Government of Malawi Ministry of Health

Integrated HIV Program Report October -December 2013

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1 Executive Summary

A summary of the key achievements between October and Decem**ber 2013** 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
  - **689** (static) ART sites
  - **594** PMTCT sites (Option B+)
  - **634** Pre-ART sites
  - **612** sites with HIV-exposed child follow-up
- **374,456** persons were tested and counselled for HIV and **32,654 (9%)** were HIV positive; **138,000 (37%)** people tested for the first time.
- **18,648 (97%)** of 19,172 blood units collected were screened for HIV, hepatitis B and syphilis.
- **129,368 (83%)** of 156,528 women at ANC had their HIV status ascertained; **10,354 (8%)** of these were HIV positive. **118,217 (91%)** of 128,675 women at maternity had their HIV status ascertained; **9,066 (8%)** of these were HIV positive.
- **23,334** patients started ART during this quarter; this is a 10% decline from the previous quarter (**25,551**).
- **472,865** patients were alive and on ART by end of December 2013. This is equivalent to **79%** coverage of the estimated 602,000 population in need of ART (all ages).[1] Estimated ART coverage among children (<15 years) and adults was **48%** and **84%**, respectively.
- **78%** of adults and **81%** of children were retained alive on ART at 12 months after initiation.
- **381,477 (87%)** of 424,961 on first line adult ART were on regimen 5A (TDF/3TC/EFV).
- The proportion of ART patients with documented side effects was **2%.** This is a significant decline from 7% before transition to 5A.
- A total of **11,815** HIV positive pregnant women were on ART: **5,271 (45%)** of these were already on ART when getting pregnant and **6,544 (57%)** started ART during pregnancy/delivery. This is equivalent to **75%** ART coverage among the estimated 15,750 HIV infected pregnant women in Malawi this quarter.
- An additional **1,721** breastfeeding women started ART due to ***Option B+*** (in WHO stage 1/2)
- **5,798 (79%)** of 7,952 women started under ***Option B+*** were retained at **6 months** after ART initiation; **5,280 (73%)** of 8,012 were retained at **12 months** after ART initiation; **7,452 (71%)** of 11,714 were retained at **24 months** after ART initiation. This confirms for the first time that a high proportion of women started under Option B+ remain on ART beyond the cessation of breastfeeding.
- **8,663 (8%)** of infants discharged alive from maternity were known to be HIV exposed, **7,793 (90%)** of these received ARV prophylaxis (nevirapine). **5,487 (63%)** were enrolled in exposed child follow-up before age 2 months.
- A total of **9,207** HIV exposed children and **7,735** pre-ART patients were enrolled for follow-up in *HIV Care Clinics (HCC)* during this quarter.
- **117** medical staff were newly trained and certified in PMTCT/ART this quarter. This brings the total number trained in the 2011 ART/PMTCT guidelines to **6,162**.

[1] 2013 Spectrum estimates based on current definition of eligibility for ART in Malawi (CD4<350, Option B+, UT for U2).

2 Integrated HIV Program Overview

In July 2011, Malawi started implementing a revised HIV Program in all health facilities following the ***2011 Malawi Integrated Clinical HIV Guidelines***. These guidelines were developed in 2010/11 by the PMTCT/ART Technical Working Group led by the Department for HIV and AIDS of the Ministry of Health. 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 is integrated with maternal ART follow-up (*Option B+*) to improve retention and adherence.

- **Early ART initiation**: universal ART for children under 2 years (confirmed HIV infection), children 2-4 years with an absolute CD4 count of ≤750 (CD4% no longer required), children over 5 years and adults with a CD4 count ≤350, patients with HIV and hepatitis B co-infection.

- Transition to **more favourable 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. The full transition to regimen 5A took place between July and December 2013.

- Standard **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 (350) through scheduled CD4 count monitoring. Malawi had no standard pre-ART program until July 2011, although some sites had already started offering elements of the new standard pre-ART package.

- 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.

- 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.

During 2013 / 2014, Malawi has revised the National Clinical HIV Guidelines following the release of the *WHO Consolidated Guidelines on the Use of ARVs for Treating and Preventing HIV Infection* in June 2013. Implementation of updated national protocols is planned for April 2014. A summary of the new policies will be provided in the 2014 Q1 report.

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 as priority for Clinical Mentoring program
- 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. One 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. The involvement of a growing number of health workers from sites all over the country who participate in the quarterly supervision exercise has helped to build a strong identity for the national HIV Program 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

690 public and private sector facilities were visited for **clinical HIV program supervision** between 13th and 31st January 2014. The large number of sites was covered by **72** supervisors working in **23** teams. The teams spent a total of **1,978 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. **258** clinic teams 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. **73** sites had significant weaknesses and were rated to require **intensive mentoring**. This is an increase compared with the previous quarter (58 sites). The capacity to provide site mentoring will need to be further expanded.

Table 1: Outcomes of integrated HIV services supervision for 2013 Q4

Zone	Total facil. visited*	Supervision hours spent at facilities		Performance (# and % of sites)	
		Total	Average per site	Excellent perform.	Mentoring needed
NZ	121	305	2.5	42 35%	21 17%
CEZ	94	268	2.8	20 21%	25 27%
CWZ	158	375	2.4	68 43%	11 7%
SEZ	162	535	3.3	56 35%	10 6%
SWZ	155	495	3.2	72 46%	6 4%
Malawi	690	1,978	2.8	258 37%	73 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. **107** sites had cumulatively registered more than 2,000 ART patient and **35** of these had registered more than 5,000. **42 (39%)** 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 were reporting HTC services in Q4 2013 and **218** of these were outside of health facilities. In addition, HTC was provided at 534 mobile or outreach sites.

Table 2: Facilities with integrated HIV services in the 5 Zones. Availability of services defined by performance (at least 1 patient enrolled) during 2013 Q4

Zone	Total fac.(1	Facilities providing HIV services				CD4 count machines (2)		
		Exp. child	Pre-ART	PMTCT B+	ART	Installed	Functional	Results
NZ	126	113 90%	116 92%	105 83%	120 95%	30 24%	29 97%	2,427
CEZ	94	89 95%	90 96%	83 88%	93 99%	17 18%	16 94%	2,185
CWZ	160	129 81%	133 83%	132 83%	157 98%	29 18%	27 93%	3,876
SWZ	156	129 83%	144 92%	126 81%	153 98%	28 18%	26 93%	17,703
SEZ	164	152 93%	151 92%	148 90%	156 95%	36 22%	34 94%	6,718
Malawi	700	612 87%	634 91%	594 85%	689 98%	140 20%	132 94%	32,909

(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 **700** sites designated to provide clinical HIV services in Q4 2013, by zone. At the national level, there were **689** (static) sites with at least one patient on ART, **594** sites had enrolled women under PMTCT Option B+; **634** sites were providing pre-ART services and **612** had enrolled HIV exposed children for follow-up. ART services were now available at almost all designated sites in the 5 zones. The CE Zone had reached 99% of designated sites with ART services and the SEZ zone was leading in terms of sites that had started women under Option B+ (92% of designated sites).

CD4 count machines (including 'point of care' machines) were installed at **140** sites, and 132 **(94%)** of these had produced at least 1 result during Q4. The total number of CD4 results produced decreased from 38,973 in Q3 to **32,909** during Q4. 54% of these outputs were generated in the SW zone, implying that many CD4 machines continued to be down or to be running considerably below capacity.

5 HIV Testing and Counselling Program Outputs

374,456 people[2] were tested and counselled for HIV between October and December 2013. **359,195** (**96%**) of these tests were performed at health facilities and **15,261** (**4%**) were done outside of health facilities. **32,654** (8.7%) of all people tested were HIV positive.

Out of 374,456 people tested and counselled, **32%** were males and **68%** were females. **52%** of females were pregnant. The ratio 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.

[2] 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.

52% of all people tested and counselled were 25 years and above, **40%** were between 15-24 years and **8%** were children below 15 years. **88,920** (24%) accessed HTC with their partners (as a couple).

138,000 (37%) of 374,456 people tested and counselling accessed HTC for the first time in their life. Based on the cumulative number of people who accessed HTC for the first time, a total of **4,969,242** people were tested since introduction of the 'first time HTC access' indicator in July 2007. Detailed HTC service data are shown in the **Annex.**

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

DNA-PCR testing for the National EID Program is performed at 6 labs (Mzuzu Central Hospital, Mzimba District Hospital, Kamuzu Central Hospital, Queen Elizabeth Central Hospital, DREAM Blantyre and University of North Carolina in 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.

483 (79%) of 612 sites with HIV exposed children in follow-up had collected and recorded at least 1 DNA-PCR sample during Q4 2013. A total of **6,895** DNA-PCR samples were collected and recorded. This is a slight decline from the previous quarter (7,492), which may be due to service disruptions over the Christmas period. 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 **4,065 (59%)** of these specimens and **1,816 (45%)** of these results had been communicated to the mother. The proportion of results received at the sites was **75%**, **62%** and **33%** for samples collected in October, November and December, respectively. A total of **136 (3%)** results received at the sites were positive.

A total of **9,866** DNA-PCR test results were dispatched from the **6 laboratories** in Q4 2013 and **291** (**2.9%**) of these were positive. The number dispatched exceeds by 2,964 the number of samples recorded in the DNA-PCR logbooks at health facilities during this quarter. Detailed data on the specimens processed were available from the lab management information system (LMIS) at MCH, MDH, KCH and QECH. These 4 labs dispatched a total of **6,257** DNA-PCR results to health facilities in Q4 2013. **4,508 (72%)** of these results were from samples collected in Q4 2013, while 1,731 (28%) were from samples collected in the previous quarters (for 9 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 13 and 28 days after sample collection. This is similar to the previous quarter (median 19 days).

3,192 (51%) of all results were from infants under 2 months old at the time of sample collection. 2,137 (34%) were 2-5 months, 760 (12%) were 6-11 months and 53 (1%) were 12 months or older when the sample was collected (date of birth was missing for 115).

Age at sample collection	Tot. Results	Positives	
<2 months	**3.192**	**42**	*1.3%*
2-5 months	**2,137**	**87**	*4.1%*
6-11 months	**760**	**74**	*9.7%*
12 months +	**53**	**4**	*7.6%*
unknown	**115**	**6**	*5.2%*

213 (3.4%) of the 6,275 results from MCH, MDH, KCH and QECH were positive. The age-specific number (%) of positive results is shown on the left. Receipt of the DNA-PCR result at the health facility is a prerequisite to updating of patient records and for appropriate clinical management. Considering the delays between sample collection and dispatch of the test result from the lab, the child's age at the time of dispatch of the result from the lab is a useful indicator for the process of early infant diagnosis and early initiation of ART for confirmed

infected infants. The table below shows the distribution of ages when results were dispatched from the lab.

Age when result disp. from lab	Tot. Results	*(Col %)*	Positives	*(Col %)*
<2 months	**1,128**	*18%*	**13**	*6%*
2-5 months	**4,030**	*64%*	**109**	*51%*
6-11 months	**917**	*15%*	**79**	*37%*
12 months +	**79**	*1%*	**6**	*3%*
missing date	**103**	*2%*	**6**	*3%*
Total	**6,257**	***100%***	**213**	***100%***

Out of 213 positive results dispatched from the 4 labs, only 13 (6%) were sent before the child was 2 months old. A total of 122 (57%) positive results were sent before the child was 6 months old and 201 (94%) were sent before the child was 12 months.

A total of **120** infants were started on ART in WHO stage 1 or 2 on the basis of confirmed HIV infection (see section 16.1.). This is equivalent to **41%** of the 291 positive DNA-PCR results dispatched from all 6 labs 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 **19,172** blood units were collected in Malawi during Q4 2013. MBTS collected **15,791 (82%)** of these, all of which were screened comprehensively for the relevant TTIs (HIV, Hepatitis B, Hepatitis C, syphilis, malaria). In addition, **52** hospitals in Malawi collected a total of **3,381** units from replacement donors. **2,857 (85%)** of these units were screened for at least the 3 key TTIs (HIV, HepB and syphilis) and **495 (17%)** were additionally screened for HepC and malaria. This means that a total of **18,648 (97%)** 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, 1 donated unit were screened only for HIV and HepB. 523 were screened with any other combination of tests for TTIs.

A total of **4,698** potential replacement donors were documented in the blood donor registers at the facilities and 3,381 (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, 86% of potential donors were tested for HIV, 83% for HepB, 86% for syphilis, 46% for malaria and 26% 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 **1,125** persons received PEP during Q4 2013. This is an increase from the previous quarter (803).

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 able to receive 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 from elsewhere.

Table 3: Number and % of women retained in HIV care * who were on injectable contraceptives (Depo) by the end of 2013 Q4.

	Pre-ART		ART		Both patient groups	
Zone	Tot. women	On Depo	Tot. women	On Depo	Tot. women	On Depo
NZ	1,084	**443** *41%*	26,929	**12,669** *47%*	28,013	**13,111** *47%*
CEZ	687	**38** *6%*	21,655	**1,888** *9%*	22,342	**1,926** *9%*
CWZ	2,470	**1,521** *62%*	54,698	**19,133** *35%*	57,168	**20,654** *36%*
SEZ	4,143	**804** *19%*	80,460	**14,314** *18%*	84,603	**15,118** *18%*
SWZ	5,943	**2,215** *37%*	91,940	**10,518** *11%*	97,883	**12,733** *13%*
Malawi	14,327	**5,021** *35%*	275,681	**58,522** *21%*	290,008	**63,542** *22%*

* 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 **63,542 (22%)** women received Depo-Provera from HIV clinics in Q4 2013. The N Zone had achieved the highest coverage among women in pre-ART and ART. PIFP coverage and stock availability had improved this quarter with 537 (79%) of sites having stocks of Depo-Provera in January 2014.[3] 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 **518,308 (88%)** of all patients in care were on CPT at the end of Q4 2013. This is an increase in coverage from the previous quarter (85%).

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

Table 4: Number and % of patients retained in HIV care who were on cotrimoxazole and isoniazid preventive therapy (CPT, IPT) by the end of 2013 Q4.

	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	6,905	**3,769** *55%*	3,703	**3,528** *95%*	47,794	**46,311** *97%*	58,402	**53,609** *92%*	3,703	**2,980** *80%*
CEZ	6,719	**3,506** *52%*	2,674	**2,617** *98%*	37,735	**37,171** *99%*	47,128	**43,294** *92%*	2,674	**1,986** *74%*
CWZ	14,308	**8,077** *56%*	7,956	**7,823** *98%*	95,020	**92,799** *98%*	117,284	**108,699** *93%*	7,956	**6,109** *77%*
SEZ	26,610	**15,782** *59%*	13,636	**13,372** *98%*	128,607	**126,372** *98%*	168,853	**155,527** *92%*	13,636	**10,063** *74%*
SWZ	25,441	**15,565** *61%*	17,002	**16,537** *97%*	157,860	**125,076** *79%*	200,303	**157,178** *78%*	17,002	**10,092** *59%*
Malawi	79,983	**46,700** *58%*	44,971	**43,878** *98%*	467,016	**427,730** *92%*	591,970	**518,308** *88%*	44,971	**31,231** *69%*

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.

458,972 (98%) of all patients retained on ART were screened for TB at their last visit before end of December 2013. As of that visit, **1,473 (<1%)** patients were new TB suspects and had presumably been referred for examination by a clinician and for TB investigations. **1,065 (<1%)** patients had confirmed TB (clinical or lab based). Out of these, **909 (85%)** were confirmed to be on TB treatment and **156 (15%)** 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)	**8,044**	**2%**
ICF done	**458,972**	**98%**
TB not suspected	**456,434**	99%
TB suspected	**1,473**	0%
TB confirmed	**1,065**	0%
TB confirmed, not on treatment	**156**	15%
TB confirmed, on TB treatment	**909**	85%

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. **31,231 (69 %)** of 44,971 patients retained in pre-ART were on IPT by the end of December 2013. Isoniazid was in stock at 570 facilities during the January 2013 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. **4,526** TB patients were started on TB treatment this quarter and HIV status was ascertained for **4,110 (91%)**. **2,280 (55%)** of these were HIV positive and **1,538 (67%)** 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 Q4 2013, **566** and **816** patients received Diflucan for acute cryptococcal meningitis and oesophageal candidiasis, respectively. **414** 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 Q1	4,765	3,972 *83%*	2,568 *65%*	1,487 *58%*	444	472	900
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	503	827
2013 Q4	4,526	4,110 *91%*	2,280 *55%*	1,538 *67%*	414	566	816

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 9th quarterly report from the standard follow-up program for HIV exposed children. **9,207** HIV exposed children were newly enrolled into follow-up during Q4 2013; **5,487 (60 %)** of these were under the age of 2 months. This represents timely enrolment for **63%** of the 8,663 known HIV exposed children discharged from maternity this quarter. The total number of new enrolments (9,207) exceeds by 544 the total number of known HIV exposed children discharged from maternity (8,663). 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 **7423** infants in the **2 month age cohort**. **2,619 (35%)** had received a DNA-PCR result. 60 **(2%)** of these were confirmed HIV infected. An additional **23** infants were diagnosed with *presumed severe HIV disease,* which means that a total of **83** infants were eligible for ART. **41 (49%)** of these had started ART. The proportion of positives starting ART is similar compared to the previous quarter's (50%). Out of the entire 2-month age cohort, **6,652 (90%)** were retained in exposed child follow-up, **41 (<1%)** had started ART and **31 (<1%)** were discharged confirmed uninfected[4]. **24 (<1%)** were known to have died and **617 (8%)** had been lost to follow-up.

There were **9,202** children in the **12 month age cohort**. Current HIV infection status was known for **3,106 (34%)** children (DNA-PCR or rapid antibody test) and **238 (8%)** of these were confirmed HIV infected. **17 (1%)** additional children had been diagnosed with *presumed severe HIV disease,* which means that a total of **255** children were eligible for ART. **160 (63%)** of these had started ART. Out of the entire age cohort, **6,179 (68%)** were retained in exposed child follow-up, **160 (2%)** had started ART and **58 (1%)** were discharged confirmed uninfected[4]. **2,572 (28%)** were lost to follow-up and **61 (1%)** were known to have died (The outcome was missing for 172 children in this cohort).

There were **6,225** children in the **24 month age cohort**. Current HIV infection status was known for **3,789 (61%)** children (DNA-PCR or rapid antibody test) and **193 (8%)** of these were confirmed HIV infected. **33** additional children had been diagnosed with *presumed severe HIV disease,* which means that a total of **226** children were eligible for ART. **184 (81%)** of these had started ART. Out of the entire age cohort, **811 (14%)** were retained in exposed child follow-up, **184 (3%)** had started ART and **1,994 (33%)** were discharged confirmed uninfected[4]. **2,904 (49%)** were lost to follow-up and **89 (1%)** were known to have died.

Confirmed HIV-free survival at age 24 months in this quarter was only **33%**, which was implausibly low and related to the fact that only 39% in this cohort had a known HIV status. 3,789 (61%) children were classified as '*current HIV infection status unknown'* and many of these may be among the 2,904 children lost to follow-up and the 89 children who had died. However, 1,994 (33%) were

[4] 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.

retained in follow-up beyond age 24 months and a final rapid test was not available for these children, possibly due to continued breast feeding. There are still problems with scheduled HIV testing (and documentation of test results) at 6 weeks, 12 and 24 months of age.

14 Pre-ART

14.1 Pre-ART Registration Data

A total of **7,735** patients were newly registered for pre-ART follow-up in Q4 2013. **659 (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 **157,006**.

14.2 Cumulative Pre-ART Follow-up Outcomes

44,973 (31%) of all patients ever registered were retained in pre-ART follow-up by the end of December 2013; **63,364 (44%)** had started ART; **35,109 (24%)** had been lost to follow-up; **1,981 (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. Compared with the previous quarter, the number of patients in pre-ART declined by **1,464**; **1,658** were lost to follow-up and **298** died during Q4 2013.

CPT coverage among pre-ART patients was **43,878 (98%)** in Q4 2013 while IPT coverage increased from 50% to **31,231 (69%)**. **5,021 (35%)** of 14,327 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 from the 2nd trimester of 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

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 becoming pregnant. Implementation of *Option B+* will further increase ART coverage in this group. **Maternal PMTCT coverage** is estimated from the number of pregnant women who were already on ART when getting pregnant (from maternity reports) ***plus*** those who newly started ART when pregnant (from 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 95% 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. In contrast, **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 became pregnant after starting ART. This is why both data sources have to be combined for the estimation of the total ART coverage among pregnant women.

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.

New standard M&E tools for ANC and maternity were implemented in Malawi in January 2010 and revised tools were distributed in Q2 2012 to reflect the Option B+ policy. ANC and maternity clinic registers and reporting forms include patient management information as well as all relevant data elements for M&E of 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.

Coverage was calculated by dividing the number of patients served by population denominators. The denominators were derived from expected pregnancies based on population projections and HIV prevalence from epidemiological surveillance (source: National HIV Prevalence and AIDS Estimates Report for 2010). There are an estimated 15,750 HIV infected pregnant women in the population per quarter (1/4 of 63,000 per annum).

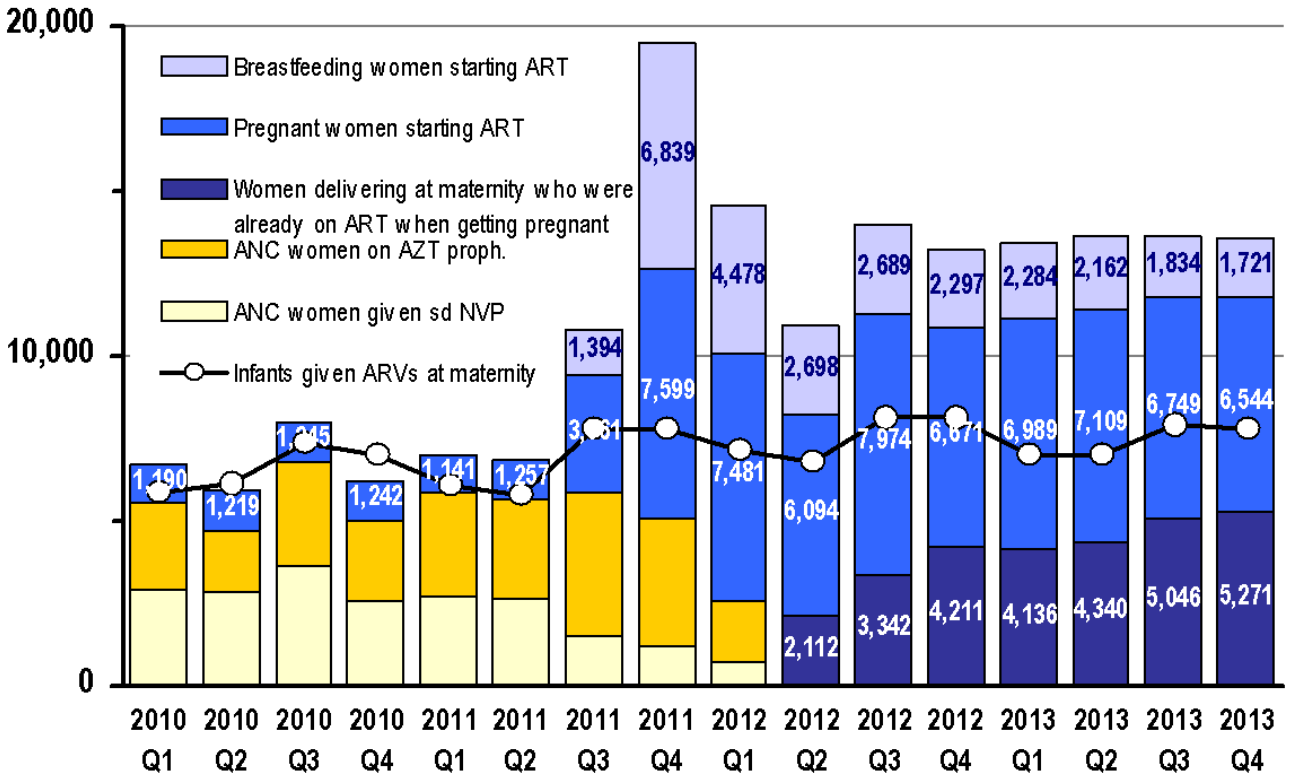
15.2 ARV Coverage among Pregnant / Breastfeeding Women and Exposed Infants

11,815 pregnant women were on ART in Q4 2013. This is based on the **5,271** women at maternity who were already on ART when getting pregnant (maternity report, see below) and the **6,544** women who newly initiated ART while pregnant (ART report, see below). An additional **1,721** 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 **8,265**. 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. **7,793** infants were confirmed to have started NVP prophylaxis at maternity.

Figure 1 shows the transition from prophylactic ARV regimens for HIV infected mothers to universal ART under ***Option B+***. The (less effective) single dose NVP regimen and AZT combination prophylaxis had been phased out by April 2012. The average number of pregnant women starting ART each quarter **increased almost 6-fold** from **1,221** in the 12 month period before introduction of Option B+ to an average of **7,023** since Q4 2011. The **11,815** pregnant women on ART in Q4 2013 represent **75% coverage** of the estimated 15,750 HIV positive pregnant women in the population per quarter. This is a similar to the previous quarter, but ART coverage among pregnant women has remained slightly below target. This was mainly due to challenges with supply and stock management of HIV test kits, compounded by the suspected sub-optimal sensitivity of testing under field conditions at ANC.

Figure 1: 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**.

147,962 women attended ANC for their first visit between October and December 2013. This is very close to the estimated 151,750 pregnant women in the Malawian population during one quarter.

The following report covers the outcomes of the **156,528** women who started ANC between April and June 2013 and who had finished ANC by December 2013. **13,436 (9%)** of the women started ANC in their first trimester. **16,342 (10%)** of the women were tested for syphilis at ANC and **461 (3%)** were syphilis positive. The low testing rate probably explains the higher (3%) than expected proportion (<1%) found positive as the testing was likely selective of those suspected to be positive. Only **36,914 (24%)** of women in this cohort attended the minimum of 4 focussed ANC visits.

15.3.1 HIV Ascertainment at ANC

129,368 (83%) 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, **9,649 (7%)** presented with a valid documented previous HIV test result and **119,719 (93%)** received a new HIV test result at ANC. A total of **10,354 (8%)** women were found HIV positive. This is lower than the estimated 11% HIV prevalence among pregnant women and this is likely due to problems with sensitivity of HIV rapid testing in high volume service settings.

15.4 ARV Coverage at ANC

9,623 (93%) of (known) HIV infected women attending ANC received ART. This represents **61%** coverage of the estimated 15,750 HIV positive pregnant women per quarter at the population

level. ART coverage among pregnant women increased from the previous quarter. ART coverage at ANC remains unsatisfactory mainly due to challenges with identification of HIV positives related to availability of HTC staff compounded by sub-optimal sensitivity of rapid HIV testing at ANC. The availability of HIV test kits at sites has improved significantly compared with previous quarters: 646 sites had Determine HIV test kits in stock during this round of supervision and a total of over 6 months of stock was available at the sites.

Of the **9,623** ANC women who were known to receive ART, **3,846 (40%)** were already on ART when starting ANC **4,280 (44%)** initiated before 28 weeks of pregnancy and **1,497 (16%)** initiated during the last trimester of pregnancy. Based on the ART report, about **408** additional pregnant women initiated ART this quarter and most of these are assumed to have started ART after their last ANC visit.

9,514 (92%) of HIV infected women at ANC were on Cotrimoxazole Preventive Therapy.

8,063 (78%) of HIV infected women attending ANC received the infant dose of ARVs (nevirapine syrup) to take home. This is an increase from the previous quarter (69%).

15.5 HIV Services at Maternity

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

Between October and December 2013, **121,759** women were admitted for delivery to maternity; **6,916** of these were referred to another facility before delivery, resulting in **128,675** total admissions to maternity during Q4 2013. Out of all admissions, **118,754 (95%)** delivered at health facilities, while **6,191 (5 %)** had already delivered before reaching a facility. The **118,754** facility deliveries represent **78%** of the estimated 151,750 deliveries in the population which is slightly less than the 83% reported in the Integrated Household Survey Report of 2010-2011.

A total of **115,671 (94%)** deliveries were conducted by skilled birth attendants, **1,011 (1%)** by paramedical staff and **5,856 (5%)** were not attended by any of the above (probably mainly among women who delivered before reaching maternity). **14,952 (12%)** of women developed obstetric complications. The most common leading complications were obstructed / prolonged labour (**5,041** cases) and post-partum haemorrhage (**1,734** cases). A total of **124,945** babies were born, **120,249 (96%)** were singletons and **4,696 (4%)** were twins/multiples. There were **122,649 (98%)** live births and **2,296 (2%)** stillbirths. **151,527 (99%)** of babies born alive were discharged alive and **1,122 (1%)** died before discharge. **122,446 (>99%)** of women were discharged alive and **92 (<1%)** women died before discharge, which is equivalent to a maternal mortality ratio of **75 per 100,000** live births among women attending maternity.

15.5.1 HIV Ascertainment at Maternity

118,217 (91%) women had their HIV status ascertained at maternity. Out of these, **114,992 (97%)** presented with a valid previous HIV test result and **3,225 (3%)** received a new HIV test result. A total of **9,066 (8%)** women were HIV positive and **101,151 (92%)** were negative. The **118,217** women whose HIV status was ascertained at maternity represent **78%** of the expected 151,750 women delivering in the population.

HIV exposure status was ascertained for **112,495 (93%)** out of 121,527 babies born and discharged alive. **8,663 (8%)** of these were born to a known HIV positive mother.

15.5.2 ARV Coverage at Maternity

A total of **8,795 (97%)** of HIV infected women attending maternity received ART. This is a slight decrease from the previous quarter (8,908) in absolute terms, however coverage increased from 95%. Out of all women on ART, **5,271 (60%)** had started ART before pregnancy, **1,655 (19%)** initiated ART during the 1st or 2nd trimester, **1,520 (17%)** initiated during the 3rd trimester and **349 (4%)** initiated ART at maternity.

7,793 (90%) of infants who were known HIV exposed and discharged alive started daily NVP prophylaxis at maternity. This represents **49%** 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 Q4 2013

By the end of December 2013, there were **689 static ART sites** in Malawi, managed by government, mission, NGOs and the private sector. Out of these, **86** were ART facilities in the private sector, charging a nominal MK500 per monthly prescription of drugs per patient.

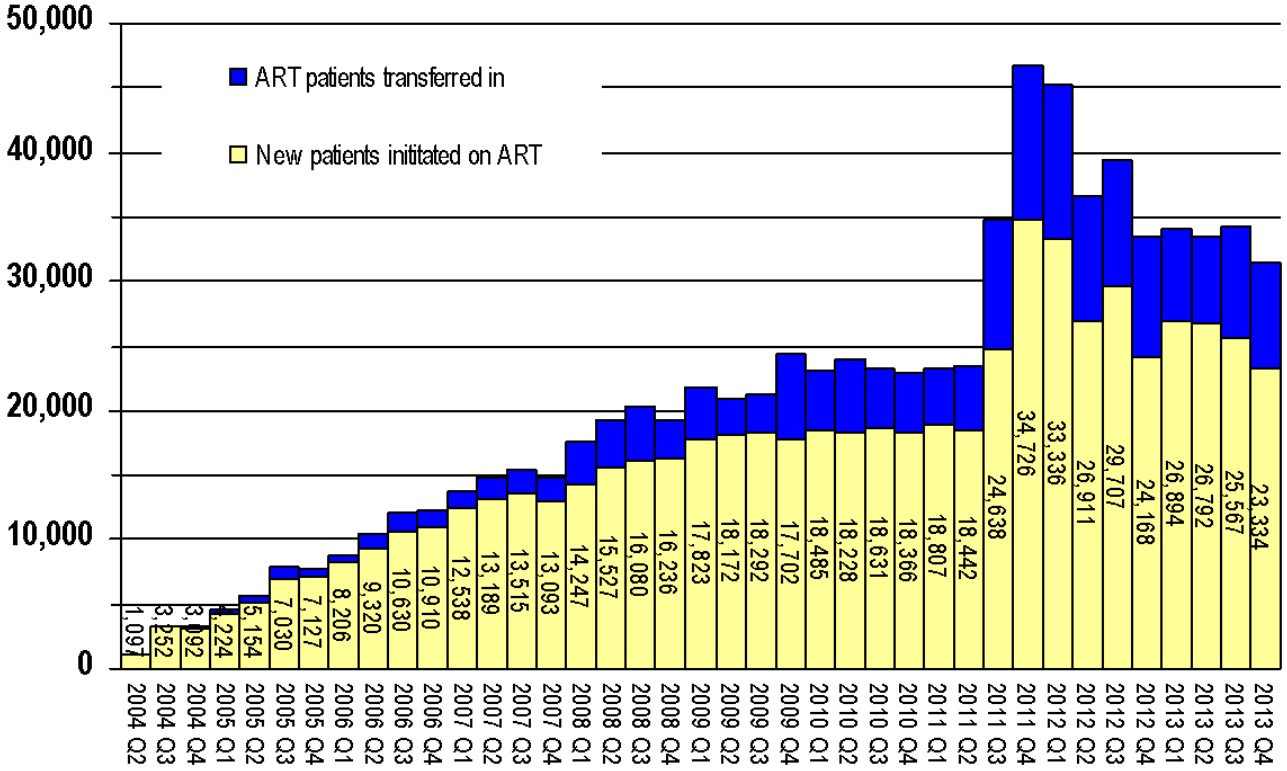
Implementation of the Malawi Integrated Clinical HIV Guidelines started in July 2011 and triggered a massive surge in new ART initiations (see **Figure 2**). In Q4 2013, **23,334** patients initiated ART and **7,709** patients on ART were registered as a transfer in (24% out of all 31,572 clinic registrations). These numbers are slightly lower compared to the previous quarter.

Among all new registrations **34%** were males and **66%** females. **6,544 (32%)** of all females were pregnant and **6,185 (95%)** of these were started under ***Option B+*** in WHO stage 1 or 2, independent of their CD4 count. **359** pregnant women (the remainder) were otherwise eligible for ART, either due to WHO stage 3 or 4 conditions or because of a CD4 count <350. An additional **1,721** women in WHO stage 1 or 2 were started because of breastfeeding, bringing the total number of women started under ***Option B+*** [5] to **7,906**. The number of ART initiations in Q4 2013 remained slightly lower than projected, probably mainly due to challenges with HIV testing.

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

Figure 2: 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 **18,040 (57%)** of all patients started in WHO stage 1 or 2. **9,160 (51%)** 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 32,909 CD4 results were produced in Q4 2013. The roll-out of scheduled CD4 count monitoring in the Pre-ART program is expected to increase the number of early ART initiations. **11,095 (35%)** of patients registered started in WHO stage 3 and **1,957 (6%)** started in stage 4.

2,669 children were registered for ART in Q4 2013. **550** 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. **167** children started ART with presumed severe HIV disease, which was similar to the previous quarter (143). The number of infants in WHO stage 1 or 2 who started due to confirmed HIV infection through DNA-PCR decreased from 207 in Q3 to **120** in Q4 2013. This number is equivalent to **41%** of the 291 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 8,663 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)[6], only about 220 of these known HIV exposed infants may have been infected perinatally during Q4 2013. The most significant bottleneck for early infant treatment remains the identification of HIV infected pregnant / breastfeeding women.

1,236 (5%) out of all ART clinic registrations were patients with TB: **813 (3%)** had a current and **423 (2%)** a recent history of TB. **414 (1%)** of patients registered had Kaposi's sarcoma.

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

16.2 Cumulative ART Registrations up to December 2013

By the end of December, there were a cumulative total of **825,306** clinic registrations, representing **664,384 (81%)** patients who newly initiated ART and **153,164 (19%)** patients who transferred between clinics. **7,758** (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 **25,465** (3.1%) of total patient registrations.

16.3 ART Outcomes

472,865 patients were alive on ART by the end of December 2013. This number includes **5,849** patients who were assumed to be 'in transit' as of the 31st December 2013, based on the difference between **159,013** patients *transferred out* and **153,164** 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 **664,384** patients ever initiated on ART, **472,865 (70%)** were retained alive on ART, **66,159 (10%)** were known to have died, 130,384 **(19%)** were lost to follow-up and **2,734** (<1%) were known to have stopped ART. An estimated **430,645** adults and **42,220** children (<15 years) were alive on ART by the end of December 2013**.**

Figure 3 Patients alive on ART at the end of each quarter in Malawi, stratified by size of facility (number of patients alive on ART)

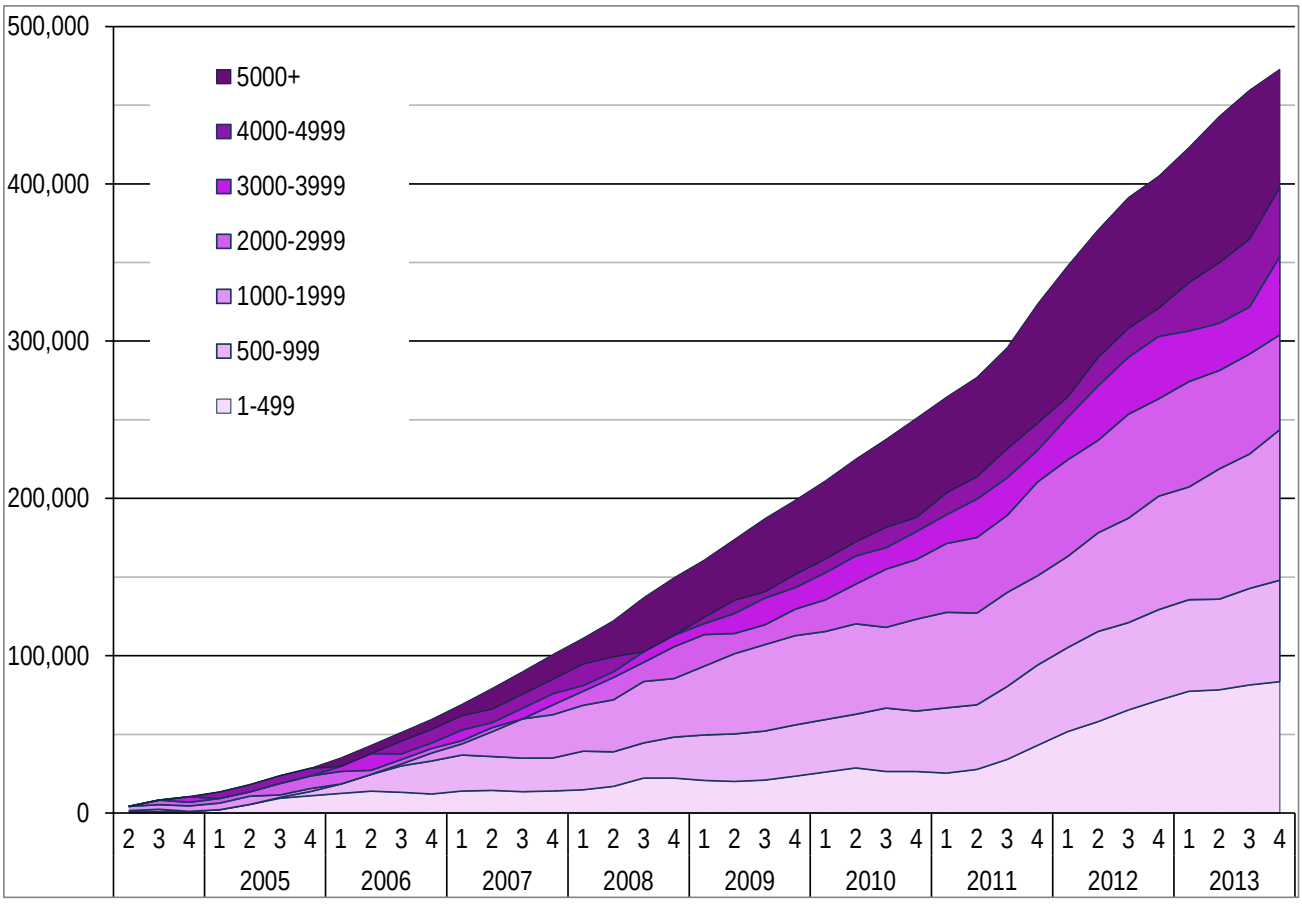


Figure 3 shows the increase of patients alive on ART by the end of each quarter. The number of patients alive on ART **increased by 13,604** in Q4 of 2013. The quarterly growth has slowed compared with the previous quarter (16,040). **Figure 3** also illustrates the ongoing decentralization of Malawi's 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 December 2013, 52% of the national ART patient cohort was in care at sites with fewer than 2,000 patients.

Figure 4: 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)

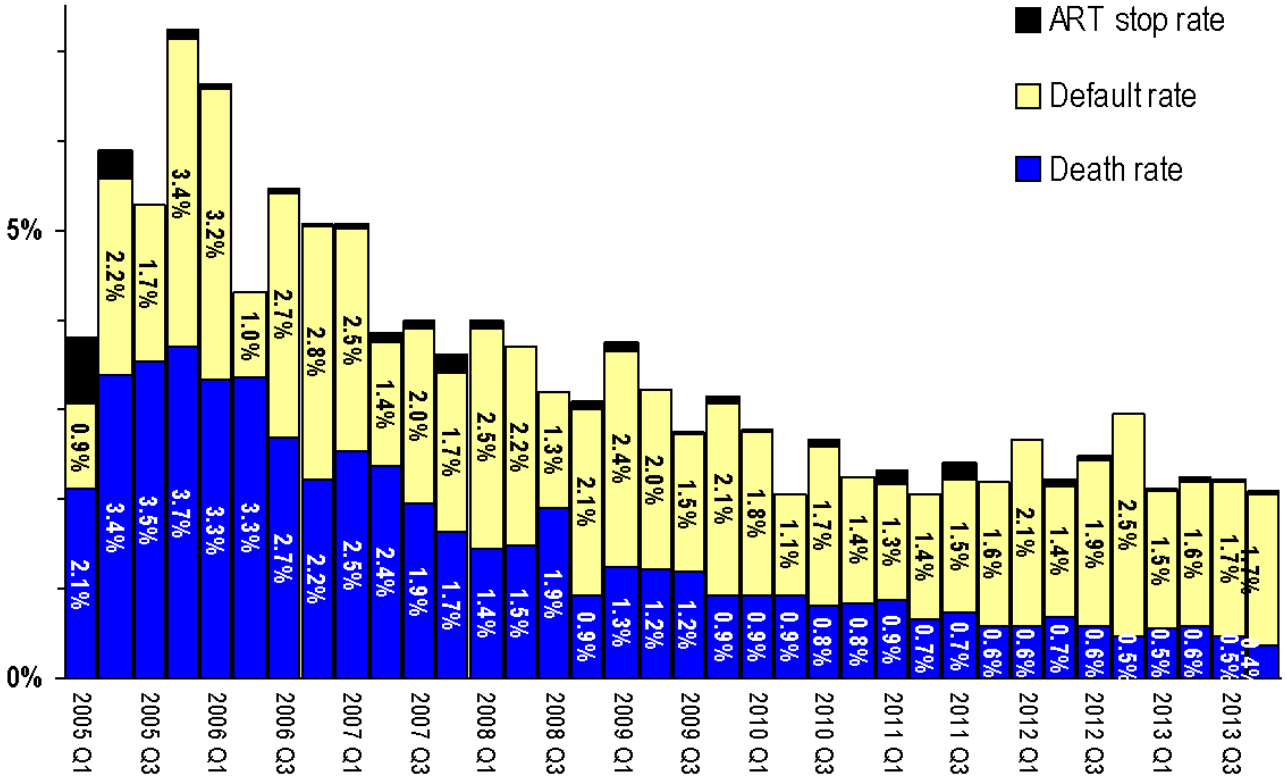


Figure 4 shows the considerable decrease of ART drop-out rates since the start of the national programme. There were **1,780** new deaths, **8,078** new defaulters, and **76** new ART stops in Q4 2013. This translates into a quarterly death rate of **0.4%** and a defaulter rate of **1.7%** among the 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 December 2013, a cumulative **66,159 (10%)** patients were known to have died **130,384 (19%)** were lost to follow-up and **2,734** (**<1%**) were known to have **stopped ART.**

Figure 5: 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)

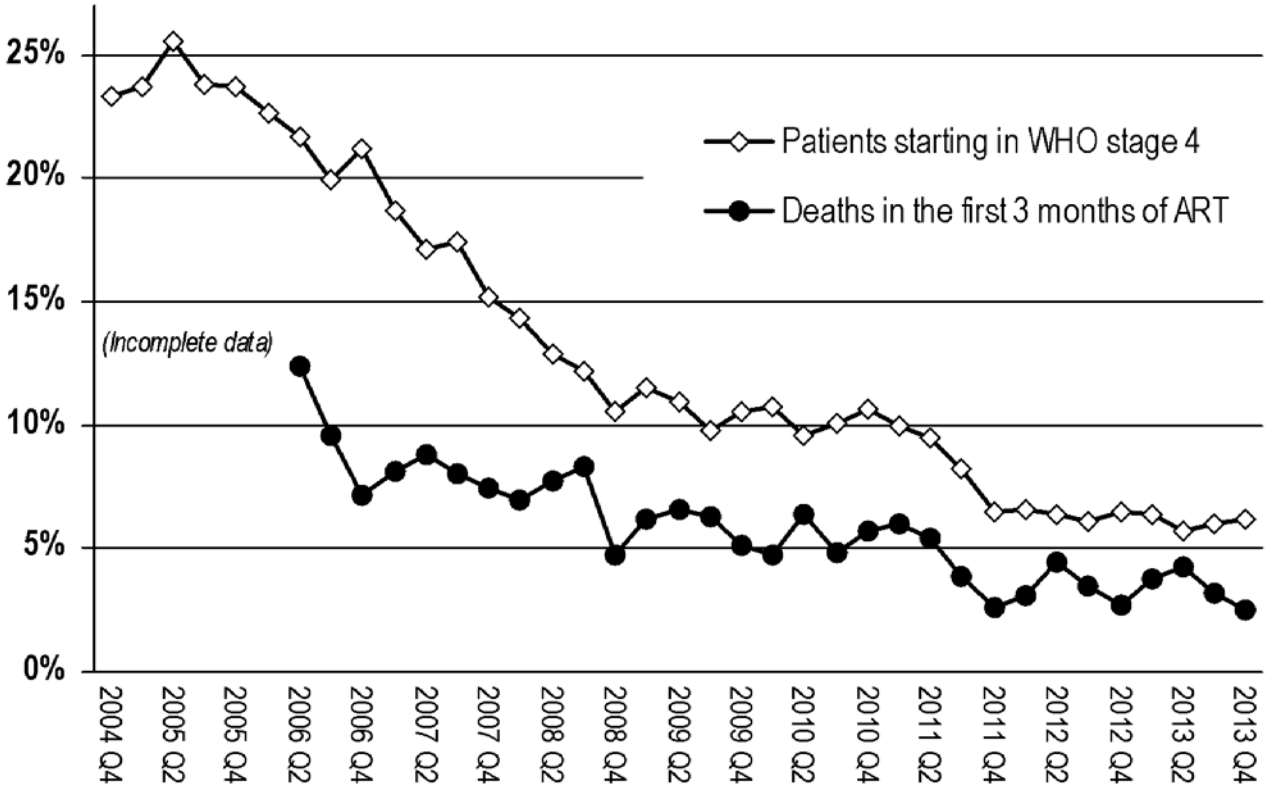
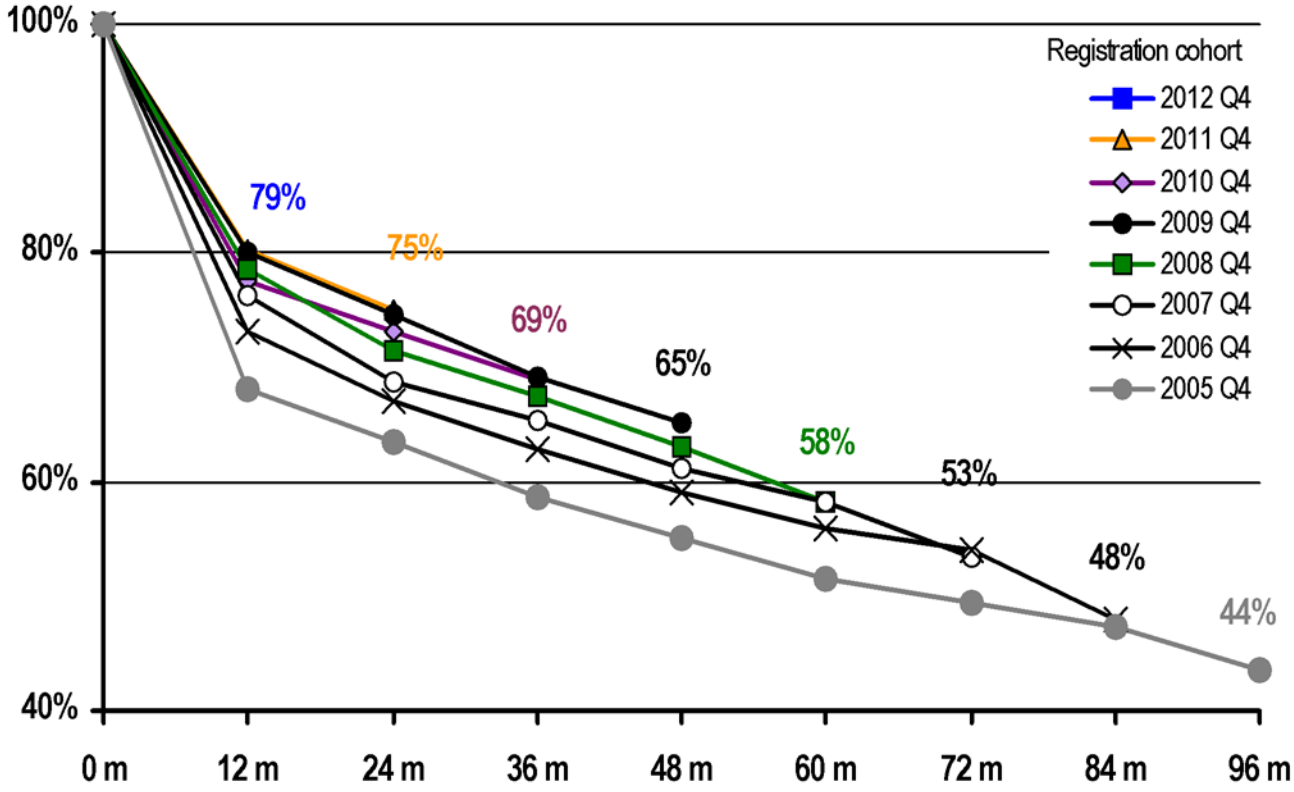


Figure 5 shows the considerable decline in **early mortality** since the start of the program. In Q2 of 2006 11% of new patients died within the first 3 months after ART initiation. There has been a remarkable decline in early mortality and the lowest point thus far was reached in Q4 2011. The decrease 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 **6%** in Q4 2013. 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 2011 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 2 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 Q4 of 2005, 2006, 2007, 2008, 2009, 2010, 2011 and 2012, 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 Q4 2012. For the 7th time, a further subgroup analysis was done for women who started ART under ***Option B+*** during Q4 2011, Q4 2012 and Q2 2013. **78% of adults** and **81% of children** were retained alive on ART after 12 months on treatment. This is similar to the previous quarter and remains close to the WHO target of 85%. **Figure 6** shows the continuous improvement of long-term treatment outcomes over time. **58%** and **44%** of patients registered 5 and 8 years ago had been retained alive on ART.

Figure 6: 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 **7,952** (88%) of the 9,072 women registered as having started ART under *Option B+* in Q2 2013[7]. This number represents 520 (7%) women who transferred out and are therefore double counted and 7,432 (93%) patients not transferred. **5,798 (79%)** of these were retained at 6 months after registration. 1,569 (96%) of those not retained were lost to follow-up, 16 (1%) were known to have stopped ART and 49 (3%) were known to have died.

12-month group cohort survival outcomes were known for **8,012** (93%) out of the 8,646 women registered as having started ART under *Option B+* in Q4 2012.7 This number represents 699 (9%) women who transferred out and are therefore double counted and 7,313 (91%) patients not transferred. **5,280 (73%)** of these were retained at 12 months after registration. 1,896 (91%) of those not retained were lost to follow-up, 37 (2%) were known to have stopped ART and 176 (7%) were known to have died.

24-month group cohort survival outcomes were known for **11,714** (83%) out of the 14,102 women registered as having started ART under *Option B+* in Q4 2011.7 This number represents 1,280 (11%) women who transferred out and are therefore double counted and 10,434 (89%) patients not transferred. **7,452 (71%)** of these were retained at 24 months after registration. 1,896 (91%) of those not retained were lost to follow-up, 37 (2%) were known to have stopped ART and 176 (7%) were known to have died.

The majority of women classified as lost to follow-up are likely to have stopped/ interrupted ART, but others are likely to 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

[7] Group cohort survival analyses were not available from MSF supported sites in Chiradzulu district this quarter due to their different reporting system.

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+*.

6,839 (48%) of the women in the 24 month Option B+ survival cohort had initiated ART in the breastfeeding period and 1,225 (9%) 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 first time that a high proportion of women started under Option B+ remain on ART beyond the cessation of breastfeeding.

6 month survival OptionB+

Survival and retention in ART program *

ART cohort registration group outcomes

Total ART clinic registrations	7,952	100%
Transfers out (double counted)	520	7%
Total not transferred out (patients in cohort)	7,432	93%
Total alive on ART	5,798	78%
Total not retained	1,634	22%
Defaulted	1,569	96%
Stopped ART	16	1%
Died	49	3%

12 month survival OptionB+

Survival and retention in ART program *

ART cohort registration group outcomes

Total ART clinic registrations	8,012	100%
Transfers out (double counted)	699	9%
Total not transferred out (patients in cohort)	7,313	91%
Total alive on ART	5,280	72%
Total not retained	2,033	28%
Defaulted	1,896	93%
Stopped ART	37	2%
Died	100	5%

24 month survival OptionB+

Survival and retention in ART program *

ART cohort registration group outcomes

Total ART clinic registrations	11,714	100%
Transfers out (double counted)	1,280	11%
Total not transferred out (patients in cohort)	10,434	89%
Total alive on ART	7,452	71%
Total not retained	2,982	29%
Defaulted	2,766	93%
Stopped ART	56	2%
Died	160	5%

16.4.1 Secondary outcomes of patients retained on ART

Secondary outcomes are known for the **467,016** patients alive on ART who remained at their sites at end of the quarter. They are assumed to be similar for the 5,849 patients *in transit*.

ART Regimens

462,931 (99%) of patients were on first line and **3,694 (1%)** were on second line regimens; **391 (<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, **24,115 (5%)** were on paediatric formulations and **23,000 (95%)** of these were on the new standard first line for children (regimen 2P: AZT/3TC/NVP).

By the end of December 2013, **381,477 (87%)** of patients on adult first line were receiving regimen **5A** (tenofovir / lamivudine / efavirenz). **27,256 (6%)** were on regimen 1A (stavudine / lamivudine / nevirapine); **26,155 (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.

Adherence to ART

Pill counts and the number of missed doses were documented for **454,003 (97%)** out of all patients retained on ART and **398,437 (88%)** of these were classified as >95% adherent in Q4 2013. 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 been persistent challenges with the analysis of adherence levels at sites with Electronic Data Systems (EDS) and underestimation of adherence levels at several EDS sites may have led to an underreporting of patients with >95% adherence levels in this report.

ART Side Effects

399,809 (86%) patients on ART had information on drug side effects documented at their last clinic visit before end of December 2013. **8,855 (2%)** of these had side-effects. This is consistent with the 2% in the previous quarter following the full transition to regimen 5A (tenofovir / lamivudine / efavirenz) that started in July 2013. The proportion of patients with any side effects has declined considerably compared with the 12 month period before the transition to 5A (5%).

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 Q4 2013, **7** laboratories in the national program provided VL testing for patients enrolled at the 7 respective facilities and associated sites. A total of **10,687** VL results were produced at these labs between October and December 2013.

Reason	0-999		1000-4999		*5000+*		*Total*
Routine	**6,173**	89%	**175**	3%	**608**	9%	**6,956**
Targeted	**53**	60%	**7**	8%	**29**	33%	**89**
Unspecified	**2,969**	82%	**167**	5%	**506**	14%	**3,642**
Total	**9,195**	**86%**	**349**	**3%**	**1,143**	**11%**	**10,687**

6,956 (65%) of all VL samples were classified as *routine scheduled,* **89 (1%)** as *targeted (suspected treatment failure)* and for **3,642 (34%)** the reason for the sample was not specified. **9,195 (86%)** of all results were undetectable / below 1,000 copies/ml. As expected, the proportion of results with 5,000+ copies was higher among targeted samples (33%) and intermediate among samples with unspecified reason (14%), making it likely that this group included both routine and targeted

samples. Over 70,000 ART patients were estimated to pass a VL monitoring milestone this quarter and routine VL monitoring outputs are expected to increase significantly over the next quarters.

17 TB / HIV Management

Approximately **81%** of HIV infected TB patients were receiving ART in Q4 2013. This estimate is based on the following triangulation of TB and ART program data:

TB Program Data: A total of **4,526** TB patients were registered during Q4 2013. Assuming an average HIV prevalence of 66% among TB patients, **3,017** TB patients were HIV positive and therefore in need of ART. Given that **1,538** TB patients registered were already on ART at the time of starting TB treatment, 3,017 – 1,538 = **1,479** TB patients needed to initiate ART.

ART Program Data: An estimated **913** patients [8] started ART with a current or recent episode of TB in Q4 2013. This is **62%** (913 of 1,479) of the TB patients who needed to start ART. This means that a total of 1,538 + 913 = **2,451** (**81%**) of the estimated 3,017 HIV infected TB patients were receiving ART in Q4 2013.

TB program report *

TB clinic registrations

Total TB patients registered	4,526	100%

HIV status ascertainment

HIV status not ascertained	416	9%
HIV status ascertained	4,110	91%
HIV negative	1,830	45%
HIV positive	2,280	55%
Already on ART	1,538	67%
Not on ART when starting TB treatment	742	33%

TB / ART program triangulation *

HIV-burden among TB patients (estimated)

HIV negative (est. 33%)	1,509	33%
HIV positive (est. 66%) in need of ART	3,017	67%
Not on ART	566	19%
Total on ART (coverage)	2,451	81%
Already on ART (TB prog)	1,538	63%
Started ART within 24m of TB diagnosis (ART prog)	913	37%
ART initiations with current TB (ART prog)	601	66%
ART initiations after recent TB (ART prog)	313	34%

18 STI Treatment

STI reports were actively collected during the Integrated HIV Program Supervision exercise for the third 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 about one quarter of facilities did not use the STI register (or used it inconsistently), so the data presented in this report are thought to represent about 80% 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 site supervision for the STI program. The complete set of STI program data collected is included in the Appendix.

[8] 24% of the 1,236 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.

18.1 Access to STI treatment and coverage

Based on the data collected at the facilities, a total of **49,701** STI cases were treated in Q4 2013. Considering the 80% completeness of reporting, this number is estimated to represent a total of **62,126** STI cases treated. This is equivalent to **63% STI treatment coverage** of the expected 98,600 STI cases in the population.

Out of **49,701** documented clients treated, **19,861** (40%) were male and **29,840**(60%) were female. 4,155 (14%) of female STI clients were pregnant. **32,814** clients (66%) were 25 years and above, **11,900** (24%) were 20-24 years and **4,987** (10%) were under 20 years old.

18.2 Client Type and STI History

43,507 (88%) of clients were symptomatic and **6,194** (12%) were asymptomatic (treated as partners). Among symptomatic clients, **38,996** (90%) of were index cases and 4,511 (9%) were partners. A total of **14,370** partner notification slips were issued, equivalent to an average of 0.37 slips per index case. Considering the 14,370 partner notification slips issued, **74%** (10,705) of those notified presented to the clinic. **36,709** (74%) of clients presented with their first lifetime episode of STI, **8,749** (20%) clients reported to have had an STI in over three months ago and **4,243** (10%) 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 **24,162** (49%) clients and **9,213** (38%) of these were HIV positive. **3,632** (39%) of positives were identified through a new test initiated at the STI clinic, while **5,581** (61%) presented with a documented previous positive HIV test result. **3,602** (65%) 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 **15,451** (30%) cases, followed by urethral discharge (UD, **12,009** cases) and genital ulcers (GUD, **8,222** 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 **13,918** (29%) of the 25,539 STI clients with unknown or new negative test result were referred for repeat HTC. **793** (22%) of 3,632 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

Based on the latest patient and stock data, the HIV program reviewed and updated the procurement and supply chain management (PSM) plan included in the Single Stream Funding grant (April 2012-June 2014). This review identified overall cost savings due to price reductions for adult and paediatric ARVs compared with the original PSM budget. A reprogramming request has been submitted to utilize these savings for additional procurement of priority commodities.

The planned transition of over 381,000 patients from a stavudine- to a tenofovir-based first line regimen was completed by the end of December 2013. In spite of current global production constraints for tenofovir based regimens, careful procurement planning has resulted in adequate ARV supplies with over 6 months of stock in country and 6 months in the pipeline.

Active coordination of HIV commodity distribution by the Logistics Team at the Department for HIV and AIDS has also achieved universal availability of cotrimoxazole 960mg (647 facilities had stocks in January 2014). This has resulted in a further increase of CPT coverage from 88% / 89% among pre-ART / ART patients in Q3 2013 to 98% / 92% in Q4 2013.

All procurement of HIV commodities were conducted by the Partnership for Supply Chain Management through the Voluntary Pooled Procurement mechanism under the Global Fund. During Q4 2013, ARV and medicines for opportunistic infections worth $5.4 million were received by the Central Medical Store Trust warehouse dedicated for HIV Program commodities. This included Tenofovir/Lamivudine/Efavirenz 300/300/600mg (Regimen 5A; 67% of the value of adult ARVs) and medicines for opportunistic infections (17% of the value for all medicines received during the period).

MOH submitted additional procurement orders for over USD 51 million. These are awaiting disbursement by the Global Funds pending submission of the PSM plan by the PR and approval. These additional orders are scheduled to arrive as staggered shipments between July and December 2014 to facilitate a seamless transition from SSF grant period to the New Funding Model.

19.2 Quarterly distribution of HIV Commodities

The scheduled quarterly distribution of HIV commodities (Round 15) was carried out in October 2013. A total of 700 cubic metres including 53 different commodities (ARVs, OI and STI meds, lab commodities) was distributed to 674 sites. Both Determine and Unigold HIV test kits were distributed to individual health facilities to ensure availability at all testing sites.

During Q4 2013, the Logistics Team at the Department of HIV and AIDS coordinated an additional 1,366 individual commodity transactions between facilities to avert stock outs and to prevent expiry of items that could not be utilized at selected health facilities. These transactions were all managed using the HIV Department Supply Chain Hot Line, a toll free facility that was set up to facilitate communication between the health facilities and the central level. Health facilities providers 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 for Q4 2013

The Logistics Team conducted monitoring visits at 52 facilities following distribution round 15. This exercise aims at strengthening storage, stock management and supply planning at health facility

level. There were no deviations from the signed delivery notes at any of the visited sites. The Logistics Team also actively relocated stocks between sites to prevent shortages and expiries.

In the course of 2013, the Logistics Team has conducted on the job training and mentoring at 149 health facilities. Observations at these mentoring visits have significantly influenced the logistics management strategies adapted, such as the implementation of daily activity registers for HIV test kits; registration forms for documentation of authorization codes for commodity relocation and disposal.

Some of the challenges noted during the Q4 2013 logistics monitoring visits include: stock imbalances, stock cards not being updated in real time and lack of stock assessment skills. Most facilities showed an overall improvement in documentation of HIV test kit consumption using the daily activity registers. However, many HTC staff were making mistakes in completing the consumption section of the HTC monthly report, leading to uninterpretable data at the national level. The reporting form will be revised in Q1 2014.

19.4 National Stock Status of HIV Commodities

Physical stock counts for ARVs and other medicines for HIV-related diseases were performed at all sites during the HIV program supervision visits in January 2014. **Table 6** shows the total stocks found at the sites and the estimated consumption periods. Facility stocks of the main adult and pediatric regimens were estimated to last until end of May 2014. This is in line with the quarterly distribution cycle and a 2-month site level buffer stock.

There was a 25% increase in the number of sites with Determine test kits in stock from 482 to 646 sites with a total of 862,828 tests in stock in January 2014. This is equivalent to 6.5 MOS based on the reported HIV tests conducted in Q4 2013. An additional 867,800 tests were available in the warehouse (6.5 MOS).

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 MOS) at the central level include Tenofovir/Lamivudine 300/300mg and Nevirapine 200mg which are attributed to scale up of patient numbers on Regimen 6A (TDF 300mg/3TC 300mg +NVP 200mg). However, shipments for both drugs are expected to arrive in April 2014.

381,477 patients were on Regimen 5A, which was 4% less than projected in the procurement plan for the end of this quarter (397,317). This deviation is partly explained by patients with long dispensing intervals who were still counted as on regimen 1A by the end of 2013. The next quarterly cohort report is expected to show the ultimate proportion of patients who will remain (for the mid-term) on stavudine-based regimens due to contra-indications to tenofovir. The national ART program forecast and quantification was updated in March 2014, based on the last 8 quarters of new program data since implementation of the July 2011 guidelines.

Table 6: Total stocks of HIV program commodities at all sites visited during the 2013 Q4 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 24/03/2014

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)	37	2,698	9,642	1,398	1.9	6.9
	ATV / r 300 / 100mg tins (30 tabs)	126	16,759	35,210	3,228	5.2	10.9
	AZT / 3TC / NVP 300 / 150 / 200mg tins (60 tabs)	476	88,038	170,725	26,155	3.4	6.5
	AZT / 3TC / NVP 60 / 30 / 50mg tins (60 tabs)	620	252,137	208,579	57,500	4.4	3.6
	AZT / 3TC 300 / 150mg tins (60 tabs)	528	16,890	34,226	1,539	11.0	22.2
	AZT / 3TC 60 / 30mg tins (60 tabs)	535	19,240	3,213	1,895	10.2	1.7
	d4T / 3TC / NVP 30 / 150 / 200mg tins (60 tabs)	190	22,008	32,718	27,256	0.8	1.2
	d4T / 3TC / NVP 6 / 30 / 50mg tins (60 tabs)	94	7,886	4,410	1,703	4.6	2.6
	d4T / 3TC 30 / 150mg tins (60 tabs)	395	21,565	860	1,069	20.2	0.8
	d4T / 3TC 6 / 30mg tins (60 tabs)	166	2,602	5,943	386	6.7	15.4
	EFV 200mg tins (90 tabs)	69	1,314	1,500	158	8.3	9.5
	EFV 600mg tins (30 tabs)	396	15,466	30,069	1,845	8.4	16.3
	LPV / r 100 / 25mg tins (60 tabs)	47	4,693	9,134	1,398	3.4	6.5
	LPV / r 200 / 50mg tins (120 tabs)	18	242	3,020	3,228	0.1	0.9
	NVP 200mg tins (60 tabs)	447	11,006		2,083	5.3	
	TDF / 3TC / EFV 300 / 300 / 600mg tins (30 tabs)	677	1,097,819	1,283,997	381,477	2.9	3.4
	TDF / 3TC 300 / 300mg tins (30 tabs)	211	14,867	3,568	4,919	3.0	0.7
bottles	Fluconazole (Diflucan) 50mg / 5ml bottles (35 ml)	17	1,125		49	22.8	
	Gentian violet 25g bottles (1 each)	551	10,039	14	1,009	10.0	0.0
	NVP 10mg/ml bottles (25 ml)	565	91,871	8,276	15,989	5.7	0.5
vials	Benzathine Penicillin 1.44g vials (50 each)	576	193,643	1,066	32,481	6.0	0.0
	Bleomycine 15,000IU vials (1 each)	16	1,967	80			
	Ceftriaxone 1g vials (50 each)	469	152,294		87,672	1.7	
	Depo-Provera 150mg/1ml vials (25 each)	537	564,764	96,650	260,584	2.2	0.4
	Gentamicin 80mg / 2ml vials (50 each)	631	829,017		82,503	10.0	
	Vincristine 1mg / 1ml vials (1 each)	52	17,984	5,890	4,968	3.6	1.2
tabs	Aciclovir 200mg blist packs (25 tabs)	621	6,414,077	3,081,000	528,484	12.1	5.8
	Amitriptylline 25mg tins (500 tabs)	320	794,314	515,500	265,650	3.0	1.9
	Azithromycin 500mg blist packs (3 tabs)	404	213,801	146	8,722	24.5	0.0
	Ciprofloxacin 500mg blist packs (100 tabs)	255	548,022		249,981	2.2	
	Clotrimazole 500mg boxes (1 each)	558	196,130	15,000	32,133	6.1	0.5
	Codeine 30mg tins (100 tabs)	53	344,895	148,300	41,373	8.3	3.6
	Cotrimoxazole 100 / 20mg blist packs (1000 tabs)	593	16,580,092	3,143,000	4,288,457	3.9	0.7
	Cotrimoxazole 400 / 80mg blist packs (60 tabs)	144	3,427,257	600	30,104,953	0.1	0.0
	Cotrimoxazole 400 / 80mg tins (1000 tabs)	487	23,062,391	44,475,000	13,859,400	1.7	3.2
	Cotrimoxazole 960mg blist packs (1000 tabs)	647	49,523,904	75,689,800	15,052,476	3.3	5.0
	Doxycycline 100mg tins (1000 tabs)	506	22,347,431	3,332,000	3,703,946	6.0	0.9
	Erythromycin 250mg tins (1000 tabs)	516	12,063,872	3,000	3,313,555	3.6	0.0
	Fluconazole (Diflucan) 200mg tins (28 tabs)	461	309,572	676,508	46,058	6.7	14.7
	Fluconazole (generic) 200mg tins (100 tabs)	50	99,170	66,500			
	Ibuprofen 200mg tins (100 tabs)	272	2,687,871	225,500	708,446	3.8	0.3
	Isoniazid 100mg blist packs (100 tabs)	174	494,579				
	Isoniazid 300mg tins (1000 tabs)	570	3,973,822	1,402,464	1,200,779	3.3	1.2
	Metronidazole 200mg tins (1000 tabs)	483	12,946,038	3,819,000	4,023,687	3.2	0.9
	Morphine 10mg blist packs (60 tabs)	34	132,468	933,420	180,538	0.7	5.2
	Pyridoxine 25mg tins (100 tabs)	118	625,299		1,281,731	0.5	
	Pyridoxine 50mg tins (1000 tabs)	246	2,031,562	29,000	1,281,731	1.6	0.0
sheets	ART pat. card adult (yellow) bundles (100 sheets	631	249,109		9,634	25.9	
	ART pat. card paed. (blue) bundles (100 sheets)	600	96,385		890	108.3	
	Exposed child card (pink) bundles (100 sheets)	541	59,121		3,093	19.1	
	Polythene sleeve bundles (100 sheets)	487	82,649				
	Pre-ART pat. card (green) bundles (100 sheets)	633	166,544		2,578	64.6	
tests	DBS kit (filter paper, lancet, etc.) bundles (20 eac	369	13,178				
	Determine HIV1/2 boxes (100 each)	646	864,640	867,800	132,546	6.5	6.5
	Determine syphilis boxes (100 each)	40	11,493		52,124	0.2	
	Uni-Gold HIV1/2 boxes (20 each)	617	113,298	72,820	10,947	10.4	6.7
pieces	Condoms female boxes (1000 each)	422	968,121		155,142	6.2	
	Condoms male boxes (144 each)	431	4,821,134		3,466,660	1.4	

* '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

20.1 HIV Testing and Counselling, Early Infant Diagnosis

397 participants were trained in the 2013 HTC Skills Intensive Training this quarter, bringing the total number re-trained to **4,241.** A team of HTC master trainers and officers from the HIV Department monitored and supervised the intensive skills trainings in all the districts.

162 lab and senior HTC staff participated in an orientation for the 2013/14 HTC curriculum.

20.2 PMTCT/ART

117 medical staff were newly trained and certified in PMTCT/ART this quarter. This brings the total number trained in the 2011 guidelines to **6,162**.

35 clinicians, **44** nurses and **20** environmental health officers / HSAs participated in an EID orientation for District Health Management Teams.

20.3 HIV Clinical Mentoring Program

All districts have started implementing HIV clinical mentoring. Reports about mentoring activities remained incomplete this quarter.

21 Participants in Q4 2013 Supervision (Site visits 13 – 31 January 2014)

Richard Abuduo (CO, MOH)
Annie Biza (Nurse, MDF)
Chris Blair (MO, EQUIP)
Lincy Chalunda (CO, MOH)
Janet Chikonda (Nurse, MOH)
John Chipeta (M&E TA, Dept for HIV and AIDS)
Zengani Chirwa (TA, MOH, Department of HIV and AIDS)
Stuart Chuka (CO, MBCA)
Peter Donda (CO, Dedza DH)
Alefa Fikira (CMT, MOH)
Layout Gabriel (CO, Lighthouse)
Andrew Gompho (Clinician, MOH)
Mary Gosten (MA, MOH)
Joe Gumulira (CO, MOH)
S Hambisa (Nurse, Private)
John Kabichi (CO, MOH)
Lilian Kachali (Nurse, MOH)
Limbani Kadzuwa (Nurse, MOH)
Eviness Kafumbi Nkhoma (Nurse, MOH)
Mathilda Kamanga (Nurse, Army)
Oscar Kasiyamphanje (Nurse, CHAM)
Joseph Kasola (CO, MOH, Chitipa DH)
Catherine Kassam (, MOH)
Martin Katanga (CO, MOH)
Rodrick Kaulele (CO, CHAM (Sister Tereza))
Absalom Kaunda (CO, MOH, Mzimba DHO)
Jean Kayamba (Nurse, MOH)
Jesse Lobeni (Nurse, MOH)
Rumours Lumala (CO, MOH)
Prospere Lutala (HIV Zonal Supervisor, MOH, UNV)
Ezra Majoni (Nurse, MOH)
Mercy Makaika (Nurse, MOH)
Simon Makombe (ART officer, MOH, Dept of HIV and AIDS)
Amos Makwaya (CO, MOH)
Alinafe Malija (, 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)
Benjamin Mazalo (CO, SUCOMA Clinic)
Kingsley Mbewa (CO, MOH)
Andrew Mganga (M&E Fellow, Dept for HIV and AIDS)
Eustice Mhango (ART officer, MOH, Depar HIV AIDS)
Dalitso Midiani (PMTCT Officer, MOH)
Priscilla Milongo (Nurse, Lighthouse)
Chimwemwe Mkandawire (IT Fellow, Dept HIV AIDS)
Everista Mkandawire (Nurse, MOH)
Offrey Mnduwira (CO, Police)
Moreen Mtambo (PMTCT, MOH)
Andraida Mtoseni (Nurse, MOH)
Ekwala Mubiala (HIV Zonal Supervisor, MOH, UNV)
Ruockia Mwachumu (Nurse, MOH Nsanje DHO)
Musaku Mwenechanya (CO, EGPAF)
Timothy Mwenyedini (MA, MOH)
Austins Namondwe (CO, CHAM)
Overtone Ndhlovu (CO, MOH)
Mapay Ngalala (HIV Zonal Supervisor, MOH, UNV)
Stanley Ngoma (CO, MOH)
Mervis Ngonga (Nurse, MOH)
Envance Njaidi (MA, MOH)
Joseph Njala (Program Officer, MOH, Depart HIV and AIDS)
Grace Juma Nkhata (Nurse, MOH)
Angela Nkhoma (Nurse, MOH)
Melenia Nkhoma (Logistics Fellow, MOH)
Judith Ntopa (Nurse, Army)
S Phiri (Nurse, MOH)
Macleod Piringu (ART Coordinator, MOH)
Charles F Sekani (CO, MOH)
Monica Simfukwe (Nurse, MOH, Chintheche RH)
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We thank all facility staff for their sincere welcome and co-operation with the HIV Department and its partners during these supportive visits. We congratulate all staff for their excellent work.

9th April 2014

22 Appendix (Full National HIV Program Data)

Blood safety

Malawi (national)

2013 Q4 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

Infect. disease screening among potential donors *

HIV screening

HIV testing not done	681	14%
Tested for HIV	4,017	86%
HIV negative	3,803	95%
HIV positive	214	5%

Hepatitis B screening

HepB testing not done	790	17%
Tested for Hepatitis B	3,908	83%
HepB Negative	3,713	95%
HepB Positive	195	5%

Hepatitis C screening

HepC testing not done	3,498	74%
Tested for Hepatitis C	1,200	26%
HepC Negative	1,179	98%
HepC Positive	21	2%

Syphilis screening

Syphilis testing not done	679	14%
Tested for Syphilis	4,019	86%
Syphilis Negative	3,888	97%
Syphilis Positive	131	3%

Malaria screening

Malaria testing not done	2,532	54%
Tested for malaria	2,166	46%
Malaria Negative	1,984	92%
Malaria Positive	182	8%

Summary screening outcome

Not donated	1,317	28%
Donated	3,381	72%
Screened for at least HIV, HepB and syphilis	2,857	85%
Screened for HIV, HepB, HepC, Syphilis, Malaria	495	17%
Screened for HIV, HepB, Syphilis	2,362	83%
Screened for HIV, HepB	1	0%
Screened for HIV only	0	0%
Screened with any other combination of tests	523	15%

Cross-matching report *

Blood group typing (for units and patients)

Total blood group typing done	20,669	100%

Blood units cross-matched (by source)

Total blood units cross-matched	16,928	100%
Total units from MBTS (estimated)	13,547	80%
Total units from replacement donors	3,381	20%

Blood units cross-matched by patient group

Units cross-matched for maternity	4,989	29%
Units cross-matched for paediatrics	4,569	27%
Units cross-matched for other ward	7,370	44%

* Subgroups may not add to 100% due to rounding

Cross-matching report

*

Transfusion reactions

Units transfused without adverse events	16,926	100%
Units with suspected transfusion reactions	2	0%
Units with confirmed transfusion reactions	0	0%

Antenatal Care

Malawi (national)

2013 Q4 (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	147,962	100%

ANC cohort analysis *

Total women completing ANC in the reporting period

Total women in booking cohort	156,528	100%

Visits per woman

Women with 1 visit	33,408	21%
Women with 2 visits	39,892	25%
Women with 3 visits	46,314	30%
Women with 4 visits	29,397	19%
Women with 5+ visits	7,517	5%

Trimester of first visit

Started ANC 0-12 wks	13,436	9%
Started ANC 13+ wks	143,092	91%

Pre-eclampsia

No pre-eclampsia	154,485	99%
Pre-eclampsia	2,043	1%

TTV doses

0-1 TTV doses	72,712	46%
2+ TTV doses	83,816	54%

SP tablets

0 SP doses	16,512	11%
1 SP dose (1 x 3 tabs)	44,068	28%
6+ SP tablets (2 x 3 tabs)	95,948	61%

FeFo tablets

0-119 FeFo tablets	109,426	70%
120+ FeFo tablets	47,102	30%

Albendazole (Deworming)

0 Albend. doses	25,683	16%
1 Albend. dose	131,879	84%

ITN (bednets)

No ITN	31,175	20%
ITN received	124,953	80%

Syphilis status

Not tested for syphilis	140,204	90%
Tested for syphilis	16,324	10%
Syphilis negative	15,863	97%
Syphilis positive	461	3%

* Subgroups may not add to 100% due to rounding

Antenatal Care

Malawi (national)

2013 Q4 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

ANC cohort analysis

*

HIV status ascertainment

HIV status not ascertained	27,160	17%
HIV status ascertained	129,368	83%
Valid previous test result	9,649	7%
Previous negative	5,253	54%
Previous positive	4,396	46%
New test at ANC	119,719	93%
New negative	113,761	95%
New positive	5,958	5%

HIV status summary

Total women HIV negative	119,014	92%
Total women HIV positive	10,354	8%

CPT status (among HIV pos)

Not on CPT	840	8%
On CPT	9,514	92%

Final PMTCT regimen mother

No ARVs	731	7%
Any ARVs	9,623	93%
ART (by time of initiation)	9,623	100%
Already on ART when starting ANC	3,846	40%
Started ART at 0-27 weeks of pregnancy	4,280	44%
Started ART at 28+ weeks of preg.	1,497	16%

Baby's ARVs dispensed

No ARVs dispensed for infant	2,291	22%
ARVs dispensed for infant	8,063	78%

* Subgroups may not add to 100% due to rounding

Maternity

Malawi (national)

2013 Q4 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

Maternal details

*

Admissions in the reporting period

Total admissions (referrals double-counted)	128,675	100%
Not referred to other site (total women)	121,759	95%
Referred out before delivery (multiple admissions)	6,916	5%

HIV status ascertainment

HIV status not ascertained	11,237	9%
HIV status ascertained	118,217	91%
Valid previous test result	114,992	97%
Previous negative	106,231	92%
Previous positive	8,761	8%
New test at maternity	3,225	3%
New negative	2,920	91%
New positive	305	9%

HIV status summary

Total women HIV negative	109,151	92%
Total women HIV positive	9,066	8%

ARVs during pregnancy (among HIV pos)

No ARV in pregnancy	271	3%
Any ARVs	8,795	97%
ART (by time of initiation)	8,795	100%
ART initiated before pregnancy	5,271	60%
ART initiated in 1st / 2nd trimester	1,655	19%
ART initiated in 3rd trimester	1,520	17%
ART initiated during labour	349	4%

Obstetric complications

No obstetric complications	114,502	88%
Any obstetric complications	14,952	12%
Haemorrhage	2,570	17%
Haemorrhage ante-partum	836	33%
Haemorrhage post-partum	1,734	67%
Obstr / prol labour	5,041	34%
(pre-) Eclampsia	1,001	7%
Maternal sepsis	201	1%
Ruptured uterus	162	1%
Other obstetric complications	5,977	40%

Emergency obstetric care

Oxytocin	112,374	95%
Anticonvulsive	515	0%
Antibiotics	3,981	3%
Blood transfusion	403	0%
Manual removal of placenta	410	0%

Vitamin A

Vit A not given	41,874	32%
Vit A given	87,580	68%

Maternity

Malawi (national)

2013 Q4 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

Maternal details

*

Staff conducting delivery

Category A: MO, CO, nurse/midwife, MA	115,671	94%
Category B: PA, WA, HSA	1,011	1%
Category C: Other	5,856	5%

Mother survival

Mother alive	122,446	100%
Mother died	92	0%

Infant details

*

Single babies / multiple deliveries

Total babies delivered	124,945	100%
Single babies	120,249	96%
Twin / multiple babies	4,696	4%

Delivery place

Total deliveries at a health facility	118,754	95%
This facility	118,342	100%
Other facility	412	0%
Total deliveries before reaching the facility	6,191	5%
In transit	3,975	64%
Home / TBA	2,216	36%

Delivery mode

Spontaneous vaginal	113,184	91%
Vacuum extraction	1,651	1%
Breech	2,293	2%
Caesarean section	7,817	6%

Infant complications

No infant complications	109,393	88%
Total infants with complications	15,552	12%
Prematurity	3,450	22%
Weight less 2500g	4,760	31%
Asphyxia	4,249	27%
Sepsis	1,340	9%
Other newborn complication	1,753	11%

Infant survival

Total live births	122,649	98%
Discharged alive	121,527	99%
Neonatal deaths	1,122	1%
Stillbirths	2,296	2%
Stillbirth, fresh	1,323	58%
Stillbirth, macerated	973	42%

Maternity

Malawi (national)

2013 Q4 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

Infant details

*

HIV exposure / ARV proph. (among discharged alive)

Infants with unknown HIV exposure status	9,032	7%
Infants with known HIV exposure status	112,495	93%
Not HIV exposed	103,832	92%
HIV exposed	8,663	8%
Received no ARVs	870	10%
Received ARVs	7,793	90%
Nevirapine	7,793	100%

Breastfeeding initiated

BF not started within 60min	7,173	6%
BF started within 60min	117,772	94%

Tetracycline eye ointment given

TO not given	22,483	18%
TO given	102,462	82%

* Subgroups may not add to 100% due to rounding

HIV Care Clinic (HCC) cohort analysis

Malawi (national)

2013 Q4 (Quarter)

Registration details

*

HCC clinic registrations

Total HCC registrations	17,013	100%

Registration type

Patients enrolled first time	15,944	94%
Patients re-enrolled	62	0%
Patients transferred in	1,007	6%

Sex

Males (all ages)	7,783	46%
Females (all ages)	9,230	54%
Non-pregnant	9,221	100%
Pregnant	9	0%

Age at registration

Adults 15+ yrs	7,147	42%
Children 0-14 yrs	9,866	58%
Children 24 months - 14 years	659	7%
Children below 24 months (exposed children)	9,207	93%
Children 2 - below 24 months	3,720	40%
Infants below 2 months	5,487	60%

Reason for HCC registration

Exposed infants	9,278	55%
Confirmed infected patients (pre-ART)	7,735	45%

* Subgroups may not add to 100% due to rounding

HIV Care Clinic (HCC) cohort analysis

Malawi (national)

2013 Q4 (Cumulative)

Registration details

*

HCC clinic registrations

Total HCC registrations	255,383	100%

Registration type

Patients enrolled first time	246,160	96%
Patients re-enrolled	792	0%
Patients transferred in	8,431	3%

Sex

Males (all ages)	105,309	41%
Females (all ages)	150,074	59%
Non-pregnant	145,138	97%
Pregnant	4,936	3%

Age at registration

Adults 15+ yrs	143,392	56%
Children 0-14 yrs	111,991	44%
Children 24 months - 14 years	13,230	12%
Children below 24 months (exposed children)	98,761	88%
Children 2 - below 24 months	53,689	54%
Infants below 2 months	45,072	46%

Reason for HCC registration

Exposed infants	98,377	39%
Confirmed infected patients (pre-ART)	157,006	61%

Pre-ART follow-up outcome

*

Primary follow-up outcomes

Total retained in pre-ART	44,973	31%
Started ART	63,364	44%
Defaulted	35,109	24%
Died	1,981	1%

Transfers between sites

Total not transferred out	152,032	97%
Transferred out	4,974	3%

* Subgroups may not add to 100% due to rounding

HIV exposed child follow-up

Malawi (national)

2013 Q4 (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	7,423	100%

CPT status

On CPT	6,570	89%
Not on CPT	853	11%

HIV status

Current HIV infection status unknown	4,804	65%
HIV infection not confirmed, not ART eligible	4,781	100%
HIV infection not confirmed, ART eligible (PSHD)	23	0%
Current HIV infection status known	2,619	35%
Confirmed not infected	2,559	98%
Confirmed infected (ART eligible)	60	2%

ART eligibility summary

Not eligible for ART	7,340	99%
ART eligible	83	1%
ART not initiated	42	51%
Initiated ART	41	49%

Primary follow-up outcome

Discharged uninfected	31	0%
Continue follow-up	6,652	90%
Started ART	41	1%
Defaulted	617	8%
Died	24	0%

Transfers between sites

Total not transferred out	7,365	99%
Transferred out	58	1%

Age 12 months

Age cohort outcomes

*

Total children in birth cohort

Total children registered	9,202	100%

CPT status

On CPT	6,427	70%
Not on CPT	2,775	30%

HIV status

Current HIV infection status unknown	6,096	66%
HIV infection not confirmed, not ART eligible	6,079	100%
HIV infection not confirmed, ART eligible (PSHD)	17	0%
Current HIV infection status known	3,106	34%
Confirmed not infected	2,868	92%
Confirmed infected (ART eligible)	238	8%

Age cohort outcomes *

ART eligibility summary

Not eligible for ART	8,947	97%
ART eligible	255	3%
ART not initiated	95	37%
Initiated ART	160	63%

Primary follow-up outcome

Discharged uninfected	58	1%
Continue follow-up	6,179	68%
Started ART	160	2%
Defaulted	2,572	28%
Died	61	1%

Transfers between sites

Total not transferred out	9,030	98%
Transferred out	172	2%

Age 24 months

Age cohort outcomes *

Total children in birth cohort

Total children registered	6,225	100%

CPT status

On CPT	1,469	24%
Not on CPT	4,756	76%

HIV status

Current HIV infection status unknown	3,789	61%
HIV infection not confirmed, not ART eligible	3,756	99%
HIV infection not confirmed, ART eligible (PSHD)	33	1%
Current HIV infection status known	2,436	39%
Confirmed not infected	2,243	92%
Confirmed infected (ART eligible)	193	8%

ART eligibility summary

Not eligible for ART	5,999	96%
ART eligible	226	4%
ART not initiated	42	19%
Initiated ART	184	81%

Primary follow-up outcome

Discharged uninfected	1,994	33%
Continue follow-up	811	14%
Started ART	184	3%
Defaulted	2,904	49%
Died	89	1%

Transfers between sites

Total not transferred out	5,982	96%
Transferred out	243	4%

ART cohort analysis

Malawi (national)

2013 Q4 (Quarter)

Registration details

*

ART clinic registrations

Total ART clinic registrations	31,572	100%

Registration type

First time ART initiations (total patients)	23,334	74%
ART re-initiations	529	2%
ART transfers in	7,709	24%

Sex

Males	10,866	34%
Females	20,706	66%
Non-pregnant	14,162	68%
Pregnant	6,544	32%

Age at ART initiation

Adults 15+ yrs	28,903	92%
Children 0-14 yrs	2,669	8%
Children 2-14 yrs	1,951	73%
Children below 24 mths	718	27%

Reason for starting ART

Presumed severe HIV Disease	167	1%
Confirmed HIV infection	31,405	99%
WHO stage 1 or 2	18,040	57%
Total lymphocytes <threshold	304	2%
CD4 below threshold	9,160	51%
CD4 unknown or >threshold	8,576	48%
PCR infants	120	1%
Children 12-23 mths	550	6%
Pregnant women	6,185	72%
Breastfeeding mothers	1,721	20%
WHO stage 3	11,095	35%
WHO stage 4	1,957	6%
Unknown / reason outside of guidelines	313	1%

TB at ART initiation

Never TB / TB > 24 months ago	30,336	96%
TB within the last 24 months	423	1%
Current episode of TB	813	3%

Kaposi's sarcoma at ART initiation

No KS	31,158	99%
Patients with KS	414	1%

* Subgroups may not add to 100% due to rounding

ART cohort analysis

Malawi (national)

2013 Q4 (Cumulative)

Registration details

*

ART clinic registrations

Total ART clinic registrations	825,306	100%

Registration type

First time ART initiations (total patients)	664,384	81%
ART re-initiations	7,758	1%
ART transfers in	153,164	19%

Sex

Males	297,734	36%
Females	527,572	64%
Non-pregnant	445,221	84%
Pregnant	82,351	16%

Age at ART initiation

Adults 15+ yrs	751,618	91%
Children 0-14 yrs	73,688	9%
Children 2-14 yrs	55,872	76%
Children below 24 mths	17,816	24%

Reason for starting ART

Presumed severe HIV Disease	2,979	0%
Confirmed HIV infection	822,327	100%
WHO stage 1 or 2	317,366	39%
Total lymphocytes <threshold	4,978	2%
CD4 below threshold	203,321	64%
CD4 unknown or >threshold	109,067	34%
PCR infants	2,468	2%
Children 12-23 mths	17,364	16%
Pregnant women	61,979	57%
Breastfeeding mothers	27,256	25%
WHO stage 3	402,894	49%
WHO stage 4	95,058	12%
Unknown / reason outside of guidelines	7,009	1%

TB at ART initiation

Never TB / TB > 24 months ago	757,961	92%
TB within the last 24 months	37,130	4%
Current episode of TB	30,215	4%

Kaposi's sarcoma at ART initiation

No KS	807,269	98%
Patients with KS	18,037	2%

* Subgroups may not add to 100% due to rounding

ART cohort analysis

Malawi (national)

2013 Q4 (Cumulative)

ART outcomes

*

Primary follow-up outcomes

Total alive on ART		472,865	70%
	Alive on ART at site of last registration	467,016	99%
	ART patients in transit between sites	5,849	1%
Defaulted		130,384	19%
Stopped ART		2,734	0%
Total died		66,159	10%
	Died month 1	17,322	26%
	Died month 2	11,099	17%
	Died month 3	6,389	10%
	Died month 4+	31,349	47%

Transfers between sites

Total not transferred out		666,293	81%
Transferred out		159,013	19%

ART regimens

First line regimens		462,931	99%
	Adult formulation	438,816	95%
		Regimen 1A	27,256	6%
		Regimen 2A	26,155	6%
		Regimen 3A	1,069	0%
		Regimen 4A	776	0%
		Regimen 5A	381,477	87%
		Regimen 6A	2,083	0%
	Paed. formulation	24,115	5%
		Regimen 1P	681	3%
		Regimen 2P	23,000	95%
		Regimen 3P	138	1%
		Regimen 4P	296	1%
Second line regimens		3,694	1%
	Adult formulation	3,228	87%
		Regimen 7A	2,836	88%
		Regimen 8A	392	12%
	Paed. Formulation	466	13%
		Regimen 9P	466	100%
Other regimen (adult / paed)		391	0%

Adherence

Adherence unknown (not recorded)		13,013	3%
Adherence recorded		454,003	97%
	0-6 doses missed	398,437	88%
	7+ doses missed	55,566	12%

ART side effects

Side effects unknown (not recorded)		67,207	14%
Side effects recorded		399,809	86%
	No side effects	390,954	98%
	Any side effects	8,855	2%

* Subgroups may not add to 100% due to rounding

ART cohort analysis

Malawi (national)

2013 Q4 (Cumulative)

ART outcomes

*

Current TB status among ART patients (ICF)

ICF not done (Current TB status unknown/ not circ)		8,044	2%
ICF done		458,972	98%
	TB not suspected	456,434	99%
	TB suspected	1,473	0%
	TB confirmed	1,065	0%
		TB confirmed, not on treatment	156	15%
		TB confirmed, on TB treatment	909	85%

* Subgroups may not add to 100% due to rounding

STI site report

Malawi (national)

2013 Q4 (1st month of quarter, 2nd month of quarter, 3rd month of quarter)

STI clients treated in the reporting period

*

Total STI clients

Total STI clients treated		49,701	100%
	Index patients treated (symptomatic)	38,996	78%
	Partners treated	10,705	22%

Sex

Males		19,861	40%
Females		29,840	60%
	Non-pregnant	25,685	86%
	Pregnant	4,155	14%

Age group

Age group A (0-19 years)		4,987	10%
Age group B (20-24 years)		11,900	24%
Age group C (25+ years)		32,814	66%

Client type

Symptomatic cases		43,507	88%
	Index cases	38,996	90%
	Partners symptomatic	4,511	10%
Partners asymptomatic		6,194	12%

STI treatment history

Never treated for STI		36,709	74%
Previously treated for STI		12,992	26%
	Old >3 months ago	8,749	67%
	Recent ≤3 months ago	4,243	33%

STI syndromic diagnosis

GUD		8,222	16%
UD		12,009	23%
AVD		15,451	30%
	Low risk	5,931	38%
	High risk	9,520	62%
LAP		9,393	18%
SS		862	2%
BU		634	1%
BA		904	2%
NC		336	1%
Genital Warts		612	1%
Syphilis RPR VDRL		1,078	2%
Other STI		2,825	5%

STI partner notification

Total partner notification slips issued		14,370	100%
	Total partners returned	10,705	74%
	Total partners not seen	3,665	26%

* Subgroups may not add to 100% due to rounding

STI site report

Malawi (national)

2013 Q4 (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	25,539	51%
HIV status ascertained	24,162	49%
HIV negative (new test)	14,949	62%
HIV positive	9,213	38%
New positive	3,632	39%
Previous positive	5,581	61%
Not on ART	1,979	35%
On ART	3,602	65%

STI clients referred for services

Lab	601	4%
Gynae review	374	2%
Surgical review	194	1%
Repeat HTC	13,918	83%
ART (for assessment)	793	5%
PMTCT	103	1%
Other (service referrals)	881	5%

* Subgroups may not add to 100% due to rounding