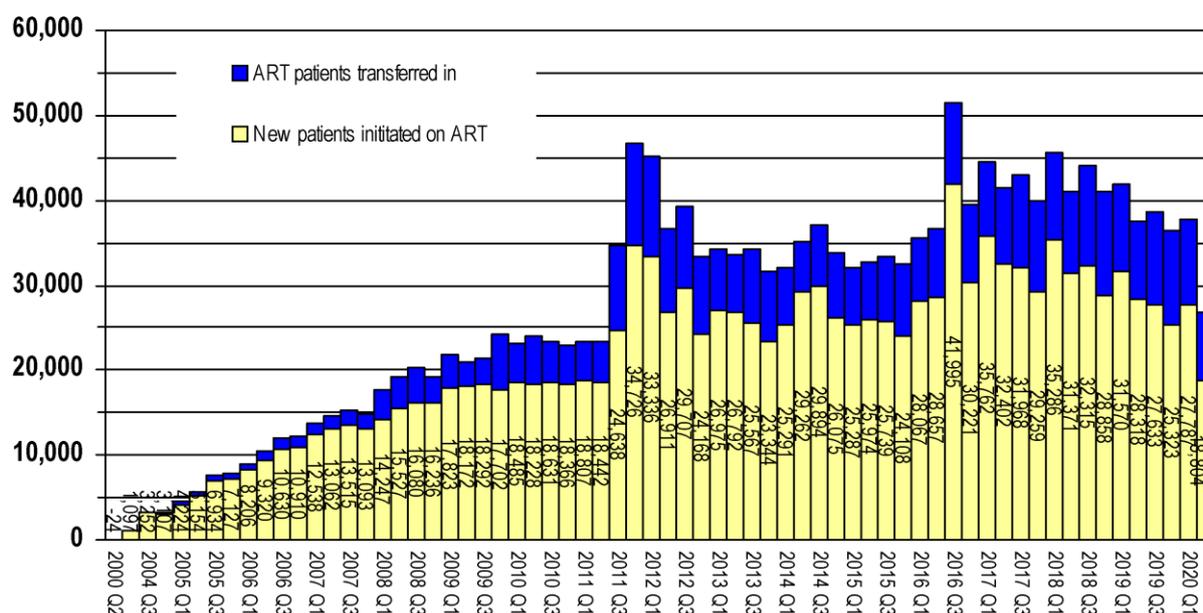
The total number of patients newly initiated on ART represents **99.6%** of the 18,882 people recorded as newly diagnosed with HIV during the quarter. Among all new ART clinic registrations¹⁸ in Q2 2020, **38%** were males and **62%** were females. **3,799 (23%)** of the registered females were pregnant at the time of starting ART.

¹⁷ Manual sex and pregnant status disaggregation’s for first time initiations for some high burden sites by supervisors was not possible because of the volume of work.

¹⁸ These proportions include the 18,804 patients newly initiating ART, but also 7,868 patients previously started on ART who transferred between sites and 261 patients who re-initiated ART after treatment interruption.

Figure 8
Patients newly initiated on ART and total ART clinic registrations per quarter

Total ART clinic registrations include patients who transferred between sites. This results in double counting of patients at the national level. For 'patients newly initiated on ART' every patient is only counted once.



A total of **23,810 (88%)** of all patients registered started in WHO stage 1 or 2 and **22,577 (95%)** of these started as 'asymptomatic' under universal ART eligibility policy. **2,358 (9%)** of patients registered started in WHO stage 3 and **652 (2%)** started in stage four. **92 (<1)** had no documented clinical stage at initiation.

1,266 children were registered at ART sites in Q2 2020. **392 (31%)** of these were children aged 12-59 months in WHO stage 1 or 2. **21 (<1%)** infants started ART with presumed severe HIV disease. **77** 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 9,112 HIV exposed infants were identified at maternity and assuming a 2% transmission rate among the 97% of HIV positive mothers at maternity who received ART (and 20% transmission in the 1% who did not receive ART)¹⁹, only about 179 of these known HIV exposed infants may have been infected perinatally during Q2 2020. However, considering the projected 600 new infant HIV infections in the 2020 population per quarter²⁰, early infant treatment coverage remains low at an estimated **16%** ((21+77)/600). The most significant bottleneck for early infant treatment remains the identification of HIV (probably mostly recently) infected pregnant / breastfeeding women.

441 (2%) out of all ART clinic registrations were patients with TB: **227 (1%)** had a current and **214 (1%)** a recent history of TB. **148 (<1%)** of patients registered had Kaposi's sarcoma.

11.2 Cumulative ART Registrations up to June 2020

By the end of June 2020, there were a cumulative total of **1,816,922 ART** clinic registrations, **1,438,094 (79%)** of whom were patients newly initiated on ART; **352,311 (19%)** were patients

¹⁹ UNAIDS Reference Group on Estimates Modelling and Projections (2011). Working paper on mother-to-child-transmission rates for use in Spectrum. Geneva, UNAIDS.

²⁰ ¼ of the 2,400 estimated new infant infections in the population in 2020 (2020 Malawi Spectrum model)

who transferred between clinics; **26,517 (1%)** re-initiated ART after treatment interruption.²¹ Out of all registrations, **37%** were males and **63%** were females, **92%** were adults and **8%** were children (<15 years).

11.3 ART Outcomes

846,164 patients were alive on ART by the end of June 2020. This is equivalent to **79% ART coverage** among the estimated 1,072,534 HIV positive population in Malawi in 2020 and it means that the revised national ART scale-up target²² for June 2020 (80% coverage) has been narrowly missed.

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 1,816,922 patients ever initiated on ART, **846,164 (47%)** were retained alive on ART, **127,542 (7%)** were known to have died, **404,713 (22%)** were lost to follow-up and **12,542 (<1%)** were known to have stopped ART.

An estimated **801,909** adults and **44,355** children (<15 years)²³ were alive on ART by the end of June 2020. This represents **75%** (44,355/ 58,752) and **79 %** (801,909/ 1,013,782) ART coverage among children and adults, respectively.

²¹ There has been an implausible drop of cumulative transfer-ins and re-initiations due to a large-scale reclassification of registration status at electronic medical record (EMR) sites. A new software version is being deployed that may change these numbers in the next quarter.

²² End of 2019 baseline and subsequent targets from the 2020-2025 National Strategic Plan for HIV.

²³ The total national number of ART patients with current age <15 years is extrapolated from the (5.5%) of all patients at EMR sites who were <15 years at the end of Q2 2020.

Figure 9: Patients alive on ART at the end of each quarter, stratified by size of facility (number of patients alive on ART)

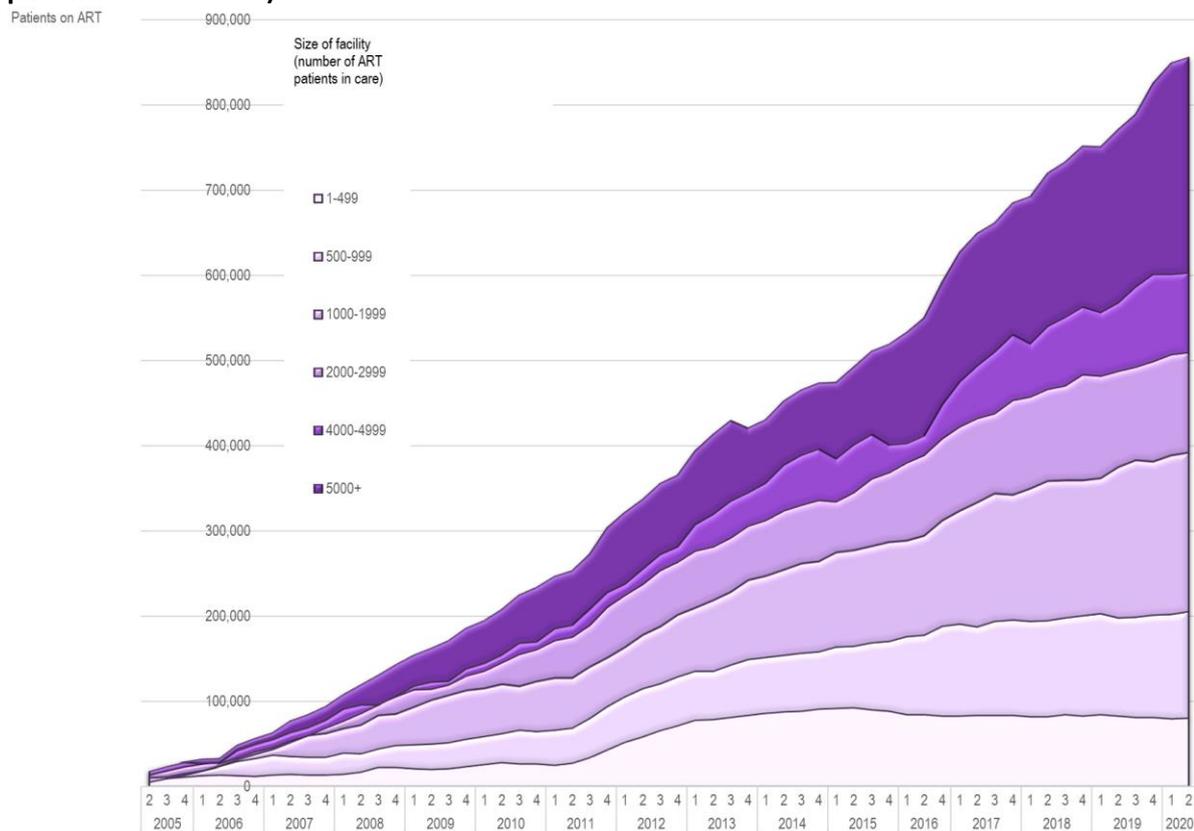


Figure 9 shows the increase of patients alive on ART by the end of each quarter, stratified by facility volume. The net increase of 7,624 patients alive on ART between April and June 2020 was slightly higher than last quarter (5,209). **Figure 9** also shows the decentralization of Malawi’s ART program 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 June 2020, **43%** of the national ART patient cohort was in care at sites with fewer than 2,000 patients.

Figure 10
Quarterly rates of ART drop out (ART stop, defaulters and deaths)

Numerator: new ART stops, new defaulters and new deaths in the respective quarter
 Denominator: total patients retained alive at the end of the previous quarter plus new patients registered in the respective quarter)

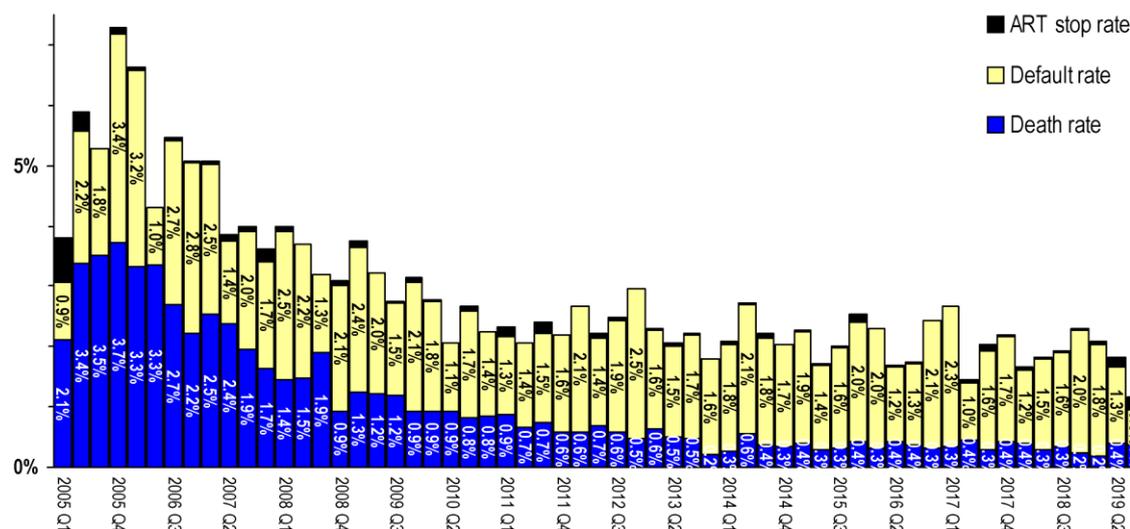


Figure 10 shows the considerable decrease of ART drop-out rates since the start of the national program, most of which was contributed by reduction in mortality. Quarterly defaulter rates appeared to have stabilized around 1.8% over the last 5 years. However, this quarter there has been a slight increase in the calculated defaulter rate from 0.9% in Q1 to 1.4% in 2020 Q2. Loss to follow-up (‘defaulters’) include undocumented ‘silent’ transfers, undocumented mortality and patients actually stopping treatment. The previous decline LTFU is 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. 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 **1,870** new deaths, **12,321** new defaulters and **134** new confirmed stops in Q2 2020. This translates into a quarterly death rate of **0.2%** and a defaulter rate of **1.4 %** among the patients alive and on treatment in this quarter.

The usual analysis of early vs. late mortality trends was not possible this quarter due to implausible changes in reported death outcomes related to the distortions reported in 2019 Q4.

11.4 ART Cohort Survival Analysis

A 12 month ‘**cohort outcome survival analysis**’ was conducted for patients registered in Q2 of 2019, 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

Q2 2019. A further subgroup analysis was done for women who started ART under **Option B+** Q4 of 2019.

71% of adults and **76% of children** were retained alive on ART after 12 months on treatment. 12-month retention rates were similar for adults (72%) and children (76%) 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.²⁴

6-month group cohort survival outcomes were known for **5,424** women registered as having started ART under Option B+ in Q4 2019. This is 187 (3%) fewer than the number of women registered under Option B+ in the quarterly cohort analysis in Q2 2019. This discrepancy is likely due to errors in data abstraction.²⁵ The 5,424 women in this cohort survival analysis include 708 (13%) women who transferred between sites. These transfers are double counted and discounted from the denominator (4,716) for the calculation of retention rates.

3,591 (76%) women in this cohort were retained at 6 months after registration. Of those not retained, **1,081 (96%)** were lost to follow-up, **21 (2%)** were known to have stopped ART and **23 (2%)** were known to have died.

12-month group cohort survival outcomes were known for **5,660** women registered as having started ART under Option B+ in Q2 2019. This exceeds by 130 (2%) the number of women registered under Option B+ in the quarterly cohort analysis in Q2 2019. This discrepancy is likely due to errors in data abstraction.²⁶ The **5,660** women in this cohort survival analysis include 881 (16%) women who transferred between sites. These transfers are double counted and discounted from the denominator (**4,779**) for the calculation of retention rates.

3,349 (70%) of women in this cohort were retained at 12 months after registration. **1,361 (95%)** of those not retained were lost to follow-up, **35 (2%)** were known to have stopped ART and **34 (2%)** were known to have died.

²⁴ 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

²⁵ 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.

²⁶ 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.

ART survival analysis

Malawi (National)

2020 Q2 (Quarter)

6 month survival OptionB+

Survival and retention in ART program

*

ART cohort registration group outcomes

Total ART clinic registrations	5,424	100%
Transfers out (double counted)	708	13%
Total not transferred out (patients in cohort)	4,716	87%
Total alive on ART	3,591	76%
Total not retained	1,125	24%
Defaulted	1,081	96%
Stopped ART	21	2%
Died	23	2%

12 month survival OptionB+

Survival and retention in ART program

*

ART cohort registration group outcomes

Total ART clinic registrations	5,660	100%
Transfers out (double counted)	881	16%
Total not transferred out (patients in cohort)	4,779	84%
Total alive on ART	3,349	70%
Total not retained	1,430	30%
Defaulted	1,361	95%
Stopped ART	35	2%
Died	34	2%

11.4.1 Secondary outcomes of patients retained on ART

846,164 patients who were alive on ART and remained registered at their facilities have documented secondary outcomes.

ART Regimens

811,872 (96%) of patients were on NNRTI- or INSTI-based regimens, most of these as 1st line ART. The number of patients on PI-based regimens increased by 1,891 from 29,026 in the previous quarter, reaching **30,917 (4%)** by the end of Q2 2020. **3,368 (<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 regimens, **11,220 (1%)** were on paediatric formulations and **6,897 (61%)** of these were on the previous standard first line for children (regimen 2P: AZT/3TC/NVP). The majority of patients on 1st line ART had transitioned from regimen **5A** (tenofovir / lamivudine / efavirenz) **34,256 (4%)** to the new standard first line regimen **13A** (tenofovir / lamivudine /dolutegravir) **752,826 (94%)**.

Adherence to ART

Completeness of adherence reporting has remained very high: **809,364 (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. **575,927 (71%)** 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 and caused by a known error in one version of the point of care EMR system that was in use at many sites this quarter.

ART Side Effects

832,177 (98%) patients on ART had information on drug side effects documented at their last clinic visit before end of June 2020. **9,399 (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 recent transition to DTG-based regimens.

11.4.2 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.

11.4.3 Facility data from VL Sample Logbooks and High VL Registers

89,033 VL samples were drawn in the reporting period and documented in the facility sample logbook. **72,724 (82%)** of these were for routine/scheduled VL monitoring; **14,928 (17%)** were extra-schedular, and **1,381 (2%)** were replacements of lost samples. **23%** of the extra-schedular samples were targeted (suspected treatment failure) and **77%** 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

163,173 samples were drawn by facilities between October and December 2019 and results were documented for **all** of these. **63,487 (39%)** results were received at the facility within 4 weeks of sample collection; **38%** were received between 5-8 weeks and **10%** between 9-12 weeks. The remaining **14%** were received after 12 weeks or were still missing. **17%** of patients were notified of their result within 4 weeks of sample collection, **24%** were notified within 5-8 weeks and **16%** within 9-12 weeks. **69,707 (43%)** of 163,173 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.

147,567 (90%) of samples produced valid VL test results. **875 (<1%)** samples were rejected, or the results were invalid and **14,731 (9%)** of samples had outstanding or missing results. **134,342 (91%)** results were suppressed below 1000 copies/ml and **13,731 (9%)** were high (≥ 1000 copies/ml).

Outcomes from High VL Registers

Between April and June 2020, **27,815** high VL results (≥ 1000 copies/ml) were received at facilities and entered in the High VL Registers. **25,568 (92%)** of these were from routine

monitoring samples, **1,748 (6%)** from targeted samples and **499 (2%)** from repeat samples. **16,346 (59%)** patients had completed intensive adherence support by June 2020 and follow-up samples were drawn for **12,585 (45%)**. Valid results were recorded for **9,106 (72%)** of follow-up samples and **76%** of these were re-suppressed (<1000 copies/ml).

A final treatment decision was available for **8,990** high VL patients. **7,858 (87%)** were maintained on the current regimen, **1,099 (12%)** were switched to second line and **33 (<1%)** 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.

11.4.4 VL Data from the Laboratory Information Management System (LIMS)

The number of VL results produced decreased very slightly from 116,473 in Q1 to **116,061 in Q2 2020**. 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.

165,675 VL results were dispatched from the labs to 655 sites between April and June 2020. 70 sites accounted for half of all results released this quarter.

23,900 (13%) of 178,512 samples processed were plasma and **154,612 (87%)** were DBS.

Lab	Samples Processed			Turn-around Time (Days) [§]
	Plasma	DBS	Total	
DREAM Blantyre	727	12,091	12,818	71
DREAM Balaka	234	10,275	10,509	86
Kamuzu CH	7,671	12,427	20,098	59
Mzimba DH	0	7,191	7,191	69
Mzuzu CH	0	10,424	10,424	85
Nsanje DH	0	11,103	11,103	76
Partners in Hope	1,212	13,402	14,614	77
QECH	1,588	6,262	7,850	76
Thyolo DH	0	6,984	6,984	79
Zomba CH	4,055	10,415	14,470	86
Total	15,487	100,574	116,061	77
§ Median days between sample collection and printing of results in lab				

Kamuzu CH, Queen Elizabeth CH, DREAM Balaka and Zomba CH and Partners in Hope labs produced 46 % of all VL results. The median interval between sample collection and printing of results was **77 days** at the national level, ranging from **59 days** at Mzimba DH to **86 days** at Dream Balaka and Zomba CH. The most significant delays occurred between sample receipt and process run in the lab (median 67 days), while on average only 6 days elapsed between samples draw and sample receipt in the lab. The overall system capacity remains challenged by the high number of samples.

Reason	0-999		1000+		Total
Routine	76,633	94%	5,158	6%	81,799
Targeted	28,692	89%	3,408	11%	32,100
Other/unk	1,922	89%	248	11%	2,170
Total	207,247	92%	8,814	8%	116,061

81,799 (70%) of VL results released this quarter were classified as *routine scheduled*²⁷. This is **39%** of the estimated 211,527 ART patients passing a VL monitoring milestone this quarter. **32,100 (28%)** of samples were classified as *targeted (suspected treatment failure / repeat)* and for **2,170 (2%)** the reason for the sample was 'other' or not specified. **94% (76,633)** of patients with a routine viral load result this quarter achieved viral suppression (i.e. <1,000 copies/ml). This mean the target for the "3rd 95" was missed by a small margin.

Viral suppression rates were significantly lower for routine samples among children (0-9 yrs: **65%**) and adolescents (10-19 yrs: **80%**) compared with adults in the age groups 20-29, 30-39, 40+ years who had viral suppression rates of **93%, 94%** and **96%**, respectively. 92% of routine VL samples were from adults 20+ years. Patient age was not recorded for 3,291 (5%) of routine samples.

The **32,100** targeted VL results this quarter exceed the 5,904 routine VL results ≥ 1000 copies/ml from the previous quarter by a factor of five. This is due to the 2018 policy that requires additionally all patients with low-level viraemia (VL between 200-999 = LLV) to be referred for adherence support and a follow-up VL. Patients with an initial routine VL result ≥ 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 8,615 samples were marked as *confirmatory (follow-up)* and 1,843 as *targeted (treatment failure suspected)* on the lab request form. 21,642 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 ≥ 1000 after 3 months. There was a net decrease of 8,605 patients on PI-based regimens this quarter. This is explained by the ongoing routine transition of 2nd line patients from PI-based to dolutegravir-based regimens. The facility VL registers were designed to facilitate tracking of samples and results and to improve appropriate follow-up action on high VL results.

The time on ART was entered for 58,740 (72%) all routine samples registered on the LIMS and only **27,498 (47%)** 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 **92%, 91%, 94%, 94%, 94%, 95%, 96%, 95%, 96%** and **96%** at 6, 12, 24, 36, 48, 60, 72, 84, 96, 108 and 120 months on ART

²⁷ 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.

respectively. Viral suppression rates of samples drawn on schedule were similar to those of 'catch-up' (extra-schedular) samples and samples with unknown timing both at 94%.

11.5 TB / HIV Management

3,162 (91%) of 3,471 new TB patients had their HIV status ascertained this quarter and **1,287 (41%)** of these were HIV positive. **1,170 (91%)** 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 717 out of 928 facilities offering STI management according to the *2013-14 Service Provision Assessment*²⁸ in Malawi. The site-level reports included here may therefore only represent 77% 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 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 **77,657** STI cases were treated in Q2 2020. Considering the 77% site-level completeness of reporting, this number is estimated to represent a total of **100,853** STI cases treated. This is equivalent to **42%** of the estimated quarterly 241,725 STI cases in the population (extrapolation from 2015/16 MDHS)²⁹.

Out of **77,657** documented clients treated, **32,496 (42%)** were male and **45,161 (58%)** were female. **6,015 (13%)** of female STI clients were pregnant. **10,418 (32%)** of male STI clients were circumcised. **54,430 (70%)** clients were 25 years and above, **17,383 (22%)** were 20-24 years and **5,844 (8%)** were under 20 years old.

12.2 Client Type and STI History

69,132 (89%) of clients were symptomatic and **8,525 (11%)** were asymptomatic (treated as partners). Among symptomatic clients, **63,520 (92%)** were index cases and **5,612 (8%)** were partners. A total of **17,326** partner notification slips were issued, equivalent to an average of 0.27 slips per index case. Considering the 17,326 partner notification slips issued, **82%** (14,137) of those notified presented to the clinic. **56,862 (73%)** of clients presented with their first lifetime episode of STI, **15,515 (75%)** clients reported to have had an STI more than 3 months ago and **5,280 (25%)** of clients reported having had an STI within the last three

²⁸ Ministry of Health, & ICF International. (2015). Malawi Service Provision Assessment (SPA) 2013-14. Lilongwe, Malawi and Rockville, Maryland, USA. Retrieved from <http://dhsprogram.com/pubs/pdf/SPA20/SPA20.pdf>

²⁹ According to the 2015/16 MDHS, 14.7% of women (15-49 years) and 9.6% of men (15-64 years) reported STI symptoms in the past 12 months. A total of 966,900 annual STI cases are estimated by applying these proportions to the 4.1 million men and 3.9 million women in these age groups in the 2016 population (NSO projections). Quarterly STI cases are assumed as ¼ of the estimated annual cases in the population.

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 **69,020 (89%)** clients and **12,932 (19%)** of these were HIV positive. **1,696 (13%)** of positives were identified through a new test initiated at the STI clinic, while **11,241 (87%)** presented with a documented previous positive HIV test result. **10,831 (96%)** 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. **29,568 (43%)** of the 64,720 STI clients with unknown or new negative test result were referred for repeat HTS. **3,413** patients were reported as “referred for ART”. This exceeds the sum of new positives (1,696) and previous positives not on ART (410) 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. 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 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 **24,959 (30%)** cases, followed by urethral discharge (UD, **23,303** cases), genital ulcers (GUD, **10,619** cases) and lower abdominal pain (LAP, **10,770** cases). Serologically confirmed syphilis accounted for 7% of the cases. Scrotal swelling, bubo and genital warts each accounted for 1% of cases.

13 Supply Chain Management of HIV Program Commodities

13.1 Quantification and procurement planning

The routine quarterly quantification review was based on Q4 2019 ART cohort analysis and physical site level stock data collected during January supervision visits. This review informed the quantification of ARVs and test kits and the submission of new orders through Pooled Procurement Mechanism (PPM). The program has also continued to provide quarterly supply planning updates to the Procurement Services Agents (PSA).

Malawi has made significant progress on the planned transition to Dolutegravir based regimen which commenced in January 2019. Out of 846,164 total patients alive on ART Q2, 761,981 are on Dolutegravir based regimen representing **90%** of patients alive on ART.

The Department for HIV and AIDS received ARVs and OIs medicine worth USD 13,905,167 USD from April to June 2020 through I-PLUS Solutions.

13.2 Quarterly supply chain support during Q2 integrated supervision

Supply chain and logistics officers from district and central level provided stock management support at 765 sites during the Q2 2020 integrated HIV program site supervision. This included a physical inventory at all sites and ad-hoc mentoring in stock management at health facilities with poor performance. There was a further overall improvement in site-level stock management for HIV commodities. The supply chain team monitored logistics tools documentation including use of Daily Activity Registers and completion of stock cards.

Table 8 shows the total stocks found at the sites and in the central warehouse, and the estimated consumption rates for all commodities.

13.3 Availability of standard first line ARVs

Adequate stock levels of TLD in packs of 30 and 90 tablets were maintained at over 750 sites during this period, with a split of 367,896 packs of 30's and 955,206 packs of 90's. This has enabled sites transition patients eligible for 6 months dispensing with no stock out risk in country.

The stock report analysis showed 9.5 months of stock for tenofovir/lamivudine/efavirenz 300/300/600mg (TLE) during supervision and 0.6 months of stock at warehouse.

13.4 Bimonthly distribution of HIV & Malaria Commodities

Two scheduled bimonthly distribution round of HIV & Malaria commodities including laboratory items and cervical cancer equipment (Distribution Rounds 52 and 53) took place during Q2 2020.

During Q2 2020, the logistics team at the Department of HIV and AIDS coordinated **3,278 individual commodity transactions** between ART sites to mitigate stock imbalances (65% ARVs; 22% Test kits; 13% Others). 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 are able to 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.

Table 8- Stock-Status

Total stocks of HIV program commodities at all sites visited during the 2019 Q2 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 30/07/2019

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)	2	74	320,000	67,264	0.0	4.8
	ABC / 3TC 60 / 30mg tins (60 tabs)	420	27,794		15,474	1.8	
	ABC / 3TC 600 / 300mg tins (30 tabs)	426	29,501	23,054	25,848	1.1	0.9
	ATV / r 300 / 100mg tins (30 tabs)	598	73,694	178,739	19,696	3.7	9.1
	AZT / 3TC / NVP 300 / 150 / 200mg tins (60 tabs)	709	228,578		17,148	13.3	
	AZT / 3TC / NVP 60 / 30 / 50mg tins (60 tabs)	685	274,496	453,079	51,790	5.3	8.7
	AZT / 3TC 300 / 150mg tins (60 tabs)	730	61,525	15,265	14,925	4.1	1.0
	AZT / 3TC 60 / 30mg tins (60 tabs)	604	37,473	18,731	3,158	11.9	5.9
	DRV 600mg tins (60 tabs)	28	593	205	68	8.7	3.0
	DTG 50mg tins (30 tabs)	686	28,882	138,921	39,623	0.7	3.5
	EFV 200mg tins (90 tabs)	207	2,414	4,466	396	6.1	11.3
	EFV 600mg tins (30 tabs)	371	19,681	11,430	485	40.6	23.6
	ETV 100mg tins (120 tabs)	9	92	55	0	0.0	0.0
	LPV / r 100 / 25mg tins (120 tabs)	9	258		14,910	0.0	
	LPV / r 100 / 25mg tins (60 tabs)	389	21,349	106,187	14,910	1.4	7.1
	LPV / r 200 / 50mg tins (120 tabs)	366	20,798	10,366	1,828	11.4	5.7
	LPV / r 40 / 10mg tins (120 granules)	3	170	16,000	12,430	0.0	1.3
	LPV / r 40 / 10mg tins (120 pellets)	24	6,352	5,155	0	0.0	0.0
	NVP 200mg tins (60 tabs)	643	58,026		4,448	13.0	
	NVP 50mg tins (60 tabs)	254	9,307	17,803	1,568	5.9	11.4
r 100mg tins (60 tabs)	14	407		0	0.0	0.0	
RAL 400mg tins (60 tabs)	5	202	80	0	0.0	0.0	
TDF / 3TC / DTG 300 / 300 / 50mg tins (30 tabs)	751	2,865,220	1,797,434	179,942	15.9	10.0	
TDF / 3TC / EFV 300 / 300 / 600mg tins (30 tabs)	753	1,684,509	282,894	323,124	5.2	0.9	
TDF / 3TC 300 / 300mg tins (30 tabs)	740	111,153	220,104	9,568	11.6	23.0	
bottles	Fluconazole (Diflucan) 50mg / 5ml bottles (50 ml)	3	97		85	1.1	
	NVP 100mg/ml bottles (100 ml)	623	31,049	97,261	6,749	4.6	14.4
vials	Benzathine Penicillin 144g vials (50 each)	409	70,793	133,150	1,848	38.3	72.0
	Bleomycine 15,000IU vials (1 each)	28	8,767	1,510	0	0.0	0.0
	Ceftriaxone 1g vials (10 each)	225	45,146		153,927	0.3	
	Depo-Provera 150mg/1ml vials (25 each)	501	531,802		73,795	7.2	
	Fluconazole (Diflucan) 2mg / 1 ml vials (100 ml)	6	6,799	899	0	0.0	0.0
	Gentamicin 80mg / 2ml vials (50 each)	672	2,020,980		63,194	32.0	
	Streptomycin 1 g vials (50 each)	34	14,925				
	Vincristine 1mg / 1ml vials (1 each)	25	2,821		0	0.0	0.0
tabs	Aciclovir 200mg blist packs (500 tabs)	712	4,513,935		927,867	4.9	
	Azithromycin 500mg blist packs (3 tabs)	495	26,178	1,725	19,312	1.4	0.1
	Ciprofloxacin 500mg blist packs (100 tabs)	696	2,396,999	525,500	0	0.0	0.0
	Clotrimazole 500mg boxes (1 each)	445	29,282	48,622	0	0.0	0.0
	Codeine 30mg tins (100 tabs)	9	169,265		0	0.0	0.0
	Cotrimoxazole 100 / 20mg blist packs (1000 tabs)	687	85,402,778	17,322,000	15,656,888	5.5	1.1
	Cotrimoxazole 400 / 80mg tins (1000 tabs)	680	63,918,415		24,333,157	2.6	
	Cotrimoxazole 960mg blist packs (1000 tabs)	748	121,733,285	250,290,000	24,106,441	5.0	10.4
	Doxycycline 100mg tins (1000 tabs)	598	6,454,643		358,621	18.0	
	E thambutol (E) 100 mg blist packs (100 tabs)	161	155,660				
	E thambutol (E) 400 mg blist packs (672 tabs)	12	40,070				
	Erythromycin 250mg tins (100 tabs)	56	67,678		119,525	0.6	
	Erythromycin 250mg tins (1000 tabs)	222	1,076,385	610,000	0	0.0	0.0
	Fluconazole (Diflucan) 200mg tins (28 tabs)	171	1,047,367	176,428	0	0.0	0.0

Inventory unit	Item	Sites with any Stock	Total Physical Stock		Consumption/ Month	Months of Stock *	
			At Sites	In Warehouse		At Sites	Wareh.
	Ibuprofen 200mg tins (100 tabs)	280	4,729,400		1,243,828	3.8	
	Isoniazid (H) 100mg blist packs (100 tabs)	319	3,021,112		0	0.0	0.0
	Isoniazid (H) 300mg blist packs (672 tabs)	252	46,064,729	7,707,840			
	Isoniazid (H) 300mg tins (1000 tabs)	5	24,912		0	0.0	0.0
	Metronidazole 200mg tins (1000 tabs)	574	10,823,702	11,426,000	0	0.0	0.0
	Morphine 10mg blist packs (60 tabs)	44	282,246		316,973	0.9	
	Pyridoxine 25mg tins (100 tabs)	255	6,769,090	40,039,300			
	RH 150 / 75 mg blist packs (672 tabs)	282	1,127,743				
	RH 75/50mg blist packs (84 tabs)	100	159,297				
	RHE 150 / 75/ 275 mg blist packs (1000 tabs)	5	1,774				
	RHZ 75/50/150mg blist packs (84 tabs)	81	88,689				
	RHZE 150/75/400/275mg blist packs (672 tabs)	299	852,170				
sheets	ART pat. card adult (yellow) Ver6 bundles (50 shee	590	345,583				
	ART pat. card paed. (blue) Ver6 bundles (50 shee	357	39,483		46,181	0.9	
	Exposed child card (pink) Ver2 bundles (50 sheet	583	67,878	104,400	4,629	14.7	22.6
	Family HTC Referral Slip bundles (100 sheets)	491	194,048				
	Polythene sleeve bundles (100 sheets)	58	5,120		17,133	0.3	
	STI Partner Referral Slip bundles (100 sheets)	86	69,647				
tests	DBS kit (filter paper, lancet, etc.) 70ul boxes (50 t	695	286,477	223,950	87,550	3.3	2.6
	Determine HIV1/2 boxes (100 each)	710	1,404,510	2,580,200	346,505	4.1	7.4
	OraQuick HIV Self-test bundles (25 each)	172	111,197	1,332,350			
	SD Bioline Syphilis boxes (30 each)	592	213,486	313,170	32,208	6.6	9.7
	Uni-Gold HIV1/2 boxes (20 each)	724	283,828	256,720	27,996	10.1	9.2
pieces	Condoms female boxes (1000 each)	521	284,772				
	Condoms male boxes (144 each)	664	41,277,848	37,777,104			

* '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 Impact of COVID-19 on HIV services and program adaptations

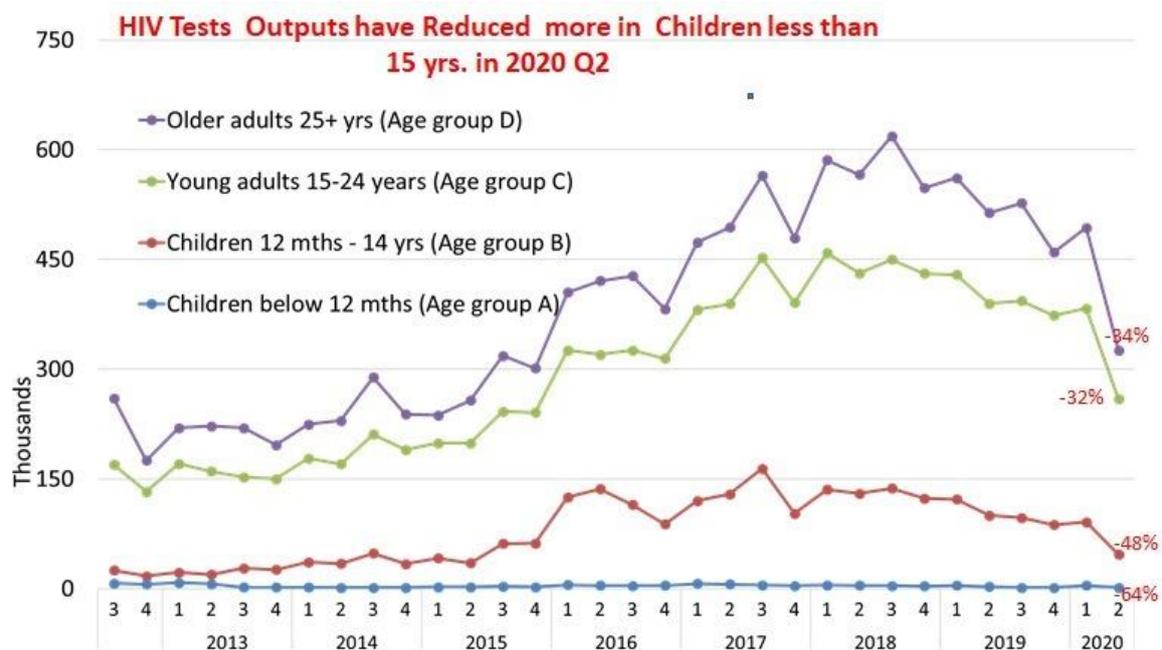
COVID-19 was declared a national disaster on 20th March 2020. The DHA issued four editions of a circular between 3rd April and 14th August 2021 with recommendations for successive adaptations of HIV services at all sites to the evolving situation in Malawi.

The first circular edition laid out general infection control measures to protect staff and patients and to limit the spread of COVID-19 in the community. The circulars included an explicit list with essential and non-essential HIV services that should be temporarily suspended (See the four circulars in the appendix).

14.1 HIV Testing Services

Overall HIV testing outputs decreased by 35% from 972,837 in Q1 to Q2 634,564 of 2020. This drop was attributed to reduced staffing and the suspension of community testing. Testing among children declined significantly more than testing among adults. **Figure 11** shows the age-group specific changes in HTS access. The sharp decline in the number of people tested resulted in a parallel decline in new diagnoses as the positivity among clients tested remained very similar to previous quarters. While linkage from diagnosis to ART initiation remained very high (>99%), the decline new diagnoses led to an equally sharp decline in new ART initiations.

Figure 11: Impact of COVID-19 on HTS access



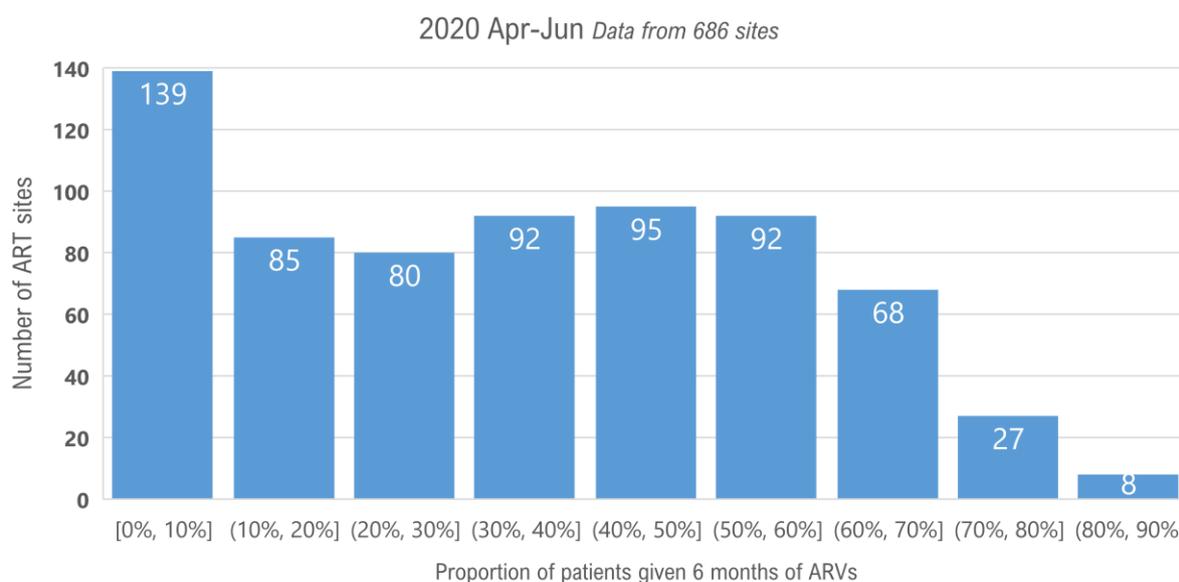
The decline in professional (blood-based) testing was partially offset by a **39%** increase in the number of self-tests distributed (from 64,528 in Q1 to 105,211 in Q2 2020). This increase was consistent with guidance to consider HIV self-test kits for OPD clients who really need the test to minimize physical contact during professional HTS. However, the contribution of self-testing to the overall HIV case-finding and new ART initiations was not apparent.

14.2 ART

The number of new initiations decreased by **32%** from 25,354 in Q1 to **18,804** in Q2 of 2020. This was driven by the reduced number of new positives who were identified from HTS programme due to the low HIV testing outputs. However, attrition from the ART program actually decreased compared with the previous quarter and this decrease overcompensated the decline in new initiations. This means that the net ART cohort growth was **2,249 (30%)** higher than in Q1 2020 (net growth 5,312 in Q1 vs. 7,561 in Q2).

Providers were encouraged maximize the use of 6-month ARV dispensing and appointment spacing through drastically relaxed eligibility criteria. Data on dispensing intervals were available from 686 sites with electronic medical record systems. **Figure 12** shows the uptake of the 6-month dispensing recommendation during Q2 2020. While **139 (20%)** sites gave fewer than 10% of their patients 6-month appointments, **187 (27%)** implemented 6-month dispensing for 30-50% of their patients and **195 (28%)** sites for more than half of their patients.

Figure 12: Facility-level uptake of 6-month ARV dispensing during Q2 2020



14.3 Viral Load Monitoring

The 1st and 2nd edition of the COVID-19 HIV services circular recommended to suspend routine VL monitoring for uncomplicated stable patients. As a result, the sample collection from the facility VL sample logbooks had reduced by **45 %** from 162,704 in Q1 to 89,033 in Q2 of 2020.

The number of VL results produced from the Laboratory Information Management System remained very similar as the labs were working through previous backlogs (116,473 results in Q1 and 116,061 in Q2). Samples marked as “routine” reduced slightly by 5% from 85,691 to 2020 Q1 81,799 in 2020 Q2. Due to disruptions in lab operations, the turnaround time between specimen collection and result dispatch more than doubled from 34 to 77 days in Q1 and Q2, respectively.

15 Training and Mentoring

In compliance with Covid-19 guidelines, most scheduled trainings were suspended and only a few critical ones were conducted as reported below:

15.1 ART/PMTCT

87 Nurses and clinicians were trained and certified for the first time in the Integrated ART/PMTCT/TB guidelines.

15.2 HIV Testing Services

50 testing providers were trained in HIV self-testing and **19** were oriented in index testing.

16 Participants in the Q2 2020 Supervision (13-31 July 2020)

Richard Abudul (CO, MOH)
Sophie Bakali (, other)
Blessings Banda (MA, MOH)

Knox Banda (TB Zonal
Supervisor, MOH)
Little Banda (, MOH)
Osman Banda (, MOH)
Samuel Banda (, MOH)

Wells Banda (CO, MOH)
Semu Bangelo (, MOH)
Robert Beston (, MOH)
Thomas Biseck (, MOH)
Annie Biza (, moh)

Regina Bwanali (, MOH)
Demobry Chagomerana (, MoH)
Lincy Chalunda (CO, MOH)
Rachel Champiti (, MOH)
Ronard Chawinga (nurse, MOH)
Maggie Chigona (, MoH)
Margaret Chigona (CO, Blantyre DHO)
Grace Chikhwaya (, MOH)
Kondwani Chikoti (CO, MOH)
Patrick Chikuni (, MoH)
Lusayo Chikuta (, Nkhatabay)
Verydear Chilapondwa (, MOH)
George Chimadzuma (, MoH)
Peter Chimphero (CO, MOH)
Yunus Chiosa (, NTP)
Diana Chipande (, MOH)
Grace Chipanga (Nurse, Private)
Elvin Chipoya (, MOH)
Esnart Chirambo (, MoH)
Thom Chirwa (, MOH)
Stella Chitawo (, MOH)
Samson Chitsulo (, other)
Willie Chiumbuzo (, MoH)
Madalitso Chiundira (, MoH)
Brown Chiwandira (MA, MOH)
Chama Chungwa (, MoH)
Ruth Deula (, moh)
Peter Donda (CO, Dedza DH)
Alefa Fikira (CMT, MOH)
Lackson Gama (, MoH)
Lackson Gawani (, MoH)
Richard George (, MOH)
Symon Goliath (, Dignitas)
Bertha Gombeza (, MOH)
Paul Gondwe (, MOH)
Sidder Hambisa (ENM, MOH)

Tadala Hamisi (Logistics, KCH)
Natasha Harawa (, MoH)
Anderson Jeke (, Balaka DHO)
Moses Kabudula (, MoH)
Lizzie Kachale (, MoH)
Francis Kachali (, MoH)
Lilian Kachali (Nurse, MOH)
Arlene Kachapira (, MoH)
Golgen Kachepatsonga (, MoH)
Helix Kachigamba (, MoH)
Ruth Kachitsa (, MoH)
Bright Kadyeremwana (, MoH)
Blessings Kadzuwa (, MOH)
Vera Kajawa (Nurse, MOH)

Bannet Kalebe (Logistics, MOH)
Enipher Kalengamaliro (, MOH)
Jonathan Kalua (, MoH)
Thoko Kalua (, HIV DEPT)
Ethel Kaluluma (Nurse, MOH)
Richard Kamalizeni (, MOH)
Ever Blessings Kamanga (, MoH)
Kepson Kamanga (MA, MOH)
Alex Kambanga (, MoH)
Emmanuel Kampaliro (, MOH)
Gift Kamphika (MA, MOH)
Thokozani Kamvamgomo (, MoH)
Jacqueline Kamwana (, MoH)
Mercy Kamweka (, MOH)
Mercy Kamwela (, supervisor)
Cornelias Kang`ombe (, NTP)
Henry Kanyerere (TB/HIV Program Officer, MOH)
Fatsileni Kanyimbo (, MOH)
Saulosi Kanyinji (, MoH)
Justice Kaphiri (, NTP)
Elisa Kapundi (NMT, MOH)
Elsie Kasambwe (, other)
Elsie Kasambwe (, other)
Annie Kaseka (RNM, MOH)
Catherine Kassam (, MOH)
Rodrick Kaulere (CO, CHAM (Sister Tereza))
Absalom Kaunda (CO, MOH, Mzimba DHO)
William Kaunda (, Salima)
William Kaunda (, MOH)
Kondwani Kautsa (, MOH)
Jean Kayamba (Nurse, MOH)
Daniel Kazingachire (, MOH)
Robert Khombe (, MOH)
Hope Kumwenda (, MoH)
Charles Kwenje (, Moh)
George Lipande (CO, MOH)
Jesse Lobeni (Nurse, MOH)
Patricia Ludaka (, MoH)
Samuel Lunda (, MoH)
Malumbo Luwinda (Logistics, Kamuzu Central)
Diana Lweshwa (, MoH)
Rose Mabviko (, MOH)
Chikayiko Majamanda (Nurse, MOH)
Linda Makata (, MOH)
Geoffrey Makhallira (, NTP)
Mwai Makina (, MOH)
Chifundo Makuluni (Nurse, MOH)
Felix Mala (, MOH)
Lusayo Malanga (, MoH)
Grey Malata (, MOH)

`symon Manda (, MOH)
Simion Manda (, MOH)
Joe Manje (, MOH)
Cecilia Manyawa (Nurse, MOH)
Fatsireni Mapulanga (, MOH)
Randof Maseya (, MOH)
Angela Masumba (, moh)
Jake Mataya (, moh)
Jeke Mataya (, moh)
Yamikani Matiya (, MoH)
Martin Maulidi (CO, I-TECH)
Rose Maviko (Nurse, Limbe HC)
Faith Rose Mawaya (Nurse, MOH)
Faith Upile Mawaya (, Private)
Yanjanani Mawindo (, MoH)
Felix Mbalale (CO, MOH)
Nyuma Mbale (, MOH)
Kingsley Mbewa (CO, MOH)
Brenda Mbewe (, MoH)
Alice Mdolo (, MOH)
Topcy Mdolo (, MOH)
Dan Midian (, MOH)
Dalitso Midiani (PMTCT Officer, MOH)
Alex Mission (, MOH)
Towera Mjimapemba (, moh)
Anold Mkandawire (, MOH)
Arnold Mkandawire (, MOH)
Chimwemwe Francis Mkandawire (IT Fellow, I-TECH)
Joel Mkandawire (, MoH)
Taonga Mkandawire (, moh)
Merium Mkangala (, moh)
Chimwemwe Mlenga (, MOH)
Christopher Mlotha (, MoH)
Yvonne Mnjeza (, MOH)
Cecilia Mphika (, MOH)
Tryness Mponda (NMT, MOH)
Willie Mpute (, MoH)
Damison Msiska (CO, Dwangwa)
Edwin Msiska (, MOH)
Chawanangwa Msonda (, MOH)
Catherine Flora Msukwa (, MoH)
Sosten Mtalika (, Dedza)
Robert Mtupanyama (, MoH)
Dave Muhasuwa (, MoH)
Kim Mustafa (, moh)
Fainala Muyila (Nurse, MOH)
Ruockia Mwachumu (Nurse, MOH Nsanje DHO)
Thomas Mwale (, MOH)
Patrick Mwamlima (, MoH)

Patrick Mwamulima (NMT, MOH)
 Mirriam Mwansambo (, MoH)
 Harold Mwareya (, MOH)
 Golden Mwathunga (MA, Press)
 Tuwepo Mwitha (, MOH)
 Riff Mzava (Nurse, MOH)
 Fred Namalima (MA, MOH)
 Francis Nangantani (, moh)
 Pepsy Nangwale (Nurse, MOH)
 Overton Ndhlovu (, MOH)
 Joel Ng'ambi (MA, MOH)
 Youngson Ngonya (, MoH)
 Etta Ngulube (, MoH)
 Charles Ngwira (, MoH)
 Eunice Ngwira (, MOH)
 Dumbo Njera (, MOH)
 Merium Nkangala (, moh)
 Grace Nkhata (Clerk, MOH)
 Grace Juma Nkhata (Nurse, MOH)
 Relia Nkhata (, other)
 Angela Nkhoma (Nurse, MOH)
 Joe Nkhonjera (, moh)

Vitu Nkhunga (, MOH)
 Emmanuel Nkonde (, NTP)
 Evaristo Nthete (, moh)
 Judith Ntopa (Nurse, Cobbe Barracks)
 Jotham Nyasulu (, MOH)
 Steven Nyika (, MOH)
 Feliya Nyirenda (, Machinga)
 Janet Nyirenda (, MOH)
 Mike Nyirenda (CO, Lighthouse)
 Veronica Nyirenda (, moh)
 Abdul Richard Onani (, MOH)
 Washington Ozitiosauka (CO, MOH)
 Chrissy Padoko (, MOH)
 Paul Petersen (, MoH)
 Paul Peterson (, MOH)
 Bright Phiri (, MOH)
 Precious Phiri (, MoH)
 Tifera Phiri (, MOH)
 Zuze Phiri (, MoH)
 Stanley Phombo (Nurse, MOH)
 Enock Phwitiko (, MoH)
 Macleod Piringu (ART CORDINATOR, MOH)

Ethel Rambiki (, MoH)
 Beston Robert (, MOH)
 Alice Sajeni (, moh)
 Dorica Sambo (Nurse, MOH)
 Geofly Sasani (, MOH)
 Moses Sebastian (, HOD)
 Sharriff Senga (, MoH)
 Limbitso Sengani (, moh)
 C Senganimalunje (, PRIVATE)
 Kondwani Shaba (, MoH)
 Gabriel Simwaka (, moh)
 Juliana Soko (ARV nurse, MOH, Livingstonia MH)
 Joel Sosola (, MOH)
 Ethel Susuwele (MA, MOH)
 Mark Suzumire (CO, MOH)
 Faluness Tanganyika (, MoH)
 Ephraim Tchale (, MoH)
 Vuso Tembo (, MoH)
 Cecelia Tenesi (Nurse, MOH)
 Biseck Thomas (, MOH)
 Harry Tsapa (CO, MOH)
 Lloyd Wella (CO, MOH)
 Oscar 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.

25th February 2021

17 Appendix (Full National HIV Program Data)

HTC site report

Malawi (National)

2020 Q2 (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	622,962	100%
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Sex

Males tested	195,748	31%
Females tested	427,214	69%
Females non-pregnant	254,085	59%
Females pregnant	173,129	41%

Age

Children 0-14 yrs	48,258	8%
Children below 12 mths (Age group A)	1,594	3%
Children 12 mths - 14 yrs (Age group B)	46,664	97%
Adults 15+ years	574,704	92%
Young adults 15-24 years (Age group C)	253,414	44%
Older adults 25+ yrs (Age group D)	321,290	56%

HTC access type

PITC	483,727	78%
Family Referral Slip (FRS)	9,198	1%
Other (VCT, etc.) HTC access	130,037	21%

HTC first time / repeat

Never tested before	105,646	17%
Previously accessed HTC	517,316	83%
Last negative	495,439	96%
Last positive	21,123	4%
Last exposed infant	245	0%
Last inconclusive	509	0%

Counseling session type / Partner present

Counseled with partner / partner present	163,428	26%
Counseled alone / Partner not present	459,534	74%

Outcome summary (HIV test)

Single test negative	581,188	93%
Single test positive	47	0%
Test 1&2 negative	374	0%
Test 1&2 positive	39,748	6%
Test 1&2 discordant	1,605	0%

HTC site report

Malawi (National)

2020 Q2 (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	601,725	97%
New negative	581,438	97%
New positive	18,724	3%
New positive (non-sex dissag)	2,234	12%
New positive (dissag by sex)	16,490	88%
New positive male	6,801	41%
New positive female	9,689	59%
New inconclusive	1,448	0%
New exposed infants	115	0%
Confirmatory results (previous positive clients)	21,237	3%
Confirmatory positive	21,031	99%
Confirmatory positive (non-sex dissag)	2,333	11%
Confirmatory positive (dissag by sex)	18,698	89%
Confirmatory positive male	7,682	41%
Confirmatory positive female	11,016	59%
Confirmatory inconclusive	206	1%

Partner / Family HTC referral slips

Sum of slips given	28,652	100%
Total clients presenting with referral slip	9,198	32%
Total failed referrals (slips not returned)	19,454	68%

Clients tested in the community

HTC client details

*

Total HTC clients served

Total HIV tested	9,933	100%
------------------	-------	------

Sex

Males tested	2,054	21%
Females tested	7,879	79%
Females non-pregnant	5,291	67%
Females pregnant	2,588	33%

Age

Children 0-14 yrs	375	4%
Children below 12 mths (Age group A)	4	1%
Children 12 mths - 14 yrs (Age group B)	371	99%
Adults 15+ years	9,558	96%
Young adults 15-24 years (Age group C)	5,239	55%
Older adults 25+ yrs (Age group D)	4,319	45%

HTC access type

PITC	5,027	51%
Family Referral Slip (FRS)	193	2%
Other (VCT, etc.) HTC access	4,713	47%

HTC site report

Malawi (National)

2020 Q2 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

HTC client details

*

HTC first time / repeat

Never tested before	1,610	16%
Previously accessed HTC	8,323	84%
Last negative	8,230	99%
Last positive	91	1%
Last exposed infant	0	0%
Last inconclusive	2	0%

Counseling session type / Partner present

Counseled with partner / partner present	1,154	12%
Counseled alone / Partner not present	8,779	88%

Outcome summary (HIV test)

Single test negative	9,728	98%
Single test positive	3	0%
Test 1&2 negative	5	0%
Test 1&2 positive	185	2%
Test 1&2 discordant	12	0%

Final result given to client

Results among clients never tested / last negative	9,845	99%
New negative	9,729	99%
New positive	102	1%
New positive (non-sex dissag)	14	14%
New positive (dissag by sex)	88	86%
New positive male	26	30%
New positive female	62	70%
New inconclusive	10	0%
New exposed infants	4	0%
Confirmatory results (previous positive clients)	88	1%
Confirmatory positive	86	98%
Confirmatory positive (non-sex dissag)	12	14%
Confirmatory positive (dissag by sex)	74	86%
Confirmatory positive male	17	23%
Confirmatory positive female	57	77%
Confirmatory inconclusive	2	2%

Partner / Family HTC referral slips

Sum of slips given	90	100%
Total clients presenting with referral slip	193	214%
Total failed referrals (slips not returned)	-103	-114%

Clients at stand-alone HTC sites

HTC client details

*

Total HTC clients served

Total HIV tested	1,257	100%
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Sex

Males tested	640	51%
Females tested	617	49%
Females non-pregnant	587	95%
Females pregnant	30	5%

HTC site report

Malawi (National)

2020 Q2 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

HTC client details

*

Age

Children 0-14 yrs	34	3%
Children below 12 mths (Age group A)	0	0%
Children 12 mths - 14 yrs (Age group B)	34	100%
Adults 15+ years	1,223	97%
Young adults 15-24 years (Age group C)	604	49%
Older adults 25+ yrs (Age group D)	619	51%

HTC access type

PITC	383	30%
Family Referral Slip (FRS)	1	0%
Other (VCT, etc.) HTC access	873	69%

HTC first time / repeat

Never tested before	228	18%
Previously accessed HTC	1,029	82%
Last negative	980	95%
Last positive	47	5%
Last exposed infant	0	0%
Last inconclusive	2	0%

Counseling session type / Partner present

Counseled with partner / partner present	131	10%
Counseled alone / Partner not present	1,126	90%

Outcome summary (HIV test)

Single test negative	1,161	92%
Single test positive	0	0%
Test 1&2 negative	1	0%
Test 1&2 positive	90	7%
Test 1&2 discordant	5	0%

Final result given to client

Results among clients never tested / last negative	1,209	96%
New negative	1,163	96%
New positive	42	3%
New positive (non-sex dissag)	39	93%
New positive (dissag by sex)	3	7%
New positive male	3	100%
New positive female	0	0%
New inconclusive	4	0%
New exposed infants	0	0%
Confirmatory results (previous positive clients)	48	4%
Confirmatory positive	46	96%
Confirmatory positive (non-sex dissag)	39	85%
Confirmatory positive (dissag by sex)	7	15%
Confirmatory positive male	7	100%
Confirmatory positive female	0	0%
Confirmatory inconclusive	2	4%

HTC site report

Malawi (National)

2020 Q2 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

HTC client details

*

Partner / Family HTC referral slips

Sum of slips given	11	100%
Total clients presenting with referral slip	1	9%
Total failed referrals (slips not returned)	10	91%

Clients returning to facility after self-test

HTC client details

*

Total HTC clients served

Total HIV tested	412	100%
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Sex

Males tested	192	47%
Females tested	220	53%
Females non-pregnant	213	97%
Females pregnant	7	3%

Age

Children 0-14 yrs	11	3%
Children below 12 mths (Age group A)	0	0%
Children 12 mths - 14 yrs (Age group B)	11	100%
Adults 15+ years	401	97%
Young adults 15-24 years (Age group C)	104	26%
Older adults 25+ yrs (Age group D)	297	74%

HTC access type

PITC	248	60%
Family Referral Slip (FRS)	11	3%
Other (VCT, etc.) HTC access	153	37%

HTC first time / repeat

Never tested before	23	6%
Previously accessed HTC	389	94%
Last negative	175	45%
Last positive	212	54%
Last exposed infant	2	1%
Last inconclusive	0	0%

Counseling session type / Partner present

Counseled with partner / partner present	62	15%
Counseled alone / Partner not present	350	85%

Outcome summary (HIV test)

Single test negative	160	39%
Single test positive	0	0%
Test 1&2 negative	45	11%
Test 1&2 positive	201	49%
Test 1&2 discordant	6	1%

HTC site report

Malawi (National)

2020 Q2 (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	214	52%
New negative	196	92%
New positive	14	7%
New positive (non-sex dissag)	0	0%
New positive (dissag by sex)	14	100%
New positive male	8	57%
New positive female	6	43%
New inconclusive	3	1%
New exposed infants	1	0%
Confirmatory results (previous positive clients)	198	48%
Confirmatory positive	186	94%
Confirmatory positive (non-sex dissag)	3	2%
Confirmatory positive (dissag by sex)	183	98%
Confirmatory positive male	88	48%
Confirmatory positive female	95	52%
Confirmatory inconclusive	12	6%

Partner / Family HTC referral slips

Sum of slips given	15	100%
Total clients presenting with referral slip	11	73%
Total failed referrals (slips not returned)	4	27%

HIV self-test (ST) distribution

Malawi (National)

2020 Q2 (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	2,931	100%
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Sex

Male recipients	1,096	37%
Female recipients	1,835	63%
Non-pregnant	1,090	59%
Pregnant	745	41%

Last HIV test of recipient

Never tested	269	9%
Previously tested	2,662	91%
Last negative	2,449	92%
Last positive	213	8%
Not on ART	38	18%
On art	175	82%
Last inconclusive	0	0%

HIV ST kits given: Intended end user attributes

Total self-test kits distributed to end users	4,131	100%
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Intended end user distribution type

Self (recipient)	1,744	42%
Secondary distribution	2,387	58%
Sex-partner	1,942	81%
Other	445	19%

Intended end user sex / age category

Total males	2,328	56%
Boys 13-14 years old	38	2%
Adolescent boys and young men 15-24 years old	588	25%
Adolescent boys 15 - 19 years old	161	27%
Young men 20 - 24 years old	427	73%
Adults	1,702	73%
Young adults 25 - 35 years old	972	57%
Middle adults 36 - 49 years old	671	39%
Older adults 50+	59	3%
Total females	1,803	44%
Girls 13-14 years old	35	2%
Adolescent girls and young women 15-24 years	780	43%
Adolescent girls 15 - 19 years old	256	33%
Young women 20 - 24 years old	524	67%
Adults	988	55%
Young adults 25 - 35 years old	661	67%
Middle adults 36 - 49 years old	308	31%
Older adults 50+	19	2%

Total condoms

Total condoms distributed	11,577	100%
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HIV self-test (ST) distribution

Malawi (National)

2020 Q2 (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	297	100%
------------------------------------	-----	------

Sex

Male recipients	99	33%
Female recipients	198	67%
Non-pregnant	182	92%
Pregnant	16	8%

Last HIV test of recipient

Never tested	12	4%
Previously tested	285	96%
Last negative	270	95%
Last positive	15	5%
Not on ART	6	40%
On art	9	60%
Last inconclusive	0	0%

HIV ST kits given: Intended end user attributes

Total self-test kits distributed to end users	407	100%
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Intended end user distribution type

Self (recipient)	166	41%
Secondary distribution	241	59%
Sex-partner	228	95%
Other	13	5%

Intended end user sex / age category

Total males	241	59%
Boys 13-14 years old	1	0%
Adolescent boys and young men 15-24 years old	63	26%
Adolescent boys 15 - 19 years old	11	17%
Young men 20 - 24 years old	52	83%
Adults	177	73%
Young adults 25 - 35 years old	91	51%
Middle adults 36 - 49 years old	82	46%
Older adults 50+	4	2%
Total females	166	41%
Girls 13-14 years old	2	1%
Adolescent girls and young women 15-24 years	66	40%
Adolescent girls 15 - 19 years old	17	26%
Young women 20 - 24 years old	49	74%
Adults	98	59%
Young adults 25 - 35 years old	75	77%
Middle adults 36 - 49 years old	23	23%
Older adults 50+	0	0%

Total condoms

Total condoms distributed	840	100%
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HIV self-test (ST) distribution

Malawi (National)

2020 Q2 (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	1,102	100%
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Sex

Male recipients	513	47%
Female recipients	589	53%
Non-pregnant	452	77%
Pregnant	137	23%

Last HIV test of recipient

Never tested	90	8%
Previously tested	1,012	92%
Last negative	712	70%
Last positive	300	30%
Not on ART	40	13%
On art	260	87%
Last inconclusive	0	0%

HIV ST kits given: Intended end user attributes

Total self-test kits distributed to end users	1,911	100%
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Intended end user distribution type

Self (recipient)	462	24%
Secondary distribution	1,449	76%
Sex-partner	1,008	70%
Other	441	30%

Intended end user sex / age category

Total males	1,008	53%
Boys 13-14 years old	23	2%
Adolescent boys and young men 15-24 years old	221	22%
Adolescent boys 15 - 19 years old	78	35%
Young men 20 - 24 years old	143	65%
Adults	764	76%
Young adults 25 - 35 years old	403	53%
Middle adults 36 - 49 years old	319	42%
Older adults 50+	42	5%
Total females	903	47%
Girls 13-14 years old	37	4%
Adolescent girls and young women 15-24 years	377	42%
Adolescent girls 15 - 19 years old	161	43%
Young women 20 - 24 years old	216	57%
Adults	489	54%
Young adults 25 - 35 years old	356	73%
Middle adults 36 - 49 years old	123	25%
Older adults 50+	10	2%

Total condoms

Total condoms distributed	3,799	100%
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HIV self-test (ST) distribution

Malawi (National)

2020 Q2 (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	50,244	100%
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Sex

Male recipients	21,086	42%
Female recipients	29,158	58%
Non-pregnant	22,203	76%
Pregnant	6,955	24%

Last HIV test of recipient

Never tested	5,008	10%
Previously tested	45,236	90%
Last negative	42,499	94%
Last positive	2,719	6%
Not on ART	467	17%
On art	2,252	83%
Last inconclusive	18	0%

HIV ST kits given: Intended end user attributes

Total self-test kits distributed to end users	79,913	100%
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Intended end user distribution type

Self (recipient)	32,527	41%
Secondary distribution	47,386	59%
Sex-partner	35,413	75%
Other	11,973	25%

Intended end user sex / age category

Total males	41,961	53%
Boys 13-14 years old	842	2%
Adolescent boys and young men 15-24 years old	11,804	28%
Adolescent boys 15 - 19 years old	3,731	32%
Young men 20 - 24 years old	8,073	68%
Adults	29,315	70%
Young adults 25 - 35 years old	16,794	57%
Middle adults 36 - 49 years old	11,107	38%
Older adults 50+	1,414	5%
Total females	37,926	47%
Girls 13-14 years old	1,169	3%
Adolescent girls and young women 15-24 years	15,777	42%
Adolescent girls 15 - 19 years old	6,100	39%
Young women 20 - 24 years old	9,677	61%
Adults	20,980	55%
Young adults 25 - 35 years old	13,842	66%
Middle adults 36 - 49 years old	6,142	29%
Older adults 50+	996	5%

Total condoms

Total condoms distributed	197,615	100%
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HIV self-test (ST) distribution

Malawi (National)

2020 Q2 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

Other point in HF

HIV self test client details

*

Total HIV self-test kit

Total HIV self-test kit recipients	9,604	100%
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Sex

Male recipients	3,492	36%
Female recipients	6,112	64%
Non-pregnant	3,972	65%
Pregnant	2,140	35%

Last HIV test of recipient

Never tested	941	10%
Previously tested	8,663	90%
Last negative	8,389	97%
Last positive	251	3%
Not on ART	90	36%
On art	161	64%
Last inconclusive	23	0%

HIV ST kits given: Intended end user attributes

Total self-test kits distributed to end users	15,494	100%
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Intended end user distribution type

Self (recipient)	6,123	40%
Secondary distribution	9,371	60%
Sex-partner	7,332	78%
Other	2,039	22%

Intended end user sex / age category

Total males	8,574	55%
Boys 13-14 years old	150	2%
Adolescent boys and young men 15-24 years old	2,568	30%
Adolescent boys 15 - 19 years old	694	27%
Young men 20 - 24 years old	1,874	73%
Adults	5,856	68%
Young adults 25 - 35 years old	3,700	63%
Middle adults 36 - 49 years old	1,986	34%
Older adults 50+	170	3%
Total females	6,920	45%
Girls 13-14 years old	281	4%
Adolescent girls and young women 15-24 years	3,147	45%
Adolescent girls 15 - 19 years old	1,214	39%
Young women 20 - 24 years old	1,933	61%
Adults	3,492	50%
Young adults 25 - 35 years old	2,553	73%
Middle adults 36 - 49 years old	862	25%
Older adults 50+	77	2%

Total condoms

Total condoms distributed	35,521	100%
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HIV self-test (ST) distribution

Malawi (National)

2020 Q2 (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	0
------------------------------------	---

Sex

Male recipients	0
Female recipients	0
Non-pregnant	0
Pregnant	0

Last HIV test of recipient

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

HIV ST kits given: Intended end user attributes

Total self-test kits distributed to end users	0
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Intended end user distribution type

Self (recipient)	0
Secondary distribution	0
Sex-partner	0
Other	0

Intended end user sex / age category

Total males	0
Boys 13-14 years old	0
Adolescent boys and young men 15-24 years old	0
Adolescent boys 15 - 19 years old	0
Young men 20 - 24 years old	0
Adults	0
Young adults 25 - 35 years old	0
Middle adults 36 - 49 years old	0
Older adults 50+	0
Total females	0
Girls 13-14 years old	0
Adolescent girls and young women 15-24 years	0
Adolescent girls 15 - 19 years old	0
Young women 20 - 24 years old	0
Adults	0
Young adults 25 - 35 years old	0
Middle adults 36 - 49 years old	0
Older adults 50+	0

Total condoms

Total condoms distributed	0
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HIV self-test (ST) distribution

Malawi (National)

2020 Q2 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

Workplace formal

HIV self test client details

*

Total HIV self-test kit

Total HIV self-test kit recipients	88	100%
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Sex

Male recipients	34	39%
Female recipients	54	61%
Non-pregnant	53	98%
Pregnant	1	2%

Last HIV test of recipient

Never tested	25	28%
Previously tested	63	72%
Last negative	62	98%
Last positive	1	2%
Not on ART	1	100%
On art	0	0%
Last inconclusive	0	0%

HIV ST kits given: Intended end user attributes

Total self-test kits distributed to end users	166	100%
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Intended end user distribution type

Self (recipient)	77	46%
Secondary distribution	89	54%
Sex-partner	65	73%
Other	24	27%

Intended end user sex / age category

Total males	82	49%
Boys 13-14 years old	2	2%
Adolescent boys and young men 15-24 years old	13	16%
Adolescent boys 15 - 19 years old	3	23%
Young men 20 - 24 years old	10	77%
Adults	67	82%
Young adults 25 - 35 years old	33	49%
Middle adults 36 - 49 years old	30	45%
Older adults 50+	4	6%
Total females	84	51%
Girls 13-14 years old	4	5%
Adolescent girls and young women 15-24 years	34	40%
Adolescent girls 15 - 19 years old	20	59%
Young women 20 - 24 years old	14	41%
Adults	46	55%
Young adults 25 - 35 years old	26	57%
Middle adults 36 - 49 years old	17	37%
Older adults 50+	3	7%

Total condoms

Total condoms distributed	424	100%
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HIV self-test (ST) distribution

Malawi (National)

2020 Q2 (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	0
------------------------------------	---

Sex

Male recipients	0
Female recipients	0
Non-pregnant	0
Pregnant	0

Last HIV test of recipient

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

HIV ST kits given: Intended end user attributes

Total self-test kits distributed to end users	0
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Intended end user distribution type

Self (recipient)	0
Secondary distribution	0
Sex-partner	0
Other	0

Intended end user sex / age category

Total males	0
Boys 13-14 years old	0
Adolescent boys and young men 15-24 years old	0
Adolescent boys 15 - 19 years old	0
Young men 20 - 24 years old	0
Adults	0
Young adults 25 - 35 years old	0
Middle adults 36 - 49 years old	0
Older adults 50+	0
Total females	0
Girls 13-14 years old	0
Adolescent girls and young women 15-24 years	0
Adolescent girls 15 - 19 years old	0
Young women 20 - 24 years old	0
Adults	0
Young adults 25 - 35 years old	0
Middle adults 36 - 49 years old	0
Older adults 50+	0

Total condoms

Total condoms distributed	0
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HIV self-test (ST) distribution

Malawi (National)

2020 Q2 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

Hotspot

HIV self test client details

*

Total HIV self-test kit

Total HIV self-test kit recipients	0
------------------------------------	---

Sex

Male recipients	0
Female recipients	0
Non-pregnant	0
Pregnant	0

Last HIV test of recipient

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

HIV ST kits given: Intended end user attributes

Total self-test kits distributed to end users	0
---	---

Intended end user distribution type

Self (recipient)	0
Secondary distribution	0
Sex-partner	0
Other	0

Intended end user sex / age category

Total males	0
Boys 13-14 years old	0
Adolescent boys and young men 15-24 years old	0
Adolescent boys 15 - 19 years old	0
Young men 20 - 24 years old	0
Adults	0
Young adults 25 - 35 years old	0
Middle adults 36 - 49 years old	0
Older adults 50+	0
Total females	0
Girls 13-14 years old	0
Adolescent girls and young women 15-24 years	0
Adolescent girls 15 - 19 years old	0
Young women 20 - 24 years old	0
Adults	0
Young adults 25 - 35 years old	0
Middle adults 36 - 49 years old	0
Older adults 50+	0

Total condoms

Total condoms distributed	0
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HIV self-test (ST) distribution

Malawi (National)

2020 Q2 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

Other community point

HIV self test client details

*

Total HIV self-test kit

Total HIV self-test kit recipients	2,034	100%
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Sex

Male recipients	947	47%
Female recipients	1,087	53%
Non-pregnant	911	84%
Pregnant	176	16%

Last HIV test of recipient

Never tested	372	18%
Previously tested	1,662	82%
Last negative	1,630	98%
Last positive	32	2%
Not on ART	0	0%
On art	32	100%
Last inconclusive	0	0%

HIV ST kits given: Intended end user attributes

Total self-test kits distributed to end users	3,189	100%
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Intended end user distribution type

Self (recipient)	1,711	54%
Secondary distribution	1,478	46%
Sex-partner	1,150	78%
Other	328	22%

Intended end user sex / age category

Total males	1,627	51%
Boys 13-14 years old	12	1%
Adolescent boys and young men 15-24 years old	503	31%
Adolescent boys 15 - 19 years old	186	37%
Young men 20 - 24 years old	317	63%
Adults	1,112	68%
Young adults 25 - 35 years old	651	59%
Middle adults 36 - 49 years old	399	36%
Older adults 50+	62	6%
Total females	1,562	49%
Girls 13-14 years old	38	2%
Adolescent girls and young women 15-24 years	721	46%
Adolescent girls 15 - 19 years old	355	49%
Young women 20 - 24 years old	366	51%
Adults	803	51%
Young adults 25 - 35 years old	553	69%
Middle adults 36 - 49 years old	216	27%
Older adults 50+	34	4%

Total condoms

Total condoms distributed	20,477	100%
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Blood safety

Malawi (National)

2020 Q2 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

Infect. disease screening among potential donors

*

HIV screening

HIV testing not done	2,683	26%
Tested for HIV	7,465	74%
HIV negative	7,181	96%
HIV positive	284	4%

Hepatitis B screening

HepB testing not done	2,820	28%
Tested for Hepatitis B	7,328	72%
HepB Negative	7,047	96%
HepB Positive	281	4%

Hepatitis C screening

HepC testing not done	4,772	47%
Tested for Hepatitis C	5,376	53%
HepC Negative	5,231	97%
HepC Positive	145	3%

Syphilis screening

Syphilis testing not done	2,583	25%
Tested for Syphilis	7,565	75%
Syphilis Negative	7,200	95%
Syphilis Positive	365	5%

Malaria screening

Malaria testing not done	3,047	30%
Tested for malaria	7,101	70%
Malaria Negative	6,028	85%
Malaria Positive	1,073	15%

Summary screening outcome

Not donated	3,705	37%
Donated	6,443	63%
Screened for at least HIV, HepB and syphilis	5,397	84%
Screened for HIV, HepB, HepC, Syphilis, Malaria	3,510	65%
Screened for HIV, HepB, Syphilis	1,887	35%
Screened for HIV, HepB	112	2%
Screened for HIV only	0	0%
Screened with any other combination of tests	934	14%

Cross-matching report

*

Blood group typing (for units and patients)

Total blood group typing done	22,554	100%
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Blood units cross-matched (by source)

Total blood units cross-matched	17,492	100%
Total units from MBTS (estimated)	11,049	63%
Total units from replacement donors	6,443	37%

Blood units cross-matched by patient group

Units cross-matched for maternity	3,946	23%
Units cross-matched for paediatrics	6,265	36%
Units cross-matched for other ward	7,281	42%

Blood safety

Malawi (National)

2020 Q2 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

Cross-matching report

*

Transfusion reactions

Units transfused without adverse events	17,477	100%
Units with suspected transfusion reactions	10	0%
Units with confirmed transfusion reactions	5	0%

HIV exposed child follow-up

Malawi (National)

2020 Q2 (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	11,448	100%
---------------------------	--------	------

CPT status

On CPT	9,752	85%
Not on CPT	1,696	15%

HIV status

Current HIV infection status unknown	4,019	35%
HIV infection not confirmed, not ART eligible	4,015	100%
HIV infection not confirmed, ART eligible (PSHD)	4	0%
Current HIV infection status known	7,429	65%
Confirmed not infected	7,349	99%
Confirmed infected (ART eligible)	80	1%

ART eligibility summary

Not eligible for ART	11,364	99%
ART eligible	84	1%
ART not initiated	23	27%
Initiated ART	61	73%

Primary follow-up outcome

Discharged uninfected	12	0%
Continue follow-up	9,753	94%
Started ART	61	1%
Defaulted	470	5%
Died	47	0%

Transfers between sites

Total not transferred out	10,343	90%
Transferred out	1,105	10%

Age 12 months

Age cohort outcomes

*

Total children in birth cohort

Total children registered	11,536	100%
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CPT status

On CPT	8,604	75%
Not on CPT	2,932	25%

HIV status

Current HIV infection status unknown	3,265	28%
HIV infection not confirmed, not ART eligible	3,259	100%
HIV infection not confirmed, ART eligible (PSHD)	6	0%
Current HIV infection status known	8,271	72%
Confirmed not infected	8,115	98%
Confirmed infected (ART eligible)	156	2%

HIV exposed child follow-up

Malawi (National)

2020 Q2 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

Age cohort outcomes

*

ART eligibility summary

Not eligible for ART	11,374	99%
ART eligible	162	1%
ART not initiated	18	11%
Initiated ART	144	89%

Primary follow-up outcome

Discharged uninfected	101	1%
Continue follow-up	8,537	83%
Started ART	144	1%
Defaulted	1,357	13%
Died	122	1%

Transfers between sites

Total not transferred out	10,261	89%
Transferred out	1,275	11%

Age 24 months

Age cohort outcomes

*

Total children in birth cohort

Total children registered	12,546	100%
---------------------------	--------	------

CPT status

On CPT	645	5%
Not on CPT	11,901	95%

HIV status

Current HIV infection status unknown	4,235	34%
HIV infection not confirmed, not ART eligible	4,205	99%
HIV infection not confirmed, ART eligible (PSHD)	30	1%
Current HIV infection status known	8,311	66%
Confirmed not infected	8,038	97%
Confirmed infected (ART eligible)	273	3%

ART eligibility summary

Not eligible for ART	12,243	98%
ART eligible	303	2%
ART not initiated	66	22%
Initiated ART	237	78%

Primary follow-up outcome

Discharged uninfected	7,809	71%
Continue follow-up	356	3%
Started ART	237	2%
Defaulted	2,464	22%
Died	168	2%

Transfers between sites

Total not transferred out	11,034	88%
Transferred out	1,512	12%

Antenatal Care

Malawi (National)

2020 Q2 (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	151,314	100%
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ANC cohort analysis

*

HIV status ascertainment

HIV status not ascertained	3,427	2%
HIV status ascertained	147,887	98%
Valid previous test result	9,100	6%
Previous negative	1,834	20%
Previous positive	7,266	80%
New test at ANC	138,787	94%
New negative	136,440	98%
New positive	2,347	2%

HIV status summary

Total women HIV negative	138,274	93%
Total women HIV positive	9,613	7%

PMTCT regimen mother

No ARVs	139	1%
Any ARVs	9,474	99%
ART (by time of initiation)	9,474	100%
Already on ART when starting ANC	7,228	76%
Started ART at 0-27 weeks of pregnancy	1,993	21%
Started ART at 28+ weeks of preg.	253	3%

ANC women after 6 months

ANC cohort analysis

*

Total women completing ANC in the reporting period

Total women in booking cohort	164,354	100%
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Syphilis status

Not tested for syphilis	19,987	12%
Tested for syphilis	144,367	88%
Syphilis negative	140,949	98%
Syphilis positive	3,418	2%

HIV status ascertainment

HIV status not ascertained	2,227	1%
HIV status ascertained	162,127	99%
Valid previous test result	10,277	6%
Previous negative	2,314	23%
Previous positive	7,963	77%
New test at ANC	151,850	94%
New negative	149,118	98%
New positive	2,732	2%

HIV status summary

Total women HIV negative	151,432	93%
Total women HIV positive	10,695	7%

Antenatal Care

Malawi (National)

2020 Q2 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

ANC cohort analysis

*

CPT status (among HIV pos)

Not on CPT	118	1%
On CPT	10,577	99%

PMTCT regimen mother

No ARVs	116	1%
Any ARVs	10,579	99%
ART (by time of initiation)	10,579	100%
Already on ART when starting ANC	7,930	75%
Started ART at 0-27 weeks of pregnancy	2,333	22%
Started ART at 28+ weeks of preg.	316	3%

Baby's ARVs dispensed

No ARVs dispensed for infant	150	1%
ARVs dispensed for infant	10,545	99%

Maternity

Malawi (National)

2020 Q2 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

Maternal details

*

Admissions in the reporting period

Total admissions (referrals double-counted)	150,390	100%
Not referred to other site (total women)	141,516	94%
Referred out before delivery (multiple admissions)	8,874	6%

HIV status ascertainment

HIV status not ascertained	7,587	5%
HIV status ascertained	138,394	95%
Valid previous test result	10,891	8%
Previous negative	1,193	11%
Previous positive	9,698	89%
New test at maternity	127,503	92%
New negative	127,126	100%
New positive	377	0%

HIV status summary

Total women HIV negative	128,319	93%
Total women HIV positive	10,075	7%

ARVs during pregnancy (among HIV pos)

No ARV in pregnancy	132	1%
Any ARVs	9,943	99%
ART (by time of initiation)	9,943	100%
ART initiated before pregnancy	9,285	93%
ART initiated in 1st / 2nd trimester	286	3%
ART initiated in 3rd trimester	120	1%
ART initiated during labour	252	3%

Infant details

*

Single babies / multiple deliveries

Total babies delivered	140,434	100%
Single babies	135,783	97%
Twin / multiple babies	4,651	3%

Infant survival

Total live births	138,045	98%
Discharged alive	137,067	99%
Neonatal deaths	978	1%
Stillbirths	2,389	2%
Stillbirth, fresh	1,199	50%
Stillbirth, macerated	1,190	50%

HIV exposure / ARV proph. (among discharged alive)

Infants with unknown HIV exposure status	4,110	3%
Infants with known HIV exposure status	132,957	97%
Not HIV exposed	123,845	93%
HIV exposed	9,112	7%
Received no ARVs	304	3%
Received ARVs	8,808	97%
Nevirapine	8,808	100%

ART cohort analysis

Malawi (National)

2020 Q2 (Quarter)

Registration details

*

ART clinic registrations

Total ART clinic registrations	26,933	100%
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Registration type

ART initiations, first time (total patients)	18,804	70%
ART initiations, first time (non sex-disagg.)	91	0%
ART initiations, first time (by sex)	18,713	100%
ART initiations, first time, males	7,284	39%
ART initiations, first time, females	11,429	61%
ART initiations, first time, females non-pregnant	8,517	75%
ART initiations, first time, females pregnant	2,912	25%
ART re-initiations	261	1%
ART transfers in	7,868	29%

Sex

Males	10,285	38%
Females	16,648	62%
Non-pregnant	12,849	77%
Pregnant	3,799	23%

Age at ART initiation

Adults 15+ yrs	25,272	94%
Children 0-14 yrs	1,661	6%
Children 2-14 yrs	1,266	76%
Children below 24 mths	395	24%

Reason for starting ART

Presumed severe HIV Disease	21	0%
Confirmed HIV infection	26,912	100%
WHO stage 1 or 2	23,810	88%
CD4 below threshold	1,233	5%
CD4 unknown or >threshold	22,577	95%
PCR infants	77	0%
Children 12-59 mths	392	2%
Pregnant women	3,749	17%
Breastfeeding mothers	798	4%
Asymptomatic / mild	17,561	78%
WHO stage 3	2,358	9%
WHO stage 4	652	2%
Unknown / reason outside of guidelines	92	0%

TB at ART initiation

Never TB / TB > 24 months ago	26,492	98%
TB within the last 24 months	214	1%
Current episode of TB	227	1%

Kaposi's sarcoma at ART initiation

No KS	26,785	99%
Patients with KS	148	1%

ART cohort analysis

Malawi (National)

2020 Q2 (Cumulative)

Registration details

*

ART clinic registrations

Total ART clinic registrations	1,816,934	100%
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Registration type

ART initiations, first time (total patients)	1,438,102	79%
ART initiations, first time (non sex-disagg.)	319,660	22%
ART initiations, first time (by sex)	1,118,442	78%
ART initiations, first time, males	421,645	38%
ART initiations, first time, females	696,797	62%
ART initiations, first time, females non-pregnant	557,978	80%
ART initiations, first time, females pregnant	138,819	20%
ART re-initiations	26,517	1%
ART transfers in	352,315	19%

Sex

Males	677,034	37%
Females	1,139,900	63%
Non-pregnant	917,637	81%
Pregnant	222,263	19%

Age at ART initiation

Adults 15+ yrs	1,669,054	92%
Children 0-14 yrs	147,880	8%
Children 2-14 yrs	113,366	77%
Children below 24 mths	34,514	23%

Reason for starting ART

Presumed severe HIV Disease	4,474	0%
Confirmed HIV infection	1,812,460	100%
WHO stage 1 or 2	1,090,735	60%
CD4 below threshold	368,318	34%
CD4 unknown or >threshold	722,417	66%
PCR infants	4,432	1%
Children 12-59 mths	21,555	3%
Pregnant women	209,861	29%
Breastfeeding mothers	65,687	9%
Asymptomatic / mild	420,882	58%
WHO stage 3	579,935	32%
WHO stage 4	125,688	7%
Unknown / reason outside of guidelines	16,102	1%

TB at ART initiation

Never TB / TB > 24 months ago	1,741,977	96%
TB within the last 24 months	37,595	2%
Current episode of TB	37,362	2%

Kaposi's sarcoma at ART initiation

No KS	1,795,672	99%
Patients with KS	21,262	1%

ART cohort analysis

Malawi (National)

2020 Q2 (Cumulative)

ART outcomes

*

Primary follow-up outcomes

Total alive on ART	919,745	63%
Alive on ART at site of last registration	846,164	92%
ART patients in transit between sites	73,581	8%
Defaulted	404,713	28%
Stopped ART	12,542	1%
Total died	127,542	9%
Died month 1	24,410	19%
Died month 2	14,773	12%
Died month 3	9,887	8%
Died month 4+	78,472	62%

Transfers between sites

Total not transferred out	1,391,038	77%
Transferred out	425,896	23%

ART cohort analysis

Malawi (National)

2020 Q2 (Cumulative)

ART outcomes

*

ART regimens

First line regimens	811,872	96%
Adult formulation	800,652	99%
Regimen 0A	195	0%
Regimen 2A	3,223	0%
Regimen 4A	134	0%
Regimen 5A	34,256	4%
Regimen 6A	766	0%
Regimen 13A	752,826	94%
Regimen 14A	2,714	0%
Regimen 15A	6,441	1%
Regimen 16A	18	0%
Regimen 17A	79	0%
Paed. formulation	11,220	1%
Regimen 0P	161	1%
Regimen 2P	6,897	61%
Regimen 4P	123	1%
Regimen 14P	78	1%
Regimen 15P	3,914	35%
Regimen 16P	24	0%
Regimen 17P	23	0%
Second line regimens	30,917	4%
Adult formulation	19,464	63%
Regimen 7A	5,986	31%
Regimen 8A	11,927	61%
Regimen 9A	1,169	6%
Regimen 10A	173	1%
Regimen 11A	164	1%
Regimen 12A	45	0%
Paed. Formulation	11,453	37%
Regimen 9P	0	0%
Regimen 11P	0	0%
Regimen 9P Tabs	10,100	88%
Regimen 9P Gran	804	7%
Regimen 11P Tabs	541	5%
Regimen 11P Gran	8	0%
Other regimen (adult / paed)	3,368	0%

Adherence

Adherence unknown (not recorded)	36,793	4%
Adherence recorded	809,364	96%
0-3 doses missed	575,927	71%
4+ doses missed	233,437	29%

ART side effects

Side effects unknown (not recorded)	13,980	2%
Side effects recorded	832,177	98%
No side effects	822,778	99%
Any side effects	9,399	1%

ART cohort analysis

Malawi (National)

2020 Q2 (Cumulative)

ART outcomes

*

Current TB status among ART patients (ICF)

ICF not done (Current TB status unknown/ not circ)	15,157	2%
ICF done	831,000	98%
TB not suspected	824,272	99%
TB suspected	3,796	0%
TB confirmed	2,932	0%
TB confirmed, not on treatment	37	1%
TB confirmed, on TB treatment	2,895	99%

Pregnant / Breastfeeding

Pregnant females	846,157	100%
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2020 Q2 (Quarter)

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

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ART cohort registration group outcomes

Total ART clinic registrations	2,290	100%
Transfers out (double counted)	397	17%
Total not transferred out (patients in cohort)	1,893	83%
Total alive on ART	1,443	76%
Total not retained	450	24%
Defaulted	383	85%
Stopped ART	8	2%
Died	59	13%

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

*

ART cohort registration group outcomes

Total ART clinic registrations	35,779	100%
Transfers out (double counted)	6,004	17%
Total not transferred out (patients in cohort)	29,775	83%
Total alive on ART	21,161	71%
Total not retained	8,614	29%
Defaulted	7,826	91%
Stopped ART	161	2%
Died	627	7%

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

*

ART cohort registration group outcomes

Total ART clinic registrations	5,424	100%
Transfers out (double counted)	708	13%
Total not transferred out (patients in cohort)	4,716	87%
Total alive on ART	3,591	76%
Total not retained	1,125	24%
Defaulted	1,081	96%
Stopped ART	21	2%
Died	23	2%

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

*

ART cohort registration group outcomes

Total ART clinic registrations	5,660	100%
Transfers out (double counted)	881	16%
Total not transferred out (patients in cohort)	4,779	84%
Total alive on ART	3,349	70%
Total not retained	1,430	30%
Defaulted	1,361	95%
Stopped ART	35	2%
Died	34	2%

Viral load monitoring cohort report

Malawi (National)

2020 Q2 (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	89,033	100%
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Reason for VL test

Routine / scheduled monitoring	72,724	82%
Extra-schedular	14,928	17%
Targeted (clinical suspicion of failure)	3,488	23%
Follow-up after high VL	11,440	77%
Replacement of lost sample / missing result	1,381	2%

Results for VL samples collected 6 months ago

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Total VL samples with outcomes

Total VL samples collected 6 months ago	163,173	100%
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VL test results

Valid results	147,567	90%
<1000 copies / ml	134,342	91%
1000+ copies / ml	13,225	9%
Rejected samples / invalid results	875	1%
Missing / outstanding results	14,731	9%

Result transmission type

Paper results	145,364	97%
Electronic results	3,798	3%

Time from sample collection to receipt of results

0-4 Weeks	63,487	39%
5-8 Weeks	61,787	38%
9-12 Weeks	15,533	10%
13+ Weeks / still missing	22,366	14%

Time from sample collection to client notification

0-4 Weeks	27,756	17%
5-8 Weeks	39,518	24%
9-12 Weeks	26,192	16%
13+ Weeks / pending	69,707	43%

Patients with high VL: outcome after 6 months

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Patients in high VL cohort

Total high VL patients evaluated after 6 months	27,815	100%
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Initial high VL: reason for test

Routine / scheduled monitoring	25,568	92%
Targeted (clinical suspicion of failure)	1,748	6%
Repeat sample	499	2%

Intensive adherence counselling

3 Sessions completed	16,346	59%
Sessions not completed	11,469	41%

Viral load monitoring cohort report

Malawi (National)

2020 Q2 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

Patients with high VL: outcome after 6 months

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Follow-up VL test

Follow-up sample collected	12,585	45%
Valid results	9,106	72%
<1000 copies / ml	6,953	76%
1000+ copies / ml	2,153	24%
Rejected samples / invalid results	23	0%
Missing / outstanding results	3,456	27%
Follow-up sample pending	15,230	55%

Preliminary opinion

Conclusion made	10,387	37%
Continue current regimen	9,356	90%
Switch to 2nd line ART	1,031	10%
Conclusion pending	17,428	63%

Final treatment decision (2nd line prescriber)

Decision made	8,990	32%
Continue current regimen	7,858	87%
Switch to 2nd line ART	1,099	12%
Refer to HIV specialist	33	0%
Decision pending	18,825	68%

STI site report

Malawi (National)

2020 Q2 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

STI clients treated in the reporting period

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Total STI clients

Total STI clients treated	77,657	100%
Index patients treated (symptomatic)	63,520	82%
Partners treated	14,137	18%

Sex

Males	32,496	42%
Males Non-circumcised	22,078	68%
Males Circumcised	10,418	32%
Females	45,161	58%
Non-pregnant	39,146	87%
Pregnant	6,015	13%

Age group

Age group A (0-19 years)	5,844	8%
Age group B (20-24 years)	17,383	22%
Age group C (25+ years)	54,430	70%

Client type

Symptomatic cases	69,132	89%
Index cases	63,520	92%
Partners symptomatic	5,612	8%
Partners asymptomatic	8,525	11%

STI treatment history

Never treated for STI	56,862	73%
Previously treated for STI	20,795	27%
Old >3 months ago	15,515	75%
Recent ≤3 months ago	5,280	25%

STI syndromic diagnosis

GUD	10,619	13%
UD	23,303	28%
AVD	24,959	30%
Low risk	6,954	28%
High risk	18,005	72%
LAP	10,770	13%
SS	936	1%
BU	548	1%
BA	750	1%
NC	194	0%
Genital Warts	371	0%
Syphilis RPR VDRL	6,034	7%
Other STI	5,448	6%

STI partner notification

Total partner notification slips issued	17,326	100%
Total partners returned	14,137	82%
Total partners not seen	3,189	18%

STI site report

Malawi (National)

2020 Q2 (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	8,637	11%
HIV status ascertained	69,020	89%
HIV negative (new test)	56,083	81%
HIV positive	12,937	19%
New positive	1,696	13%
Previous positive	11,241	87%
Not on ART	410	4%
On ART	10,831	96%

STI clients referred for services

Lab	1,758	4%
Gynae review	590	1%
Surgical review	302	1%
Repeat HTC	29,568	73%
ART (for assessment)	3,413	8%
Other (service referrals)	2,715	7%
VMMC	2,201	5%