Government of Malawi Ministry of Health

Integrated HIV Program Report
April -June 2014

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1 Executive Summary

This is the 11th quarterly HIV Program report after implementation of the 2011 Integrated Clinical HIV Guidelines in July 2011. A summary of the key achievements between **April and June 2014** is provided below:

- Scale-up of integrated HIV services had reached the following number of sites:
  - **724** static (579 within and 145 outside of health facilities) and 188 outreach HTC sites
  - **700** (static) ART sites
  - **615** PMTCT sites (Option B+, all included in ART sites above)
  - **647** Pre-ART sites
  - **629** sites with HIV-exposed child follow-up
- **435,976** persons were tested and counselled for HIV; **136,952 (31%)** accessed HTC for the first time; **299,024 (69%)** were repeat testers and **8,017 (3%)** of these received confirmatory testing (after having tested positive in the past). This is equivalent to **27%** confirmatory testing coverage among 29,260 patients initiating ART this quarter. **29,320 (7%)** clients received a positive result for the first time.
- **18,999 (94%)** of 20,160 blood units collected were screened for (at least) HIV, hepatitis B and syphilis.
- **120,022 (83%)** of 144,408 women at ANC had their HIV status ascertained; **9,146 (8%)** of these were HIV positive. **114,585 (95%)** of 120,794 women at maternity had their HIV status ascertained; **8,407 (7%)** of these were HIV positive.
- **29,260** patients started ART this quarter. This 15% increase from the previous quarter (**25,363**) was due to implementation of new ART eligibility criteria in April 2014.
- **505,123** patients were alive and on ART by end of June 2014. This means that **51%** of the estimated 1 million HIV positive population was on ART. [1] Estimated ART coverage among people in need for treatment was **40%** (43,931 / 110,000) for children (<15 years) and **81%** (461,192 / 570,000) for adults.
- **77%** of adults and **80%** of children were retained alive on ART at 12 months after initiation.
- **436,724 (93%)** of 469,613 patients on first line adult ART were on regimen 5A (TDF/3TC/EFV).
- **9,406** [2] **(76%)** of an estimated **12,425** [1] HIV infected pregnant women in Malawi were on ART this quarter. **4,882 (52%)** of these were already on ART when getting pregnant and **4,524 (48%)** started ART during pregnancy/delivery.
- An additional **1,427** [2] breastfeeding women started ART due to ***Option B+*** (in WHO stage 1/2)
- **76%, 71%** and **70%** of women started under ***Option B+*** were retained on ART at **6, 12 and 24 months** after initiation, respectively.
- **7,743 (7%)** of infants discharged alive from maternity were known to be HIV exposed, **7,190 (93%)** of these received ARV prophylaxis (nevirapine). **5,427 (70%)** were enrolled in exposed child follow-up before age 2 months.
- A total of **9,153** HIV exposed children and **7,285** pre-ART patients were enrolled for follow-up in *HIV Care Clinics (HCC)* during this quarter.

[1] 2014 Spectrum estimates based on 2014 definition of eligibility for ART in Malawi (CD4<500, Option B+, UT for U5).
[2] Adjusted for double counting due to patient transfers / 'failed ART initiations' among women lost to follow-up within 6 months of ART registration.

2 Integrated HIV Program Overview

Malawi implemented a revised HIV Program in all health facilities following the release of the ***2011 Malawi Integrated Clinical HIV Guidelines***. The second edition of these guidelines was published in March 2014 and implementation of revised policies commenced in April 2014. Key program policies include:

- **PMTCT Option B+:** Universal life-long ART for all HIV infected pregnant and breastfeeding women regardless of clinical or immunological stage.

- Standard **HIV exposed child follow-up** to age 24 months. This program aims to improve early infant diagnosis and ART initiation using DNA-PCR testing for all infants from age 6 weeks; rapid antibody testing is considered diagnostic from age 12 months and repeated at 24 months. HIV exposed child enrolment and follow-up should be integrated with maternal ART follow-up (*Option B+*) to improve retention and adherence.

- **Early ART initiation**: universal ART for children under 5 years (confirmed HIV infection, CD4% no longer required), children over 5 years and adults with a **CD4** count **≤500**, patients with HIV and hepatitis B co-infection.

- Transition to a **new first line ART regimens** for adults (Malawi regimen 5A: tenofovir / lamivudine / efavirenz) and children (Malawi regimen 2: zidovudine / lamivudine / nevirapine), including provision of paediatric ARV formulations for all children under 25kg. Transition to 5A was completed by end 2013.

- Standardized **pre-ART services** for all HIV-infected persons not yet eligible for ART. The pre-ART program aims to reduce the incidence of HIV-related diseases and to enable early ART initiation based on the new CD4 cell threshold (500) through scheduled CD4 count monitoring.

- Provider-initiated provision of **contraceptives and condoms** for all adults in pre-ART and ART clinics to reduce the rate of unwanted pregnancies among HIV-infected adults and to reduce HIV-transmission between sexual partners.

- Isoniazid preventive therapy (**IPT**) for pre-ART patients to reduce the incidence of TB and intensified TB case finding (**ICF**) for all patients in pre-ART and ART follow-up to enable early diagnosis and treatment of TB and to reduce TB transmission in HIV clinics.

- Roll-out of scheduled **viral load monitoring** to improve early detection of treatment failure and initiation of second line ART.

Implementation of PMTCT Option B+ requires provision of ART services at <u>all</u> health facilities with Maternal and Child Health services. This required a massive acceleration of the **decentralization of ART services** from 303 (static) sites by June 2011 to currently 700 sites.

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 are working towards a full integration of their respective site supervision exercises.

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 HIV Department database. The 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 HTC, 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 MS Access database 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 HTC 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

697 public and private sector facilities were visited for **clinical HIV program supervision** between 7th and 25th July 2014. The large number of sites was covered by **95** supervisors working in **23** teams. The teams spent a total of **1,974 working hours** at the sites. Each site visit lasted on average

2.9 hours, but up to 2 days were spent at the busiest sites. **294** sites were awarded a *Certificate of Excellence* for **excellent performance.** The number of sites with excellent performance increased from the previous quarter despite a more rigorous application of performance criteria. **100** sites had significant weaknesses and were rated to require **intensive mentoring**. The capacity to provide site mentoring will need to be further expanded.

Table 1: Outcomes of integrated HIV services supervision for 2014 Q2

Zone	Total facil. visited*	Supervision hours spent at facilities		Performance (# and % of sites)	
		Total	Average per site	Excellent perform.	Mentoring needed
NZ	123	339	2.8	42 34%	28 23%
CEZ	94	266	2.9	35 37%	16 17%
CWZ	159	424	2.7	59 37%	24 15%
SEZ	164	494	3.1	78 48%	17 10%
SWZ	157	451	2.9	80 51%	15 10%
Malawi	697	1,974	2.9	294 42%	100 14%

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

Table 1 provides a summary of the supervision outcomes by zone. Most facilities were using the standard national M&E tools. **116** sites had cumulatively registered more than 2,000 ART patient and **40** of these had registered more than 5,000. **42 (36%)** of these high burden sites were using electronic data system for ART (EDS). Some NGO supported sites were using custom tools compatible with the national standard reporting requirements.

4 Inventory of Sites and Services

A total of **724** static sites reported HTC service provision in Q2 2014 and **145** of these were outside of health facilities. **188** outreach HTC sites.

Table 2: Facilities with integrated HIV services in the 5 Zones. Availability of services defined by performance (at least 1 patient enrolled) during 2014 Q2

Zone	Total fac.(1)	Facilities providing HIV services				CD4 count machines (2)		
		Exp. child	Pre-ART	PMTCT B+	ART	Installed	Functional	Results
NZ	126	117 93%	119 94%	104 83%	123 98%	32 25%	30 94%	2,910
CEZ	97	89 92%	87 90%	83 86%	92 95%	17 18%	16 94%	2,795
CWZ	162	132 81%	139 86%	137 85%	158 98%	34 21%	29 85%	5,171
SWZ	164	133 81%	145 88%	136 83%	155 95%	42 26%	37 88%	14,942
SEZ	164	158 96%	157 96%	155 95%	162 99%	55 34%	52 95%	8,777
Malawi	713	629 88%	647 91%	615 86%	700 98%	180 25%	164 91%	34,595

(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 **713** sites designated to provide clinical HIV services in Q2 2014, by zone. At the national level, there were **700** (static) sites with at least one patient on ART, **615** sites had enrolled women under PMTCT Option B+; **647** sites were providing pre-ART services. The number of sites with pre-ART patients decreased from 656 in the previous quarter due to the implementation of relaxed ART eligibility criteria in April 2014, leading to a transition of all pre-ART patients to ART at some smaller sites. **629** had enrolled HIV exposed children for follow-up. ART services were now available at almost all designated sites in the 5 zones. The SE had reached 99% of designated sites with ART services and 95% of designated sites with Option B+.

CD4 count machines (including 'point of care' machines) were installed at **180** sites, and 164 **(91%)** of these had produced at least 1 result during Q2 2014. **34,595** CD4 results were produced in this quarter. 43% of these outputs were generated with 37 machines in the SW zone, implying that many CD4 machines continued to experience down-time or to be running considerably below capacity.

5 HIV Testing and Counselling Program Outputs

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

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

This is the second HTC report based on the 2013 HTC register. The full national HTC data are presented in the **Appendix**.

435, 976 people[3] were tested and counselled for HIV between April and June 2014. **418,619 (96%)** of these tests were performed at health facilities and **17,357 (4%)** were done outside of health facilities. Facility-based testing newly identified 28,709 positives while community based testing identified 611.

5.1 HTC access type

232,178 (53%) of people tested were patients receiving provider-initiated testing and counselling (PITC); **201,630 (46%)** accessed voluntary counselling and testing, door-to-door, community-based testing, etc.; **2,168 (1%)** came for testing with a *Family HTC Referral Slip* (FRS) that was issued to a family member at a prior HTC encounter. Based on a total of **13,179** FRS issued to index clients this quarter, the successful referral rate for family members was **16%** (2,168/ 13,179). This is slightly lower than previous quarter (18%). Referral slip issuance and utilization has remained low.

5.2 Age and sex distribution among HTC clients

Out of **435,976** people tested and counselled, **34%** were males and **66%** were females. **51%** of females were pregnant. The proportion of males (51%) and non-pregnant females (49%) was almost identical, implying gender balanced access to HTC services. Pregnant women have to be excluded from the comparison of male and female access to HTC because testing among pregnant women is almost entirely provider-initiated and there is no comparable access route targeting males.

53% of all people tested and counselled were 25 years and above, **39%** were between 15-24 years and **8%** were children below 15 years. **97, 134** (22%) accessed HTC with their partners (as a couple).

5.3 First time, repeat and confirmatory test results

The 2011 and 2014 Malawi Clinical HIV Guidelines stipulate: *All patients need a confirmatory HIV test to rule out any possibility of mix-up of test results or fraudulent access to ART: either at enrolment into pre-ART follow-up, or before starting ART if the test to confirm was not done in pre-ART. Children under 12 months starting ART with a positive DNA-PCR do not need another confirmatory test before starting ART, but all need a confirmatory rapid antibody test at age 12 and 24 months.* This is the second quarter reporting on confirmatory test results as a proportion of those who are classified as repeat testers.

[3] 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.

136,952 (31%) accessed HTC for the first time and **299,024 (69%)** were repeat testers. Based on the cumulative number of people who accessed HTC for the first time, a total of **5,247,136** people have been tested since introduction of the 'first time HTC access' indicator in July 2007.

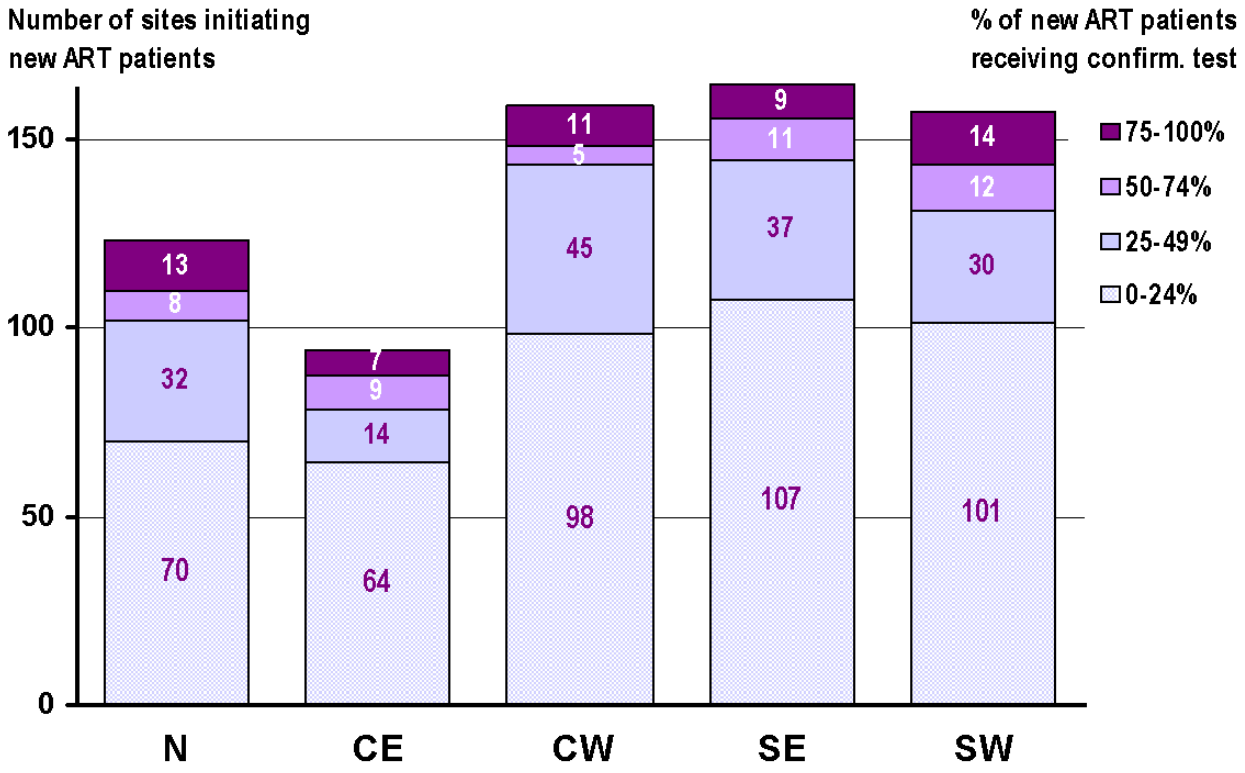
29,320 (7%) out of all clients received a positive result for the first time. Positive rapid test results among infants (**1,231**) and inconclusive test results (**1,091**) both accounted for **<1%** of new results given to clients.

286,297 (96%) of 299,024 repeat testers reported a *last negative* result. **10,795 (4%)** were reported as *previous positives* and all of these should have been classified as receiving a confirmatory test. For most of the **10,795** *previous positives*, testing was probably initiated by a health worker before enrolment into care. However, *confirmatory test results* accounted for only **8,017 (74%)** of *previous positive* clients. The remainder (2,778) may have been misclassified as *new positive* or *new inconclusive* because they were among clients who independently sought confirmation of their positive status. **7,671 (96%)** of 8,017 confirmatory tests were concordant positive and **346 (4%)** 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). This relatively high proportion of 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. This underscores the importance of both routine confirmatory testing before ART initiation as well as the need to continue strengthening HTC quality assurance processes.

The 8,017 confirmatory test results documented this quarter indicate that only **27%** of the 29,260 patients initiating ART this quarter received confirmatory testing and **Figure 1** shows that confirmatory testing coverage was low in all 5 zones. Only **54 (8%)** of facilities throughout the country had performed confirmatory testing for ≥75% of patients newly initiated on ART. Implementation of the confirmatory testing policy will be further reinforced over the next quarters.

Figure 1: Confirmatory HIV testing coverage at ART sites in the 5 zones

Num.: total confirmatory HIV tests documented in HTC registers. Denom.: total new patients initiating ART at the site



6 DNA-PCR testing for Early Infant Diagnosis of HIV (EID)

DNA-PCR testing is performed at 7 labs (Mzuzu Central Hospital, Mzimba District Hospital, Kamuzu Central Hospital, Queen Elizabeth Central Hospital, DREAM Blantyre, Zomba Central Hospital and Partners in Hope, Lilongwe). EID counsellors collect infant blood samples as dried blood spots on filter paper. Health facilities are requested to maintain 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. For the third time this quarter, supervision teams were asked to collect basic data from these logbooks.

495 (79%) of 628 sites with HIV exposed children in follow-up had collected and recorded at least 1 DNA-PCR sample during Q2 2014. A total of **7,822** DNA-PCR samples were collected and recorded. By the time the logbooks were reviewed (between 2 and 4 weeks after the end of the quarter), results had been received at the sites for **5,017 (64%)** of these specimens and **2,463 (49%)** of these results had been communicated to the mother. The proportion of results received at the sites was **88%**, **60%** and **40%** for samples collected in April, May and June, respectively. A total of **177 (4%)** results received at the sites were positive.

The **7 laboratories** dispatched DNA-PCR test results for **6,793** children in Q2 2014. This is 1,029 (13%) less than the number of samples recorded in the DNA-PCR logbooks at health facilities during this quarter. This discrepancy may be due to repeat samples collected from some children in the same quarter, presumably due to overdue or invalid results. Such repeat samples are counted in the logbooks, but only one (the latest) result per child is considered in the quarterly lab outputs. **4,756 (70%)** of the dispatched results were from samples collected in Q2 2014, while 1,964 (29%) were from samples collected in the previous quarters (for 73 results the collection date was missing). The median time between sample collection and dispatch of the result was **30 days**; 75% of results were dispatched between 19 and 40 days after sample collection. Turn-around times have increased from the previous quarter (median 19 days).

3,598 (53%) of all results were from infants under 2 months old at the time of sample collection. 2,210 (33%) were 2-5 months, 619 (9%) were 6-11 months and 73 (1%) were 12 months or older when the sample was collected (date of birth was missing for 293).

Age at sample collection	Tot. Results	Positives	
<2 months	**3,598**	**63**	*1.8%*
2-5 months	**2,210**	**122**	*5.5%*
6-11 months	**619**	**91**	*14.7%*
12 months +	**73**	**6**	*8.2%*

282 (4.3%) 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 the process of early infant diagnosis and early initiation of ART for confirmed infected infants. The table below shows the distribution of ages when results were dispatched from the lab.

Age when result disp. from lab	Tot. Results	*(Col %)*	Positives	*(Col %)*
<2 months	**1,122**	*17%*	**19**	*6%*
2-5 months	**4,484**	*66%*	**146**	*50%*
6-11 months	**839**	*12%*	**102**	*35%*
12 months +	**112**	*2%*	**15**	*5%*
(missing date)	**236**	*1%*	**12**	*4%*
Total	**6,793**	***100%***	**294**	***100%***

Out of 294 positive results dispatched, only 19 (6%) were sent before the child was 2 months old. A total of 165 (56%) positive results were sent before

the child was 6 months old and 267 (91%) were sent before the child was 12 months old. A total of 107 infants were started on ART in WHO stage 1 or 2 on the basis of confirmed HIV infection (see ART section below). This is equivalent to **40%** of the positive DNA-PCR results dispatched for children <12 months this quarter.

7 Blood Safety

The Malawi Blood Transfusion Service (MBTS) is striving to provide blood products for the entire country using voluntary non-remunerated donors and quality assured screening for transfusion transmissible infections (TTIs). However, 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 PMTCT/ART 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 **20,160** blood units were collected in Malawi during Q2 2014. MBTS collected **13,157 (65%)** of these, all 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 **7,003** units from replacement donors. **5,842 (83%)** of these units were screened for at least the 3 key TTIs (HIV, HepB and syphilis) and **1,913 (33%)** of these were also screened for HepC and malaria. This means that a total of **18,999 (94%)** of all 20,160 units collected by MBTS and from replacement donors 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, 12 units were screened for HIV and HepB only. 1,149 were screened with any other combination of tests for TTIs.

A total of **10,385** potential replacement donors were documented in the blood donor registers at the facilities and 7,003 (67%) 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 TTs may have only been carried out for donors who passed the screening for more common conditions. In total, 82% of potential donors were tested for HIV, 81% for HepB, 81% for syphilis, 53% for malaria and 25% for HepC. Detailed data on individual test outcomes among all potential blood donors are presented in the Appendix.

8 Post Exposure Prophylaxis (PEP)

A total of **898** persons received PEP during Q2 2014. This is a slight increase from the previous quarter (832).

9 Provider-Initiated Family Planning (PIFP)

The 2011 Integrated Clinical HIV Guidelines encourage health workers to routinely provide condoms to all adults in pre-ART and ART clinics. Women should also be offered at least the standard injectable contraceptive (Depo-Provera) during any pre-ART or ART visit. This policy aims to address the significant unmet need for family 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 pre-ART and 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 3: Number and % of women retained in HIV care * who were on injectable contraceptives (Depo) by the end of 2014 Q2.

	Pre-ART		ART		Both patient groups	
Zone	Tot. women	On Depo	Tot. women	On Depo	Tot. women	On Depo
NZ	1,096	**230** *21%*	28,705	**7,187** *25%*	29,800	**7,417** *25%*
CEZ	583	**109** *19%*	23,030	**3,109** *14%*	23,614	**3,219** *14%*
CWZ	3,418	**477** *14%*	58,694	**11,086** *19%*	62,112	**11,562** *19%*
SEZ	3,497	**824** *24%*	88,612	**21,925** *25%*	92,109	**22,749** *25%*
SWZ	5,235	**1,585** *30%*	97,145	**31,452** *32%*	102,380	**33,036** *32%*
Malawi	13,829	**3,225** *23%*	296,186	**74,758** *25%*	310,015	**77,983** *25%*

* estimated from the total number of patients retained in pre-ART and ART, multiplied by the proportions of females and adults registered

Table 3 shows that **77,983 (25%)** of 310,015 women in care received Depo-Provera from HIV clinics in Q2 2014. The SW Zone had achieved the highest coverage among women in pre-ART and ART. PIFP access continued to be affected by stock-outs of Depo-Provera, but patient coverage and stock availability had improved this quarter with 537 (77%) of ART/PMTCT sites having stocks of Depo-Provera in April 2014.[4] This was mainly due to inclusion of Depo-Provera in the quarterly distribution of ARVs and other HIV commodities.

10 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 pre-ART and 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.

Table 4 shows that **589,161 (94%)** of all patients in care were on CPT at the end of Q2 2014.

Table 4: Number and % of patients retained in HIV care who were on cotrimoxazole and isoniazid preventive therapy (CPT, IPT) by the end of 2014 Q2.

	CPT								IPT	
	Exp. child		Pre-ART		ART		All patient groups		Pre-ART	
Zone	Tot. pat.	On CPT	Tot. pat.	On CPT	Tot. pat.	On CPT	Tot. pat.	On CPT	Tot. pat.	On IPT
NZ	7,540	**5,619** *75%*	3,811	**3,616** *95%*	50,833	**48,018** *94%*	62,184	**57,253** *92%*	3,811	**3,056** *80%*
CEZ	7,173	**5,904** *82%*	2,366	**2,344** *99%*	40,137	**39,910** *99%*	49,676	**48,157** *97%*	2,366	**1,812** *77%*
CWZ	14,970	**12,903** *86%*	10,085	**9,786** *97%*	101,657	**99,516** *98%*	126,712	**122,205** *96%*	10,085	**7,734** *77%*
SEZ	28,226	**25,406** *90%*	12,174	**12,034** *99%*	141,922	**137,978** *97%*	182,322	**175,417** *96%*	12,174	**10,311** *85%*
SWZ	25,917	**22,915** *88%*	16,043	**14,870** *93%*	165,903	**148,343** *89%*	207,863	**186,128** *90%*	16,043	**12,251** *76%*
Malawi	83,826	**72,747** *87%*	44,479	**42,649** *96%*	500,452	**473,765** *95%*	628,757	**589,161** *94%*	44,479	**35,164** *79%*

[4] Many Mission hospitals do not provide family planning.

11 TB / HIV Interventions

11.1 Intensified 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, pre-ART and 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 pre-ART and exposed child follow-up.

488,651 (98%) of all patients retained on ART were screened for TB at their last visit before end of June 2014. As of that visit, **5,079 (1%)** patients were new TB suspects and had presumably been referred for examination by a clinician and for TB investigations. **1,312 (<1%)** patients had confirmed TB (clinical or lab based). Out of these, **931 (71%)** were confirmed to be on TB treatment and **381 (29%)** had not yet started or had 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)		**11,801**	**2%**
ICF done		**488,651**	**98%**
	TB not suspected	**482,260**	99%
	TB suspected	**5,079**	1%
	TB confirmed	**1,312**	0%
		TB confirmed, not on treatment	**381**	29%
		TB confirmed, on TB treatment	**931**	71%

11.2 Isoniazid Preventive Therapy (IPT)

All pre-ART patients with a negative screening outcome for TB symptoms are eligible for IPT. The first (large scale) distribution of isoniazid and pyridoxine for the HIV programs reached the sites during July 2012. **35,082 (79 %)** of 44,479 patients retained in pre-ART were on IPT by the end of June 2014. Isoniazid was in stock at 606 facilities during the July 2014 supervision visit. IPT coverage may increase further over the next quarters.

12 HIV-Related Diseases

Table 5 shows the number of patients treated for key HIV-related indicator diseases. **4,303** TB patients were started on TB treatment this quarter and HIV status was ascertained for **3,818 (89%)**. **2,159 (57%)** of these were HIV positive and **1,642 (76%)** of all HIV positives were already on ART when starting TB treatment. The Diflucan (fluconazole) donation program has received renewed attention and significant stocks of fluconazole were distributed to all sites in November 2012. In Q2 2014, **408** and **767** patients received Diflucan for acute cryptococcal meningitis and oesophageal candidiasis, respectively. **312** patients with Kaposi sarcoma were registered for ART in this quarter.

Table 5: 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
2013 Q3	5,141	4,602 *90%*	2,581 *56%*	1,666 *65%*	420	523	815
2013 Q4	4,526	4,110 *91%*	2,280 *55%*	1,538 *67%*	414	661	883
2014 Q1	4,342	3,903 *90%*	2,103 *54%*	1,431 *68%*	364	414	690
2014 Q2	4,303	3,818 *89%*	2,159 *57%*	1,644 *76%*	312	408	767

13 HIV-Exposed Child Follow-Up

13.1 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.

13.2 HIV Exposed Child Registration Data

This is the 11th quarterly report from the standard follow-up program for HIV exposed children. **9,153** HIV exposed children were newly enrolled into follow-up during Q2 2014; **5,427 (60%)** of these were under the age of 2 months. This represents timely enrolment for **70%** of the 7,743 known HIV exposed children discharged from maternity this quarter. The total number of new enrolments (9,153) exceeds by 1,410 the total number of known HIV exposed children discharged from maternity (7,743). 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.

13.3 Birth Cohort Outcomes

There were **7,590** infants in the **2 month age cohort**. **2,677 (35%)** had received a DNA-PCR result. **46 (2%)** of these were confirmed HIV infected. An additional **28** infants were diagnosed with *presumed severe HIV disease,* which means that a total of **74** infants were eligible for ART. **39 (53%)** of these had started ART. The proportion of positives starting ART has slightly improved compared to the previous quarter's (48%). Out of the entire 2-month age cohort, **6,899 (92%)** were retained in exposed child follow-up, **39 (1%)** had started ART and **26 (<1%)** were discharged confirmed uninfected[5]. **14 (<1%)** were known to have died and **541 (7%)** had been lost to follow-up.

There were **7,882** children in the **12 month age cohort**. Current HIV infection status was known for **2,739 (35%)** children (DNA-PCR or rapid antibody test) and **146 (5%)** of these were confirmed HIV infected. **12 (<1%)** additional children had been diagnosed with *presumed severe HIV disease,* which means that a total of **158** children were eligible for ART. **133 (85%)** had started ART. Out of the entire age cohort, **5,374 (70%)** were retained in exposed child follow-up, **133 (2%)** had started ART and **95 (1%)** were discharged confirmed uninfected. **1,982 (26%)** were lost to follow-up and **66 (1%)** were known to have died. (Outcome data are incomplete for this cohort).

There were **6,918** children in the **24 month age cohort**. Current HIV infection status was known for **2,703 (39%)** children (DNA-PCR or rapid antibody test) and **187 (7%)** of these were confirmed HIV infected. **25** additional children had been diagnosed with *presumed severe HIV disease,* which means that a total of **212** children were eligible for ART. **174 (82%)** of these had started ART. Out of the entire age cohort, **1,082 (16%)** were retained in exposed child follow-up, **174 (3%)** had started ART and **2,376 (36%)** were discharged confirmed uninfected[5]. **2,976 (44%)** were lost to follow-up and **82 (1%)** were known to have died. (Outcome data are incomplete for this cohort)

Confirmed HIV-free survival at age 24 months in this quarter was only **36%**, which was implausibly low and related to the fact that only 39% in this cohort had a known HIV status. 4,215 (61%) children were classified as '*current HIV infection status unknown'* and many of these may be among the 2,976 children lost to follow-up and the 82 children who had died. However, 1,082 (16%) 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. There are still problems with scheduled HIV testing (and documentation of test results) at 6 weeks, 12 and 24 months of age.

14 Pre-ART

14.1 Pre-ART Registration Data

A total of **7,285** patients were newly registered for pre-ART follow-up in Q2 2014. **589 (8%)** of these were children aged 2-14 years. Several sites had already established pre-ART services before July 2011 and the cumulative number of pre-ART patients ever registered was **173,020**.

[5] 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.

14.2 Cumulative Pre-ART Follow-up Outcomes

44,479 (27%) of all patients ever registered were retained in pre-ART follow-up by the end of June 2014; **82,314 (49%)** had started ART; **38,615 (23%)** had been lost to follow-up; **1,818 (1%)** were known to have died. The proportion of patients starting ART is bound to increase in the cumulative pre-ART cohort analysis over time. Based on a subtraction of cumulative outcomes from the previous quarter, **11,942** pre-ART patients started ART during Q2 2014 and **1,197** were lost to follow-up. However, the cumulative number of deaths decreased by 258. This inconsistency was due to classification errors in the previous or current quarter outcomes at some NGO supported sites with custom tools.

CPT coverage among pre-ART patients was **96%** in Q2 2014 while IPT coverage increased from 76% to **79%**. **3,220 (23%)** of 13,829 women had received Depo-Provera from their pre-ART clinic. Further details on CPT, Depo-Provera and IPT are presented in **Tables 3** and **4** in the sections above.

15 PMTCT / ART

The implementation of ***PMTCT Option B+*** has effectively integrated PMTCT and ART services. The program aims to initiate lifelong ART for all HIV infected women as early as possible in pregnancy. 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.

15.1 Data Sources and Reporting Methods

New standard M&E tools for ANC and maternity were implemented in January 2010 and revised in Q2 2012 to reflect the Option B+ policy. ANC and maternity clinic registers and reporting forms include patient management information and all relevant data elements for the maternal and child health and HIV programs. The ANC register was specifically designed to avoid data duplication that previously affected PMTCT reports from ANC due to the inability to account for individual women's outcomes in the course of multiple visits. The cohort reporting system is designed to aggregate women's outcome data after they have completed their ANC visits. 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 *Option B+* 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. ARV 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: 2014 Spectrum model for Malawi). There are an estimated 12,425 HIV infected pregnant women in the population per quarter (1/4 of 49,700 in 2014).[6]

15.2 ARV Coverage among Pregnant / Breastfeeding Women and Exposed Infants

9,406 (76%) of the estimated 12,425 HIV infected pregnant women in Malawi this quarter were on ART. This is based on **4,882** [7] women at maternity who were already on ART when getting pregnant and **4,524** [8] women who newly initiated ART in pregnancy.

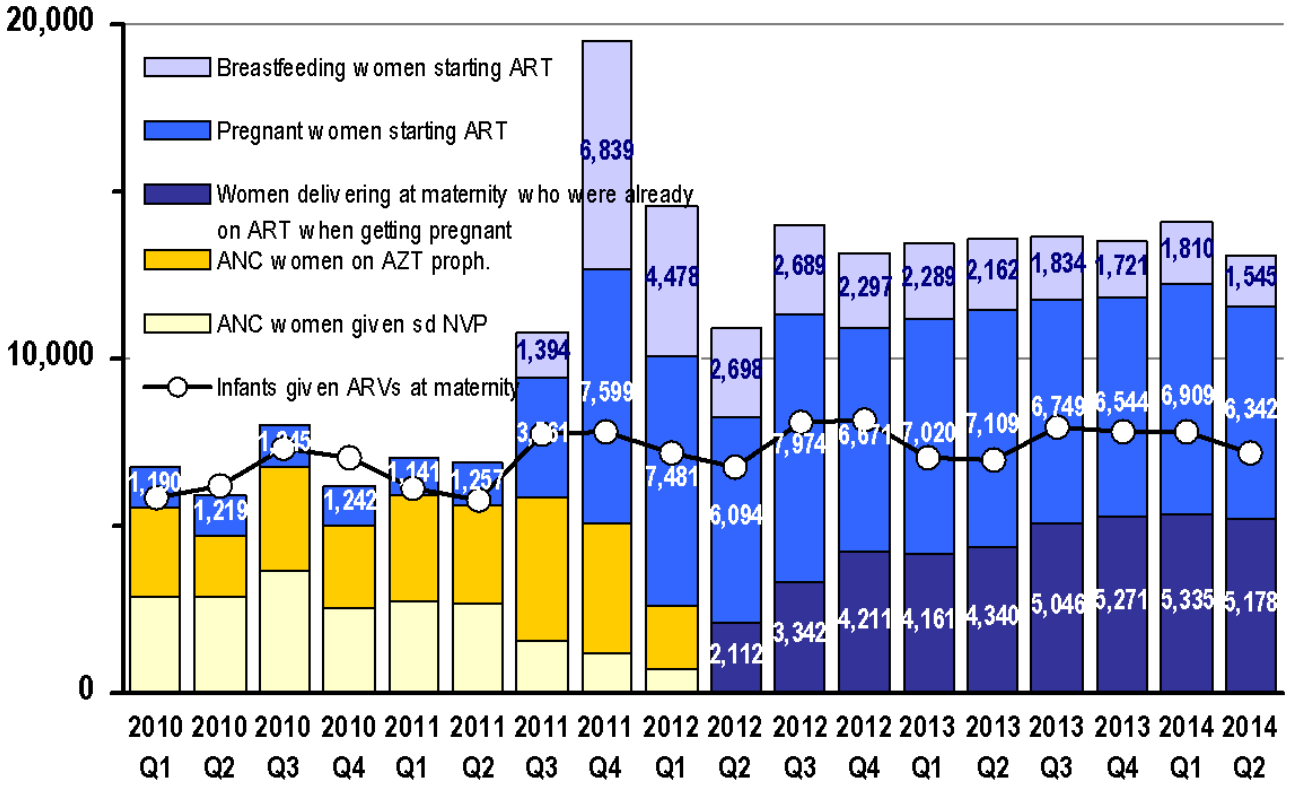
[6] 2014 Spectrum estimates based on 2014 definition of eligibility for ART in Malawi (CD4<500, Option B+, UT for U5).
[7] 5, 178 women who started ART before pregnancy admitted at maternity; reduced by 5.7% to adjust for double-counting of 6, 907 referrals among 120,792 total admissions.
[8] 6,342 women registered at ART clinics who were pregnant at the time of starting ART; a) 7.6% are discounted to adjust for double-counting of transfers based on 666 of 8,744 women who transferred within 12 months of registration

An additional **1,427** [9] breastfeeding women started ART due to ***Option B+*** (in WHO clinical stage 1 or 2), bringing the total number newly started on ART under *Option B+* to **6,001**. Most women starting ART while breastfeeding were probably identified late in maternity or early in the postnatal period, but this group may also include some women who re-initiated after interrupting ART in pregnancy. **7,190** infants were confirmed to have started NVP prophylaxis at maternity.

Figure 2 shows the transition from prophylactic ARV regimens for HIV infected mothers to universal ART under ***Option B+*** (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 **7,000** since Q4 2011.

Figure 2: Transition from prophylactic ARV regimens for PMTCT to Option B+ in Malawi

Women who moved to Option B+ from sdNVP / AZT were double counted between Q3 2011 - Q1 2012. It is likely that <12,000 total women were on ARVs during these quarters. Data on women already on ART when getting pregnant are only available from Q2 2012.



15.3 HIV Services at ANC

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

149,031 women attended ANC for their first visit between April and June 2014. This is 7% lower than the estimated 159,750 pregnant women in the 2014 population during one quarter.

The following report covers the outcomes of the **144,408** women who started ANC between October and December 2013 and who had finished ANC between April and June 2014. **12,766 (9%)** of these started ANC in their first trimester. **12,810 (9%)** were tested for syphilis at ANC and **443**

(12 month Option B+ survival analysis); b) 21.2% are discounted to account for presumed failed ART initiations based on 1,584 of 7,458 women lost to follow-up within 6 months of registration (6 month Option B+ survival analysis).

[9] 1545 women registered at ART clinics who were breastfeeding at the time of starting ART; reduced by 7.6% to adjust for double-counting of transfers based on 666 out of 8,744 women who transferred within 12 months of registration (12 month Option B+ survival analysis). Failed ART initiations are thought to be less common among this group, so no further adjustment is made.

(3%) were syphilis positive. The low testing rate probably explains the higher (3%) than expected proportion (<1%) of positives as the testing was likely selective of those suspected to be positive. Only **30,275 (21%)** of women in this cohort attended the minimum of 4 focussed ANC visits.

15.3.1 HIV Ascertainment at ANC

120,022 (83%) of ANC attendees had their HIV status ascertained. This is similar to the previous quarter (82%). Out of all women whose HIV status was ascertained, **9,840 (8%)** presented with a valid documented previous HIV test result and **110,182 (92%)** received a new HIV test result at ANC. A total of **9,146 (7.6%)** women were found HIV positive. This is lower than the estimated 11% HIV prevalence among pregnant women in the 2010 ANC sentinel surveillance survey but consistent with the latest Spectrum projections (7.8% HIV prevalence among pregnant women in 2014).[6]

15.3.2 ARV Coverage at ANC

8,304 (91%) of (known) HIV infected women attending ANC received ART. This represents **67%** coverage of the estimated 12,425 HIV positive pregnant women per quarter at the population level.

Of the **8,304** ANC women who were known to receive ART, **3,610 (43%)** were already on ART when starting ANC **3,563 (43%)** initiated before 28 weeks of pregnancy and **1,131 (14%)** initiated during the last trimester of pregnancy. **8,329 (91%)** of HIV infected women at ANC were on Cotrimoxazole Preventive Therapy.

7,193 (79%) of HIV infected women attending ANC received the infant dose of ARVs (nevirapine syrup) to take home.

15.4 HIV Services at Maternity

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

Between April and June 2014, **113,887** women were admitted for delivery to maternity; **6,907** of these were referred to another facility before delivery, resulting in **120,794** total admissions to maternity during Q2 2014. Out of all admissions, **111,375 (96%)** delivered at health facilities, while **4,825 (4%)** had already delivered before reaching a facility. The **111,375** facility deliveries represent **64%** of the estimated 173,250 quarterly deliveries in the population in 2014 which is less than the 83% reported in the Integrated Household Survey Report of 2010-2011.

A total of **108,237 (95%)** deliveries were conducted by skilled birth attendants, **1,134 (1%)** by paramedical staff and **4,552 (4%)** were not attended by any of the above (probably mainly among women who delivered before reaching maternity). **14,264 (12%)** of women developed obstetric complications. The most common leading complications were obstructed / prolonged labour (**4,889** cases) and post-partum haemorrhage (**1,638** cases). A total of **116,200** babies were born, **112,107 (96%)** were singletons and **4,093 (4%)** were twins/multiples. There were **114,215 (98%)** live births and **1,985 (2%)** stillbirths. **113,195 (98%)** of babies born alive were discharged alive and **1,020 (1%)** died before discharge. **113,754 (>99%)** of women were discharged alive and **121 (<1%)** women died before discharge, which is equivalent to a maternal mortality ratio of **106 per 100,000** live births among women attending maternity.

15.4.1 HIV Ascertainment at Maternity

114,585 (95%) women had their HIV status ascertained at maternity. Out of these, **110,874 (97%)** presented with a valid previous HIV test result and **3,711 (3%)** received a new HIV test result. A

total of **8,407 (7%)** women were HIV positive and **106,178 (93%)** were negative. The **114,585** women whose HIV status was ascertained at maternity represent **66%** of the expected 173,250 women delivering in the population.

HIV exposure status was ascertained for **108,034 (95%)** out of 113,195 babies born and discharged alive. **7,743 (7%)** of these were born to a known HIV positive mother.

15.4.2 ARV Coverage at Maternity

A total of **8,153 (97%)** of HIV infected women admitted to maternity received ART. Out of these, **5,178 (64%)** had started ART before pregnancy, **1,465 (18%)** initiated ART during the 1st or 2nd trimester, **1,318 (16%)** initiated during the 3rd trimester and **192 (2%)** initiated ART at maternity.

A total of **7,190 (93%)** of infants who were known HIV exposed and discharged alive started daily NVP prophylaxis at maternity. This represents **58%** coverage of the estimated 12,425 HIV exposed infants born in the population in this quarter.

16 ART Access and Follow-Up Outcomes

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

16.1 New ART Registrations during Q2 2014

By the end of June 2014, there were **700 static ART sites** in Malawi, managed by government, mission, NGOs and the private sector. Out of these, **77** were ART facilities in the private sector, charging a nominal MK500 per monthly prescription of drugs per patient.

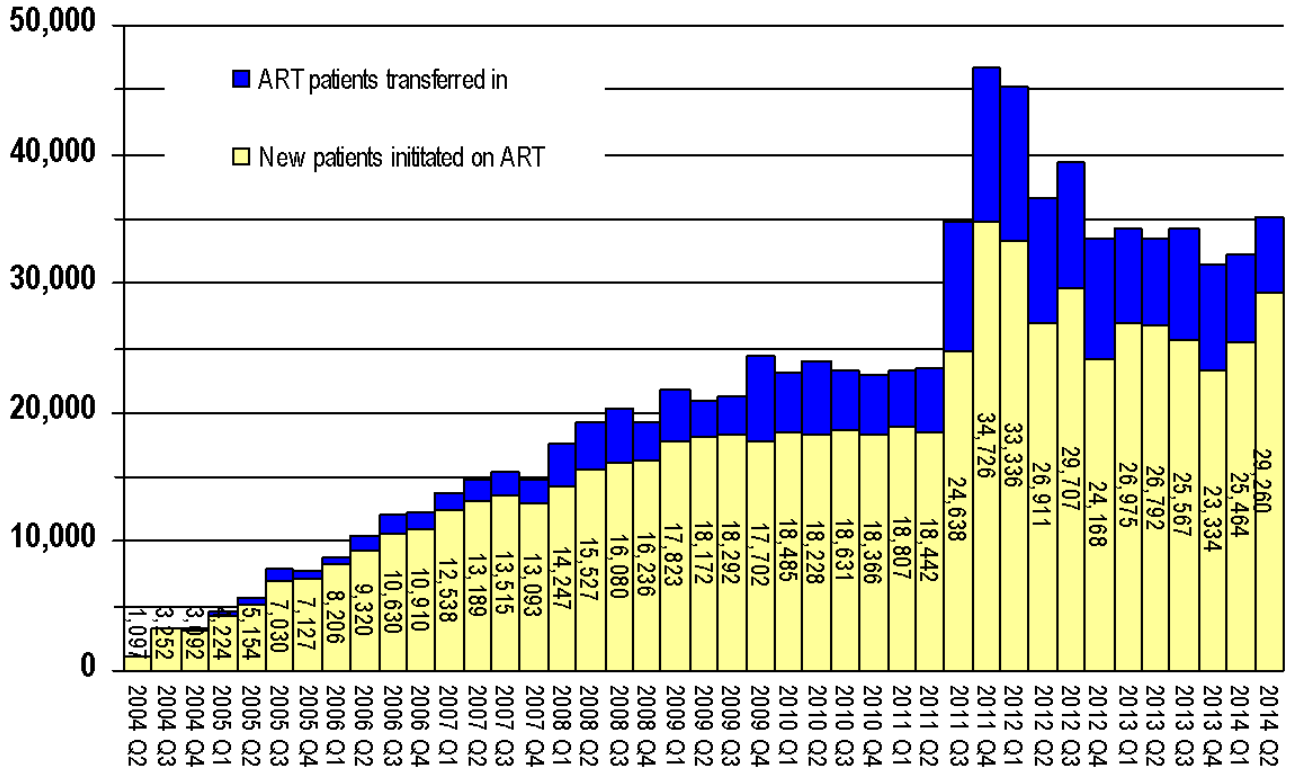
Implementation of the Malawi Integrated Clinical HIV Guidelines started in July 2011, triggering a massive surge in new ART initiations (see **Figure 3**). **29,260** patients initiated ART in Q2 2014, **15%** more than in the previous quarter. This increase was caused by the relaxation of ART eligibility criteria in April 2014, based on the 2014 edition of the Integrated Clinical HIV Guidelines (see *Integrated HIV Program Overview* on page 2). **5,354** patients were registered as a transfer in (already on treatment; 15% out of all 35,119 clinic registrations).

Among all new registrations **36%** were males and **64%** females. **6,342 (28%)** of females were pregnant and all of these were started under ***Option B+*** in WHO stage 1 or 2, independent of their CD4 count. An additional **1,545** women in WHO stage 1 or 2 were started because of breastfeeding, bringing the total number of women registered as started under ***Option B+*** [10] to **7,887**.

[10] Universal ART for all HIV infected pregnant and breastfeeding women in WHO stage 1 or 2, independent of CD4 count

Figure 3: Patients newly inititated 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 **22,945 (66%)** of all patients registered started in WHO stage 1 or 2 and **14,449 (63%)** of these started due a low CD4 count. The raising of the CD4 threshold for ART eligibility in April 2014 (from 350 to 500) was responsible for this **44% increase** from the previous quarter. **9,751 (28%)** of patients registered started in WHO stage 3 and **1,601 (5%)** started in stage 4.

2,854 children were registered at ART sites in Q2 2014. **588** of these were registered under the policy of universal ART for children aged 12-59 months in WHO stage 1 or 2, independent of CD4 count. **126** children started ART with presumed severe HIV disease, which was lower than the previous quarter (161). **107** infants in WHO stage 1 or 2 who started due to confirmed HIV infection through DNA-PCR, which is lower than the previous quarter (124). This number is equivalent to **39%** of the 276 infants with positive DNA-PCR results dispatched from the labs this quarter. Early paediatric ART access has remained below expectations, but the relatively low number is consistent with reduced transmission rates due to Option B+: considering that 7,743 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 3% who did not receive ART)[11], only about 143 of these known HIV exposed infants may have been infected perinatally during Q2 2014. However, considering the projected 1,025 new infant HIV infections in the 2014 population per quarter[6], early infant treatment coverage remains low at an estimated **10%** (107 / 1,025). The most significant bottleneck for early infant treatment remains the identification of HIV infected pregnant / breastfeeding women.

1,107 (4%) out of all ART clinic registrations were patients with TB: **661 (2%)** had a current and **446 (1%)** a recent history of TB. **312 (1%)** of patients registered had Kaposi's sarcoma.

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

16.2 Cumulative ART Registrations up June 2014

By the end of June 2014, there were a cumulative total of **893,243** clinic registrations, representing **716,221 (80%)** patients who newly initiated ART and **165,972 (19%)** patients who transferred between clinics. **11,050 (1%)** out of all clinic registrations were patients who re-initiated ART after treatment interruption. Out of all registrations, **36**% were males and **64**% were females, **91**% were adults and **9**% were children (<15 years). Private sector clinics accounted for **27,471** (3.1%) of total patient registrations.

16.3 ART Outcomes

505,123 patients were alive on ART by the end of June 2014. This number includes **4,671** patients who were assumed to be 'in transit' as of the 30th June 2014, based on the difference between **170,643** patients *transferred out* and **165,972** patients *transferred in* at the facilities around the country. This difference is explained by patients registered as a *transfer out* in the last 2 months of the quarter who have not yet arrived at their new site.

Out of the **893,243** patients ever initiated on ART, **505,123 (69%)** were retained alive on ART, **69,722 (10%)** were known to have died, **149,302 (21%)** were lost to follow-up and **2,968** (<1%) were known to have stopped ART. An estimated **461,192** adults and **43,931** children (<15 years) were alive on ART by the end of June 2014**.**

Figure 4 Patients alive on ART at the end of each quarter in Malawi, stratified by size of facility (number of patients alive on ART)

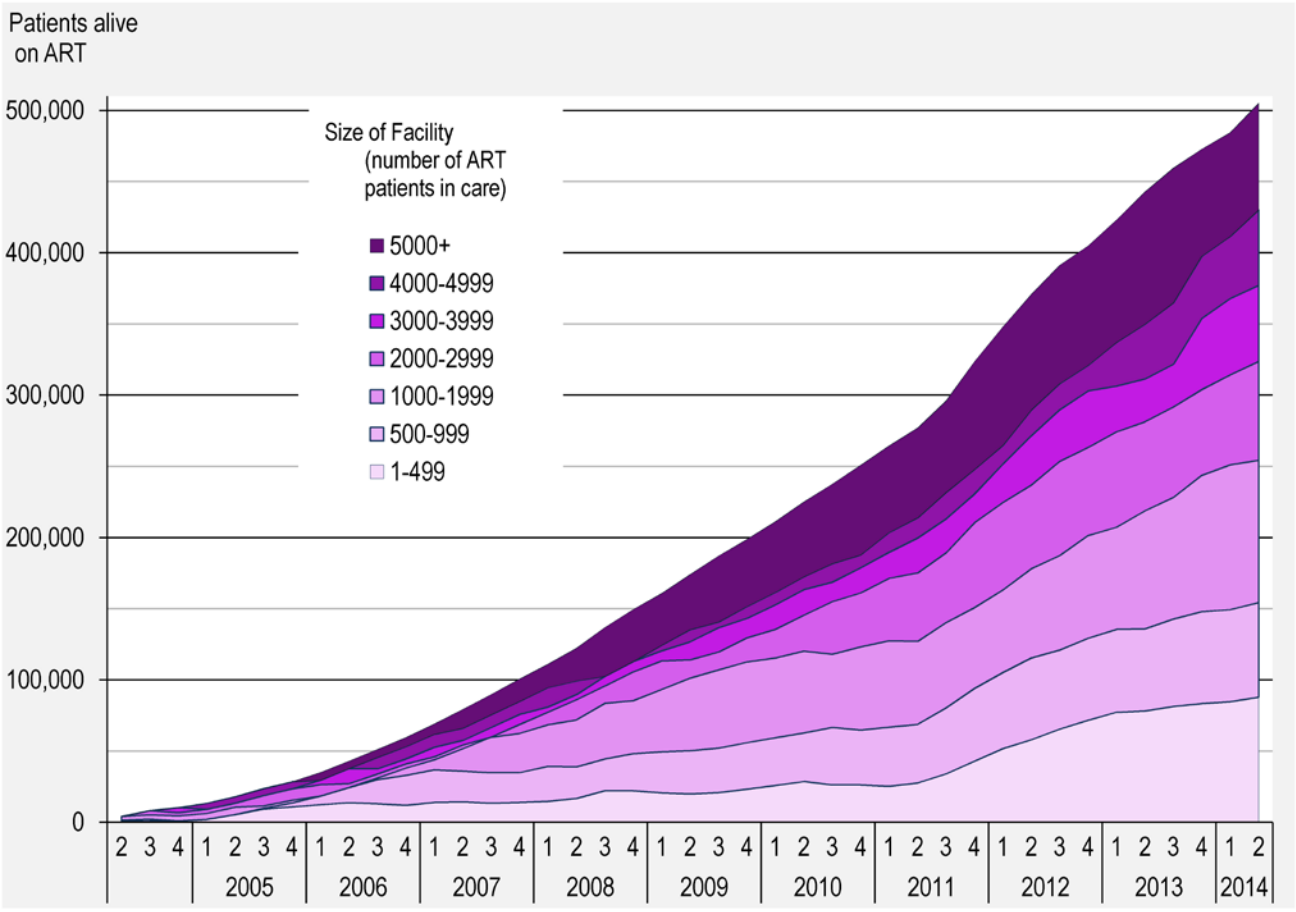


Figure 4 shows the increase of patients alive on ART by the end of each quarter. The number of patients alive on ART **increased by 18,328** in Q2 of 2014. **Figure 4** also illustrates the ongoing decentralization of Malawi's ART program. From Q3 2011, the greatest increase in ART patient

numbers was seen at sites with fewer than 500 patients alive on ART. By the end of June 2014, **54%** of the national ART patient cohort was in care at sites with fewer than 2,000 patients.

Figure 5: 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)

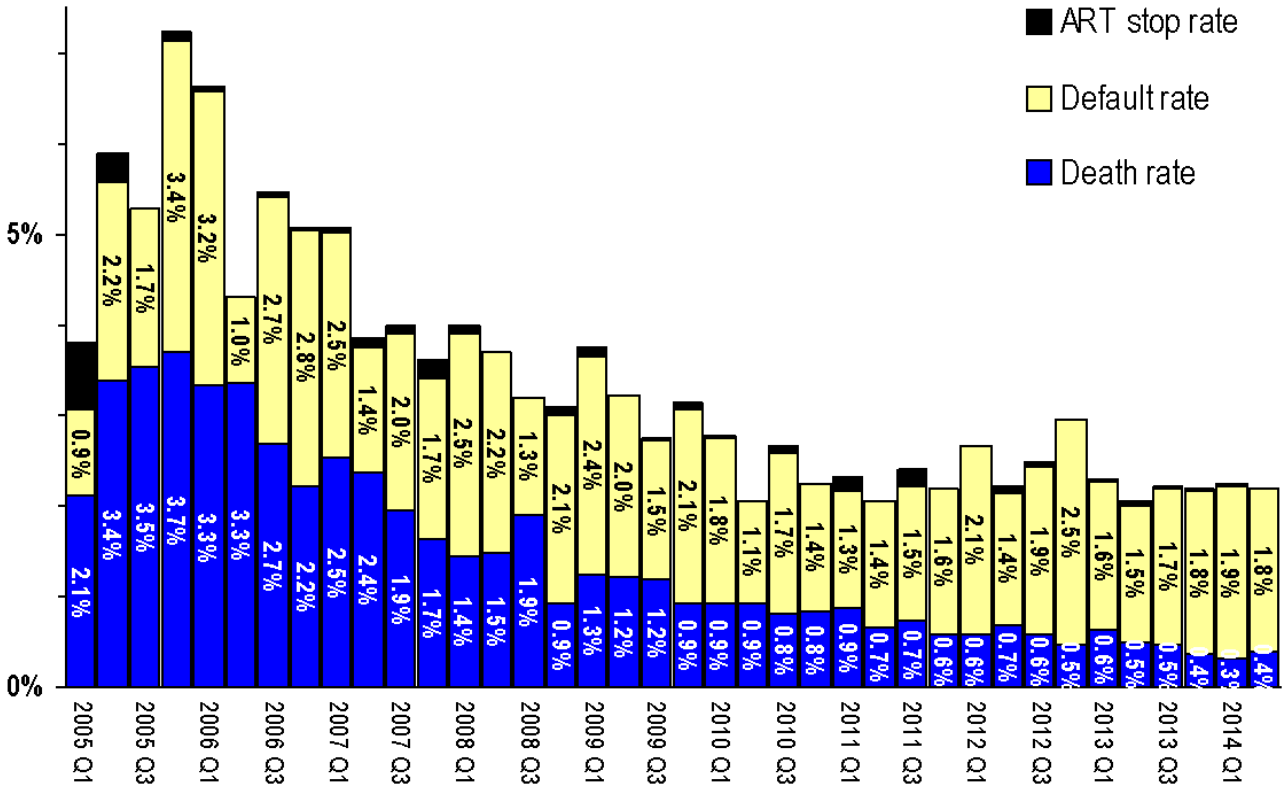


Figure 5 shows the considerable decrease of ART drop-out rates since the start of the national program. There were **2,046** new deaths, **9,287** new defaulters, and **5** new ART stops in Q2 2014. This translates into a quarterly death rate of **0.4%** and a defaulter rate of **1.8%** among the patients alive and on treatment in this quarter. These rates were similar to the previous quarter. Based on previous operational studies, about half of the patients in stage 3 and 4 who are classified as lost to follow-up are thought to have died. There is also an indication that 10-15% of pregnant women who were registered as 'initiated on ART' under Option B+ may have never actually started taking ARVs due to inadequate preparation at ANC. Importantly, the ascertainment of loss to follow-up requires updating of patient treatment cards after analysis of the most recent dispensing visit. Any lack in rigour in this process will lead to a misclassification of patients who have been lost to follow-up as 'retained alive on ART'.

By end of June 2014, a cumulative **69,722 (10%)** patients were known to have died **149,302 (21%)** were lost to follow-up and **2,968** (**<1%**) were known to have **stopped ART.**

Figure 6: Patients starting ART in WHO stage 4 and deaths in the first 3 months after ART initiation. (Shown as proportions among new patients registered each quarter)

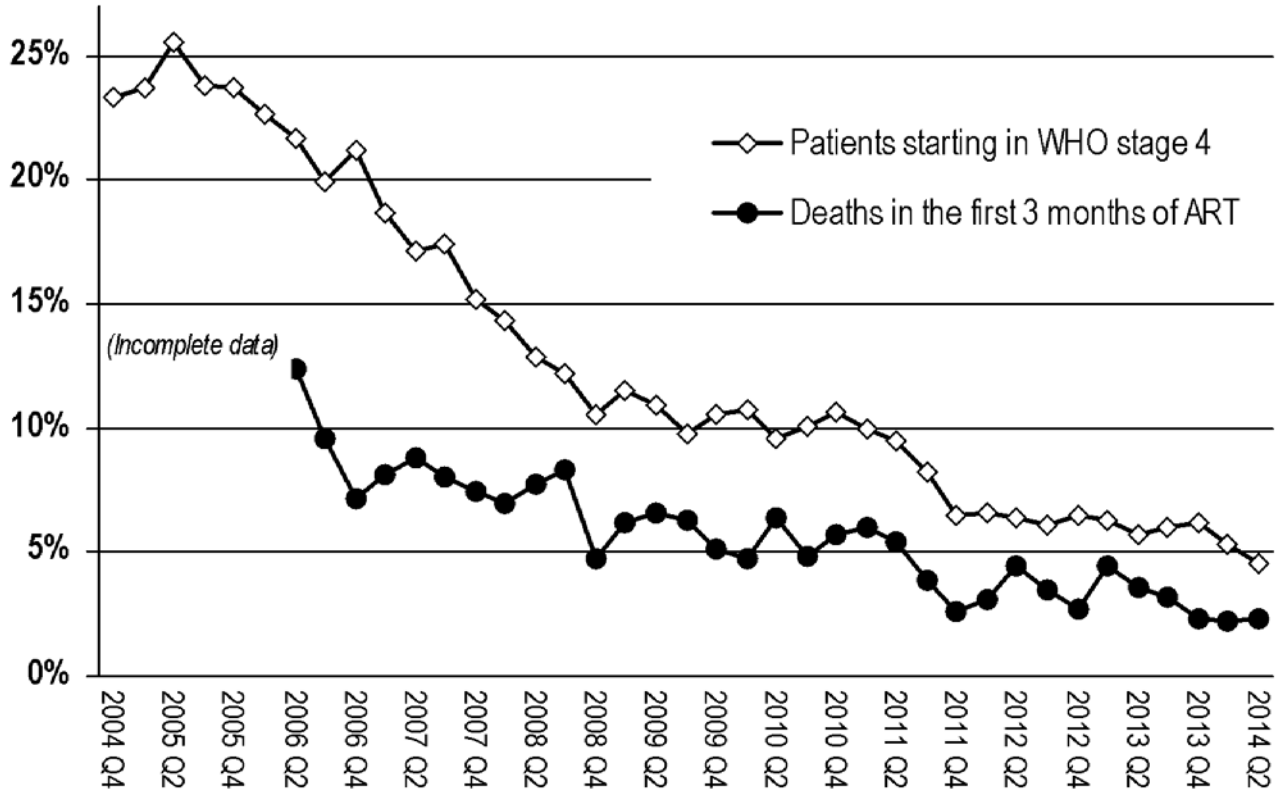
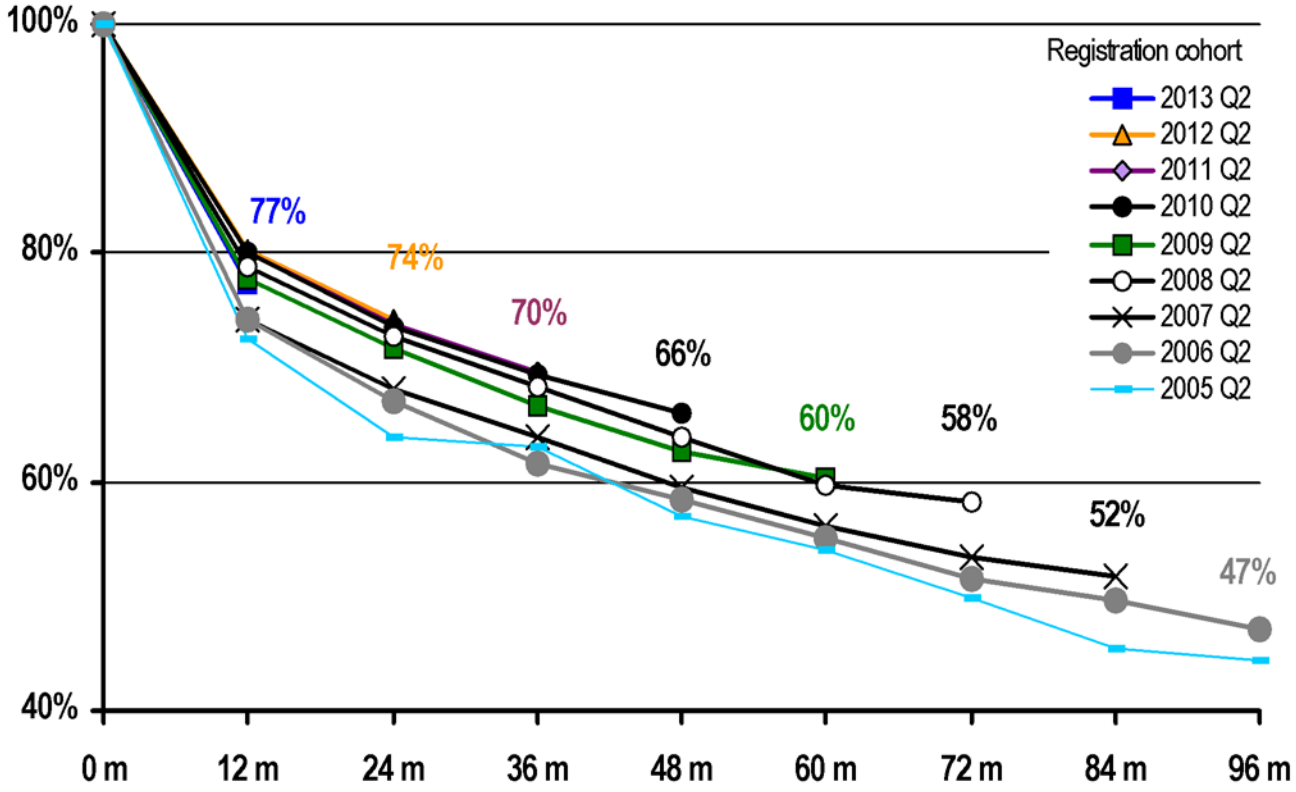


Figure 6 shows the considerable decline in **early mortality** since the start of the program. In Q2 of 2006 11% of new patients died within the first 3 months after ART initiation. There has been a remarkable decline in early mortality and the lowest point thus far has been reached in Q1 2014. The decrease in early mortality is probably mainly due to earlier ART initiation (patients in WHO stage 2 with a CD4 count below the threshold or in stage 3). It correlates well with the decline in the proportion of patients starting ART in WHO clinical stage 4 from 25% in 2005 Q2 to **5%** in Q2 2014. Slight fluctuations in the calculated early mortality rates are mainly due to inconsistent classification of month of death at the sites with electronic patient record systems. The 2014 guidelines are expected to further reduce early mortality, as more patients will be started in WHO stage 1 and 2 (universal ART for HIV infected pregnant and breastfeeding women and children under 5 years).

16.4 ART Cohort Survival Analysis

A 12, 24, 36, 48, 60, 72, 84 and 96-month **'cohort outcome survival analysis'** was conducted for patients registered in Q2 of 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012 and 2013, 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 2013. For the 9th time, a further subgroup analysis was done for women who started ART under ***Option B+*** during Q2 2012, Q2 2013 and Q4 2013. **77% of adults** and **80% of children** were retained alive on ART after 12 months on treatment. This is similar to the previous quarter, but remains below the WHO target of 85%. **Figure 7** shows the continuous improvement of long-term treatment outcomes over time. **60%** and **52%** of patients registered 5 and 7 years ago had been retained alive on ART.

Figure 7: Group cohort survival analysis: Proportion of patients retained alive on ART 12, 24, 36, 48, 60, 72, 84 and 96 months after ART initiation



6-month group cohort survival outcomes were known for **7,458** (94%) of the 7,906 women registered as having started ART under *Option B+* in Q4 2013. [12] This number represents 505 (7%) women who transferred out and are therefore double counted and **6,953 (93%)** patients not transferred. **5,308 (76%)** of these were retained at 6 months after registration. **1,584 (96%)** of those not retained were lost to follow-up, **14 (1%)** were known to have stopped ART and **47 (3%)** were known to have died.

12-month group cohort survival outcomes were known for **8,744** (96%) out of the 9,072 women registered as having started ART under *Option B+* in Q2 2013. [12] This number represents **666 (8%)** women who transferred out and are therefore double counted and **8,078 (92%)** patients not transferred. **5,754 (71%)** of these were retained at 12 months after registration. **2,235 (96%)** of those not retained were lost to follow-up, **28 (1%)** were known to have stopped ART and **61 (3%)** were known to have died.

24-month group cohort survival outcomes were known for **8,399 (98%)** out of the 8,611 women registered as having started ART under *Option B+* in Q2 2012. [12] This number represents **966 (12%)** women who transferred out and are therefore double counted and **7,433** (88%) patients not transferred. **5,237 (70%)** of these were retained at 24 months after registration. **2,058 (94%)** of those not retained were lost to follow-up, **52 (2%)** were known to have stopped ART and **86 (4%)** were known to have died.

2,698 (31%) of the women in the 24 month Option B+ survival cohort had initiated ART in the breastfeeding period and **2,587 (30%)** started in the third trimester / in labour; considering the 24 month median breastfeeding period in Malawi (2010 MDHS), more than half of the women in this cohort can be assumed to have stopped breastfeeding. The **70% retention rate at 24 months** after

[12] Group cohort survival analyses were not available from some sites with electronic data systems.

ART initiation confirms for the second time that a high proportion of women started under Option B+ **remain on ART beyond the cessation of breastfeeding**.

The majority of women classified as lost to follow-up are likely to have stopped/ interrupted ART, but others will have transferred to another facility without notifying the previous site and the actual proportion retained on ART may be higher than reported. The 6-month retention rate is the same as in the previous quarter. These are satisfactory results. Most of the women lost to follow-up failed to return after their first visit and many of these may have never actually started ART due to inadequate counselling and preparation in the initial phase of implementation. The program is examining the different modes of delivery closely to further improve uptake and retention on *Option B+*.

6 month survival OptionB+

Survival and retention in ART program *

ART cohort registration group outcomes

Total ART clinic registrations	7,458	100%
Transfers out (double counted)	505	7%
Total not transferred out (patients in cohort)	6,953	93%
Total alive on ART	5,308	76%
Total not retained	1,645	24%
Defaulted	1,584	96%
Stopped ART	14	1%
Died	47	3%

12 month survival OptionB+

Survival and retention in ART program *

ART cohort registration group outcomes

Total ART clinic registrations	8,744	100%
Transfers out (double counted)	666	8%
Total not transferred out (patients in cohort)	8,078	92%
Total alive on ART	5,754	71%
Total not retained	2,324	29%
Defaulted	2,235	96%
Stopped ART	28	1%
Died	61	3%

24 month survival OptionB+

Survival and retention in ART program *

ART cohort registration group outcomes

Total ART clinic registrations	8,399	100%
Transfers out (double counted)	966	12%
Total not transferred out (patients in cohort)	7,433	88%
Total alive on ART	5,237	70%
Total not retained	2,196	30%
Defaulted	2,058	94%
Stopped ART	52	2%
Died	86	4%

16.4.1 Secondary outcomes of patients retained on ART

Secondary outcomes are known for the **500,452** patients alive on ART who remained at their sites at end of the quarter. They are assumed to be similar for the 4,671 patients *in transit*.

ART Regimens

494,979 (99%) of patients were on first line and **4,731 (1%)** were on second line regimens; **742 (<1%)** 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 first line regimens, **25,366 (5%)** were on paediatric formulations and **24,350 (96%)** of these were on the new standard first line for children (regimen 2P: AZT/3TC/NVP).

By the end of June 2014, **436,724 (93%)** of patients on adult first line were receiving regimen **5A** (tenofovir / lamivudine / efavirenz). **25,857 (6%)** were on regimen 2A (zidovudine / lamivudine / nevirapine), which was the main alternative regimen for patients with stavudine side-effects before transition to regimen 5A and **3,233 (1%)** were on regimen 1A (stavudine / lamivudine / nevirapine).

Adherence to ART

Pill counts and the number of missed doses were documented for **494,097 (99%)** out of all patients retained on ART and **443,070 (90%)** of these were classified as >95% adherent in Q2 2014. Manual estimation of adherence from pill counts is practically difficult and classification can be misleading. The ART program has switched to a direct evaluation of doses missed in 2010 to improve on accuracy of adherence assessment and plausible adherence levels are recorded with this method. However, there have also been persistent challenges with the analysis of adherence levels at sites with Electronic Data Systems (EDS) and adherence data from several of these sites could not be included in this report.

ART Side Effects

499,462 (>99%) patients on ART had information on drug side effects documented at their last clinic visit before end of June 2014. **3,670 (1%)** of these had side-effects. The prevalence of side effects seems to have stabilized at very low levels following the full transition to regimen 5A (tenofovir / lamivudine / efavirenz) that started in July 2013.

16.5 Viral Load (VL) Monitoring

The National Treatment Program has started rolling out routine VL monitoring for patients on ART to facilitate early detection of treatment failure and timely switching to second line ART. Routine VL monitoring is scheduled at 6 months after ART initiation, at 2 years and every 24 months thereafter. Additional targeted VL testing may be carried out for patients with clinically suspected treatment failure. During Q2 2014, **8** laboratories in the national program provided VL testing for patients enrolled at the 8 respective facilities and associated sites. A total of **12,563** VL results were produced at these labs between April and June 2014. The number of VL results per lab was: DREAM (Blantyre): 3,340; Partners in Hope (Lilongwe): 3,337; Zomba CH (Zomba): 2,038; Kamuzu CH (Lilongwe): 1,675; Mzuzu CH (Mzimba): 1,018; Mzimba DH (Mzimba): 646; QECH (Blantyre): 509.

Reason	0-999		1000-4999		*5000+*		*Total*
Routine	**10,560**	*87%*	**372**	*3%*	**1,217**	*10%*	**12,149**
Targeted	**255**	*65%*	**20**	*5%*	**118**	*30%*	**393**
Unspecified	**11**	*52%*	**1**	*5%*	**9**	*43%*	**21**
Total	**10,826**	*86%*	**393**	*3%*	**1,344**	*11%*	**12,563**

12,149 (96%) of all VL samples were classified as *routine scheduled.* This is equivalent to **17%** of the estimated 70,000 ART patients passing a VL monitoring milestone this quarter. **393 (3%)** of samples were classified as *targeted (suspected treatment failure / repeat)* and for **21 (<1%)** the reason for the sample was not specified. **10,826 (86%)** of all results were undetectable / below 1,000 copies/ml. The proportion of results with 5,000+ copies was higher among targeted samples (30%) than

among *routine* samples (10%). VL monitoring outputs are expected to increase significantly over the next quarters.

17 TB / HIV Management

Approximately **99%** of HIV infected TB patients were receiving ART in Q2 2014. This estimate is based on the following triangulation of TB and ART program data:

TB Program Data: A total of **4,303** TB patients were registered during Q2 2014. Assuming an average HIV prevalence of 60% among TB patients, **2,582** TB patients were HIV positive and therefore in need of ART. Given that **1,644** TB patients registered were already on ART at the time of starting TB treatment, 2,582 – 1,644 = **938** TB patients needed to initiate ART.

ART Program Data: An estimated **922** patients[13] started ART with a current or recent episode of TB in Q1 2014. This is **98%** (922 of 938) of the TB patients who needed to start ART. This means that a total of 1,644 + 922 = **2,566 (99%)** of the estimated 2,582 HIV infected TB patients were receiving ART in Q2 2014.

TB program report *

TB clinic registrations

Total TB patients registered	4,303	100%

HIV status ascertainment

HIV status not ascertained	485	11%
HIV status ascertained	3,818	89%
HIV negative	1,659	43%
HIV positive	2,159	57%
Already on ART	1,644	76%
Not on ART when starting TB treatment	515	24%

TB / ART program triangulation *

HIV-burden among TB patients (estimated)

HIV negative (est. 40%)	1,721	40%
HIV positive (est. 60%) in need of ART	2,582	60%
Not on ART	15	1%
Total on ART (coverage)	2,566	99%
Already on ART (TB prog)	1,644	64%
Started ART within 24m of TB diagnosis (ART prog)	922	36%
ART initiations with current TB (ART prog)	551	60%
ART initiations after recent TB (ART prog)	372	40%

18 STI Treatment

STI reports were actively collected during the Integrated HIV Program Supervision exercise for the 5th time this quarter. This decision was taken due to the persistent challenges with 'passive' reporting based on data aggregated by the district STI coordinators. The supervision teams noted that 106 (15%) of 649 facilities with STI services did not use the STI register (or used it inconsistently), so the data presented in this report are thought to represent 85% of STI clients treated. The supervision teams re-emphasized the importance of complete and accurate documentation at the sites and the data quality is expected to improve with resumption of regular

[13] 15% of the 1,107 ART patients who were registered this quarter with a recent or current episode of TB at the time of ART initiation were assumed to be transfers and were subtracted to adjust for double-counting.

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

18.1 Access to STI treatment and coverage

Based on the data collected at the facilities, a total of **49,993** STI cases were treated in Q2 2014. Considering the 85% completeness of reporting, this number is estimated to represent a total of **58,815** STI cases treated. This is equivalent to **59% STI treatment coverage** of the expected 98,600 STI cases in the population.

Out of **49,993** documented clients treated, **20,327** (41%) were male and **29,666** (59%) were female. **4,057** (14%) of female STI clients were pregnant. **33,413** clients (67%) were 25 years and above, **12,163** (24%) were 20-24 years and **4,417** (9%) were under 20 years old.

18.2 Client Type and STI History

44,234 (88%) of clients were symptomatic and **5,759** (12%) were asymptomatic (treated as partners). Among symptomatic clients, **40,108** (91%) of were index cases and **4,126** (9%) were partners. A total of **12,923** partner notification slips were issued, equivalent to an average of 0.32 slips per index case. Considering the 12,923 partner notification slips issued, **76%** (9,885) of those notified presented to the clinic. **37,779** (76%) of clients presented with their first lifetime episode of STI, **7,836** (16%) clients reported to have had an STI in over three months ago and **4,378** (9%) of clients reported having had an STI within the last three months. Re-occurrence of an STI after a recent episode may be due to re-infection or treatment failure.

18.3 HIV Status

HIV status was ascertained for **25,265** (51%) clients and **6,362** (25%) of these were HIV positive. **1,442** (23%) of positives were identified through a new test initiated at the STI clinic, while **4,920** (77%) presented with a documented previous positive HIV test result. **3,622** (74%) of clients with a previous positive HIV test result were on ART.

The rate of HIV status ascertainment at STI clinics remained low. This is likely due to poor implementation of provider initiated testing and counselling, combined with weak back-referral systems which may lead to incomplete documentation of new HIV test results at the STI clinics. 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 due to the increased risk of recurrence of HSV-2 and balanitis among HIV-infected clients.

18.4 STI Syndromes

The most common syndrome was abnormal vaginal discharge (AVD) with **16,273** (30%) cases, followed by urethral discharge (UD, **12,585** cases) and genital ulcers (GUD, **9,056** cases). Similar to previous reports, balanitis, bubo, warts and neonatal conjunctivitis each accounted for 1 – 2% of cases.

18.5 Referrals

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. Only **15,611** (31%) of the 49,993

STI clients with unknown or new negative test result were referred for repeat HTC. **919** (64%) of 1,442 clients who were newly tested HIV positive were referred for ART eligibility assessment.

19 Supply of HIV Program Commodities

19.1 Quantification and procurement planning

The quarterly quantification and procurement plan for all HIV commodities was reviewed and updated. UNITAID has phased out funding support for procurement of paediatric ARVs through CHAI and the last procurements will be delivered in country in Q3 2014. Paediatric ARV orders were procured through the Global Fund's Pooled Procurement Mechanism to facilitate a seamless transition of these supplies. Over 50% of the paediatric ARV consignments procured through VPP were received in country during July 2014.

The number of patients on regimen 5A (tenofovir / lamivudine / efavirenz) increased by **19,355** (4.6%) from the previous quarter. **436,724 (93%)** of 505,123 patients receiving first line adult formulation ART were on this preferred regimen by the end of June 2014.

Increased global demand and limited production capacity for tenofovir-based regimens have resulted in considerably increased lead times for procurement of regimen 5A. The Ministry of Health has received importation waivers for two additional WHO prequalified manufacturers of this product (CIPLA and Aurobindo Pharma Limited) and shipments from the two suppliers were received during Q2 2014. This has allowed the program to top up most health facilities to 5 months of stock.

A healthy supply chain for co-trimoxazole 960mg at all sites enabled the program maintain a CPT coverage of 94% among pre-ART and ART patients in Q2 2014.

During Q2 2014, ARVs and medicines for opportunistic infections worth $18.3 million were received by the Central Medical Store Trust warehouse dedicated for HIV Program commodities. This comprised of Tenofovir/Lamivudine/Efavirenz 300/300/600mg (Regimen 5A; 90% of the value of adult ARVs) and medicines for opportunistic infections (10% of the value for all medicines received during the period).

To maintain adequate stocks in the pipeline and hence ensure uninterrupted supply for subsequent orders, MOH has continued processing HIV commodity orders for ARVs, OI, RDTs and other related commodities estimated at over 57million USD for which disbursements were honoured by the Global Fund. Delivery for these items will be staggered through December 2014 to facilitate a seamless transition from SSF grant period to Transition Funding. The first order for the transition funding was placed in July 2014 to maintain central level stocks in Q1 & Q2 2015 (Jan-June 2015).

19.2 Quarterly distribution of HIV commodities

The scheduled quarterly distribution of HIV commodities (Round 17) took place between March and April 2014. Over 40 HIV commodities (ARVs, OI, STI medicines, HIV test kits and laboratory commodities) were distributed to 689 sites.

During Q2 2014, the logistics team at the Department of HIV and AIDS coordinated a total of over 2,800 individual commodity transactions between ART sites to avert stock outs and or prevent expiry for stocks that could not be utilized at selected health facilities. These transactions were managed using the toll free HIV Department Supply Chain Hot Line. The number of transactions doubled during Q2 2014 given the transition to Regimen 0P (Abacavir/Lamivudine/Nevirapine) and need to provide health facilities with adequate stocks for the preferred first line, 5A (Tenofovir/Lamivudine/Efavirenz) given long lead time constraints highlighted in the quantification and procurement planning section in Q1 2014. Health workers are able to communicate supply

chain and other drug related issues that need to be resolved by the technical team at the department in a timely manner.

19.3 Quarterly logistics monitoring and supply chain trail

The Logistics team also conducted visits to 27 ART sites to monitor the execution of distribution round 17; to strengthen in-country logistics and co-ordinate activities pertaining to storage, stock management, distribution planning and distribution of HIV commodities. No deviations were noted from the verified delivery notes reviewed by the team and health facility staff during the supply chain trail visit. By end of Q2 2014, the logistics team had conducted site-based training and mentoring at over 195 health facilities over a 15 month period.

Some of the challenges noted during the Q2 2014 logistics monitoring visits include: Stock imbalances at a few sites and parallel stock management system in some health facilities in Chiradzulu. The team also conducted on job training in best practices of stock management in Chiradzulu district. Cumulative findings from this exercise have significantly influenced the strategies adopted to strengthen logistics management of ARVs and medicines for opportunistic infections such as distribution of RDT daily activity registers and relocation books for registration of redistributed commodities to health facilities for which authorization codes must be obtained as a commodity tracking measure.

19.4 National Stock Status of HIV Commodities

Physical stock counts for ARVs and other medicines for HIV-related diseases were performed at all sites during the supervision visits in July 2014. **Table 6** shows the total medicine stocks found at the sites and the estimated consumption periods. Health facility stocks of the key adult and paediatric regimens were estimated to last until November 2014.

Minimum stocks of AZT/3TC 300/150mg are maintained at all sites for post-exposure prophylaxis (PEP) and the total stocks at the sites therefore far exceeds the actual consumption from patients using this regimen in alternative ART regimens or as PEP.

Commodities in high volumes include stavudine based regimens at all levels mainly driven by the transition to tenofovir based regimens. The program continues to monitor the trend of patients on stavudine based regimens to inform future procurements.

The total number of patients alive on ART by the end of Q2 2014 (500,123) was within **0.1%** of the forecast for this procurement period (500,564). However, the number of adults on regimen 5A **436,724** exceeded the forecast by **16,982 (4%).** This variance was mainly due to a deviation from clinical protocol at many sites where patients on non-stavudine containing regimens were moved to 5A. The number of patients moved from regimen 5A to 6A due to efavirenz toxicity was approximately half of the forecast, which is probably a reflection of low sensitivity of side-effect screening and/or a reluctance to substitute regimens at many sites. The national ART program forecast and quantification was updated in June 2014, based on the last 9 quarters of program data since implementation of the July 2011 guidelines.

Table 6: Total stocks of HIV program commodities at all sites visited during the 2014 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 01/09/2014

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 60 / 30mg tins (60 tabs)	56	7,841	27,217	2,874	2.7	9.5
	ABC / 3TC 600 / 300mg tins (30 tabs)	7	131	332			
	ATV / r 300 / 100mg tins (30 tabs)	150	27,849	17,806	4,171	6.7	4.3
	AZT / 3TC / NVP 300 / 150 / 200mg tins (60 tabs)	620	133,923	494,834	25,857	5.2	19.1
	AZT / 3TC / NVP 60 / 30 / 50mg tins (60 tabs)	626	342,562	354,405	60,875	5.6	5.8
	AZT / 3TC 300 / 150mg tins (60 tabs)	636	20,958	606	1,512	13.9	0.4
	AZT / 3TC 60 / 30mg tins (60 tabs)	580	21,967	23,527	2,080	10.6	11.3
	d4T / 3TC / NVP 30 / 150 / 200mg tins (60 tabs)	196	22,579	47,124	3,233	7.0	14.6
	d4T / 3TC / NVP 6 / 30 / 50mg tins (60 tabs)	0	0		995	0.0	
	d4T / 3TC 30 / 150mg tins (60 tabs)	79	4,397	16,709	201	21.9	83.1
	d4T / 3TC 6 / 30mg tins (60 tabs)	299	5,655	300	778	7.3	0.4
	EFV 200mg tins (90 tabs)	87	1,785	1,469	412	4.3	3.6
	EFV 600mg tins (30 tabs)	405	22,497	19,061	882	25.5	21.6
	LPV / r 100 / 25mg tins (60 tabs)	56	6,660	10,633	1,680	4.0	6.3
	LPV / r 200 / 50mg tins (120 tabs)	24	1,475	942	417	3.5	2.3
	NVP 200mg tins (60 tabs)	460	21,829	111,986	2,917	7.5	38.4
	NVP 50mg tins (60 tabs)	86	4,881	5,133			
	TDF / 3TC / EFV 300 / 300 / 600mg tins (30 tabs)	682	2,097,873	2,476,366	436,724	4.8	5.7
	TDF / 3TC 300 / 300mg tins (30 tabs)	200	22,927	75,015	6,855	3.3	10.9
bottles	Fluconazole (Diflucan) 50mg / 5ml bottles (35 ml)	452	4,095	780	88	46.4	8.8
	Gentian violet 25g bottles (1 each)	514	8,172		1,081	7.6	
	NVP 10mg/ml bottles (25 ml)	569	78,719	88,936	14,156	5.6	6.3
vials	Benzathine Penicillin 1.44g vials (50 each)	660	225,248	0	34,806	6.5	0.0
	Bleomycine 15,000IU vials (1 each)	20	3,606	730			
	Ceftriaxone 1g vials (50 each)	616	144,269		93,949	1.5	
	Depo-Provera 150mg/1ml vials (25 each)	537	496,492	1,480,850	290,895	1.7	5.1
	Gentamicin 80mg / 2ml vials (50 each)	665	613,657		88,410	6.9	
	Vincristine 1mg / 1ml vials (1 each)	54	28,871	101,900	3,744	7.7	27.2
tabs	Aciclovir 200mg blist packs (25 tabs)	657	6,244,128		566,321	11.0	
	Amitriptylline 25mg tins (500 tabs)	379	1,093,769		110,100	9.9	
	Azithromycin 500mg blist packs (3 tabs)	493	243,299	1,287	9,346	26.0	0.1
	Ciprofloxacin 500mg blist packs (100 tabs)	427	759,640	247,900	267,878	2.8	0.9
	Clotrimazole 500mg boxes (1 each)	536	84,483	1,825	34,433	2.5	0.1
	Codeine 30mg tins (100 tabs)	230	195,174	497,200	44,335	4.4	11.2
	Cotrimoxazole 100 / 20mg blist packs (1000 tabs)	585	26,019,162	59,838,000	5,153,876	5.0	11.6
	Cotrimoxazole 400 / 80mg tins (1000 tabs)	623	37,578,348	42,223,000	14,851,664	2.5	2.8
	Cotrimoxazole 960mg blist packs (1000 tabs)	672	59,022,143	37,745,000	16,020,971	3.7	2.4
	Doxycycline 100mg tins (1000 tabs)	630	18,951,642	1,479,000	3,969,130	4.8	0.4
	Erythromycin 250mg tins (1000 tabs)	531	8,471,236		3,550,788	2.4	
	Fluconazole (Diflucan) 200mg tins (28 tabs)	410	351,652	431,368	41,383	8.5	10.4
	Fluconazole (generic) 200mg tins (100 tabs)	47	155,382				
	Ibuprofen 200mg tins (100 tabs)	467	3,308,979		759,167	4.4	
	Isoniazid 100mg blist packs (100 tabs)	163	190,841		162,259	1.2	
	Isoniazid 300mg tins (1000 tabs)	606	9,570,681	21,925,000	1,187,589	8.1	18.5
	Metronidazole 200mg tins (1000 tabs)	596	8,527,742	4,874,000	4,311,763	2.0	1.1
	Morphine 10mg blist packs (60 tabs)	213	433,155	537,180	193,463	2.2	2.8
	Pyridoxine 25mg tins (100 tabs)	136	1,276,038		1,267,652	1.0	
	Pyridoxine 50mg tins (1000 tabs)	537	7,539,436	19,181,000	1,267,652	5.9	15.1
sheets	ART pat. card adult (yellow) bundles (100 sheets	673	277,691	95,100	10,755	25.8	8.8
	ART pat. card paed. (blue) bundles (100 sheets)	643	104,066	0	951	109.4	0.0
	Exposed child card (pink) bundles (50 sheets)	632	89,755	57,200	3,051	29.4	18.7
	Polythene sleeve bundles (100 sheets)	606	159,169	166,600			
	Pre-ART pat. card (green) bundles (100 sheets)	641	168,067		2,428	69.2	
tests	DBS kit (filter paper, lancet, etc.) bundles (20 eac	408	25,129		3,661	6.9	
	Determine HIV1/2 boxes (100 each)	650	865,718	707,000	143,869	6.0	4.9
	Determine syphilis boxes (100 each)	40	5,451		48,088	0.1	
	Uni-Gold HIV1/2 boxes (20 each)	611	90,490	45,300	12,867	7.0	3.5
pieces	Condoms female boxes (1000 each)	446	912,749		166,250	5.5	
	Condoms male boxes (144 each)	481	6,585,377	10,000,080	4,001,040	1.6	2.5

* '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.

20 Training and Mentoring

Viral Load Orientation Training

36 mentors and **50** health workers (providers) were oriented in routine and targeted viral load testing using the capillary DBS sample technique. Participants included 6 lab staff, 23 clinical officers, and 40 nurses, 9 medical assistants and 8 ART/PMTCT clerks.

Clinical HIV Guidelines & Refresher Trainings

Distribution of the 2nd Edition of the *Malawi Clinical HIV Guidelines for Management of HIV in Adults and Children* started in April 2014. **129** trainers were trained in delivering the 2014 PMTCT/ART refresher trainings based on the revised guidelines. This included 56 existing and 73 new trainers.

52 new providers were trained and certified in the revised 5-day ART/PMTCT course conducted in 2 two districts.

EID District Based Review Meetings

Clinton Health Access Initiative (CHAI) supported meetings to review Early Infant diagnosis (EID) services in 3 districts. Participants included clinicians, EID focal staff and ART clerks from all facilities in the respective districts, supported by implementing partner organizations these districts.

The review involved interactive checking and performance rating of site-level service data from 2013. Participants from each facility were asked to report their data interpretation to the group and develop action plans to address weaknesses identified.

Lessons: Facility staff need support to use and interpret their data. Linkages were easily addressed as all key providers in follow up of HIV exposed infants were present.

Challenges: DBS sample transportation was identified as a major challenge causing delayed diagnosis.

21 Participants in Q1 2014 Supervision (Site visits 7 – 25 July 2014)

Henry Banda (CO, MOH)
Yusuf Bhamu (HIV Fellow, HIV Dept)
Annie Biza (Nurse, MDF)
Menard Bvumbwe (CO, CHAM)
Sekani Charles (CO, MOH)
Elizabeth Chatsika (CO, CHAM)
Mirriam Chigwiya (CO, MOH)
Janet Chikonda (Nurse, MOH)
Marion Chikuse (, moh)
Felix Chinguwo (CO, Ntcheu DH)
Zengani Chirwa (TA, MOH, HIV Dept)
Salome Chiwewe (Nurse, Ntchisi DH)
Stuart Chuka (CO, MBCA)
Peter Donda (CO, Dedza DH)
Linda Dziweni (Nurse, Baylor)
Michael Eliya (PMTCT Officer, MOH)
Alefa Fikira (CMT, MOH)
Andrew Gompho (Clinician, MOH)
Mary Gosten (MA, MOH)
Dereje Habte (ART Zonal Superviser, CE)
Sidder Hambisa (ENM, MOH)
Lilian Kachali (Nurse, MOH)
Limbani Kadzuwa (Nurse, MOH)
Agnes Kalitsiro (Nurse, Mlambe MH)
Mike Kalulu (CO, MOH)
Mathilda Kamanga (Nurse, Army)
Oscar Kasiyamphanje (Nurse, CHAM)
Joseph Kasola (CO, MOH, Chitipa DH)
Catherine Kassam (, MOH)
Martin Katanga (CO, MOH)
Rodrick Kaulele (CO, CHAM)
Absalom Kaunda (CO, Mzimba DHO)
Jean Kayamba (Nurse, MOH)
Julie Kazima (Nurse, MSH)
Jenipher Khalani (Nurse, LH)
Thoko Kumpolota (Co, Lighthouse)
Jesse Lobeni (Nurse, MOH)
Chiukepo Longwe (CO, Private)
Rumours Lumala (CO, MOH)
Mphatso Machika (co, Baylor)
Ezra Majoni (Nurse, MOH)
Simon Makombe (ART officer, HIV Dept)
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Roseby Malombe (Nurse, CHAM)
Beatrice Malonje (Nurse, MOH)
Lameck Manda (Logistics Fellow, MOH)
Davie Maseko (CO, SOS)
Hannock Matupi (CO, Rumphi DH)
Rose Maviko (Nurse, Limbe HC)
Andrew Mganga (M&E Fellow, HIV Dept)
Dalitso Midiani (PMTCT Officer, MOH)
Erik Mittochi (CO (ART Coord), MOH)
C. Mkandawire (Fellow, HIV Dept)
Everista Mkandawire (Nurse, MOH)
William Mkandawire (NMT, CHAM)
Pax Mkupani (Logistics Fellow, MOH)
Louis Mkwatula (, Dignitas)
Christopher Mkwezalamba (CO, MOH)
Offrey Mnduwira (CO, Police)
Moreen Mtambo (PMTCT, MOH)
Andraida Mtoseni (Nurse, MOH)
Ekwala Mubiala (HIV Zonal Supervisor,N)
Fainala Muyila (Nurse, MOH)
Fainala Muyira (Nurse, MOH)
Ruockia Mwachumu (Nurse, Nsanje DHO)
Edward Mwale (Clinician, Lighthouse)
James Mwambene (CO, Diginitas)
Saviour Mwandira (MOH)
Musaku Mwenechanya (CO, EGPAF)
Musako Mwenyechanya (Mentor, EGPAF)
Timothy Mwenyedini (MA, MOH)
Ruth Mzinganjira (Nurse, Balyor)
Austins Namondwe (CO, CHAM)
Overtone Ndhlovu (CO, MOH)
Patrick Ndovi (MSH (Mentor), MSH)
Mapayi Ngalala (HIV Zonal Supervisor)
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Grace Juma Nkhata (Nurse, MOH)
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Mike Nyirenda (CO, Lighthouse)
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Macleod Piringu (ART Coord, MOH)
Cecilia Sambakunsi (Log. Fellow, MOH)
Charles F Sekani (CO)
Monica Simfukwe (Nurse, Chintheche RH)
Juliana Soko (Nurse, MOH, Livingstonia)
Patrick Stevens (Mentor, EGPAF)
Moses Tambala (Nusre, Baylor)
Edith Taulo (Nurse, MOH)
Harrison Tembo (CO, MOH)
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Gift Werekhwa (M & E Officer, CHAM)
Enock Whayo (Private)
Tewodros Wubayehu (Zonal Supervisor)
Gerald Zomba (Prog. Officer, HIV Dept)

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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.

2nd October 2014

22 Appendix (Full National HIV Program Data)

STI site report

Malawi (national)

2014 Q2 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

STI clients treated in the reporting period

*

Total STI clients

Total STI clients treated		49,993	100%
	Index patients treated (symptomatic)	40,108	80%
	Partners treated	9,885	20%

Sex

Males		20,327	41%
Females		29,666	59%
	Non-pregnant	25,609	86%
	Pregnant	4,057	14%

Age group

Age group A (0-19 years)		4,417	9%
Age group B (20-24 years)		12,163	24%
Age group C (25+ years)		33,413	67%

Client type

Symptomatic cases		44,234	88%
	Index cases	40,108	91%
	Partners symptomatic	4,126	9%
Partners asymptomatic		5,759	12%

STI treatment history

Never treated for STI		37,779	76%
Previously treated for STI		12,214	24%
	Old >3 months ago	7,836	64%
	Recent ≤3 months ago	4,378	36%

STI syndromic diagnosis

GUD		9,056	17%
UD		12,585	23%
AVD		16,273	30%
	Low risk	6,057	37%
	High risk	10,216	63%
LAP		8,355	15%
SS		853	2%
BU		602	1%
BA		1,057	2%
NC		403	1%
Genital Warts		583	1%
Syphilis RPR VDRL		1,192	2%
Other STI		3,461	6%

STI partner notification

Total partner notification slips issued		12,923	100%
	Total partners returned	9,885	76%
	Total partners not seen	3,038	24%

* Subgroups may not add to 100% due to rounding

STI site report

Malawi (national)

2014 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	24,728	49%
HIV status ascertained	25,265	51%
HIV negative (new test)	18,903	75%
HIV positive	6,362	25%
New positive	1,442	23%
Previous positive	4,920	77%
Not on ART	1,298	26%
On ART	3,622	74%

STI clients referred for services

Lab	405	2%
Gynae review	353	2%
Surgical review	166	1%
Repeat HTC	15,611	84%
ART (for assessment)	919	5%
PMTCT	193	1%
Other (service referrals)	946	5%

* Subgroups may not add to 100% due to rounding

Maternity

Malawi (national)

2014 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)	120,794	100%
Not referred to other site (total women)	113,887	94%
Referred out before delivery (multiple admissions)	6,907	6%

HIV status ascertainment

HIV status not ascertained	6,247	5%
HIV status ascertained	114,585	95%
Valid previous test result	110,874	97%
Previous negative	102,758	93%
Previous positive	8,116	7%
New test at maternity	3,711	3%
New negative	3,420	92%
New positive	291	8%

HIV status summary

Total women HIV negative	106,178	93%
Total women HIV positive	8,407	7%

ARVs during pregnancy (among HIV pos)

No ARV in pregnancy	254	3%
Any ARVs	8,153	97%
ART (by time of initiation)	8,153	100%
ART initiated before pregnancy	5,178	64%
ART initiated in 1st / 2nd trimester	1,465	18%
ART initiated in 3rd trimester	1,318	16%
ART initiated during labour	192	2%

Obstetric complications

No obstetric complications	106,568	88%
Any obstetric complications	14,264	12%
Haemorrhage	2,402	17%
Haemorrhage ante-partum	764	32%
Haemorrhage post-partum	1,638	68%
Obstr / prol labour	4,889	34%
(pre-) Eclampsia	808	6%
Maternal sepsis	143	1%
Ruptured uterus	126	1%
Other obstetric complications	5,896	41%

Emergency obstetric care

Oxytocin	104,906	95%
Anticonvulsive	346	0%
Antibiotics	4,190	4%
Blood transfusion	329	0%
Manual removal of placenta	395	0%

Vitamin A

Vit A not given	43,526	36%
Vit A given	77,306	64%

* Subgroups may not add to 100% due to rounding

Maternity

Malawi (national)

2014 Q2 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

Maternal details

*

Staff conducting delivery

Category A: MO, CO, nurse/midwife, MA	108,237	95%
Category B: PA, WA, HSA	1,134	1%
Category C: Other	4,552	4%

Mother survival

Mother alive	113,754	100%
Mother died	121	0%

Infant details

*

Single babies / multiple deliveries

Total babies delivered	116,200	100%
Single babies	112,107	96%
Twin / multiple babies	4,093	4%

Delivery place

Total deliveries at a health facility	111,375	96%
This facility	111,063	100%
Other facility	312	0%
Total deliveries before reaching the facility	4,825	4%
In transit	2,917	60%
Home / TBA	1,908	40%

Delivery mode

Spontaneous vaginal	104,841	90%
Vacuum extraction	1,534	1%
Breech	2,066	2%
Caesarean section	7,755	7%

Infant complications

No infant complications	102,219	88%
Total infants with complications	13,977	12%
Prematurity	3,345	24%
Weight less 2500g	4,962	36%
Asphyxia	3,713	27%
Sepsis	454	3%
Other newborn complication	1,503	11%

Infant survival

Total live births	114,215	98%
Discharged alive	113,195	99%
Neonatal deaths	1,020	1%
Stillbirths	1,985	2%
Stillbirth, fresh	1,081	54%
Stillbirth, macerated	904	46%

Infant details

*

HIV exposure / ARV proph. (among discharged alive)

Infants with unknown HIV exposure status	5,157	5%
Infants with known HIV exposure status	108,034	95%
Not HIV exposed	100,291	93%
HIV exposed	7,743	7%
Received no ARVs	553	7%
Received ARVs	7,190	93%
Nevirapine	7,190	100%

Breastfeeding initiated

BF not started within 60min	8,085	7%
BF started within 60min	108,111	93%

Tetracycline eye ointment given

TO not given	23,749	20%
TO given	92,447	80%

HTC site report

Malawi (national)

2014 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	418,619	100%

Sex

Males tested	139,938	33%
Females tested	278,681	67%
Females non-pregnant	133,225	48%
Females pregnant	145,456	52%

Age

Children 0-14 yrs	34,265	8%
Children below 12 mths (Age group A)	1,542	5%
Children 18 mths - 14 yrs (Age group B)	32,723	95%
Adults 15+ years	384,354	92%
Young adults 15-24 years (Age group C)	162,816	42%
Older adults 25+ yrs (Age group D)	221,538	58%

HTC access type

PITC	228,044	54%
Family Referral Slip (FRS)	2,150	1%
Other (VCT, etc.) HTC access	188,425	45%

HTC first time / repeat

Never tested before	131,564	31%
Previously accessed HTC	287,055	69%
Last negative	274,433	96%
Last positive	10,693	4%
Last exposed infant	1,623	1%
Last inconclusive	306	0%

Counseling session type / Partner present

Counseled with partner / partner present	95,591	23%
Counseled alone / Partner not present	323,028	77%

Outcome summary (HIV test)

Single test negative	379,947	91%
Single test positive	517	0%
Test 1&2 negative	961	0%
Test 1&2 positive	36,112	9%
Test 1&2 discordant	1,082	0%

Final result given to client

Results among clients never tested / last negative	410,672	98%
New negative	379,670	92%
New positive	28,709	7%
New exposed infants	1,229	0%
New inconclusive	1,064	0%
Confirmatory results (previous positive clients)	7,947	2%
Confirmatory positive	7,607	96%
Confirmatory inconclusive	340	4%

* Subgroups may not add to 100% due to rounding

HTC client details *

Partner / Family HTC referral slips

Sum of slips given		12,741	100%
	Total clients presenting with referral slip	2,150	17%
	Total failed referrals (slips not returned)	10,591	83%

Clients tested in the community

HTC client details *

Total HTC clients served

Total HIV tested		17,357	100%

Sex

Males tested		7,906	46%
Females tested		9,451	54%
	Females non-pregnant	6,277	66%
	Females pregnant	3,174	34%

Age

Children 0-14 yrs		1,607	9%
	Children below 12 mths (Age group A)	14	1%
	Children 18 mths - 14 yrs (Age group B)	1,593	99%
Adults 15+ years		15,750	91%
	Young adults 15-24 years (Age group C)	7,611	48%
	Older adults 25+ yrs (Age group D)	8,139	52%

HTC access type

PITC		4,134	24%
Family Referral Slip (FRS)		18	0%
Other (VCT, etc.) HTC access		13,205	76%

HTC first time / repeat

Never tested before		5,388	31%
Previously accessed HTC		11,969	69%
	Last negative	11,864	99%
	Last positive	102	1%
	Last exposed infant	3	0%
	Last inconclusive	0	0%

Counseling session type / Partner present

Counseled with partner / partner present		1,547	9%
Counseled alone / Partner not present		15,810	91%

Outcome summary (HIV test)

Single test negative		16,900	97%
Single test positive		10	0%
Test 1&2 negative		0	0%
Test 1&2 positive		434	3%
Test 1&2 discordant		13	0%

HTC site report

Malawi (national)

2014 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		17,287	100%
	New negative	16,647	96%
	New positive	611	4%
	New exposed infants	2	0%
	New inconclusive	27	0%
Confirmatory results (previous positive clients)		70	0%
	Confirmatory positive	64	91%
	Confirmatory inconclusive	6	9%

Partner / Family HTC referral slips

Sum of slips given		438	100%
	Total clients presenting with referral slip	18	4%
	Total failed referrals (slips not returned)	420	96%

* Subgroups may not add to 100% due to rounding

HIV exposed child follow-up

Malawi (national)

2014 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	7,590	100%

CPT status

On CPT	6,808	90%
Not on CPT	782	10%

HIV status

Current HIV infection status unknown	4,913	65%
HIV infection not confirmed, not ART eligible	4,885	99%
HIV infection not confirmed, ART eligible (PSHD)	28	1%
Current HIV infection status known	2,677	35%
Confirmed not infected	2,631	98%
Confirmed infected (ART eligible)	46	2%

ART eligibility summary

Not eligible for ART	7,516	99%
ART eligible	74	1%
ART not initiated	35	47%
Initiated ART	39	53%

Primary follow-up outcome

Discharged uninfected	26	0%
Continue follow-up	6,899	92%
Started ART	39	1%
Defaulted	541	7%
Died	14	0%

Transfers between sites

Total not transferred out	7,519	99%
Transferred out	71	1%

Age 12 months

Age cohort outcomes

*

Total children in birth cohort

Total children registered	7,882	100%

CPT status

On CPT	5,418	69%
Not on CPT	2,464	31%

HIV status

Current HIV infection status unknown	5,143	65%
HIV infection not confirmed, not ART eligible	5,131	100%
HIV infection not confirmed, ART eligible (PSHD)	12	0%
Current HIV infection status known	2,739	35%
Confirmed not infected	2,593	95%
Confirmed infected (ART eligible)	146	5%

* Subgroups may not add to 100% due to rounding

Age cohort outcomes *

ART eligibility summary

Not eligible for ART		7,724	98%
ART eligible		158	2%
	ART not initiated	25	16%
	Initiated ART	133	84%

Primary follow-up outcome

Discharged uninfected	95	1%
Continue follow-up	5,374	70%
Started ART	133	2%
Defaulted	1,982	26%
Died	66	1%

Transfers between sites

Total not transferred out	7,650	97%
Transferred out	232	3%

Age 24 months

Age cohort outcomes *

Total children in birth cohort

Total children registered	6,918	100%

CPT status

On CPT	1,265	18%
Not on CPT	5,653	82%

HIV status

Current HIV infection status unknown		4,215	61%
	HIV infection not confirmed, not ART eligible	4,190	99%
	HIV infection not confirmed, ART eligible (PSHD)	25	1%
Current HIV infection status known		2,703	39%
	Confirmed not infected	2,516	93%
	Confirmed infected (ART eligible)	187	7%

ART eligibility summary

Not eligible for ART		6,706	97%
ART eligible		212	3%
	ART not initiated	38	18%
	Initiated ART	174	82%

Primary follow-up outcome

Discharged uninfected	2,376	36%
Continue follow-up	1,082	16%
Started ART	174	3%
Defaulted	2,976	44%
Died	82	1%

Transfers between sites

Total not transferred out	6,690	97%
Transferred out	228	3%

HIV Care Clinic (HCC) cohort analysis

Malawi (national)

2014 Q2 (Quarter)

Registration details

*

HCC clinic registrations

Total HCC registrations	16,438	100%

Registration type

Patients enrolled first time	15,633	95%
Patients re-enrolled	52	0%
Patients transferred in	753	5%

Sex

Males (all ages)	7,789	47%
Females (all ages)	8,649	53%
Non-pregnant	8,637	100%
Pregnant	12	0%

Age at registration

Adults 15+ yrs	6,776	41%
Children 0-14 yrs	9,662	59%
Children 24 months - 14 years	589	6%
Children below 24 months (exposed children)	9,073	94%
Children 2 - below 24 months	3,646	40%
Infants below 2 months	5,427	60%

Reason for HCC registration

Exposed infants	9,153	56%
Confirmed infected patients (pre-ART)	7,285	44%

* Subgroups may not add to 100% due to rounding

HIV Care Clinic (HCC) cohort analysis

Malawi (national)

2014 Q2 (Cumulative)

Registration details

*

HCC clinic registrations

Total HCC registrations	291,662	100%

Registration type

Patients enrolled first time	280,479	96%
Patients re-enrolled	948	0%
Patients transferred in	10,235	4%

Sex

Males (all ages)	123,156	42%
Females (all ages)	168,506	58%
Non-pregnant	162,991	97%
Pregnant	5,515	3%

Age at registration

Adults 15+ yrs	157,984	54%
Children 0-14 yrs	133,678	46%
Children 24 months - 14 years	14,343	11%
Children below 24 months (exposed children)	119,335	89%
Children 2 - below 24 months	61,749	52%
Infants below 2 months	57,586	48%

Reason for HCC registration

Exposed infants	118,642	41%
Confirmed infected patients (pre-ART)	173,020	59%

Pre-ART follow-up outcome

*

Primary follow-up outcomes

Total retained in pre-ART	44,479	27%
Started ART	82,314	49%
Defaulted	38,615	23%
Died	1,818	1%

Transfers between sites

Total not transferred out	167,307	97%
Transferred out	5,713	3%

* Subgroups may not add to 100% due to rounding

Blood safety

Malawi (national)

2014 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	1,901	18%
Tested for HIV	8,484	82%
HIV negative	7,921	93%
HIV positive	563	7%

Hepatitis B screening

HepB testing not done	1,928	19%
Tested for Hepatitis B	8,457	81%
HepB Negative	8,074	95%
HepB Positive	383	5%

Hepatitis C screening

HepC testing not done	7,738	75%
Tested for Hepatitis C	2,647	25%
HepC Negative	2,582	98%
HepC Positive	65	2%

Syphilis screening

Syphilis testing not done	1,969	19%
Tested for Syphilis	8,416	81%
Syphilis Negative	8,055	96%
Syphilis Positive	361	4%

Malaria screening

Malaria testing not done	4,893	47%
Tested for malaria	5,492	53%
Malaria Negative	4,871	89%
Malaria Positive	621	11%

Summary screening outcome

Not donated	3,382	33%
Donated	7,003	67%
Screened for at least HIV, HepB and syphilis	5,842	83%
Screened for HIV, HepB, HepC, Syphilis, Malaria	1,913	33%
Screened for HIV, HepB, Syphilis	3,929	67%
Screened for HIV, HepB	12	0%
Screened for HIV only	0	0%
Screened with any other combination of tests	1,149	16%

Cross-matching report *

Blood group typing (for units and patients)

Total blood group typing done	29,634	100%

Blood units cross-matched (by source)

Total blood units cross-matched	19,273	100%
Total units from MBTS (estimated)	12,270	64%
Total units from replacement donors	7,003	36%

Blood units cross-matched by patient group

Units cross-matched for maternity	2,706	14%
Units cross-matched for paediatrics	9,241	48%
Units cross-matched for other ward	7,326	38%

* Subgroups may not add to 100% due to rounding

Cross-matching report

*

Transfusion reactions

Units transfused without adverse events	19,254	100%
Units with suspected transfusion reactions	15	0%
Units with confirmed transfusion reactions	4	0%

ART cohort analysis

Malawi (national)

2014 Q2 (Quarter)

Registration details

*

ART clinic registrations

Total ART clinic registrations	35,119	100%

Registration type

First time ART initiations (total patients)	29,260	83%
ART re-initiations	505	1%
ART transfers in	5,354	15%

Sex

Males	12,556	36%
Females	22,563	64%
Non-pregnant	16,221	72%
Pregnant	6,342	28%

Age at ART initiation

Adults 15+ yrs	32,265	92%
Children 0-14 yrs	2,854	8%
Children 2-14 yrs	2,266	79%
Children below 24 mths	588	21%

Reason for starting ART

Presumed severe HIV Disease	126	0%
Confirmed HIV infection	34,993	100%
WHO stage 1 or 2	22,945	66%
Total lymphocytes <threshold	3	0%
CD4 below threshold	14,449	63%
CD4 unknown or >threshold	8,493	37%
PCR infants	107	1%
Children 12-59 mths	533	6%
Pregnant women	6,308	74%
Breastfeeding mothers	1,545	18%
WHO stage 3	9,751	28%
WHO stage 4	1,601	5%
Unknown / reason outside of guidelines	696	2%

TB at ART initiation

Never TB / TB > 24 months ago	34,012	97%
TB within the last 24 months	446	1%
Current episode of TB	661	2%

Kaposi's sarcoma at ART initiation

No KS	34,807	99%
Patients with KS	312	1%

* Subgroups may not add to 100% due to rounding

ART cohort analysis

Malawi (national)

2014 Q2 (Cumulative)

Registration details

*

ART clinic registrations

Total ART clinic registrations	893,243	100%

Registration type

First time ART initiations (total patients)	716,221	80%
ART re-initiations	11,050	1%
ART transfers in	165,972	19%

Sex

Males	321,716	36%
Females	571,527	64%
Non-pregnant	475,720	83%
Pregnant	95,807	17%

Age at ART initiation

Adults 15+ yrs	815,557	91%
Children 0-14 yrs	77,686	9%
Children 2-14 yrs	60,447	78%
Children below 24 mths	17,239	22%

Reason for starting ART

Presumed severe HIV Disease	3,279	0%
Confirmed HIV infection	889,964	100%
WHO stage 1 or 2	359,582	40%
Total lymphocytes <threshold	243	0%
CD4 below threshold	244,583	68%
CD4 unknown or >threshold	114,756	32%
PCR infants	2,522	2%
Children 12-59 mths	3,822	3%
Pregnant women	77,320	67%
Breastfeeding mothers	31,092	27%
WHO stage 3	429,435	48%
WHO stage 4	94,333	11%
Unknown / reason outside of guidelines	6,614	1%

TB at ART initiation

Never TB / TB > 24 months ago	824,875	92%
TB within the last 24 months	35,468	4%
Current episode of TB	32,900	4%

Kaposi's sarcoma at ART initiation

No KS	874,844	98%
Patients with KS	18,399	2%

* Subgroups may not add to 100% due to rounding

ART cohort analysis

Malawi (national)

2014 Q2 (Cumulative)

ART outcomes

*

Primary follow-up outcomes

Total alive on ART		505,123	69%
	Alive on ART at site of last registration	500,452	99%
	ART patients in transit between sites	4,671	1%
Defaulted		149,302	21%
Stopped ART		2,968	0%
Total died		69,722	10%
	Died month 1	18,038	26%
	Died month 2	11,385	16%
	Died month 3	6,557	9%
	Died month 4+	33,742	48%

Transfers between sites

Total not transferred out		722,600	81%
Transferred out		170,643	19%

ART regimens

First line regimens		494,979	99%
	Adult formulation	469,613	95%
		Regimen 1A	3,233	1%
		Regimen 2A	25,857	6%
		Regimen 3A	201	0%
		Regimen 4A	681	0%
		Regimen 5A	436,724	93%
		Regimen 6A	2,917	1%
	Paed. formulation	25,366	5%
		Regimen 1P	398	2%
		Regimen 2P	24,350	96%
		Regimen 3P	293	1%
		Regimen 4P	325	1%
Second line regimens		4,731	1%
	Adult formulation	4,171	88%
		Regimen 7A	3,639	87%
		Regimen 8A	532	13%
	Paed. Formulation	560	12%
		Regimen 9P	560	100%
Other regimen (adult / paed)		742	0%

Adherence

Adherence unknown (not recorded)		6,355	1%
Adherence recorded		494,097	99%
	0-3 doses missed	443,070	90%
	4+ doses missed	51,027	10%

ART side effects

Side effects unknown (not recorded)		990	0%
Side effects recorded		499,462	100%
	No side effects	495,792	99%
	Any side effects	3,670	1%

* Subgroups may not add to 100% due to rounding

ART cohort analysis

Malawi (national)

2014 Q2 (Cumulative)

ART outcomes

*

Current TB status among ART patients (ICF)

ICF not done (Current TB status unknown/ not circ)		11,801	2%
ICF done		488,651	98%
	TB not suspected	482,260	99%
	TB suspected	5,079	1%
	TB confirmed	1,312	0%
		TB confirmed, not on treatment	381	29%
		TB confirmed, on TB treatment	931	71%

* Subgroups may not add to 100% due to rounding

Antenatal Care

Malawi (national)

2014 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	149,031	100%

ANC cohort analysis *

Total women completing ANC in the reporting period

Total women in booking cohort	144,408	100%

Visits per woman

Women with 1 visit	33,905	23%
Women with 2 visits	39,073	27%
Women with 3 visits	41,155	28%
Women with 4 visits	24,369	17%
Women with 5+ visits	5,906	4%

Trimester of first visit

Started ANC 0-12 wks	12,766	9%
Started ANC 13+ wks	131,642	91%

Pre-eclampsia

No pre-eclampsia	142,678	99%
Pre-eclampsia	1,730	1%

TTV doses

0-1 TTV doses	76,277	53%
2+ TTV doses	68,131	47%

SP tablets

0 SP doses	16,905	12%
1 SP dose (1 x 3 tabs)	43,551	30%
6+ SP tablets (2 x 3 tabs)	83,952	58%

FeFo tablets

0-119 FeFo tablets	108,085	75%
120+ FeFo tablets	36,323	25%

Albendazole (Deworming)

0 Albend. doses	25,350	17%
1 Albend. dose	121,136	83%

ITN (bednets)

No ITN	29,362	20%
ITN received	116,521	80%

Syphilis status

Not tested for syphilis		131,598	91%
Tested for syphilis		12,810	9%
	Syphilis negative	12,367	97%
	Syphilis positive	443	3%

* Subgroups may not add to 100% due to rounding

Antenatal Care

Malawi (national)

2014 Q2 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

ANC cohort analysis

*

HIV status ascertainment

HIV status not ascertained	24,386	17%
HIV status ascertained	120,022	83%
Valid previous test result	9,840	8%
Previous negative	5,658	58%
Previous positive	4,182	43%
New test at ANC	110,182	92%
New negative	105,218	95%
New positive	4,964	5%

HIV status summary

Total women HIV negative	110,876	92%
Total women HIV positive	9,146	8%

CPT status (among HIV pos)

Not on CPT	817	9%
On CPT	8,329	91%

Final PMTCT regimen mother

No ARVs	842	9%
Any ARVs	8,304	91%
ART (by time of initiation)	8,304	100%
Already on ART when starting ANC	3,610	43%
Started ART at 0-27 weeks of pregnancy	3,563	43%
Started ART at 28+ weeks of preg.	1,131	14%

Baby's ARVs dispensed

No ARVs dispensed for infant	1,953	21%
ARVs dispensed for infant	7,193	79%

* Subgroups may not add to 100% due to rounding