Government of Malawi Ministry of Health

Integrated HIV Program Report January -March 2014

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1 Executive Summary

This is the 10th quarterly HIV Program report after implementation of the 2011 Integrated Clinical HIV Guidelines in July 2011. A summary of the key achievements between **January and March 2014** is provided below:

- Scale-up of integrated HIV services had reached the following number of sites:
  - **825** static (607 within and 218 outside of health facilities) and 534 outreach HTC sites
  - **694** (static) ART sites
  - **605** PMTCT sites (Option B+, all included in ART sites above)
  - **651** Pre-ART sites
  - **627** sites with HIV-exposed child follow-up
- **444,365** persons were tested and counselled for HIV; **140,942 (32%)** accessed HTC for the first time; **303,423 (68%)** were repeat testers and **9,112 (3%)** of these received confirmatory testing (after having tested positive in the past). This is equivalent to **36%** confirmatory testing coverage among 25,363 patients initiating ART this quarter. **32,913 (7%)** out of all clients received a positive result for the first time.
- **18,850 (93%)** of 20,242 blood units collected were screened for (at least) HIV, hepatitis B and syphilis.
- **130,257 (82%)** of 159,233 women at ANC had their HIV status ascertained; **10,191 (8%)** of these were HIV positive. **113,169 (93%)** of 121,579 women at maternity had their HIV status ascertained; **8,822 (8%)** of these were HIV positive.
- **25,363** patients started ART this quarter, 8% more than in the previous quarter (**23,334**).
- **486,795** patients were alive and on ART by end of March 2014. This means that **49%** of the estimated 1 million HIV positive population was on ART. [1] Estimated ART coverage among people in need for treatment was **39%** (42,525 / 110,000) for children (<15 years) and **78%** (444,270 / 570,000) for adults.
- **78%** of adults and **78%** of children were retained alive on ART at 12 months after initiation.
- **417,369 (92%)** of 452,934 patients on first line adult ART were on regimen 5A (TDF/3TC/EFV).
- **10,036** [2] **(81%)** of an estimated **12,425** **Error! Bookmark not defined.** HIV infected pregnant women in Malawi were on ART this quarter. **5,030 (50%)** of these were already on ART when getting pregnant and **5,006 (50%)** started ART during pregnancy/delivery.
- An additional **1,644** [2] breastfeeding women started ART due to ***Option B+*** (in WHO stage 1/2)
- **77%, 72%** and **71%** of women started under ***Option B+*** were retained on ART at **6, 12 and 24 months** after initiation, respectively.
- **8,350 (8%)** of infants discharged alive from maternity were known to be HIV exposed, **7,815 (94%)** of these received ARV prophylaxis (nevirapine). **5,771 (59%)** were enrolled in exposed child follow-up before age 2 months.
- A total of **10,372** HIV exposed children and **8,551** 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 over 600 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

689 public and private sector facilities were visited for **clinical HIV program supervision** between 7th and 25th April 2014. The large number of sites was covered by **72** supervisors working in **23** teams. The teams spent a total of **1, 931 working hours** at the sites. Each site visit lasted on

average **2.8** hours, but up to 2 days were spent at the busiest sites. **273** 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. **76** 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 Q1

Zone	Total facil. visited*	Supervision hours spent at facilities		Performance (# and % of sites)	
		Total	Average per site	Excellent perform.	Mentoring needed
NZ	118	308	2.6	52 44%	8 7%
CEZ	94	206	2.3	37 39%	9 10%
CWZ	158	420	2.7	53 34%	17 11%
SEZ	164	486	3	54 33%	22 13%
SWZ	155	511	3.3	77 50%	20 13%
Malawi	689	1,931	2.8	273 40%	76 11%

* 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. **112** sites had cumulatively registered more than 2,000 ART patient and **37** of these had registered more than 5,000. **42 (38%)** 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 **825** static sites reported HTC service provision in Q1 2014 and **218** of these were outside of health facilities. HTC was also provided at 534 mobile or outreach locations.

Table 2: Facilities with integrated HIV services in the 5 Zones. Availability of services defined by performance (at least 1 patient enrolled) during 2014 Q1

Zone	Total fac.(1)	Facilities providing HIV services				CD4 count machines (2)		
		Exp. child	Pre-ART	PMTCT B+	ART	Installed	Functional	Results
NZ	128	113 88%	116 91%	104 81%	118 92%	27 21%	26 96%	2,663
CEZ	96	89 93%	89 93%	81 84%	94 98%	17 18%	16 94%	3,019
CWZ	162	131 81%	136 84%	133 82%	157 97%	29 18%	28 97%	4,024
SWZ	163	137 84%	153 94%	134 82%	153 94%	37 23%	36 97%	15,310
SEZ	164	157 96%	157 96%	153 93%	162 99%	50 30%	50 100%	9,889
Malawi	713	627 88%	651 91%	605 85%	694 97%	160 22%	156 98%	34,905

(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 Q1 2014, by zone. At the national level, there were **694** (static) sites with at least one patient on ART, **605** sites had enrolled women under PMTCT Option B+; **651** sites were providing pre-ART services and **627** 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 93% of designated sites with Option B+.

CD4 count machines (including 'point of care' machines) were installed at **160** sites, and 156 **(98%)** of these had produced at least 1 result during Q1 2014. **34,905** CD4 results were produced in this quarter. 44% of these outputs were generated with 36 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 first HTC report based on the 2013 HTC register. The full national HTC data are presented in the **Appendix**.

444,365 people[3] were tested and counselled for HIV between January and March 2014. **422,601 (95%)** of these tests were performed at health facilities and **21,764 (5%)** were done outside of health facilities.

5.1 HTC access type

243,902 (55%) of people tested were patients receiving provider-initiated testing and counselling (PITC); **198,006 (45%)** accessed voluntary counselling and testing, door-to-door, community-based testing, etc.; **2,457 (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 **13,338** FRS issued to index clients this quarter, the successful referral rate for family members was **18%** (2,457 / 13,338).

5.2 Age and sex distribution among HTC clients

Out of **444,365** people tested and counselled, **32%** were males and **68%** were females. **52%** of females were pregnant. The proportion of males (50%) and non-pregnant females (50%) 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.

51% of all people tested and counselled were 25 years and above, **40%** were between 15-24 years and **9%** were children below 15 years. **98,287** (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 first quarter reporting on confirmatory test results as a proportion of those who are classified as repeat testers.

140,942 (32%) accessed HTC for the first time and **303,423 (68%)** were repeat testers. Based on the cumulative number of people who accessed HTC for the first time, a total of **5,110,184** people have been tested since introduction of the 'first time HTC access' indicator in July 2007.

[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.

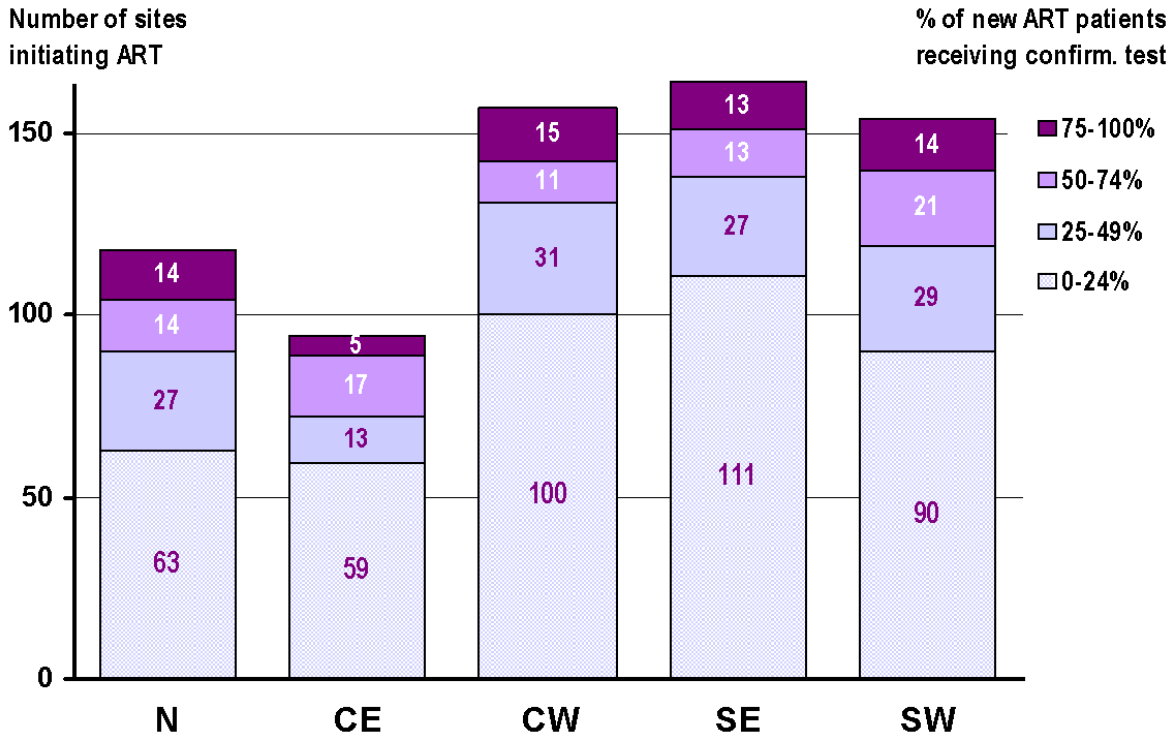
32,913 (8%) out of all clients received a positive result for the first time. Positive rapid test results among infants (**1,244**) and inconclusive test results (**966**) both accounted for **<1%** of new results given to clients.

292,062 (96%) of 303,423 repeat testers reported a *last negative* result. **9,112 (3%)** were reported as *previous positives* and all of these should have been classified as receiving a confirmatory test. For most of the **9,112** *previous positives*, testing was probably initiated by a health worker before enrolment into care. However, *confirmatory test results* accounted for only **7,541 (83%)** of *previous positive* clients. The remainder (1,571) may have been misclassified as *new positive* or *new inconclusive* because they were among clients who independently sought confirmation of their positive status. **7,007 (93%)** of 7,541 confirmatory tests were concordant positive and **534 (7%)** 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 7,541 confirmatory test results documented this quarter indicate that only **30%** of the 25,363 patients initiating ART this quarter received confirmatory testing and **Figure 1** shows that confirmatory testing coverage was low in all 5 zones. Only **61 (9%)** 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 for the National EID Program 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 second time this quarter, supervision teams were asked to collect basic data from these logbooks.

492 (78%) of 627 sites with HIV exposed children in follow-up had collected and recorded at least 1 DNA-PCR sample during Q1 2014. A total of **8,262** 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 **5,183 (63%)** of these specimens and **2,934 (57%)** of these results had been communicated to the mother. The proportion of results received at the sites was **75%**, **69%** and **48%** for samples collected in January, February and March, respectively. A total of **169 (3%)** results received at the sites were positive.

A total of **7,098** DNA-PCR test results were dispatched from the **7 laboratories** in Q1 2014. This is 1,164 less than the number of samples recorded in the DNA-PCR logbooks at health facilities during this quarter and this is probably explained by the delay between sample collection and dispatch of results from the lab. Detailed data on the specimens processed were available from the lab management information system (LMIS) at MCH, MDH, KCH, ZCH, PIH and QECH. These 6 labs dispatched a total of **7,098** DNA-PCR results to health facilities in Q1 2014. **6,596 (82%)** of these results were from samples collected in Q1 2014, while 1,330 (18%) were from samples collected in the previous quarters (for 23 results the collection date was missing). The median time between sample collection and dispatch of the result was **19 days**; 75% of results were dispatched between 14 and 25 days after sample collection. This is similar to the previous quarter (median 19 days).

3,106 (44%) of all results were from infants under 2 months old at the time of sample collection. 2,922 (41%) were 2-5 months, 863 (12%) were 6-11 months and 99 (1%) were 12 months or older when the sample was collected (date of birth was missing for 108).

Age at sample collection	Tot. Results	Positives	
<2 months	**3,106**	**46**	*2.4%*
2-5 months	**2,922**	**109**	*3.7%*
6-11 months	**863**	**86**	*10.0%*
12 months +	**99**	**14**	*14.2%*

260 (3.7%) 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	**946**	*13%*	**12**	*5%*
2-5 months	**4,903**	*69%*	**128**	*49%*
6-11 months	**1,029**	*15%*	**95**	*37%*
12 months +	**148**	*2%*	**21**	*8%*
(missing date)	**72**	*1%*	**4**	*2%*
Total	**7,098**	***100%***	**260**	***100%***

Out of 260 positive results dispatched, only 12 (5%) were sent before the child was 2 months old. A total of 140 (54%) positive results were sent before the child was 6 months old and 235 (91%) were sent before the child was 12 months old. A total of

124 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 **53%** 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 entire 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. Data were collected from the blood donor and cross-matching registers in the hospital laboratories. 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 **20,242** blood units were collected in Malawi during Q1 2014. MBTS collected **13,194 (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 **7,048** units from replacement donors. **5,656 (80%)** of these units were screened for at least the 3 key TTIs (HIV, HepB and syphilis) and **1,718 (30%)** of these were also screened for HepC and malaria. This means that a total of **18,850 (93%)** of all units collected this quarter were screened at least for HIV, HepB and syphilis. Based on the blood donor registers at the sites that collected blood from replacement donors, 217 donated units were screened only for HIV; and 93 units were screened for HIV and HepC only. 1,082 were screened with any other combination of tests for TTIs.

A total of **9,831** potential replacement donors were documented in the blood donor registers at the facilities and 7,048 (72%) 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, 41% for malaria and 19% 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 **832** persons received PEP during Q1 2014. This is a decrease from the previous quarter (1,125).

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 Q1.

	Pre-ART		ART		Both patient groups	
Zone	Tot. women	On Depo	Tot. women	On Depo	Tot. women	On Depo
NZ	1,101	**401** *36%*	27,808	**10,454** *38%*	28,909	**10,855** *38%*
CEZ	668	**118** *18%*	22,418	**4,169** *19%*	23,085	**4,287** *19%*
CWZ	3,613	**1,306** *36%*	56,709	**20,260** *36%*	60,321	**21,566** *36%*
SEZ	3,975	**485** *12%*	84,047	**11,716** *14%*	88,021	**12,201** *14%*
SWZ	4,626	**1,536** *33%*	94,577	**35,214** *37%*	99,204	**36,750** *37%*
Malawi	13,982	**3,846** *28%*	285,558	**81,813** *29%*	299,541	**85,659** *29%*

* 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 **85,659 (29%)** women received Depo-Provera from HIV clinics in Q1 2014. The N 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 561 (81%) 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 **579,651 (95%)** of all patients in care were on CPT at the end of Q1 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 Q1.

	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	7,232	**5,916** *82%*	3,838	**3,694** *96%*	49,251	**47,913** *97%*	60,321	**57,523** *95%*	3,838	**2,794** *73%*
CEZ	7,104	**5,809** *82%*	2,670	**2,548** *95%*	39,055	**38,240** *98%*	48,829	**46,598** *95%*	2,670	**2,220** *83%*
CWZ	14,714	**12,896** *88%*	10,377	**10,132** *98%*	98,392	**96,436** *98%*	123,483	**119,464** *97%*	10,377	**8,837** *85%*
SEZ	27,706	**24,370** *88%*	13,642	**13,444** *99%*	134,447	**131,228** *98%*	175,795	**169,041** *96%*	13,642	**10,017** *73%*
SWZ	25,200	**23,416** *93%*	14,355	**13,225** *92%*	161,533	**150,384** *93%*	201,088	**187,025** *93%*	14,355	**10,330** *72%*
Malawi	81,956	**72,407** *88%*	44,882	**43,043** *96%*	482,678	**464,201** *96%*	609,516	**579,651** *95%*	44,882	**34,197** *76%*

[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.

477,914 (99%) of all patients retained on ART were screened for TB at their last visit before end of March 2014. As of that visit, **3,956 (1%)** patients were new TB suspects and had presumably been referred for examination by a clinician and for TB investigations. **1,382 (<1%)** patients had confirmed TB (clinical or lab based). Out of these, **1,224 (89%)** were confirmed to be on TB treatment and **158 (11%)** 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)		**4,764**	**1%**
ICF done		**477,914**	**99%**
	TB not suspected	**472,576**	99%
	TB suspected	**3,956**	1%
	TB confirmed	**1,382**	0%
		TB confirmed, not on treatment	**158**	11%
		TB confirmed, on TB treatment	**1,224**	89%

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. **34,197 (76 %)** of 44,882 patients retained in pre-ART were on IPT by the end of March 2014. Isoniazid was in stock at 446 facilities during the April 2014 supervision visit. IPT coverage is expected to increase further over the next quarters.

12 HIV-Related Diseases

Table 5 shows the number of patients treated for key HIV-related indicator diseases. **4,342** TB patients were started on TB treatment this quarter and HIV status was ascertained for **3,903 (90%)**. **2,103 (54%)** of these were HIV positive and **1,426 (68%)** 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 Q1 2014, **414** and **690** patients received Diflucan for acute cryptococcal meningitis and oesophageal candidiasis, respectively. **363** 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 Q2	4,804	4,315 *90%*	2,471 *57%*	1,718 *70%*	455	624	1,040
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%*	1,426 *68%*	364	414	690

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 10th quarterly report from the standard follow-up program for HIV exposed children. **10,372** HIV exposed children were newly enrolled into follow-up during Q1 2014; **6,144 (60%)** of these were under the age of 2 months. This represents timely enrolment for **73%** of the 8,365 known HIV exposed children discharged from maternity this quarter. The total number of new enrolments (10,372) exceeds by 2,007 the total number of known HIV exposed children discharged from maternity (8,365). 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 **7,260** infants in the **2 month age cohort**. **2,665 (37%)** had received a DNA-PCR result. 84 **(3%)** of these were confirmed HIV infected. An additional **4** infants were diagnosed with *presumed severe HIV disease,* which means that a total of **88** infants were eligible for ART. **42 (48%)** of these had started ART. The proportion of positives starting ART is similar compared to the previous quarter's (49%). Out of the entire 2-month age cohort, **6,524 (90%)** were retained in exposed child follow-up, **42 (<1%)** had started ART and **25 (<1%)** were discharged confirmed uninfected[5]. **23 (<1%)** were known to have died and **603 (8%)** had been lost to follow-up.

There were **8,773** children in the **12 month age cohort**. Current HIV infection status was known for **3,097 (35%)** children (DNA-PCR or rapid antibody test) and **176 (6%)** of these were confirmed HIV infected. **14 (<1%)** additional children had been diagnosed with *presumed severe HIV disease,* which means that a total of **190** children were eligible for ART. **161 (85%)** had started ART. Out of the entire age cohort, **5,776 (67%)** were retained in exposed child follow-up, **161 (2%)** had started ART and **119 (1%)** were discharged confirmed uninfected. **2,466 (29%)** were lost to follow-up and **71 (1%)** were known to have died (outcome data are incomplete for this cohort).

There were **6,642** children in the **24 month age cohort**. Current HIV infection status was known for **2,744 (41%)** children (DNA-PCR or rapid antibody test) and **195 (7%)** of these were confirmed HIV infected. **29** additional children had been diagnosed with *presumed severe HIV disease,* which means that a total of **224** children were eligible for ART. **187 (83%)** of these had started ART. Out of the entire age cohort, **939 (15%)** were retained in exposed child follow-up, **187 (3%)** had started ART and **2,271 (35%)** were discharged confirmed uninfected[5]. **3,001 (46%)** were lost to follow-up and **65 (1%)** were known to have died.

Confirmed HIV-free survival at age 24 months in this quarter was only **34%**, which was implausibly low and related to the fact that only 41% in this cohort had a known HIV status. 3,898 (59%) children were classified as '*current HIV infection status unknown'* and many of these may be among the 3,001 children lost to follow-up and the 65 children who had died. However, 939 (15%) 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 **8,551** patients were newly registered for pre-ART follow-up in Q1 2014. **761 (7%)** 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 **160,289**.

[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

44,882 (29%) of all patients ever registered were retained in pre-ART follow-up by the end of March 2014; **70,372 (45%)** had started ART; **37,418 (24%)** had been lost to follow-up; **2,073 (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, **7,008** pre-ART patients started ART during Q1 2014, **2,309** were lost to follow-up and **92** died.

CPT coverage among pre-ART patients was **96%** in Q1 2014 while IPT coverage increased from 69% to **76%**. **3,846 (28%)** of 13,982 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

10,036 (81%) of the estimated 12,425 HIV infected pregnant women in Malawi this quarter were on ART. This is based on **5,030** [7] women at maternity who were already on ART when getting pregnant and **5,006** [8] women who newly initiated ART in pregnancy.

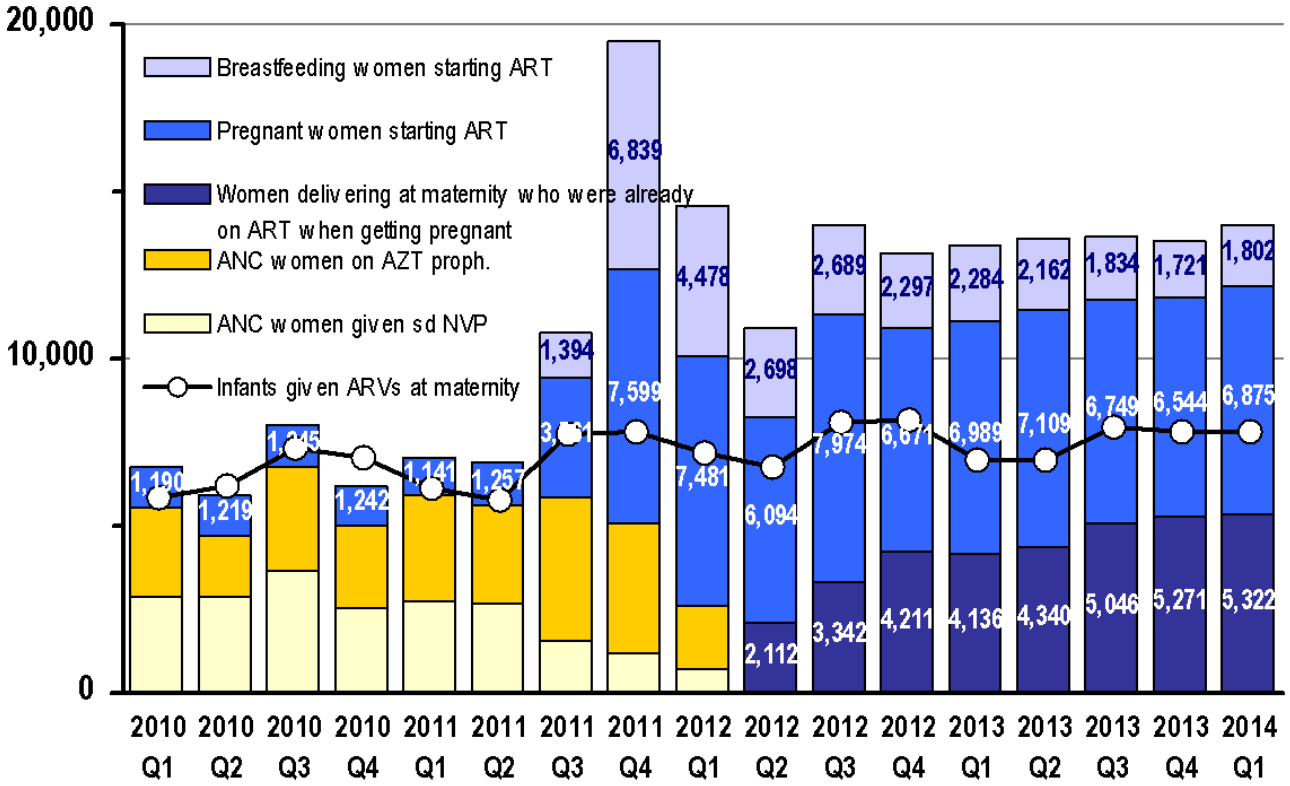
[6] 2014 Spectrum estimates based on 2014 definition of eligibility for ART in Malawi (CD4<500, Option B+, UT for U5).
[7] 5,322 women who started ART before pregnancy admitted at maternity; reduced by 5.5% to adjust for double-counting of 6,670 referrals among 121,579 total admissions.
[8] 6,875 women registered at ART clinics who were pregnant at the time of starting ART; a) 8.8% are discounted to adjust for double-counting of transfers based on 795 of 9,041 women who transferred within 12 months of registration (12 month Option B+ survival analysis); b) 20.2% are discounted to account for presumed failed ART initiations based on 1,476 of 7,321 women lost to follow-up within 6 months of registration (6 month Option B+ survival analysis).

An additional **1,644** [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 **6,664**. 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. **7,815** 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**.

153,725 women attended ANC for their first visit between January and March 2014. This is very close to the estimated 159,750 pregnant women in the 2014 population during one quarter.

The following report covers the outcomes of the **159,233** women who started ANC between July and September 2013 and who had finished ANC between January and March 2014. **13,501 (8%)** of these started ANC in their first trimester. **14,675 (9%)** eere tested for syphilis at ANC and **576 (4%)** were syphilis positive. The low testing rate probably explains the higher (4%) than expected

[9] 1,802 women registered at ART clinics who were breastfeeding at the time of starting ART; reduced by 8.8% to adjust for double-counting of transfers based on 795 of 9,041 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.

proportion (<1%) of positives as the testing was likely selective of those suspected to be positive. Only **34,750 (22%)** of women in this cohort attended the minimum of 4 focussed ANC visits.

15.3.1 HIV Ascertainment at ANC

130,257 (82%) of ANC attendees had their HIV status ascertained. This is similar to the previous quarter (83%). Out of all women whose HIV status was ascertained, **9,091 (7%)** presented with a valid documented previous HIV test result and **121,166 (93%)** received a new HIV test result at ANC. A total of **10,191 (7.8%)** 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).**Error! Bookmark not defined.**

15.3.2 ARV Coverage at ANC

9,518 (93%) of (known) HIV infected women attending ANC received ART. This represents **77%** coverage of the estimated 12,425 HIV positive pregnant women per quarter at the population level.

Of the **9,518** ANC women who were known to receive ART, **4,206 (44%)** were already on ART when starting ANC **4,087 (43%)** initiated before 28 weeks of pregnancy and **1,225 (13%)** initiated during the last trimester of pregnancy. **9,453 (93%)** of HIV infected women at ANC were on Cotrimoxazole Preventive Therapy.

7,877 (77%) 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 January and March 2014, **114,909** women were admitted for delivery to maternity; **6,670** of these were referred to another facility before delivery, resulting in **121,579** total admissions to maternity during Q1 2014. Out of all admissions, **111,057 (95%)** delivered at health facilities, while **6,208 (5%)** had already delivered before reaching a facility. The **114,909** facility deliveries represent **66%** 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 **108,217 (94%)** deliveries were conducted by skilled birth attendants, **911 (1%)** by paramedical staff and **5,833 (5%)** were not attended by any of the above (probably mainly among women who delivered before reaching maternity). **13,587 (11%)** of women developed obstetric complications. The most common leading complications were obstructed / prolonged labour (**4,290** cases) and post-partum haemorrhage (**1,693** cases). A total of **117,265** babies were born, **113,124 (96%)** were singletons and **4,141 (4%)** were twins/multiples. There were **115,340 (98%)** live births and **1,925 (2%)** stillbirths. **114,348 (99%)** of babies born alive were discharged alive and **992 (1%)** died before discharge. **114,856 (>99%)** of women were discharged alive and **105 (<1%)** women died before discharge, which is equivalent to a maternal mortality ratio of **91 per 100,000** live births among women attending maternity.

15.4.1 HIV Ascertainment at Maternity

113,169 (93%) women had their HIV status ascertained at maternity. Out of these, **108,629 (96%)** presented with a valid previous HIV test result and **4,540 (4%)** received a new HIV test result. A total of **8,822 (8%)** women were HIV positive and **104,347 (92%)** were negative. The **113,169**

women whose HIV status was ascertained at maternity represent **65%** of the expected 173,250 women delivering in the population.

HIV exposure status was ascertained for **107,432 (94%)** out of 114,348 babies born and discharged alive. **8,365 (8%)** of these were born to a known HIV positive mother.

15.4.2 ARV Coverage at Maternity

A total of **8,579 (97%)** of HIV infected women admitted to maternity received ART. Out of these, **5,322 (62%)** had started ART before pregnancy, **1,541 (18%)** initiated ART during the 1st or 2nd trimester, **1,372 (16%)** initiated during the 3rd trimester and **344 (4%)** initiated ART at maternity.

A total of **7,830 (94%)** of infants who were known HIV exposed and discharged alive started daily NVP prophylaxis at maternity. This represents **63%** coverage of the estimated 15,750 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 Q1 2014

By the end of March 2014, there were **694 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.

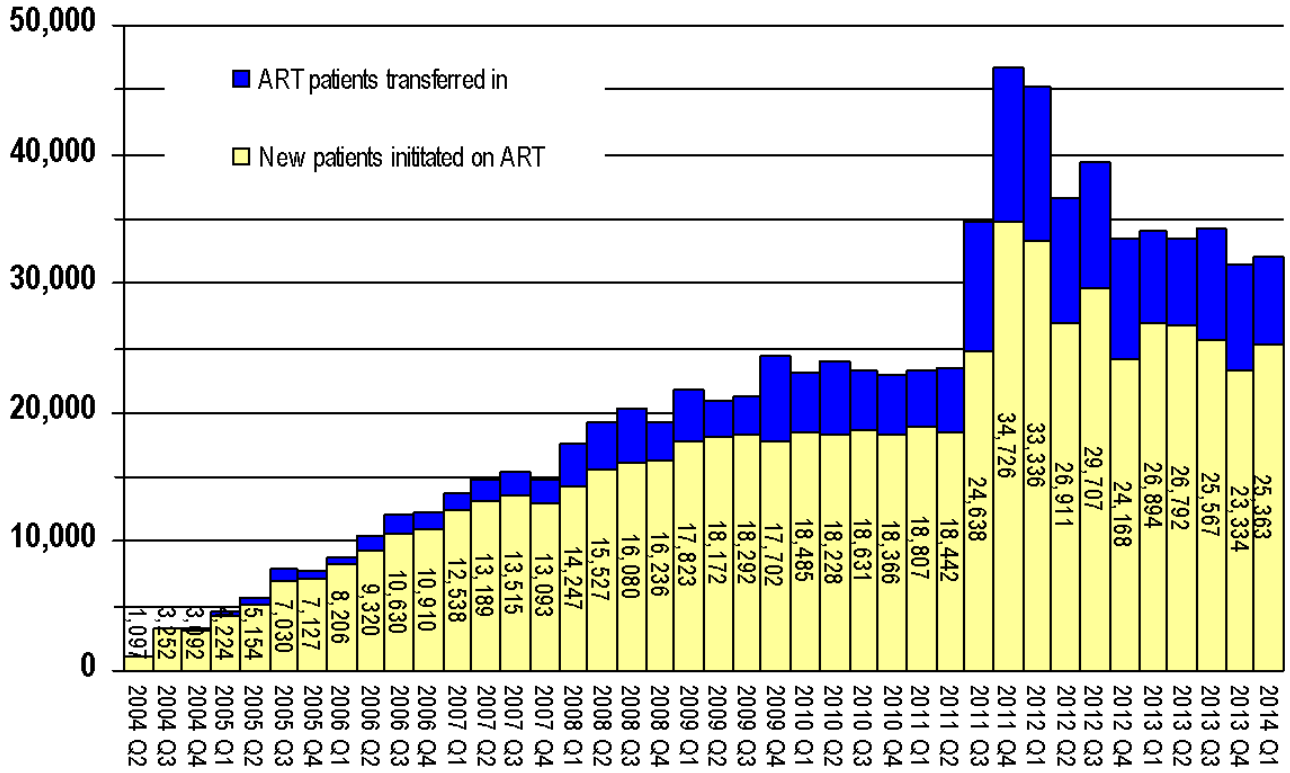
Implementation of the Malawi Integrated Clinical HIV Guidelines started in July 2011 and triggered a massive surge in new ART initiations (see **Figure 3**). In Q1 2014, **25,363** patients initiated ART and **6,021** patients were registered as a transfer in (already on treatment; 19% out of all 31,984 clinic registrations). These numbers are similar to previous quarter.

Among all new registrations **35%** were males and **65%** females. **6,875 (33%)** 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 **1,802** 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 **8,677**. The number of ART initiations in Q1 2014 remained slightly lower than projected, probably mainly due to challenges with HIV testing.

[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 **19,117 (60%)** of all patients registered started in WHO stage 1 or 2. **9,975 (52%)** of these started due to a CD4 count below 350. Access to scheduled CD4 count monitoring in pre-ART clinics remains limited and a total of 34,905 CD4 results were produced in Q1 2014. The roll-out of scheduled CD4 count monitoring in the Pre-ART program is expected to increase the number of early ART initiations. **10,707 (34%)** of patients registered started in WHO stage 3 and **1,708 (5%)** started in stage 4.

2,707 children were registered at ART sites in Q1 2014. **328** of these were registered under the policy of universal ART for children aged 12-23 months in WHO stage 1 or 2, independent of CD4 count. **161** children started ART with presumed severe HIV disease, which was similar to the previous quarter (151). **124** infants in WHO stage 1 or 2 who started due to confirmed HIV infection through DNA-PCR, which is similar to previous quarter (120). This number is equivalent to **48%** of the 260 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 8,365 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 212 of these known HIV exposed infants may have been infected perinatally during Q1 2014. However, considering the projected 1,025 new infant HIV infections in the 2014 population per quarter **Error! Bookmark not defined.**, early infant treatment coverage remains low at an estimated **12%** (124 / 1,025). The most significant bottleneck for early infant treatment remains the identification of HIV infected pregnant / breastfeeding women.

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

1,174 (4%) out of all ART clinic registrations were patients with TB: **739 (2%)** had a current and **435 (1%)** a recent history of TB. **364 (1%)** of patients registered had Kaposi's sarcoma.

16.2 Cumulative ART Registrations up March 2014

By the end of March 2014, there were a cumulative total of **856,818** clinic registrations, representing **688,360 (80%)** patients who newly initiated ART and **159,369 (19%)** patients who transferred between clinics. **9,089 (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 **26,313** (3.1%) of total patient registrations.

16.3 ART Outcomes

486,795 patients were alive on ART by the end of March 2014. This number includes **4,117** patients who were assumed to be 'in transit' as of the 31st March 2013, based on the difference between **163,486** patients *transferred out* and **159,369** 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 **688,360** patients ever initiated on ART, **486,795 (70%)** were retained alive on ART, **67,676 (10%)** were known to have died, **140,015 (20%)** were lost to follow-up and **2,963** (<1%) were known to have stopped ART. An estimated **444,270** adults and **42,525** children (<15 years) were alive on ART by the end of March 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)

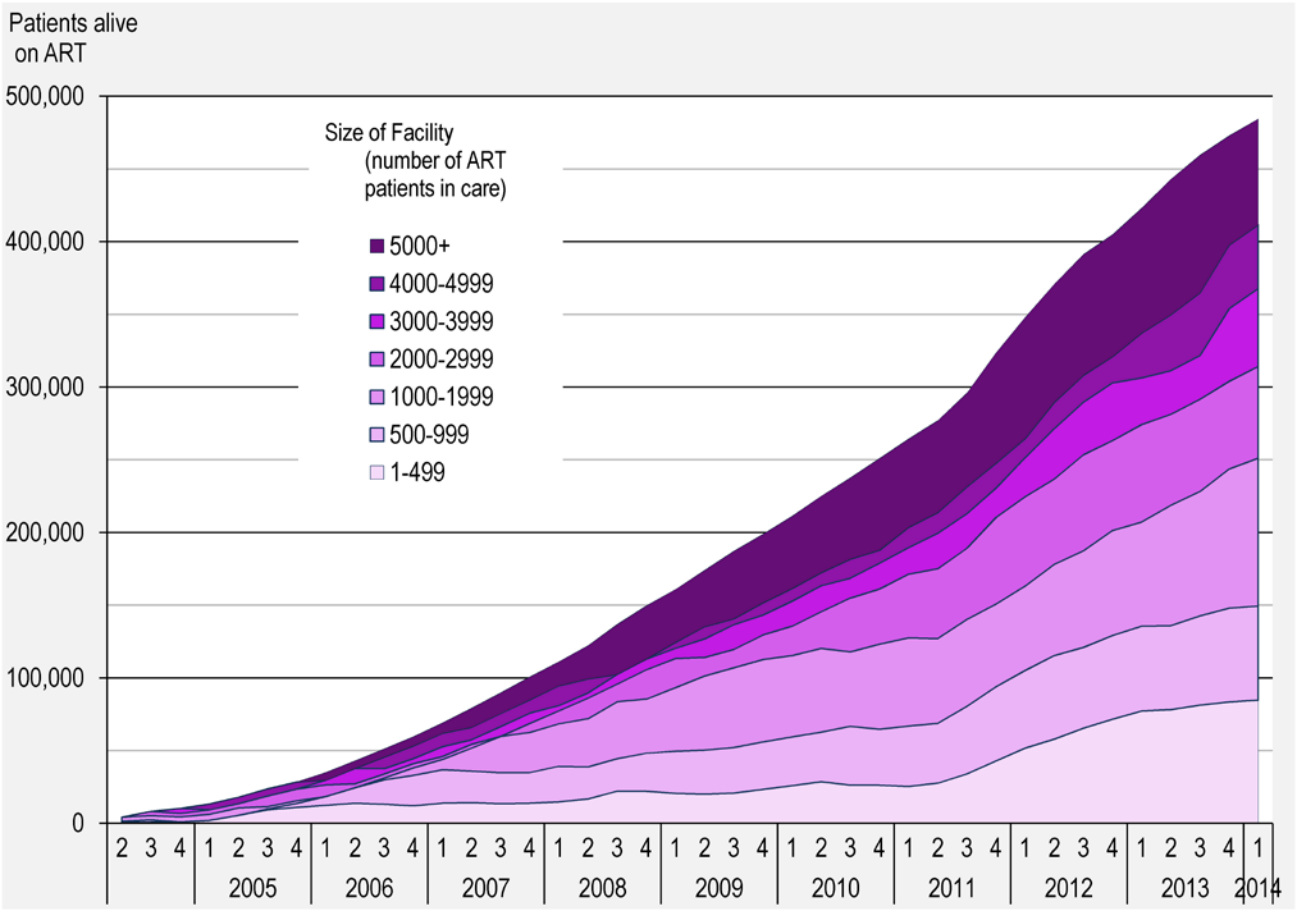


Figure 4 shows the increase of patients alive on ART by the end of each quarter. The number of patients alive on ART **increased by 13,930** in Q1 of 2014. **Figure 4** also illustrates the ongoing decentralization of Malawi's ART program. From Q3 2011, the greatest increase in ART patient numbers was seen at sites with fewer than 500 patients alive on ART. By the end of March 2014, 51% 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)

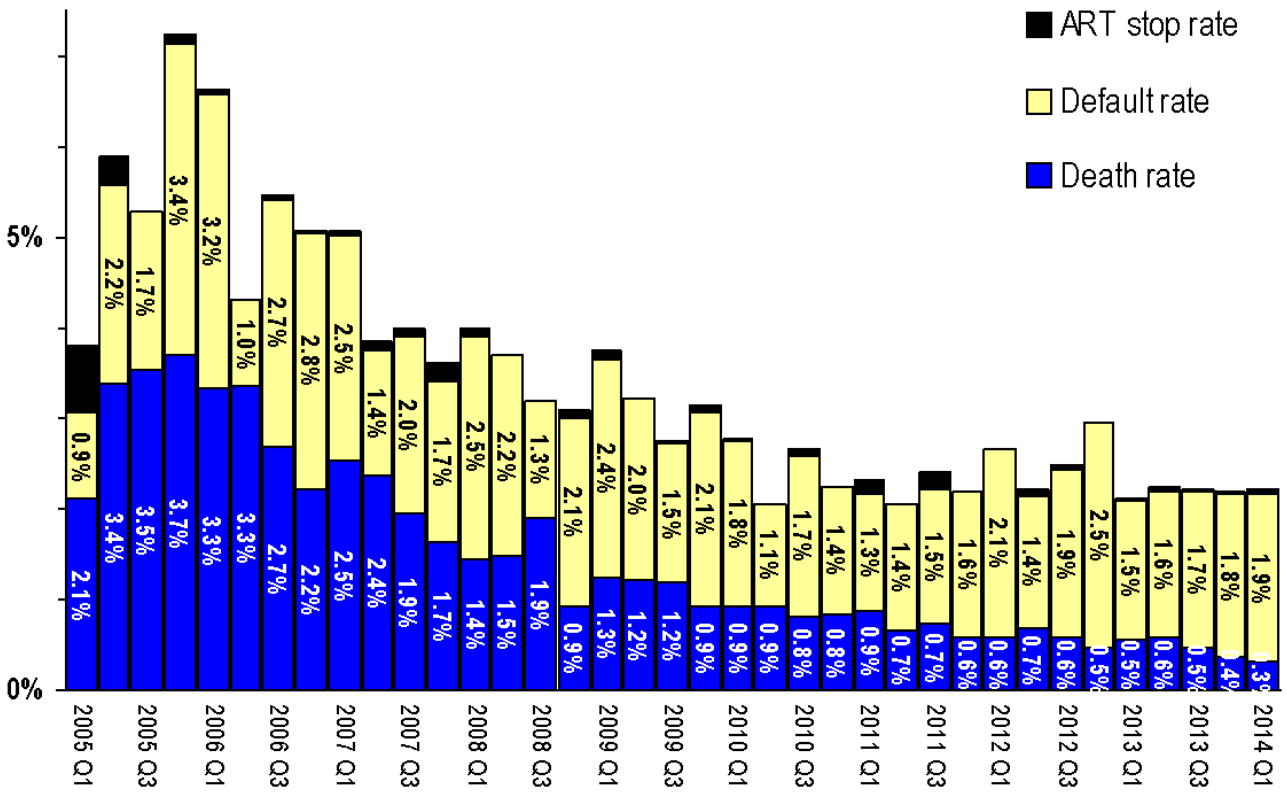


Figure 5 shows the considerable decrease of ART drop-out rates since the start of the national programme. There were **1,517** new deaths, **9,631** new defaulters, and **229** new ART stops in Q1 2014. This translates into a quarterly death rate of **0.3%** and a defaulter rate of **1.9%** among the 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 5-10% 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 March 2014, a cumulative **67,676 (10%)** patients were known to have died **140,015 (20%)** were lost to follow-up and **2,963** (**<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)

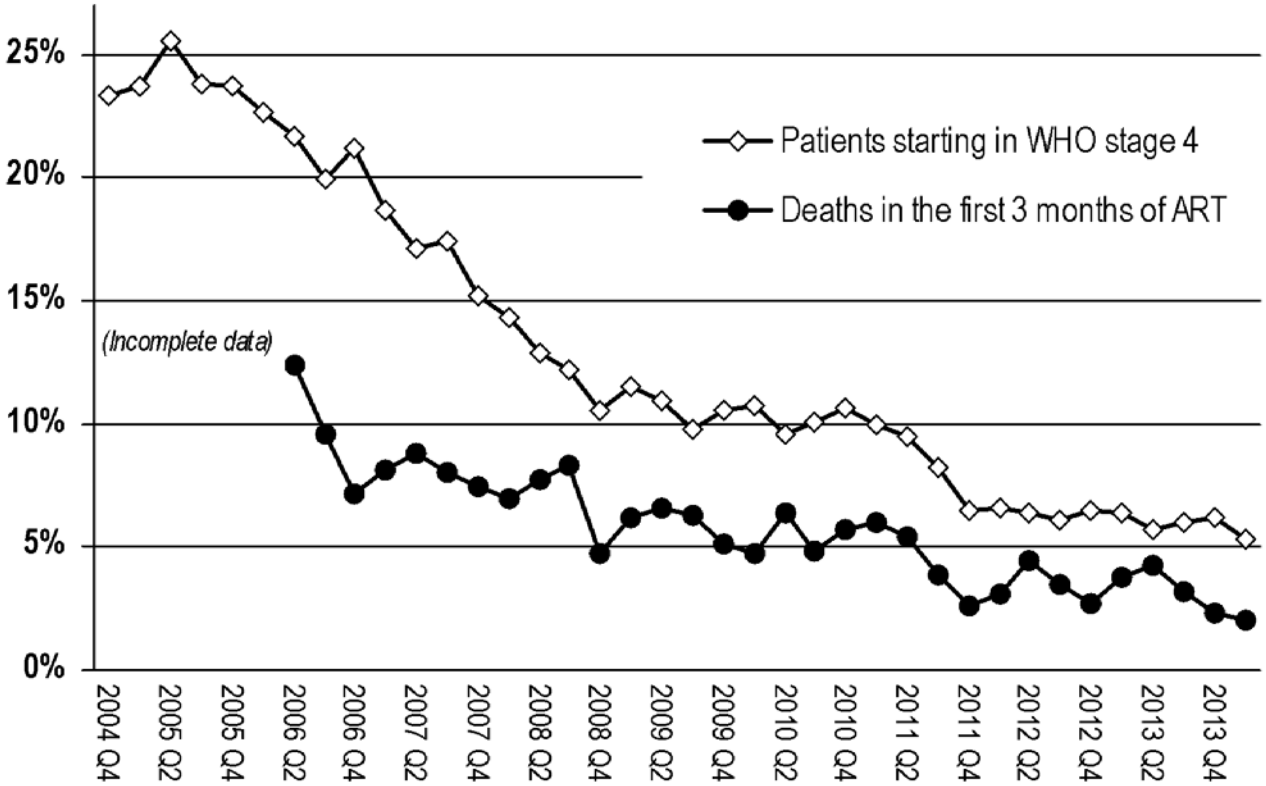
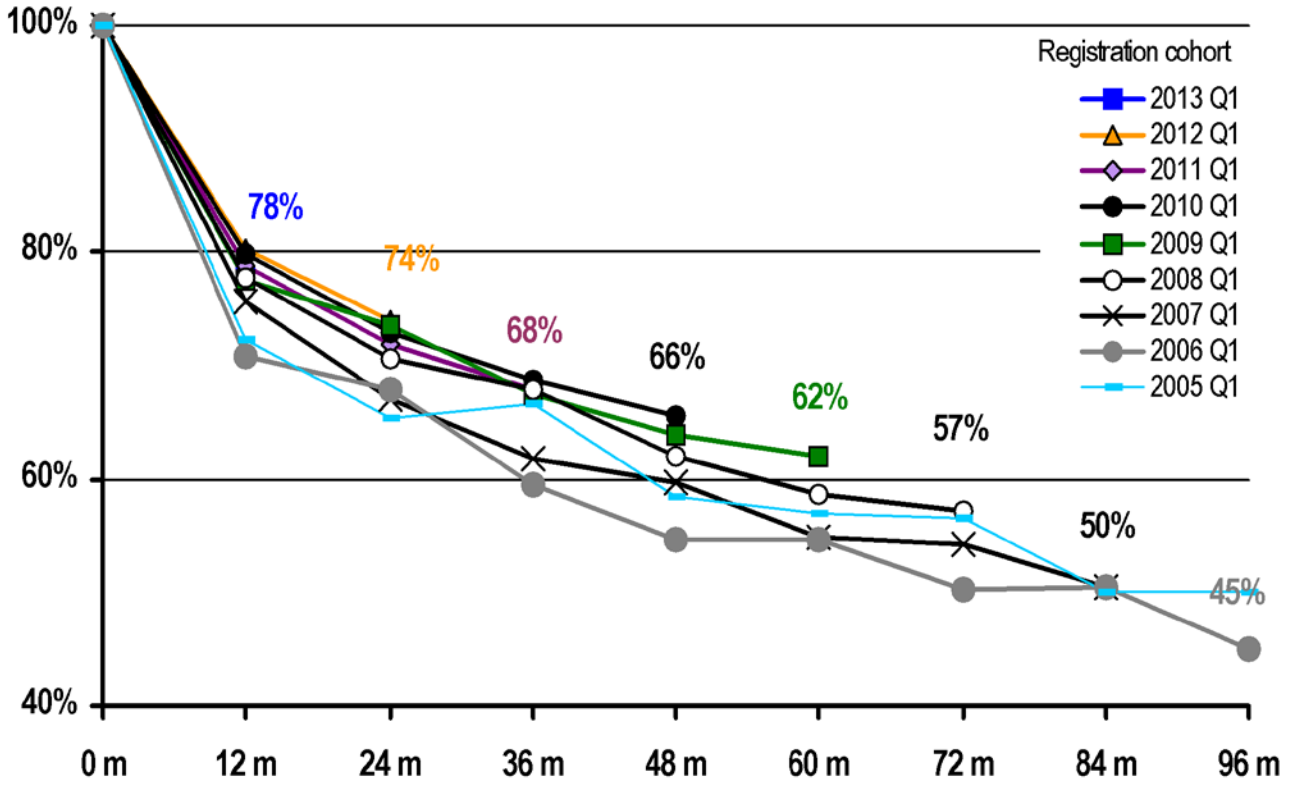


Figure 6 shows the considerable decline in **early mortality** since the start of the program. In Q2 of 2006 11% of new patients died within the first 3 months after ART initiation. There has been a remarkable decline in early mortality and the lowest point thus far has been reached in Q1 2014. The decrease 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 Q1 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 Q1 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 Q1 2013. For the 8th time, a further subgroup analysis was done for women who started ART under ***Option B+*** during Q1 2012, Q1 2013 and Q3 2013. **78% of adults** and **78% 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. **62%** and **50%** 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 **7,321** (89%) of the 8,260 women registered as having started ART under *Option B+* in Q3 2013. [12] This number represents 490 (7%) women who transferred out and are therefore double counted and **6,831 (93%)** patients not transferred. **5,293 (77%)** of these were retained at 6 months after registration. **1,476 (96%)** of those not retained were lost to follow-up, **13 (1%)** were known to have stopped ART and **49 (3%)** were known to have died.

12-month group cohort survival outcomes were known for **9,041** (>99%) out of the 9,052 women registered as having started ART under *Option B+* in Q1 2013. [12] This number represents **795 (9%)** women who transferred out and are therefore double counted and **8,246 (91%)** patients not transferred. **5,940 (72%)** of these were retained at 12 months after registration. **2,211 (96%)** of those not retained were lost to follow-up, **34 (1%)** were known to have stopped ART and **61 (3%)** were known to have died.

24-month group cohort survival outcomes were known for **11,274** (96%) out of the 11,701 women registered as having started ART under *Option B+* in Q1 2012. [12] This number represents 1,210 (11%) women who transferred out and are therefore double counted and 10,064 (89%) patients not transferred. **7,103 (71%)** of these were retained at 24 months after registration. **2,787 (94%)** of those not retained were lost to follow-up, **54 (2%)** were known to have stopped ART and 120 (4%) were known to have died.

4,478 (38%) of the women in the 24 month Option B+ survival cohort had initiated ART in the breastfeeding period and **964 (8%)** started in the last month of pregnancy; 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 **71% retention rate at 24 months** after 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**.

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

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	**7,321**	**100%**
Transfers out (double counted)	**490**	7%
Total not transferred out (patients in cohort)	**6,831**	93%
Total alive on ART	**5,293**	77%
Total not retained	**1,538**	23%
Defaulted	**1,476**	96%
Stopped ART	**13**	1%
Died	**49**	3%

12 month survival OptionB+

Survival and retention in ART program *

ART cohort registration group outcomes

Total ART clinic registrations	**9,041**	**100%**
Transfers out (double counted)	**795**	9%
Total not transferred out (patients in cohort)	**8,246**	91%
Total alive on ART	**5,940**	72%
Total not retained	**2,306**	28%
Defaulted	**2,211**	96%
Stopped ART	**34**	1%
Died	**61**	3%

24 month survival OptionB+

Survival and retention in ART program *

ART cohort registration group outcomes

Total ART clinic registrations	**11,274**	**100%**
Transfers out (double counted)	**1,210**	11%
Total not transferred out (patients in cohort)	**10,064**	89%
Total alive on ART	**7,103**	71%
Total not retained	**2,961**	29%
Defaulted	**2,787**	94%
Stopped ART	**54**	2%
Died	**120**	4%

16.4.1 Secondary outcomes of patients retained on ART

Secondary outcomes are known for the **482,678** patients alive on ART who remained at their sites at end of the quarter. They are assumed to be similar for the 4,117 patients *in transit*.

ART Regimens

477,940 (99%) of patients were on first line and **4,244 (1%)** were on second line regimens; **494 (<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, **25,006 (5%)** were on paediatric formulations and **24,035 (96%)** of these were on the new standard first line for children (regimen 2P: AZT/3TC/NVP).

By the end of March 2014, **417,369 (92%)** of patients on adult first line were receiving regimen **5A** (tenofovir / lamivudine / efavirenz). **25,320 (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 **6,657 (1%)** were on regimen 1A (stavudine / lamivudine / nevirapine).

Adherence to ART

Pill counts and the number of missed doses were documented for **473,000 (98%)** out of all patients retained on ART and **418,706 (89%)** of these were classified as >95% adherent in Q1 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

451,049 (93%) patients on ART had information on drug side effects documented at their last clinic visit before end of March 2014. **3,884 (1%)** of these had side-effects. This is a further decline from 2% in the previous quarter 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 Q1 2014, **8** laboratories in the national program provided VL testing for patients enrolled at the 8 respective facilities and associated sites. A total of **13,634** VL results were produced at these labs between January and March 2014. The number of VL results per lab were: Partners in Hope (Lilongwe): 3,911; DREAM (Blantyre): 3,298; Kamuzu CH (Lilongwe): 2,355; MSFB (Thyolo): 2,218; Mzuzu CH (Mzimba): 646; QECH (Blantyre): 635; Mzimba DH (Mzimba): 517; Zomba CH (Zomba): 109.

Reason	0-999		1000-4999		*5000+*		*Total*
Routine	**10,836**	87%	**401**	3%	**1,283**	10%	**12,520**
Targeted	**664**	70%	**7**	1%	**277**	29%	**948**
Unspecified	**114**	69%	**9**	5%	**43**	26%	**166**
Total	**11,614**	**85%**	**417**	**3%**	**1,603**	**12%**	**13,634**

12,520 (94%) of all VL samples were classified as *routine scheduled.* This is equivalent to **18%** of the estimated 70,000 ART patients passing a VL monitoring milestone this quarter. **948 (5%)** of samples were classified as *targeted (suspected treatment failure / repeat)* and for **166 (1%)** the reason for the sample was not specified. **11,614 (85%)** of all results were undetectable / below 1,000 copies/ml.

The proportion of results with 5,000+ copies was higher among targeted samples (29%) than among *routine* samples (10%). VL monitoring outputs are expected to increase significantly over the next quarters.

17 TB / HIV Management

Approximately **90%** of HIV infected TB patients were receiving ART in Q1 2014. This estimate is based on the following triangulation of TB and ART program data:

TB Program Data: A total of **4,342** TB patients were registered during Q1 2014. Assuming an average HIV prevalence of 60% among TB patients, **2,605** TB patients were HIV positive and therefore in need of ART. Given that **1,426** TB patients registered were already on ART at the time of starting TB treatment, 2,866 – 1,426 = **1,179** TB patients needed to initiate ART.

ART Program Data: An estimated **931** patients[13] started ART with a current or recent episode of TB in Q4 2013. This is **79%** (931 of 1,179) of the TB patients who needed to start ART. This means that a total of 1,426 + 931 = **2,357 (90%)** of the estimated 2,605 HIV infected TB patients were receiving ART in Q1 2014.

TB program report *

TB clinic registrations

Total TB patients registered	4,342	100%

HIV status ascertainment

HIV status not ascertained	439	10%
HIV status ascertained	3,903	90%
HIV negative	1,800	46%
HIV positive	2,103	54%
Already on ART	1,426	68%
Not on ART when starting TB treatment	677	32%

TB / ART program triangulation *

HIV-burden among TB patients (estimated)

HIV negative (est. 40%)	1,737	40%
HIV positive (est. 60%) in need of ART	2,605	60%
Not on ART	248	10%
Total on ART (coverage)	2,357	90%
Already on ART (TB prog)	1,426	61%
Started ART within 24m of TB diagnosis (ART prog)	931	39%
ART initiations with current TB (ART prog)	586	63%
ART initiations after recent TB (ART prog)	345	37%

18 STI Treatment

STI reports were actively collected during the Integrated HIV Program Supervision exercise for the fourth 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 103 (16%) of 629 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 84% 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] 19% of the 1,174 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 **46,960** STI cases were treated in Q1 2014. Considering the 84% completeness of reporting, this number is estimated to represent a total of **55,905** STI cases treated. This is equivalent to **57% STI treatment coverage** of the expected 98,600 STI cases in the population.

Out of **46,960** documented clients treated, **18,607** (40%) were male and **28,353** (60%) were female. **3,281** (12%) of female STI clients were pregnant. **31,450** clients (67%) were 25 years and above, **11,217** (24%) were 20-24 years and **4,293** (9%) were under 20 years old.

18.2 Client Type and STI History

41,584 (89%) of clients were symptomatic and **5,376** (11%) were asymptomatic (treated as partners). Among symptomatic clients, **37,675** (91%) of were index cases and **3,909** (9%) were partners. A total of **11,818** partner notification slips were issued, equivalent to an average of 0.31 slips per index case. Considering the 11,818 partner notification slips issued, **79%** (9,285) of those notified presented to the clinic. **35,721** (76%) of clients presented with their first lifetime episode of STI, **7,865** (17%) clients reported to have had an STI in over three months ago and **3,374** (11%) 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 **21,353** (45%) clients and **5,565** (26%) of these were HIV positive. **1,151** (21%) of positives were identified through a new test initiated at the STI clinic, while **4,414** (79%) presented with a documented previous positive HIV test result. **3,213** (73%) 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 **14,742** (30%) cases, followed by urethral discharge (UD, **11,682** cases) and genital ulcers (GUD, **8,262** cases). Similar to previous reports, balanitis, bubo, warts and neonatal conjunctivitis each accounted for 1 – 3% 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 **11,804** (29%) of the 41,395 STI clients with unknown or new negative test result were referred for repeat HTC. **568** (49%) of 1,151 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 orders were now placed through the Global Fund's Pooled Procurement Mechanism to facilitate a seamless transition of these supplies. First paediatric ARV consignments procured through this new channel are expected in July 2014.

The number of patients on regimen 5A (tenofovir / lamivudine / efavirenz) increased by **36,233** (10%) from the previous quarter. **417,369 (92%)** of 452,934 patients receiving first line adult formulation ART were on this preferred regimen by the end of March 2014.

Increased global demand and limited production capacity for tenofovir-based regimens have resulted in considerably increased lead times for procurement of regimen 5A. Approximately 6 months of stock arrived in Malawi country during the April 2014 distribution. The Ministry of Health has applied for importation waivers for two additional WHO prequalified manufacturers of this product (CIPLA and Aurobindo Pharma Limited) to reduce lead times for this commodity in the long run.

A healthy supply chain for co-trimoxazole 960mg at all sites has raised CPT coverage to 96% among pre-ART and ART patients in Q1 2014.

During Q1 2014, ARVs and medicines for opportunistic infections worth $19 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; 92% of the value of adult ARVs) and medicines for opportunistic infections (8% of the value for all medicines received during the period). Long lead times have been noted for most stavudine based and tenofovir based regimens hence the need to place orders ahead of time and also engage with clinicians on the future of most stavudine based regimens.

To maintain adequate stocks in the pipeline and hence ensure uninterrupted supply for subsequent orders, the Ministry continued processing HIV commodity orders for ARVs, OI, RDTs and other related commodities estimated at over 57million USD for which disbursements were effected by the Global Fund. These will be delivered throughout the second half of 2014 as staggered shipments in time to facilitate a seamless transition from SSF grant period to Transition Funding. The first order for the transition funding will be placed in July 2014 to maintain central level stocks in Q1 2015 (Jan-Feb 2015).

19.2 Quarterly distribution of HIV commodities

The scheduled quarterly distribution of HIV commodities (Distribution Round 16) took place between December 2013 and January 2014. Over 40 HIV commodities (ARVs, OI, STI medicines and laboratory commodities) were distributed to 689 sites. Both Determine and Unigold HIV test kits were also distributed to individual health facilities to ensure adequate stocks and uninterrupted testing services at all sites.

During Q1 2014, the logistics team at the Department of HIV and AIDS also coordinated a total of over 1,600 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. The above transactions are all managed using the HIV Department Supply Chain Hot Line, a toll free facility that was set up to faciltiate communication between the health facilities and the central level. 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.

19.3 Quarterly logistics monitoring and supply chain trail

The Logistics team also conducted visits to 19 ART sites to monitor the execution of distribution round 16; 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 Q1 2014, the logistics team had conducted site-based training and mentoring at over 149 health facilities over a period of 12 months.

Some of the challenges noted during the Q1 2014 logistics monitoring visits include: Stock imbalances at a few sites and lack of stock assessment skills. The team conducted on job training in best practices of stock management and also conducted relocation of selected ARV products between sites to avert expiries. The 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 Health Facility storage assessment at all ART/PMTCT Sites

The Ministry of Health (MOH), with support from the USAID | DELIVER PROJECT, conducted a Rapid Assessment of Health Facility Storage Capacity Assessment for all ART/PMTCT sites during the Q1 2014 Integrated quarterly supervision. Each supervision team was joined by a pharmacy/logistics officer supporting the physical inventory for all commodities listed on the stock report and conducting the storage capacity infrastructure assessment. The USAID | DELIVER PROJECT is currently finalizing detailed analysis of the data collected and will share a detailed report for this critical exercise in July 2014. Preliminary findings show that 12% (76) of the 634 health facilities visited had at least one critical structural defect and the average age of the buildings was 26 years. The trends for average storage volumes - for different levels of facilities - followed the expected pattern with larger facilities having higher space averages than smaller ones. Central hospitals had the highest average storage capacity (200m^3), followed by district hospitals (146m^3), rural hospitals (38m^3) and the lower level health facilities (range of 14 m^3 to 21 m^3).

The next step being under taken by the JSI team is to conduct a simulation to determine the ideal space requirements for each level of the health care system and then to compare these results to the available storage space existing in each facility. This process will help to determine whether facilities are falling short of meeting the ideal storage space requirements.

19.5 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 April 2014. **Table 6** shows the total medicine stocks found at the sites and the estimated consumption periods. Following the quarterly distribution round 17 and maintaining a 2-month minimum stock level at the sites. Health facility stocks of the key adult and paediatric regimens were estimated to last until July/August 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 short supply (less than 6 months of stock) at the central level include; Abacavir/Lamivudine 60/30mg due to an increase in consumption for patients being switched to the new standard regimen 0P (ABC/3TC 60/30mg + NVP 50mg) and Tenofovir/Lamivudine 300/300mg due to scale up of patient numbers on Regimen 6A (TDF 300mg/3TC 300mg + NVP 200mg) and Stavudine based triple combination (1A) due to increased lead times. However, shipments of these drugs are expected to arrive between June and August 2014.

417,369 patients were on regimen 5A, which was **2,373 (0.6%)** less than projected in the previous forecast for the end of this quarter (419,742). 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 Q1 supportive site supervision. Stock positions are from the date of the visit (between 1-4 weeks after the end of the quarter). Warehouse stock positions are from 04/06/2014

Inventory unit	Item	Sites with any Stock	Total Physical Stock		Consump-tion/ Month	Months of Stock *	
			At Sites	In Warehouse		At Sites	Wareh.
tins	ABC / 3TC 60 / 30mg tins (60 tabs)	44	10,930	1,452	3,279	3.3	0.4
	ATV / r 300 / 100mg tins (30 tabs)	133	25,974	15,627	3,712	7.0	4.2
	AZT / 3TC / NVP 300 / 150 / 200mg tins (60 tabs)	545	143,096	153,288	25,320	5.7	6.1
	AZT / 3TC / NVP 60 / 30 / 50mg tins (60 tabs)	598	309,513	512,180	60,088	5.2	8.5
	AZT / 3TC 300 / 150mg tins (60 tabs)	570	12,633	13,533	1,419	8.9	9.5
	AZT / 3TC 60 / 30mg tins (60 tabs)	543	16,283	17,206	1,924	8.5	8.9
	d4T / 3TC / NVP 30 / 150 / 200mg tins (60 tabs)	185	24,344	10,887	6,657	3.7	1.6
	d4T / 3TC / NVP 6 / 30 / 50mg tins (60 tabs)	115	9,208		1,403	6.6	
	d4T / 3TC 30 / 150mg tins (60 tabs)	256	10,538	9,558	332	31.7	28.8
	d4T / 3TC 6 / 30mg tins (60 tabs)	286	5,349	2,448	315	17.0	7.8
	EFV 200mg tins (90 tabs)	101	1,891		273	6.9	
	EFV 600mg tins (30 tabs)	393	16,231	27,473	1,041	15.6	26.4
	LPV / r 100 / 25mg tins (60 tabs)	47	9,354	2,815	1,596	5.9	1.8
	LPV / r 200 / 50mg tins (120 tabs)	19	1,667	1,272	371	4.5	3.4
	NVP 200mg tins (60 tabs)	395	4,736	35,245	2,547	1.9	13.8
	TDF / 3TC / EFV 300 / 300 / 600mg tins (30 tabs)	658	1,290,984	2,066,586	417,369	3.1	5.0
	TDF / 3TC 300 / 300mg tins (30 tabs)	184	4,755	15,966	6,103	0.8	2.6
bottles	Fluconazole (Diflucan) 50mg / 5ml bottles (35 ml)	7	415		24	17.1	
	Gentian violet 25g bottles (1 each)	542	10,757		1,043	10.3	
	NVP 10mg/ml bottles (25 ml)	542	65,550	47,960	15,903	4.1	3.0
vials	Benzathine Penicillin 1.44g vials (50 each)	518	141,966	102,450	33,570	4.2	3.1
	Bleomycine 15,000IU vials (1 each)	17	5,765	4,928			
	Ceftriaxone 1g vials (50 each)	426	142,975		90,612	1.6	
	Depo-Provera 150mg/1ml vials (25 each)	561	770,752	357,775	263,956	2.9	1.4
	Gentamicin 80mg / 2ml vials (50 each)	612	699,102		85,270	8.2	
	Vincristine 1mg / 1ml vials (1 each)	56	19,050	21,690	4,368	4.4	5.0
tabs	Aciclovir 200mg blist packs (25 tabs)	588	5,101,173	3,212,500	546,207	9.3	5.9
	Amitriptylline 25mg tins (500 tabs)	326	1,113,585	390,000	116,520	9.6	3.3
	Azithromycin 500mg blist packs (3 tabs)	335	25,279	12,171	9,014	2.8	1.4
	Ciprofloxacin 500mg blist packs (100 tabs)	201	341,186	560,000	258,364	1.3	2.2
	Clotrimazole 500mg boxes (1 each)	559	105,484	2,331	33,210	3.2	0.1
	Codeine 30mg tins (100 tabs)	41	151,466	148,300	42,761	3.5	3.5
	Cotrimoxazole 100 / 20mg blist packs (1000 tabs)	510	10,716,756	84,196,000	4,831,556	2.2	17.4
	Cotrimoxazole 400 / 80mg tins (1000 tabs)	551	24,436,137	44,475,000	14,324,194	1.7	3.1
	Cotrimoxazole 960mg blist packs (1000 tabs)	632	66,810,676	47,960,000	15,510,264	4.3	3.1
	Doxycycline 100mg tins (1000 tabs)	577	18,887,197	3,667,000	3,828,163	4.9	1.0
	Erythromycin 250mg tins (1000 tabs)	552	8,683,089	3,000	3,424,679	2.5	0.0
	Fluconazole (Diflucan) 200mg tins (28 tabs)	414	271,272	650,748	40,130	6.8	16.2
	Fluconazole (generic) 200mg tins (100 tabs)	47	87,301				
	Ibuprofen 200mg tins (100 tabs)	266	1,022,838	65,300	732,204	1.4	0.1
	Isoniazid 100mg blist packs (100 tabs)	154	157,067		163,730	1.0	
	Isoniazid 300mg tins (1000 tabs)	446	2,976,270	20,226,000	1,198,349	2.5	16.9
	Metronidazole 200mg tins (1000 tabs)	506	7,102,453	3,804,000	4,158,627	1.7	0.9
	Morphine 10mg blist packs (60 tabs)	37	128,860	911,760	186,592	0.7	4.9
	Pyridoxine 25mg tins (100 tabs)	125	1,099,585		1,279,137	0.9	
	Pyridoxine 50mg tins (1000 tabs)	177	725,565	8,680,000	1,279,137	0.6	6.8
sheets	ART pat. card adult (yellow) bundles (100 sheets	620	206,152	149,800	9,759	21.1	15.3
	ART pat. card paed. (blue) bundles (100 sheets)	597	105,947	12,700	902	117.4	14.1
	Exposed child card (pink) bundles (50 sheets)	535	55,304	49,950	3,457	16.0	14.4
	Polythene sleeve bundles (100 sheets)	499	81,816	250,000			
	Pre-ART pat. card (green) bundles (100 sheets)	626	177,962		2,850	62.4	
tests	DBS kit (filter paper, lancet, etc.) bundles (20 eac	393	13,794				
	Determine HIV1/2 boxes (100 each)	632	714,853	745,900	148,922	4.8	5.0
	Determine syphilis boxes (100 each)	34	3,138		53,025	0.1	
	Uni-Gold HIV1/2 boxes (20 each)	593	107,490	56,560	13,444	8.0	4.2
pieces	Condoms female boxes (1000 each)	433	1,025,807		160,345	6.4	
	Condoms male boxes (144 each)	509	8,654,293	10,000,080	4,053,410	2.1	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

HIV Testing and Counselling, Early Infant Diagnosis

50 participants were trained in the 2014 HTC Skills Intensive Training this quarter, bringing the total number re-trained to **4,291.** A team of HTC master trainers and officers from the HIV Department monitored and supervised the intensive skills trainings in all the districts.

17 participants were trained in initial HTC training during this quarter.

HIV Clinical Mentoring Program

38 participants attended HIV clinical mentoring and training on revised tools for the mentoring programing. 21 of the participants were nurses, 14 clinicians and finally 3 lab technicians

Viral Load Orientation Meeting

35 health workers received a one-day orientation in VL monitoring using capillary DBS sampling technique from the central west zone. 11 of the participants were nurses, 10 were Health Surveillance Assistants (HSAs), and 7 were clinicians, 6 lab technicians and 5 HTC counsellors.

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

Yusuf Bhamu (HIV Fellow, HIV Dept)
Annie Biza (Nurse, MDF)
Chris Blair (MO, EQUIP)
Lincy Chalunda (CO, MOH)
Dyton Chelewani (Lab tech, MoH)
Richard Chidakwani (CO, MOH)
Janet Chikonda (Nurse, MOH)
Rosemary Chikumbe (Logistics, MOH)
Felix Chinguwo (CO, Ntcheu DH)
Bonface Chione (CO, Lighthouse)
John Chipeta (M&E TA, Dept for HIV and AIDS)
Stuart Chuka (CO, MBCA)
Peter Donda (CO, Dedza DH)
Alefa Fikira (CMT, MOH)
Mary Gosten (MA, MOH)
S Hambisa (Nurse, Private)
Roben Jersey (, MOH)
Kelvin Jobo (CO, Lighthouse)
Lilian Kachali (Nurse, MOH)
Limbani Kadzuwa (Nurse, MOH)
Eviness Kafumbi Nkhoma (Nurse, MOH)
Mathilda Kamanga (Nurse, Army)
Afred Kamoto (Logistics Fellow, MOH)
Oscar Kasiyamphanje (Nurse, CHAM)
Joseph Kasola (CO, MOH, Chitipa DH)
Catherine Kassam (, MOH)
Martin Katanga (CO, MOH)
Rodrick Kaulele (CO, CHAM (Sister Tereza))
Absalom Kaunda (CO, MOH, Mzimba DHO)
Jean Kayamba (Nurse, MOH)
Julie Kazima (Nurse, MSH)
Joe Khalani (Logistics, CMST)
Jesse Lobeni (Nurse, MOH)
Malumbu Luwinga (Logistics, Kamuzu Central)
Innocent Mainjeni (Logistics, MOH)
Ezra Majoni (Nurse, MOH)
Kelvin Makina (Logistics, Kasungu)
Simon Makombe (ART officer, MOH, HIV and AIDS)
Amos Makwaya (CO, MOH)
Roseby Malombe (Nurse, CHAM)
Beatrice Malonje (Nurse, MOH)
Lameck Manda (Logistics Fellow, MOH)
Davie Maseko (CO, SOS)
Hannock Matupi (ARV clinician, MOH, Rumphi DH)
Rose Maviko (Nurse, Limbe HC)
Benjamin Mazalo (CO, SUCOMA Clinic)
Irvin Mchacha (CO, MSH)
Andrew Mganga (M&E Fellow, HIV and AIDS)
Hendreson Mgawi (Logisitics, MOH)
Eustice Mhango (ART officer, MOH, HIV and AIDS)
Dalitso Midiani (PMTCT Officer, MOH)
Priscilla Milongo (Nurse, Lighthouse)
Erik Mittochi (CO (ART coord), MOH)
Stanford Miyango (Pharmasist, MOH)
Chimwemwe Mkandawire (IT Fellow, HIV and AIDS)
Elizabeth Mkandawire (Logistic, MOH)
Everista Mkandawire (Nurse, MOH)
Christopher Mkwezalamba (CO, MOH)
Jimmy Mmela (Logistics, MOH)
Offrey Mnduwira (CO, Police)
Damison Msiska (CO, Dwangwa)
Andraida Mtoseni (Nurse, MOH)

Ekwala Mubiala (HIV Zonal Supervisor, MOH, UNV)
Malachi Mulimba (PT, MOH)
Ruockia Mwachumu (Nurse, MOH Nsanje DHO)
Timothy Mwenyedini (MA, MOH)
Austins Namondwe (CO, CHAM)
Overtone Ndhlovu (CO, MOH)
Agness Ndilowe (Nurse, LH)
Mapay Ngalala (HIV Zonal Supervisor, MOH, UNV)
Stanley Ngoma (CO, MOH)
Mervis Ngonga (Nurse, MOH)
Joseph Njala (Program Officer, MOH, Department of HIV and AIDS)
Grace Juma Nkhata (Nurse, MOH)
Relia Nkhata Mandindi (Logistics, HIV Dept)
Angela Nkhoma (Nurse, MOH)
Melenia Nkhoma (Logistics Fellow, MOH)
Sam Nowa (Pharmacist, MOH)
Mourine Gumbo Ntambo (Nurse, MOH)
Judith Ntopa (Nurse, Army)
Benard Pelekamoyo (Logistics, MOH)
Sabina Phiri (Nurse, MOH)
Macleod Piringu (ART CORDINATOR, MOH)
Cecilia Sambakunsi (Logistics Fellow, HIV Dept)
Chrisitina Samu (Logistics, MOH)
Charles F Sekani (CO, .)
Monica Simfukwe (Nurse, MOH, Chintheche RH)
Juliana Soko (ARV nurse, MOH, Livingstonia MH)
Edith Taulo (Nurse, MOH)
Harrison Tembo (CO, MOH)
Cecelia Tenesi (Nurse, MOH)
Gift Werekhwa (M & E Officer, CHAM)
Lindiwe Zaina (Logistics, HIV Dept)
Gerald Zomba (Program Officer, HIV and AIDS)

Report compiled by:
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Dalitso Midiani (PMTCT Officer, Dept. for HIV and AIDS)
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Lucius Ng'omang'oma (HTC Officer, Dept. for HIV and AIDS)
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Chimwemwe Mkandawire (IT Fellow, Dept. for HIV and AIDS)
Joseph Njala (Clin. HIV Fellow, Dept. for HIV and AIDS))

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.

17th July 2014

22 Appendix (Full National HIV Program Data)

STI site report

Malawi (national)

2014 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

STI clients treated in the reporting period *

Total STI clients

Total STI clients treated		46,960	100%
	Index patients treated (symptomatic)	37,675	80%
	Partners treated	9,285	20%

Sex

Males		18,607	40%
Females		28,353	60%
	Non-pregnant	25,072	88%
	Pregnant	3,281	12%

Age group

Age group A (0-19 years)		4,293	9%
Age group B (20-24 years)		11,217	24%
Age group C (25+ years)		31,450	67%

Client type

Symptomatic cases		41,584	89%
	Index cases	37,675	91%
	Partners symptomatic	3,909	9%
Partners asymptomatic		5,376	11%

STI treatment history

Never treated for STI		35,721	76%
Previously treated for STI		11,239	24%
	Old >3 months ago	7,865	70%
	Recent ≤3 months ago	3,374	30%

STI syndromic diagnosis

GUD		8,262	17%
UD		11,682	23%
AVD		14,742	30%
	Low risk	5,776	39%
	High risk	8,966	61%
LAP		8,201	16%
SS		761	2%
BU		520	1%
BA		987	2%
NC		208	0%
Genital Warts		407	1%
Syphilis RPR VDRL		1,076	2%
Other STI		3,011	6%

STI partner notification

Total partner notification slips issued		11,818	100%
	Total partners returned	9,285	79%
	Total partners not seen	2,533	21%

* Subgroups may not add to 100% due to rounding

STI site report

Malawi (national)

2014 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

STI clients treated in the reporting period

*

HIV test / ART status

HIV status not ascertained	25,607	55%
HIV status ascertained	21,353	45%
HIV negative (new test)	15,788	74%
HIV positive	5,565	26%
New positive	1,151	21%
Previous positive	4,414	79%
Not on ART	1,201	27%
On ART	3,213	73%

STI clients referred for services

Lab	376	3%
Gynae review	290	2%
Surgical review	171	1%
Repeat HTC	11,804	84%
ART (for assessment)	568	4%
PMTCT	73	1%
Other (service referrals)	764	5%

* Subgroups may not add to 100% due to rounding

Maternity

Malawi (national)

2014 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

Maternal details

*

Admissions in the reporting period

Total admissions (referrals double-counted)	121,579	100%
Not referred to other site (total women)	114,909	95%
Referred out before delivery (multiple admissions)	6,670	5%

HIV status ascertainment

HIV status not ascertained	8,462	7%
HIV status ascertained	113,169	93%
Valid previous test result	108,629	96%
Previous negative	100,218	92%
Previous positive	8,411	8%
New test at maternity	4,540	4%
New negative	4,129	91%
New positive	411	9%

HIV status summary

Total women HIV negative	104,347	92%
Total women HIV positive	8,822	8%

ARVs during pregnancy (among HIV pos)

No ARV in pregnancy	243	3%
Any ARVs	8,579	97%
ART (by time of initiation)	8,579	100%
ART initiated before pregnancy	5,322	62%
ART initiated in 1st / 2nd trimester	1,541	18%
ART initiated in 3rd trimester	1,372	16%
ART initiated during labour	344	4%

Obstetric complications

No obstetric complications	108,044	89%
Any obstetric complications	13,587	11%
Haemorrhage	2,472	18%
Haemorrhage ante-partum	779	32%
Haemorrhage post-partum	1,693	68%
Obstr / prol labour	4,290	32%
(pre-) Eclampsia	736	5%
Maternal sepsis	173	1%
Ruptured uterus	101	1%
Other obstetric complications	5,815	43%

Emergency obstetric care

Oxytocin	106,224	96%
Anticonvulsive	396	0%
Antibiotics	3,490	3%
Blood transfusion	307	0%
Manual removal of placenta	551	0%

Vitamin A

Vit A not given	45,499	37%
Vit A given	76,132	63%

* Subgroups may not add to 100% due to rounding

Maternity

Malawi (national)

2014 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

Maternal details

*

Staff conducting delivery

Category A: MO, CO, nurse/midwife, MA	108,217	94%
Category B: PA, WA, HSA	911	1%
Category C: Other	5,833	5%

Mother survival

Mother alive	114,856	100%
Mother died	105	0%

Infant details

*

Single babies / multiple deliveries

Total babies delivered	117,265	100%
Single babies	113,124	96%
Twin / multiple babies	4,141	4%

Delivery place

Total deliveries at a health facility	111,057	95%
This facility	110,639	100%
Other facility	418	0%
Total deliveries before reaching the facility	6,208	5%
In transit	3,754	60%
Home / TBA	2,454	40%

Delivery mode

Spontaneous vaginal	106,795	91%
Vacuum extraction	1,466	1%
Breech	2,086	2%
Caesarean section	6,918	6%

Infant complications

No infant complications	102,700	88%
Total infants with complications	14,565	12%
Prematurity	3,337	23%
Weight less 2500g	4,927	34%
Asphyxia	3,863	27%
Sepsis	858	6%
Other newborn complication	1,580	11%

Infant survival

Total live births	115,340	98%
Discharged alive	114,348	99%
Neonatal deaths	992	1%
Stillbirths	1,925	2%
Stillbirth, fresh	1,088	57%
Stillbirth, macerated	837	43%

Infant details

*

HIV exposure / ARV proph. (among discharged alive)

Infants with unknown HIV exposure status	6,916	6%
Infants with known HIV exposure status	107,432	94%
Not HIV exposed	99,067	92%
HIV exposed	8,365	8%
Received no ARVs	535	6%
Received ARVs	7,830	94%
Nevirapine	7,830	100%

Breastfeeding initiated

BF not started within 60min	6,831	6%
BF started within 60min	110,434	94%

Tetracycline eye ointment given

TO not given	23,008	20%
TO given	94,257	80%

HTC site report

Malawi (national)

2014 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

Clients at health facility (static)

HTC client details

*

Total HTC clients served

Total HIV tested	422,601	100%

Sex

Males tested	136,226	32%
Females tested	286,375	68%
Females non-pregnant	135,460	47%
Females pregnant	150,915	53%

Age

Children 0-14 yrs	36,952	9%
Children below 12 mths (Age group A)	2,058	6%
Children 18 mths - 14 yrs (Age group B)	34,894	94%
Adults 15+ years	385,649	91%
Young adults 15-24 years (Age group C)	170,344	44%
Older adults 25+ yrs (Age group D)	215,305	56%

HTC access type

PITC	235,285	56%
Family Referral Slip (FRS)	2,347	1%
Other (VCT, etc.) HTC access	184,969	44%

HTC first time / repeat

Never tested before	134,400	32%
Previously accessed HTC	288,201	68%
Last negative	277,251	96%
Last positive	8,774	3%
Last exposed infant	1,569	1%
Last inconclusive	607	0%

Counseling session type / Partner present

Counseled with partner / partner present	95,377	23%
Counseled alone / Partner not present	327,224	77%

Outcome summary (HIV test)

Single test negative	381,913	90%
Single test positive	1,680	0%
Test 1&2 negative	989	0%
Test 1&2 positive	36,988	9%
Test 1&2 discordant	1,031	0%

Final result given to client

Results among clients never tested / last negative	415,171	98%
New negative	381,274	92%
New positive	31,746	8%
New exposed infants	1,217	0%
New inconclusive	934	0%
Confirmatory results (previous positive clients)	7,430	2%
Confirmatory positive	6,896	93%
Confirmatory inconclusive	534	7%

HTC client details *

Partner / Family HTC referral slips

Sum of slips given		13,249	100%
	Total clients presenting with referral slip	2,347	18%
	Total failed referrals (slips not returned)	10,902	82%

Clients tested in the community

HTC client details *

Total HTC clients served

Total HIV tested		21,764	100%

Sex

Males tested		7,481	34%
Females tested		14,283	66%
	Females non-pregnant	8,528	60%
	Females pregnant	5,755	40%

Age

Children 0-14 yrs		2,072	10%
	Children below 12 mths (Age group A)	65	3%
	Children 18 mths - 14 yrs (Age group B)	2,007	97%
Adults 15+ years		19,692	90%
	Young adults 15-24 years (Age group C)	9,328	47%
	Older adults 25+ yrs (Age group D)	10,364	53%

HTC access type

PITC		8,617	40%
Family Referral Slip (FRS)		110	1%
Other (VCT, etc.) HTC access		13,037	60%

HTC first time / repeat

Never tested before		6,542	30%
Previously accessed HTC		15,222	70%
	Last negative	14,811	97%
	Last positive	338	2%
	Last exposed infant	55	0%
	Last inconclusive	18	0%

Counseling session type / Partner present

Counseled with partner / partner present		3,065	14%
Counseled alone / Partner not present		18,699	86%

Outcome summary (HIV test)

Single test negative		20,432	94%
Single test positive		7	0%
Test 1&2 negative		5	0%
Test 1&2 positive		1,280	6%
Test 1&2 discordant		40	0%

HTC site report

Malawi (national)

2014 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

HTC client details

*

Final result given to client

Results among clients never tested / last negative		21,653	99%
	New negative	20,427	94%
	New positive	1,167	5%
	New exposed infants	27	0%
	New inconclusive	32	0%
Confirmatory results (previous positive clients)		111	1%
	Confirmatory positive	111	100%
	Confirmatory inconclusive	0	0%

Partner / Family HTC referral slips

Sum of slips given		89	100%
	Total clients presenting with referral slip	110	124%
	Total failed referrals (slips not returned)	-21	-24%

* Subgroups may not add to 100% due to rounding

HIV exposed child follow-up

Malawi (national)

2014 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

Age 2 months

Age cohort outcomes

*

Total children in birth cohort

Total children registered	7,260	100%

CPT status

On CPT	6,448	89%
Not on CPT	812	11%

HIV status

Current HIV infection status unknown	4,595	63%
HIV infection not confirmed, not ART eligible	4,591	100%
HIV infection not confirmed, ART eligible (PSHD)	4	0%
Current HIV infection status known	2,665	37%
Confirmed not infected	2,581	97%
Confirmed infected (ART eligible)	84	3%

ART eligibility summary

Not eligible for ART	7,172	99%
ART eligible	88	1%
ART not initiated	46	52%
Initiated ART	42	48%

Primary follow-up outcome

Discharged uninfected	25	0%
Continue follow-up	6,524	90%
Started ART	42	1%
Defaulted	603	8%
Died	23	0%

Transfers between sites

Total not transferred out	7,217	99%
Transferred out	43	1%

Age 12 months

Age cohort outcomes

*

Total children in birth cohort

Total children registered	8,773	100%

CPT status

On CPT	5,851	67%
Not on CPT	2,922	33%

HIV status

Current HIV infection status unknown	5,676	65%
HIV infection not confirmed, not ART eligible	5,662	100%
HIV infection not confirmed, ART eligible (PSHD)	14	0%
Current HIV infection status known	3,097	35%
Confirmed not infected	2,921	94%
Confirmed infected (ART eligible)	176	6%

* Subgroups may not add to 100% due to rounding

Age cohort outcomes *

ART eligibility summary

Not eligible for ART	8,583	98%
ART eligible	190	2%
ART not initiated	29	15%
Initiated ART	161	85%

Primary follow-up outcome

Discharged uninfected	119	1%
Continue follow-up	5,776	67%
Started ART	161	2%
Defaulted	2,466	29%
Died	71	1%

Transfers between sites

Total not transferred out	8,593	98%
Transferred out	180	2%

Age 24 months

Age cohort outcomes *

Total children in birth cohort

Total children registered	6,642	100%

CPT status

On CPT	1,119	17%
Not on CPT	5,523	83%

HIV status

Current HIV infection status unknown	3,898	59%
HIV infection not confirmed, not ART eligible	3,869	99%
HIV infection not confirmed, ART eligible (PSHD)	29	1%
Current HIV infection status known	2,744	41%
Confirmed not infected	2,549	93%
Confirmed infected (ART eligible)	195	7%

ART eligibility summary

Not eligible for ART	6,418	97%
ART eligible	224	3%
ART not initiated	37	17%
Initiated ART	187	83%

Primary follow-up outcome

Discharged uninfected	2,271	35%
Continue follow-up	939	15%
Started ART	187	3%
Defaulted	3,001	46%
Died	65	1%

Transfers between sites

Total not transferred out	6,463	97%
Transferred out	179	3%

HIV Care Clinic (HCC) cohort analysis

Malawi (national)

2014 Q1 (Quarter)

Registration details

*

HCC clinic registrations

Total HCC registrations	18,923	100%

Registration type

Patients enrolled first time	17,980	95%
Patients re-enrolled	80	0%
Patients transferred in	863	5%

Sex

Males (all ages)	8,978	47%
Females (all ages)	9,945	53%
Non-pregnant	9,920	100%
Pregnant	25	0%

Age at registration

Adults 15+ yrs	7,860	42%
Children 0-14 yrs	11,063	58%
Children 24 months - 14 years	761	7%
Children below 24 months (exposed children)	10,302	93%
Children 2 - below 24 months	4,158	40%
Infants below 2 months	6,144	60%

Reason for HCC registration

Exposed infants	10,372	55%
Confirmed infected patients (pre-ART)	8,551	45%

* Subgroups may not add to 100% due to rounding

HIV Care Clinic (HCC) cohort analysis

Malawi (national)

2014 Q1 (Cumulative)

Registration details

*

HCC clinic registrations

Total HCC registrations	271,374	100%

Registration type

Patients enrolled first time	261,248	96%
Patients re-enrolled	870	0%
Patients transferred in	9,256	3%

Sex

Males (all ages)	113,788	42%
Females (all ages)	157,586	58%
Non-pregnant	152,718	97%
Pregnant	4,868	3%

Age at registration

Adults 15+ yrs	148,730	55%
Children 0-14 yrs	122,644	45%
Children 24 months - 14 years	13,568	11%
Children below 24 months (exposed children)	109,076	89%
Children 2 - below 24 months	57,438	53%
Infants below 2 months	51,638	47%

Reason for HCC registration

Exposed infants	111,085	41%
Confirmed infected patients (pre-ART)	160,289	59%

Pre-ART follow-up outcome

*

Primary follow-up outcomes

Total retained in pre-ART	44,882	29%
Started ART	70,372	45%
Defaulted	37,418	24%
Died	2,073	1%

Transfers between sites

Total not transferred out	154,745	97%
Transferred out	5,544	3%

* Subgroups may not add to 100% due to rounding

Blood safety

Malawi (national)

2014 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

Infect. disease screening among potential donors *

HIV screening

HIV testing not done		1,797	18%
Tested for HIV		8,034	82%
	HIV negative	7,493	93%
	HIV positive	541	7%

Hepatitis B screening

HepB testing not done		1,878	19%
Tested for Hepatitis B		7,953	81%
	HepB Negative	7,554	95%
	HepB Positive	399	5%

Hepatitis C screening

HepC testing not done		7,989	81%
Tested for Hepatitis C		1,842	19%
	HepC Negative	1,804	98%
	HepC Positive	38	2%

Syphilis screening

Syphilis testing not done		1,841	19%
Tested for Syphilis		7,990	81%
	Syphilis Negative	7,730	97%
	Syphilis Positive	260	3%

Malaria screening

Malaria testing not done		5,787	59%
Tested for malaria		4,044	41%
	Malaria Negative	3,607	89%
	Malaria Positive	437	11%

Summary screening outcome

Not donated			2,783	28%
Donated			7,048	72%
	Screened for at least HIV, HepB and syphilis		5,656	80%
		Screened for HIV, HepB, HepC, Syphilis, Malaria	1,718	30%
		Screened for HIV, HepB, Syphilis	3,938	70%
	Screened for HIV, HepB		93	1%
	Screened for HIV only		217	3%
	Screened with any other combination of tests		1,082	15%

Cross-matching report *

Blood group typing (for units and patients)

Total blood group typing done		23,583	100%

Blood units cross-matched (by source)

Total blood units cross-matched		17,196	100%
	Total units from MBTS (estimated)	10,148	59%
	Total units from replacement donors	7,048	41%

Blood units cross-matched by patient group

Units cross-matched for maternity		2,693	16%
Units cross-matched for paediatrics		8,202	48%
Units cross-matched for other ward		6,301	37%

* Subgroups may not add to 100% due to rounding

Cross-matching report

*

Transfusion reactions

Units transfused without adverse events	17,175	100%
Units with suspected transfusion reactions	10	0%
Units with confirmed transfusion reactions	11	0%

ART survival analysis

Malawi (national)

2014 Q1 (Quarter)

12 month survival children

Survival and retention in ART program *

ART cohort registration group outcomes

Total ART clinic registrations		3,034	100%
	Transfers out (double counted)	378	12%
	Total not transferred out (patients in cohort)	2,656	88%
	Total alive on ART	2,063	78%
	Total not retained	593	22%
	Defaulted	438	74%
	Stopped ART	17	3%
	Died	138	23%

12 month survival all ages

Survival and retention in ART program *

ART cohort registration group outcomes

Total ART clinic registrations		32,582	100%
	Transfers out (double counted)	3,445	11%
	Total not transferred out (patients in cohort)	29,137	89%
	Total alive on ART	22,630	78%
	Total not retained	6,507	22%
	Defaulted	5,156	79%
	Stopped ART	84	1%
	Died	1,267	19%

24 month survival all ages

Survival and retention in ART program *

ART cohort registration group outcomes

Total ART clinic registrations		42,028	100%
	Transfers out (double counted)	6,128	15%
	Total not transferred out (patients in cohort)	35,900	85%
	Total alive on ART	26,542	74%
	Total not retained	9,358	26%
	Defaulted	7,237	77%
	Stopped ART	109	1%
	Died	2,012	22%

36 month survival all ages

Survival and retention in ART program *

ART cohort registration group outcomes

Total ART clinic registrations		21,629	100%
	Transfers out (double counted)	5,133	24%
	Total not transferred out (patients in cohort)	16,496	76%
	Total alive on ART	11,198	68%
	Total not retained	5,298	32%
	Defaulted	3,501	66%
	Stopped ART	68	1%
	Died	1,729	33%

48 month survival all ages

Survival and retention in ART program *

ART cohort registration group outcomes

Total ART clinic registrations	22,696	100%
Transfers out (double counted)	5,671	25%
Total not transferred out (patients in cohort)	17,025	75%
Total alive on ART	11,178	66%
Total not retained	5,847	34%
Defaulted	3,907	67%
Stopped ART	87	1%
Died	1,853	32%

60 month survival all ages

Survival and retention in ART program *

ART cohort registration group outcomes

Total ART clinic registrations	20,716	100%
Transfers out (double counted)	5,435	26%
Total not transferred out (patients in cohort)	15,281	74%
Total alive on ART	9,479	62%
Total not retained	5,802	38%
Defaulted	3,660	63%
Stopped ART	57	1%
Died	2,085	36%

72 month survival all ages

Survival and retention in ART program *

ART cohort registration group outcomes

Total ART clinic registrations	16,494	100%
Transfers out (double counted)	4,676	28%
Total not transferred out (patients in cohort)	11,818	72%
Total alive on ART	6,765	57%
Total not retained	5,053	43%
Defaulted	2,979	59%
Stopped ART	56	1%
Died	2,018	40%

84 month survival all ages

Survival and retention in ART program *

ART cohort registration group outcomes

Total ART clinic registrations	13,360	100%
Transfers out (double counted)	3,833	29%
Total not transferred out (patients in cohort)	9,527	71%
Total alive on ART	4,801	50%
Total not retained	4,726	50%
Defaulted	2,588	55%
Stopped ART	55	1%
Died	2,083	44%

96 month survival all ages

Survival and retention in ART program *

ART cohort registration group outcomes

Total ART clinic registrations	9,244	100%
Transfers out (double counted)	2,878	31%
Total not transferred out (patients in cohort)	6,366	69%
Total alive on ART	2,873	45%
Total not retained	3,493	55%
Defaulted	1,692	48%
Stopped ART	40	1%
Died	1,761	50%

108 month survival all ages

Survival and retention in ART program *

ART cohort registration group outcomes

Total ART clinic registrations	3,863	100%
Transfers out (double counted)	1,186	31%
Total not transferred out (patients in cohort)	2,677	69%
Total alive on ART	1,169	44%
Total not retained	1,508	56%
Defaulted	727	48%
Stopped ART	43	3%
Died	738	49%

120 month survival all ages

Survival and retention in ART program *

ART cohort registration group outcomes

Total ART clinic registrations	826	100%
Transfers out (double counted)	235	28%
Total not transferred out (patients in cohort)	591	72%
Total alive on ART	247	42%
Total not retained	344	58%
Defaulted	188	55%
Stopped ART	7	2%
Died	149	43%

6 month survival OptionB+

Survival and retention in ART program *

ART cohort registration group outcomes

Total ART clinic registrations	7,321	100%
Transfers out (double counted)	490	7%
Total not transferred out (patients in cohort)	6,831	93%
Total alive on ART	5,293	77%
Total not retained	1,538	23%
Defaulted	1,476	96%
Stopped ART	13	1%
Died	49	3%

12 month survival OptionB+

Survival and retention in ART program *

ART cohort registration group outcomes

Total ART clinic registrations		9,041	100%
	Transfers out (double counted)	795	9%
	Total not transferred out (patients in cohort)	8,246	91%
		Total alive on ART	5,940	72%
		Total not retained	2,306	28%
			Defaulted	2,211	96%
			Stopped ART	34	1%
			Died	61	3%

24 month survival OptionB+

Survival and retention in ART program *

ART cohort registration group outcomes

Total ART clinic registrations		11,274	100%
	Transfers out (double counted)	1,210	11%
	Total not transferred out (patients in cohort)	10,064	89%
		Total alive on ART	7,103	71%
		Total not retained	2,961	29%
			Defaulted	2,787	94%
			Stopped ART	54	2%
			Died	120	4%

ART cohort analysis

Malawi (national)

2014 Q1 (Quarter)

Registration details

*

ART clinic registrations

Total ART clinic registrations	31,984	100%

Registration type

First time ART initiations (total patients)	25,363	79%
ART re-initiations	600	2%
ART transfers in	6,021	19%

Sex

Males	11,053	35%
Females	20,931	65%
Non-pregnant	14,056	67%
Pregnant	6,875	33%

Age at ART initiation

Adults 15+ yrs	29,277	92%
Children 0-14 yrs	2,707	8%
Children 2-14 yrs	1,981	73%
Children below 24 mths	726	27%

Reason for starting ART

Presumed severe HIV Disease	161	1%
Confirmed HIV infection	31,823	99%
WHO stage 1 or 2	19,117	60%
Total lymphocytes <threshold	13	0%
CD4 below threshold	9,975	52%
CD4 unknown or >threshold	9,129	48%
PCR infants	124	1%
Children 12-23 mths	328	4%
Pregnant women	6,875	75%
Breastfeeding mothers	1,802	20%
WHO stage 3	10,707	34%
WHO stage 4	1,708	5%
Unknown / reason outside of guidelines	291	1%

TB at ART initiation

Never TB / TB > 24 months ago	30,810	96%
TB within the last 24 months	435	1%
Current episode of TB	739	2%

Kaposi's sarcoma at ART initiation

No KS	31,620	99%
Patients with KS	364	1%

* Subgroups may not add to 100% due to rounding

ART cohort analysis

Malawi (national)

2014 Q1 (Cumulative)

Registration details

*

ART clinic registrations

Total ART clinic registrations	856,818	100%

Registration type

First time ART initiations (total patients)	688,360	80%
ART re-initiations	9,089	1%
ART transfers in	159,369	19%

Sex

Males	308,655	36%
Females	548,163	64%
Non-pregnant	458,863	84%
Pregnant	89,300	16%

Age at ART initiation

Adults 15+ yrs	781,969	91%
Children 0-14 yrs	74,849	9%
Children 2-14 yrs	57,411	77%
Children below 24 mths	17,438	23%

Reason for starting ART

Presumed severe HIV Disease	3,134	0%
Confirmed HIV infection	853,684	100%
WHO stage 1 or 2	335,663	39%
Total lymphocytes <threshold	240	0%
CD4 below threshold	229,371	68%
CD4 unknown or >threshold	106,052	32%
PCR infants	2,432	2%
Children 12-23 mths	3,291	3%
Pregnant women	70,809	67%
Breastfeeding mothers	29,520	28%
WHO stage 3	418,724	49%
WHO stage 4	92,459	11%
Unknown / reason outside of guidelines	6,838	1%

TB at ART initiation

Never TB / TB > 24 months ago	789,673	92%
TB within the last 24 months	35,020	4%
Current episode of TB	32,125	4%

Kaposi's sarcoma at ART initiation

No KS	838,709	98%
Patients with KS	18,109	2%

* Subgroups may not add to 100% due to rounding

ART cohort analysis

Malawi (national)

2014 Q1 (Cumulative)

ART outcomes

*

Primary follow-up outcomes

Total alive on ART		486,795	70%
	Alive on ART at site of last registration	482,678	99%
	ART patients in transit between sites	4,117	1%
Defaulted		140,015	20%
Stopped ART		2,963	0%
Total died		67,676	10%
	Died month 1	17,772	26%
	Died month 2	11,098	16%
	Died month 3	6,412	9%
	Died month 4+	32,394	48%

Transfers between sites

Total not transferred out		693,332	81%
Transferred out		163,486	19%

ART regimens

First line regimens		477,940	99%
	Adult formulation	452,934	95%
		Regimen 1A	6,657	1%
		Regimen 2A	25,320	6%
		Regimen 3A	332	0%
		Regimen 4A	709	0%
		Regimen 5A	417,369	92%
		Regimen 6A	2,547	1%
	Paed. formulation	25,006	5%
		Regimen 1P	561	2%
		Regimen 2P	24,035	96%
		Regimen 3P	109	0%
		Regimen 4P	301	1%
Second line regimens		4,244	1%
	Adult formulation	3,712	87%
		Regimen 7A	3,279	88%
		Regimen 8A	433	12%
	Paed. Formulation	532	13%
		Regimen 9P	532	100%
Other regimen (adult / paed)		494	0%

Adherence

Adherence unknown (not recorded)		9,678	2%
Adherence recorded		473,000	98%
	0-6 doses missed	418,706	89%
	7+ doses missed	54,294	11%

ART side effects

Side effects unknown (not recorded)		31,629	7%
Side effects recorded		451,049	93%
	No side effects	447,165	99%
	Any side effects	3,884	1%

ART cohort analysis

Malawi (national)

2014 Q1 (Cumulative)

ART outcomes

*

Current TB status among ART patients (ICF)

ICF not done (Current TB status unknown/ not circ)	4,764	1%
ICF done	477,914	99%
TB not suspected	472,576	99%
TB suspected	3,956	1%
TB confirmed	1,382	0%
TB confirmed, not on treatment	158	11%
TB confirmed, on TB treatment	1,224	89%

* Subgroups may not add to 100% due to rounding

Antenatal Care

Malawi (national)

2014 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

New ANC registrations in reporting period *

Women with first visit in reporting period

New women registered	257,425	100%

ANC cohort analysis *

Total women completing ANC in the reporting period

Total women in booking cohort	159,233	100%

Visits per woman

Women with 1 visit	35,434	22%
Women with 2 visits	41,603	26%
Women with 3 visits	47,446	30%
Women with 4 visits	28,201	18%
Women with 5+ visits	6,549	4%

Trimester of first visit

Started ANC 0-12 wks	13,501	8%
Started ANC 13+ wks	145,732	92%

Pre-eclampsia

No pre-eclampsia	155,429	98%
Pre-eclampsia	3,804	2%

TTV doses

0-1 TTV doses	77,377	49%
2+ TTV doses	81,856	51%

SP tablets

0 SP doses	16,434	10%
1 SP dose (1 x 3 tabs)	46,689	29%
6+ SP tablets (2 x 3 tabs)	96,110	60%

FeFo tablets

0-119 FeFo tablets	114,118	72%
120+ FeFo tablets	45,115	28%

Albendazole (Deworming)

0 Albend. doses	25,997	16%
1 Albend. dose	134,533	84%

ITN (bednets)

No ITN	32,180	20%
ITN received	126,941	80%

Syphilis status

Not tested for syphilis		144,558	91%
Tested for syphilis		14,675	9%
	Syphilis negative	14,099	96%
	Syphilis positive	576	4%

* Subgroups may not add to 100% due to rounding

Antenatal Care

Malawi (national)

2014 Q1 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

ANC cohort analysis

*

HIV status ascertainment

HIV status not ascertained	28,976	18%
HIV status ascertained	130,257	82%
Valid previous test result	9,091	7%
Previous negative	4,350	48%
Previous positive	4,741	52%
New test at ANC	121,166	93%
New negative	115,716	96%
New positive	5,450	4%

HIV status summary

Total women HIV negative	120,066	92%
Total women HIV positive	10,191	8%

CPT status (among HIV pos)

Not on CPT	738	7%
On CPT	9,453	93%

Final PMTCT regimen mother

No ARVs	673	7%
Any ARVs	9,518	93%
ART (by time of initiation)	9,518	100%
Already on ART when starting ANC	4,206	44%
Started ART at 0-27 weeks of pregnancy	4,087	43%
Started ART at 28+ weeks of preg.	1,225	13%

Baby's ARVs dispensed

No ARVs dispensed for infant	2,314	23%
ARVs dispensed for infant	7,877	77%

* Subgroups may not add to 100% due to rounding