



**Government of Malawi
Ministry of Health**

Quarterly HIV Programme Report

HIV Testing and Counseling

Prevention of Mother to Child Transmission

Antiretroviral Therapy

April - June 2011

Quarterly HIV Testing and Counseling Report

April to June 2011

HTC Program Outputs

509,645 people were tested and counselled for HIV between April and June 2011. This represents an increase of 16.5% from the previous quarter and is the highest number of people tested and counselled in one quarter since the start of the program.

Out of 509,645 people tested and counseled, 33% were males and 67% were females. Among females, 46% were pregnant and 54% were not pregnant.

52% of all people tested and counselled were 25 years and above, 38% were between 15-24 years and 10% were children below 15 years.

197,885 (39%) of 509,645 people tested and counselling accessed HTC for the first time in their life. 102,293 (20%) accessed HTC with their partners (as a couple).

45,117 (9%) of all people tested were HIV positive. Detailed data are shown in the table below.

The total number of people tested and counselled in the financial year 2010 (July 2010-June 2011) is 1,773,267.

HTC Sites and Locations

A total of 778 static and 614 outreach HTC sites were reported in Q2 2011. This number will be verified during quarterly supportive HTC supervision in September 2011. In addition to testing that occurs in the static and outreach sites there are Mobile and Door-to-Door HTC mainly done by NGOs and other private institutions.

Development of Human Resource Capacity

219 new counsellors were trained using the standard national HTC curriculum and certified during this quarter. These trainings were organized by Ministry of Health, MSH, World Vision, MANET +, CHAM and BLM.

94 participants were newly trained and certified as PITC providers bringing the total number of PITC providers to 154 in the country. 3 of these trainings were organized by Ministry of Health and one was organized by Lighthouse.

108 participants were trained in Couple Counselling by Ministry of Health and several NGOs in this quarter.

Finally 59 counsellors were also trained and upgraded as HTC Supervisors.

HTC Supervision

Quarterly supportive supervision was conducted in all the five zones between 13th and 24th July 2011. Team members included Officers from HIV and AIDS Department, Zonal Lab., HTC Zonal Supervisors, Partners and district HTC Supervisors. Supervision included visits to static HTC static sites as well as to Door-to-Door HTC providers in some districts.

Strengths identified

- Almost all sites visited have adequate HTC Providers
- Most sites had reagents
- HTC Guidelines were available in the HTC rooms
- Many sites had participated in Proficiency Testing during this quarter

Challenges Identified

- Refresher trainings on HTC have not been done for some years now
- IEC Materials for HIV and AIDS are not found in most of the sites visited
- A proportion of counsellors have not received feedback from the proficiency testing exercise
- Lack of supervision in some sites from their district supervisors due to lack of resources
- No stopwatches in some of the sites

Challenges and Way forward

The supply of test kits to sites appears to have improved and this is reflected in the considerable increase in the number of tests done this quarter. This is probably partly due to a centrally coordinated 'push distribution' of test kits alongside ARVs, delivering consignments of test kits directly to health facilities.

2011 Q2 HTC Report

National coverage

Population denominator

Number of clients tested					
Clients ever tested since 2007			3,301,818		
Clients tested in this quarter			509,645	3,772,503	14%
Gender and Pregnancy					
Males		167,057	33%	1,891,196	9%
Females		342,588	67%	1,881,306	18%
	Females Non Pregnant	185,690	54%	1,274,306	15%
	Females Pregnant	156,898	46%	151,750	103%
Age					
25 years and above		264,773	52%	1,230,000	22%
15 - 24 years		194,883	38%	702,000	28%
Children Below 15		49,989	10%	1,665,000	3%
	18months - 14 years	41,133	82%	834,160	5%
	Below 18months	8,856	18%	830,840	1%
HIV Test History					
Previously tested		311,760	61%		
Never tested before		197,885	39%		
Counseling Type					
Counseled with partner		102,293	20%		
Counseled alone		407,352	80%		
HIV Test Results					
Single test negative		461,232	91%		
First and second test negative		1,121	0%		
First and second test positive		45,117	9%		
First and second test discordant		2,175	0%		
Final Result					
No of children <18months with antibody positive		7,634	1%		
Positive		44,210	9%		
Negative		457,602	90%		
Inconclusive		199	0%		
Referrals (multiple possible)					
ARVs		71,425			
TB		1,861			
PMTCT		12,953			
Other		10,618			

MALAWI PMTCT PROGRAMME

QUARTERLY REPORT

APRIL TO JUNE 2011

1 Executive Summary

Between April and June 2011, **486** facilities in Malawi were providing PMTCT at ANC and/or maternity. **7,524 (85%)** of 8,525 women attending ANC who were known to be HIV positive received ARVs. This represents **40% PMTCT coverage** among the estimated 18,210 HIV positive pregnant **women** in Malawi during this quarter. **5,804 (94%)** of 6,172 infants born to known HIV infected mothers at maternity received ARV prophylaxis. This represents **32% PMTCT coverage** among the estimated 18,210 HIV exposed **infants** born in Malawi during this quarter.

Based on the expected number of women attending ANC each quarter, this report is estimated to be 80% complete. Several sites had not submitted their reports despite all attempts to chase up outstanding data in the passive reporting system that is used up to now. It is hoped that integrated PMTCT/ART supervision covering all PMTCT sites will improve this situation from next quarter.

The national data from ANC and maternity are presented in 2 tables in the appendix.

2 Methods

New standard M&E tools for ANC and maternity were implemented in Malawi in January 2010. These tools consist of a set of clinic registers and reporting forms that fully integrate patient management information as well as all relevant data elements for M&E of the maternal and child health and PMTCT programs. The new 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 new system aggregates women's outcome data after they have completed their ANC visits. This is the third quarterly report from the new tools based on data from ANC cohort analysis.

Data were entered in the register as the service was provided. Monthly facility reports were compiled and forwarded to the district health offices who compiled quarterly districts reports. All data was entered into an Excel data base at the Department for HIV and AIDS.

Data from ANC and maternity were collated and are 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.

3 Results

3.1 PMTCT Sites

The number of facilities providing PMTCT services in the quarter is defined through reported performance of *PMTCT signal functions* within maternal and child health services. For this quarter, only

ANC and maternity services have been considered as there is no standard PMTCT monitoring system for under 5 clinics in place yet. During 2011 Q2, there were **486** facilities that had provided ARVs for at least one HIV infected woman at ANC and/or one woman and her infant at maternity.

3.2 ANC

Between April and June 2011, **122,341** women attended ANC for their first visit. This is equivalent to **81%** of the expected 151,750 pregnant women in the population during the quarter which is lower than the 97% of pregnant women who are expected to attend ANC in Malawi according to the 2010 DHS. This is due to incomplete reporting from facilities caused by the passive reporting system.

The following report covers the **outcomes** of the **127,260** women who started ANC between October and December 2010 and who finished ANC by June 2011. **11,859 (9%)** of women started ANC in their first trimester. **28,460 (22%)** of women were tested for syphilis at ANC and **1,015 (4%)** were syphilis positive. The syphilis testing rate remains low although there is some increase from 15% coverage to 19% of all the pregnant women. The testing rate is expected increase due to improvements in the supply of test kits to sites. The proportion of women with a positive syphilis test result is higher than expected (<1% in ANC sentinel surveillance 2007). This is probably explained by selective testing of women who are perceived at higher risk of infection due to limited supplies of test kits.

The total number of visits for the cohort under review is **314,086**. Only 19% of women in this cohort attained the minimum of 4 focussed ANC visits.

3.2.1 HIV Testing

96,262 (76%) of 127,260 ANC attendees had their HIV status ascertained. Out of these, **6,348 (7%)** presented with a valid documented previous HIV test result and **89,914 (93%)** received a new HIV test result at ANC. A total of **8,525 (9%)** women were found HIV positive. This is lower than the estimated 12% HIV prevalence among pregnant women and this is likely due to problems with sensitivity of HIV rapid testing in high volume service provision settings.

The **96,262** women whose HIV status was ascertained at ANC represent **63%** of the expected 151,750 pregnant women in the population. The rate of ascertainment of HIV status at ANC was similar to last quarters.

3.2.2 ARV Coverage

7,258 (85%) of HIV infected women attending ANC received maternal ARVs. This represents **40%** coverage of the estimated 18,210 HIV positive pregnant women in the population in this quarter (12% of 151,750). This slight decline compared with the previous quarter (42%) is probably due to incomplete reporting from the sites.

Of the 7,258 women who received any ARVs, **2,642 (36%)** were given a single tablet of nevirapine to take home and **2,984 (41%)** were started on AZT combination regimen.

5,532 (65%) of 8,525 HIV positive women were assessed for ART eligibility through a CD4 count and/or WHO clinical staging, or by the fact that they were already on ART. 1,986 (36%) were found eligible

and 1,632 were on ART during their ANC follow-up. This represents **18%** ART coverage of the estimated 9,105 pregnant women eligible for ART in the population.¹

6,595 (77%) of HIV infected women at ANC were on Cotrimoxazole Preventive Therapy.

524 (6%) of HIV infected women attending ANC received the infant dose of ARVs (single dose nevirapine syrup) to take home.

3.3 Maternity

Between April and June 2011, **85,724** women were admitted for delivery to maternity. This is equivalent to **56%** of the expected 151,750 deliveries in the population during the quarter. Out of all admissions, 82,978 (95%) delivered at health facilities, while 4,124 (5%) had already delivered before reaching a facility. This is lower than the 72% expected hospital deliveries estimated in the 2010 DHS and is an indication for incomplete reporting from facilities.

A total of **80,755 (94%)** of deliveries were conducted by skilled birth staff, **1,201 (1%)** by paramedical staff and **3,768 (4%)** were not attended by any of the above (probably mainly among women who delivered before reaching maternity). **9,206 (10%)** of women developed obstetric complications. The most common leading complications were obstructed / prolonged labour (**3,103 cases, 34%**) and haemorrhage (**1,408 cases, 15%**). A total of **87,102** babies were born, **83,745 (96%)** were singletons and **3,357 (4%)** were twins/multiples. There were **85,626 (98%)** live births and **1,476 (2%)** stillbirths. **84,836 (99%)** of babies born alive were discharged alive and **790 (1%)** died before discharge. **85,652 (>99%)** of women were discharged alive and **72 (<1%)** women died before discharge, which is equivalent to a maternal mortality ratio of **67** per 100,000 live births among women attending maternity.

3.3.1 HIV Testing

77,873 (86%) women had their HIV status ascertained at maternity. Out of these, **73,485 (94%)** presented with a valid previous HIV test result and **4,388 (6%)** received a new HIV test result. A total of **6,633 (9%)** women were HIV positive and **71,240 (91%)** were negative. The **77,873** women whose HIV status was ascertained at maternity represent **51%** of the expected 151,750 women delivering in the population.

HIV exposure status was ascertained for **73,701 (87%)** out of 84,836 babies born and discharged alive. **6,172 (8%)** of these were born to a known HIV positive mother.

3.3.2 ARV Coverage

A total of **5,602 (84%)** of HIV infected women attending maternity received ARVs during labour. This is a slight increase from the 80% reported in the previous quarter. Out of these, **3,363 (60%)** received the labour dose of AZT combination regimen, **551 (10%)** received single dose nevirapine and **1,688 (30%)** were on ART. **5,230 (79%)** women were already taking ARVs during pregnancy: **3,279 (63%)** of these were on AZT combination regimen and **1,951 (37%)** were on ART (lifelong triple therapy). AZT and ART should be taken for more than 4 weeks during pregnancy to ensure optimal effectiveness. **2,340 (71%)** of women on AZT and **1,721 (88%)** of women on ART had received the respective regimen for over 4 weeks during pregnancy.

¹ About half all HIV positive pregnant women in Malawi are estimated to have a CD4 count <350 cells/mm³ and are therefore eligible for ART.

A total of **5,804 (94%)** of infants who were known HIV exposed and discharged alive received ARV prophylaxis at maternity. This represents **32% coverage** of the estimated 18,210 HIV exposed infants born in the population in this quarter (12% of 151,750). **585 (10%)** HIV exposed infants received single dose nevirapine and **5,219 (90%)** started AZT combination regimen. **3,460 (66%)** of infants on AZT combination regimen received nevirapine + AZT syrup and **1,759 (34%)** received only AZT syrup.

4 Trainings

A total of **26** health workers were trained and certified in PMTCT in Nkhata Bay. **564** existing PMTCT providers were trained in combination prophylaxis and Early Infant Diagnosis (EID) in the whole country. In order to increase the pool of national supervisors **24** experienced providers from all 5 zones were trained in supervision.

5 Comments

The overall reporting completeness for this quarter was low (80%). This explains the low reported population coverage for PMTCT interventions and implies that actual program outputs may have been up to 20% higher.

Inadequate coverage at the population level may also be explained by the cascading losses of women in need of PMTCT when accessing services (women in the population > those attending MCH services > those getting HIV tested > those receiving ARVs). This is a main constraint for PMTCT interventions delivered at maternity due to the relatively low proportion of facility deliveries in Malawi.

There is a consistent lower proportion of HIV positive women at ANC (9%) and maternity (9%) identified than the estimated 12% HIV positive pregnant women in the population. There are 2 plausible explanations for this: 1) HIV positive women were less likely to attend ANC and / or have their HIV status ascertained; 2) sub-optimal sensitivity of HIV rapid testing at ANC. Quality assurance methods for HIV testing are currently being strengthened to address these concerns.

The implementation of Option B+ for PMTCT started in July 2011. This new policy and the streamlining of the supply chain for PMTCT commodities to sites is expected to start showing a considerable impact on PMTCT outputs and impact by the end of 2011.

2011 Q2 ANC Report

National coverage

			Population denominator		
Total women attending first ANC (Apr - Jun 2011)	122,341		151,750	81%	<i>PMTCT 5</i>
Total women finished ANC by Mar 2011 (started Oct - Dec 2010)	127,260		151,750	84%	
Total visits by women who started ANC Oct-Dec 2010	314,086				
Distribution of women by number of visits					
Women with 1 visit	32,204	25%			
Women with 2 visits	35,219	28%			
Women with 3 visits	35,244	28%			
Women with 4 visits	19,700	15%			
Women with 5 or more visits	4,893	4%			
Trimester of first visit					
First visits at 0-12 weeks	11,859	9%	151,750	8%	
First visits at >12 weeks	115,401	91%	151,750	76%	
(Pre-) Eclampsia					
No	124,378	98%			
Yes	2,882	2%			
TTV doses					
0-1	56,757	45%			
2 or more	70,503	55%			
SP doses received					
0-1	58,977	46%			
2 or more	68,283	54%			
Iron and folate tablets received					
0-119 tabs	96,871	76%			
120 or more tabs	30,389	24%			
Syphilis status					
Total women not tested for syphilis	98,800	78%			
Total women tested for syphilis	28,460	22%	151,750	19%	
Syphilis negative	27,445	96%			
Syphilis positive	1,015	4%			
HIV status					
Total women with unknown HIV status	30,998	24%			
Total women with ascertained HIV status	96,262	76%	151,750	63%	
Total women with valid previous test result	6,348	7%			<i>PMTCT 6</i>
Negative	3,984	63%			
Positive	2,364	37%			<i>PMTCT 7</i>
Total women newly tested at ANC	89,914	93%			<i>PMTCT 8</i>
Negative	83,753	93%			
Positive	6,161	7%			<i>PMTCT 9</i>
Total women HIV negative	87,737	91%	133,540	66%	
Total women HIV positive	8,525	9%	18,210	47%	<i>PMTCT 10</i>
ART eligibility among HIV positive women					
Total women with unknown ART eligibility	2,993	35%	18,210	16%	
Total women assessed for ART eligibility	5,532	65%	18,210	30%	<i>PMTCT 11</i>
ART not eligible	3,546	64%			
ART eligible	1,986	36%			<i>PMTCT 12</i>
CPT coverage among HIV infected women					
Not on CPT	1,930	23%			
On CPT	6,595	77%			<i>PMTCT 17</i>
ARV regimen among HIV infected women					
Total women receiving no ARVs	1,267	15%	18,210	7%	
Total women receiving ARVs	7,258	85%	18,210	40%	<i>PMTCT 16</i>
ART (1)	1,632	22%	9,105	18%	<i>PMTCT 13</i>
Single dose NVP	2,642	36%			<i>PMTCT 14</i>
AZT combination regimen	2,984	41%			<i>PMTCT 15</i>
ARVs dispensed for infant dose					
ARVs not dispensed	8,001	94%			
ARVs dispensed	524	6%			<i>PMTCT 18</i>

(1) National coverage is calculated for 50% of HIV infected pregnant women as 50% of the HIV infected are assumed to have a CD4 count <350 and are therefore eligible for ART

2011 Q2 Maternity Report (Page 1)

National coverage

Total admissions to Labour & Delivery (1)	90,663		Population denominator	151,750	56%
Total women attending Labour & Delivery	85,724				
HIV status					
Total women with unknown HIV status	12,790	14%			
Total women with ascertained HIV status	77,873	86%	151,750		51%
<hr/>					
Total women with valid previous result	73,485	94%			
<hr/>					
Negative	67,223	91%			
Positive	6,262	9%			
<hr/>					
Total women newly tested at maternity	4,388	6%			
<hr/>					
Negative	4,017	92%			
Positive	371	8%			
Total women HIV negative	71,240	91%	133,540		53%
Total women HIV positive	6,633	9%	18,210		36%
ARVs during pregnancy among HIV positives					
Total women receiving no ARVs	1,403	21%			
Total women receiving ARVs	5,230	79%	18,210		29%
<hr/>					
AZT combination regimen	3,279	63%	18,210		18%
<hr/>					
AZT <4 weeks	939	29%			
AZT ≥4 weeks	2,340	71%			
<hr/>					
ART (triple therapy)	1,951	37%	18,210		11%
<hr/>					
ART <4weeks	230	12%			
ART ≥4 weeks	1,721	88%			
ARVs received during labour among HIV positives					
Total women receiving no ARVs	1,031	16%			
Total women receiving ARVs	5,602	84%	18,210		31%
<hr/>					
ART	1,688	30%	18,210		9%
Single dose NVP	551	10%	18,210		3%
AZT combination regimen	3,363	60%	18,210		18%
Obstetric complications					
Total women with no complications	81,457	90%			
Total women with complications	9,206	10%			
<hr/>					
Haemorrhage	1,408	15%			
Obstructed / prolonged labour	3,103	34%			
(pre-) Eclampsia	407	4%			
Maternal sepsis	140	2%			
Ruptured uterus	83	1%			
Other maternal complications	4,065	44%			
Referred out before delivery					
No	85,724	95%			
Yes	4,939	5%			
Staff conducting delivery					
MO, CO, nurse/midwife, MA	80,755	94%	151,750		53%
PA, WA, HSA	1,201	1%			
Other	3,768	4%			
Mother survival					
Discharged alive	85,652	100%			
Died	72	0%	107,888		67 MMR (2)

(1) Total admissions are subject to double counting of women referred out before delivery

(2) Maternal mortality ratio for facility deliveries (per 100,000 live births)

2011 Q2 Maternity Report (Page 2)

National coverage

Population denominator

Twins				
Total babies born	87,102		151,750	57%
Singleton babies	83,745	96%		
Twin / multiple babies	3,357	4%		
Delivery place				
Total deliveries at a health facility	82,978	95%	151,750	55%
This facility	82,537	99%		
Other facility	441	1%		
Total deliveries before reaching the facility	4,124	5%		
In transit	2,449	59%		
Home / TBA	1,675	41%		
Delivery mode				
Spontaneous vaginal	79,828	92%		
Vacuum extraction	841	1%		
Breech	1,807	2%		
Caesarean section	4,626	5%	151,750	3%
Infant complications				
Total infants with no complications	77,194	89%		
Total infants with complications	9,908	11%		
Prematurity	2,867	29%		
Low birth weight (<2500g)	3,068	31%		
Asphyxia	1,580	16%		
Newborn sepsis	1,224	12%		
Other infant complications	1,169	12%		
Infant survival				
Total live births	85,626	98%		
Discharged alive	84,836	99%		
Neonatal deaths	790	1%		
Stillbirths	1,476	2%		
Fresh	822	56%		
Macerated	654	44%		
Infant HIV exposure and ARV prophylaxis				
Infants with Unknown HIV exposure status	11,135	13%		
Infants with known HIV exposure status	73,701	87%	151,750	49%
Infants not HIV exposed	67,529	92%		
Infants HIV exposed	6,172	8%	18,210	34%
Received no ARVs	368	6%		
Received any ARVs	5,804	94%	18,210	32%
Single dose NVP	585	10%	18,210	3%
AZT prophylaxis	5,219	90%	18,210	29%
Started AZT + sd NVP	3,460	66%	18,210	19%
Started AZT only	1,759	34%	18,210	10%
Breast Feeding Initiated				
No	3,168	4%		
Yes	84,118	96%		

**MALAWI ANTIRETROVIRAL TREATMENT PROGRAMME
QUARTERLY REPORT
RESULTS UP TO 30TH JUNE 2011**

Executive Summary

By the end of June 2011, **276,987** patients were alive and on ART in Malawi, equivalent to **67%** coverage of the estimated population in need of ART^{Error! Bookmark not defined.}. There were **449** ART clinics (**303** static clinics and **146** outreach / mobile clinics).

Out of the **382,953** patients ever initiated on ART, **276,987 (72%)** were retained alive on ART, **44,390 (12%)** had died, **60,555 (16%)** were lost to follow-up (defaulted) and **1,424 (<1%)** were known to have stopped ART. **80%** of adults and **81%** of children were retained alive on ART 12 months after ART initiation. An estimated **249,281** adults and **27,706** children (<15 years) were alive on ART by the end of June 2011.

In the second quarter of 2011 (April to June) a total of **18,442** new patients initiated ART. **4,877** patients transferred between clinics (21% of the total **23,434** new ART clinic registrations). Among new registrations 41% were males, 59% females; 90% were adults and 10% children.

The number of infants starting ART in the second quarter of 2011 in WHO stage 1 or 2 with confirmed HIV infection (DNA-PCR) increased slightly at **199** (previous **173**), while children under 18 months starting due to presumed severe HIV disease decreased from **209** to **140**. We assume that implementation the 2011 guidelines (universal ART for all HIV infected children under 24 months) will improve ART access for small children.

In June 2010, MOH endorsed a change in PMTCT, ART and infant feeding policy. New national integrated PMTCT/ART guidelines and training curricula were developed and implementation started in June 2011. By end June, the Training of Trainers (TOT) was completed with 120 trainers successfully trained. The 5-day classroom trainings for providers were also launched in June. The re-training of all **4,000 existing PMTCT and ART providers** is expected to be completed by end September 2011. A second round of trainings for new PMTCT/ART providers will be started in Q4 of 2011. Classroom trainings will be followed up by clinical mentoring visits targeting primarily the new sites with first time qualified PMTCT/ART staff.

Table 1: ART programme December 2003- June 2011 (public and private sector)

	Dec 2003	Dec 2004	Dec 2005	Dec 2006	Dec 2007	Dec 2008	Dec 2009	Dec 2010	Jun 2011
ART sites	9	24	83	141	163	221	377	417	449
Patients alive on ART	No data	10,761	29,087	59,980	100,649	147,497	198,846	250,987	276,897
Coverage of pop. in need of ART[1]	No Data	3%	9%	17%	28%	41%	53%	63%	67%
New ART registrations in year	No Data	10,183	25,634	46,351	61,688	76,581	88,126	88,813	46,707
Patients ever initiated on ART (cumulative)	~3000	12,848	35,621	75,503	129,276	200,901	271,105	345,598	382,953

Methods

This report includes quarterly data from all patients who registered at ART clinics in Malawi between April and June 2011 and cumulative data from all patients who ever registered up to 30th June 2011.

All health facilities with static ART clinics in the public and private sectors were visited in July 2011. Data collected covered all 303 static and 146 outreach / mobile ART sites. The majority of facilities were using the standard national monitoring & evaluation tools (paper-based or electronic data system); some NGO supported sites were using custom tools compatible with the national standard reporting requirements.

40 ART supervisors (MOH Department of HIV and AIDS staff, experienced ART clinic staff from the districts, MBCA and NGO partners) in 10 teams spent a total of **700 working hours** at the sites, each visit lasting an average of 2 ½ hours, but up to 2 full days at the busiest sites. Structured supervision included:

- Quality assessment of service provision
- M&E data verification
- Drug stock-level assessment
- Patient chart review, clinical mentoring for irregular/complex cases

M&E data were collected from the patient cards and the ART registers. Much effort was made to ensure that registration data and treatment outcomes (particularly deaths and loss to follow-up) were correct, and we believe that outcomes are accurately represented in this report. Certificates were awarded to 143 clinic teams with excellent performance during the previous supervision visit.

All data were entered into an MS Access database at the Department of HIV and AIDS. ART coverage was calculated from ART program data and epidemiological projections for the population in need of ART. Projections were based on HIV prevalence using standard epidemiological modelling software (EPP and Spectrum) and assuming ART eligibility from a CD4 count <250 cells/mm³.

Results

National data for quarterly and cumulative ART data are summarized in 2 tables in **Annex 1**.

Access to ART

By the end of June 2011, there were **303 static ART sites** in Malawi, owned by government, mission, NGOs and the private sector. Out of these, **58** were ART facilities in the private sector, charging a nominal MK500 per monthly prescription of drugs per patient.

New patients registered between April and June 2011

In Q2 2011, there were a total of 23,434 ART clinic registrations, representing **18,442 (79%)** patients who newly initiated ART and 4,877 (21%) ART patients, who transferred between clinics. Out of all clinic registrations, 41% were males and 59% were females, 90% were adults and 10% were children (<15 years). The majority of patients (**55%**) started ART in WHO Stage 3. The proportions of patients starting in Stage 1 or 2 with a low CD4 count (**33%**) and in WHO stage 4 (**10%**) has remained almost unchanged compared with the previous quarter.

Out of **491** (540 in Q1 2011) children under 18 months of age who started ART, **199 (32%)** were infants in WHO stage 1 or 2 with confirmed HIV infection (previous **173**) (DNA-PCR, policy of universal ART for infected infants); **140** (previous **209**) were initiated as presumed severe HIV disease; and **152** started in WHO stage 3 or 4. Paediatric HIV uptake remains low. The Department has developed a standard national clinical mentoring programme to among other things increase health worker capacity and confidence to manage children.

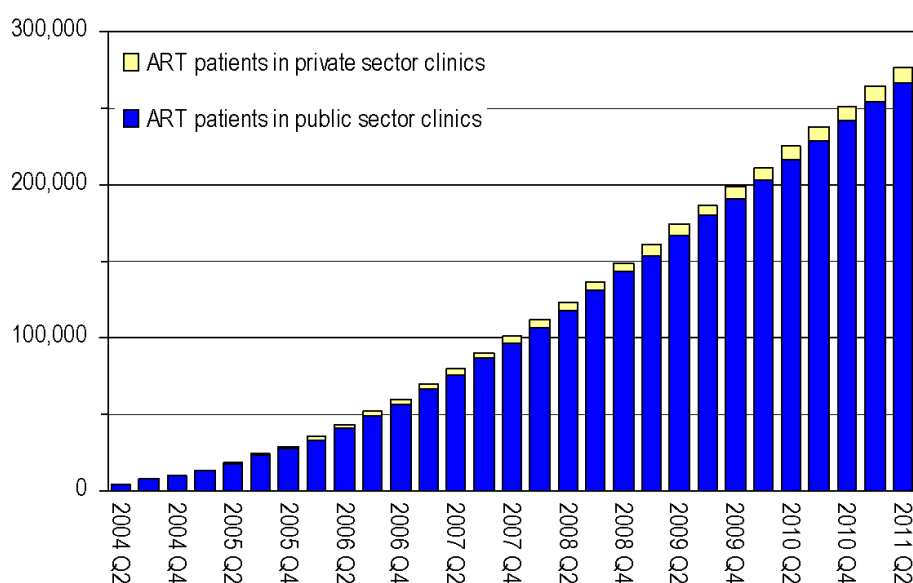
1,257 (5%) of patients registered during the quarter were pregnant women (at the time of ART initiation). This number is expected to increase next quarter as we apply universal ART initiation for all HIV infected pregnant women according to the new guidelines (Option B+)

Cumulative patients ever registered up to June 2011

By the end of June 2011, there were a cumulative total of **451,546** clinic registrations, representing **382,953** (85%) patients who newly initiated ART and **68,190** (15%) ART patients, who transferred between clinics. Out of all clinic registrations, 39% were males and 61% were females, 91% were adults and 9% were children (<15 years). Private sector clinics accounted for **17,099** (3.8%) of total patient registrations.

Treatment Outcomes

Figure 1: Patients alive on ART in public and private sector clinics in Malawi



By the end of June 2011, a total of **276,987 patients were alive on ART**. This number includes 5,229 patients who were assumed to be 'in transit' as of the 30th June 2011, based on the difference between 73,419 patients transferred out and 68,190 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 by the end of the quarter.

Figure 1 shows the increase of patients alive on ART by the end of each quarter. The number of patients alive on ART increased by **12,475** in Q2 of 2011. This growth has been very consistent over time allowing for reliable forecasting and quantification. Implementation of revised integrated PMTCT/ART guidelines in the second half of 2011 is expected to gradually accelerate ART access, putting more strain on human and financial resources.

Table 2:

ART coverage among adults and children in the 5 Zones. Proportion of the population in need of ART who were alive on ART at the end of 2011 Q2 (ART need based on SPECTRUM projection CD4<250)

Zone	Adults (15 yrs and older)			Children (<15 years)			All ages		
	ART need	On ART	Cov.	ART need	On ART	Cov.	ART need	On ART	Cov.
N	26,540	27,816	105%	6,396	2,646	41%	32,936	30,462	92%
CW	69,409	55,833	80%	16,728	5,733	34%	86,137	61,566	71%
CE	20,764	23,294	112%	5,004	2,011	40%	25,768	25,305	98%
SW	103,436	88,949	86%	24,929	9,113	37%	128,365	98,062	76%
SE	111,496	55,898	50%	26,872	5,694	21%	138,368	61,592	45%
Nat. Total	331,645	251,790	76%	79,929	25,197	32%	411,574	276,987	67%

Table 2 shows the **national ART coverage** at the end of June 2011, **276,987 (67%)** of 411,574 population in need were on ART. Coverage by geographical zone was inversely related to the absolute population in need of ART: 25,305 (98%) of 25,768 people in need of ART in the **Central East Zone** were on ART, while only 61,592

(45%) of 138,368 people in the **South East Zone** were covered. Coverage among children and adults was **32%** and **76%**, respectively, a slight increase from the previous quarter (30% and 74%). The average population in

need per ART site was **646 (previous 637)** in the **Northern** and **1,708 (previous Q 2,436)** in the **South East Zone**. This is likely the main reason for the difference in ART coverage. MOH are addressing this situation by accelerating the opening of new ART sites in the CW, SW and SE zone, hence the improvement in the average population in need per ART site in the SE zone leading to slight improvement in coverage from 42% to 45%.

Figure 2: ART coverage by Zone. Proportion of the population in need of ART who were alive on ART at the end of the quarter (ART need based on SPECTRUM projection CD4<250)

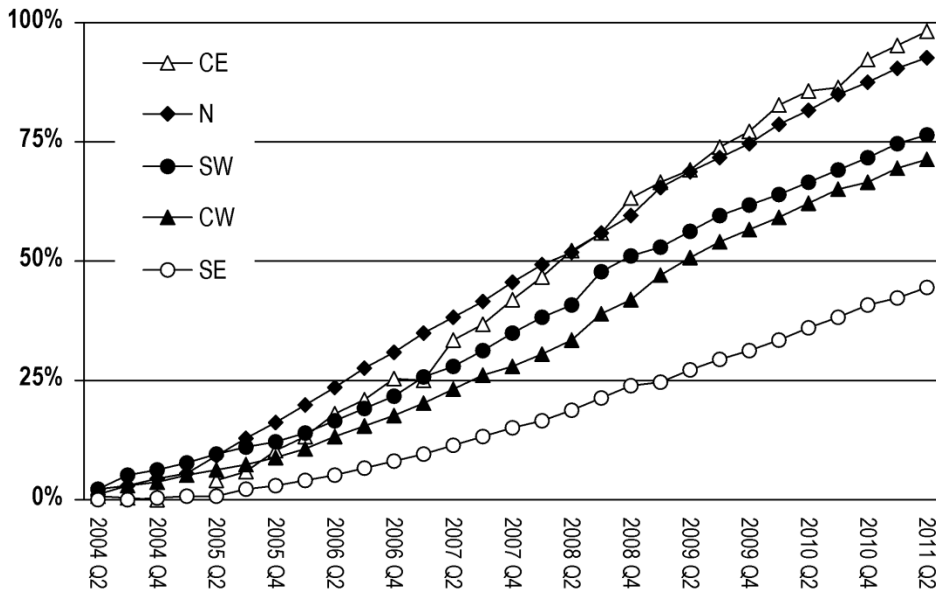


Figure 2 shows that ART coverage has increased much faster in the Central East and Northern Zone than in the South East Zone.

The high estimated coverage in the Central East and Northern Zone may be due to patients who are regular residents elsewhere, but who are accessing ART in these zones (for confidentiality, as migrant workers, patients from neighbouring countries, etc.).

Figure 3: 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)

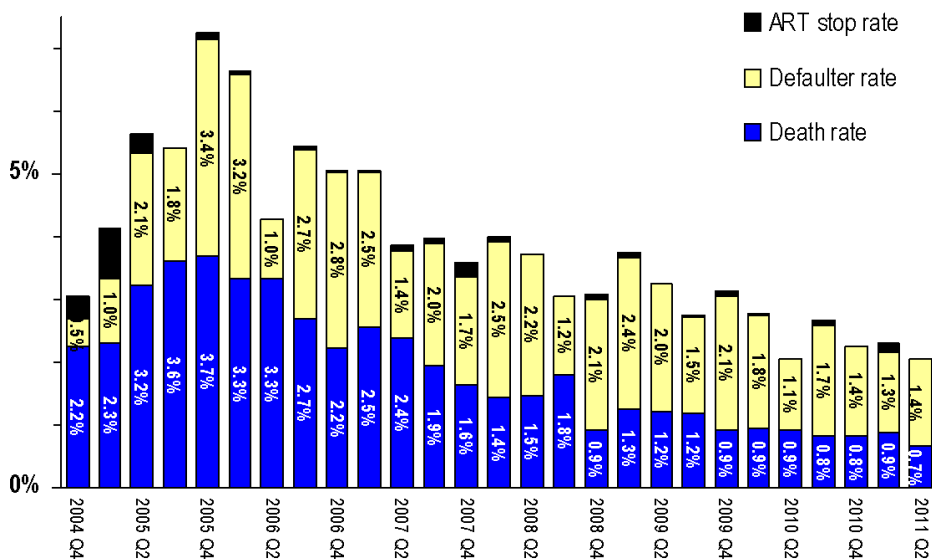
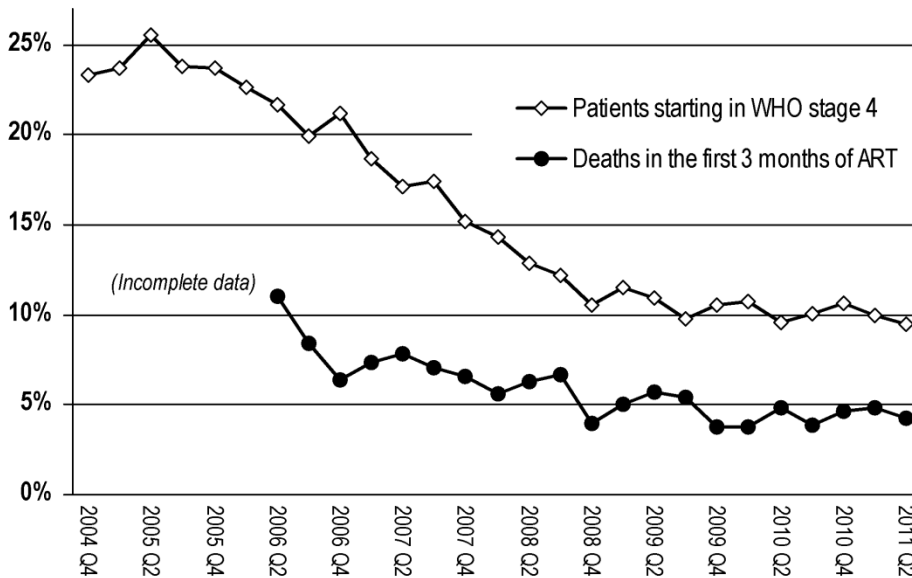


Figure 3 shows the general steady decrease of death and defaulter rates since the start of the national programme. By end of June 2011, a cumulative **44,390 (12%)** patients were known to have died **60,555 (16%)** were lost to follow-up and **1,424 (<1%)** were known to have **stopped ART**. The number of re-starts exceeded the number of stops in the quarter, leading to a reduction in the cumulative number of ART stops (1,424) compared with the

previous quarter (1,761). Based on previous operational studies, about half of the patients classified as lost to follow-up are thought to have died. During Q2 2011, there were **1,841** new deaths, **3,893** new defaulters and **109** new ART re-initiations. This translates into a quarterly death rate of **0.7%** and a defaulter rate of **1.4%** among the patients alive and on treatment during this quarter.

Figure 4: 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)

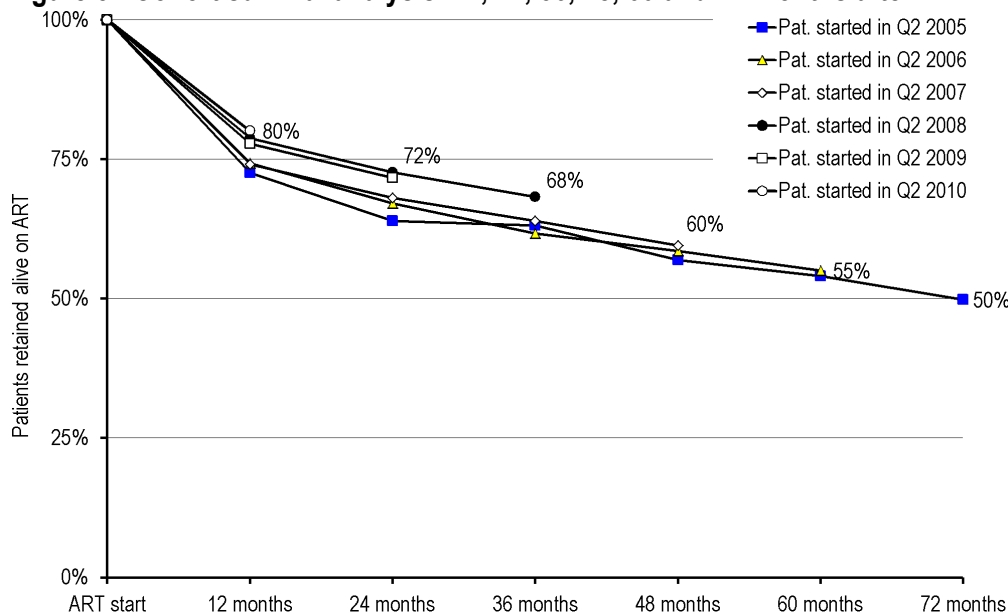


Early mortality has declined considerably (**Figure 4**). In 2006 Q2, 11% of new patients died within the first 3 months after ART initiation. Early mortality has declined to 4% in Q2 2011. This correlates well with the decline in the proportion of patients starting ART in WHO clinical stage 4 from 25% in 2005 Q2 to about 10% in Q2 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). The new 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 women and children under 2years).

Cohort Survival Analysis

Figure 5: 'Cohort survival analysis' 12, 24, 36, 48, 60 and 72 months after ART initiation



A 12, 24, 36, 48, 60 and 72 - month 'cohort outcome survival analysis' was conducted for patients registered in Q2 2010, Q2 2009, Q2 2008, Q2 2007, Q2 2006, and Q2 2005, respectively. A separate 12-month cohort outcome analysis was conducted for children who were under 15 years at the time of ART initiation and who registered for ART in

Q2 2010. **80% of adults** and **81% of children** were retained alive on ART after 12 months on treatment (increase in children from 78% in previous quarter): **Figure 5** shows the continuous improvement of long-term treatment outcomes over time. However, the current '12-month survival rate' remains below the WHO target of 85%.

Secondary outcomes of patients retained on ART

Secondary outcomes are available for the **271,758** patients alive on ART who remained at their sites at end of the quarter. Secondary outcomes are not available for 5,229 patients *in transit*.

ART Regimens

89% were on the first line, 9% were on alternative first line and less than 1% were on second line regimen while 1% were on a non-standard ART regimen. 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.

Adherence

221,772 (93%) out of 239,563 patients retained who had records on the number of doses missed were classified as >95% adherent in Q2 2011. Manual estimation of adherence from pill counts is practically difficult and classification can be misleading. To improve on accuracy of data on adherence, the ART program has switched to a direct evaluation of doses missed in 2010. Most ART sites are now recording this measure consistently and adherence data was available for 86% of patients alive on treatment.

Side Effects

5,141 (2%) of patients on ART had documented drug side effects at their last clinic visit before end June 2011. This is probably an under-ascertainment of the true rate of drug side effects (we assume 20-25% of patients develop at least mild side effects from Triomune). Malawi continues to increase access to alternative first line regimens for such patients.

Current TB Status / Intensified TB Case Finding

ART patient cards include routine screening for TB at every ART visit. This was introduced to address the suspected burden of undetected TB among patients on ART, believed to be responsible for a considerable proportion of early deaths. 261,251 (91%) of patients alive on ART were screened for TB at their last visit before end of June 2011. Out of these, 356 were new TB suspects and 1,889 (1%) had confirmed current TB. As of the last visit before the end of June 2011, 1,569 (83%) of these were on current TB treatment while 320 (17%) were not (yet) on TB treatment.

Cotrimoxazole Preventive Therapy (CPT)

As of the end of June 2011, 94% of ART patients were on CPT. A cumulative total of 319,789 patients (pre-ART and ART) had been entered in CPT registers. CPT registers will be discontinued after this quarter as CPT is now integrated in pre-ART, ART and exposed child monitoring tools.

HIV-related indicator diseases

Table 3 shows the number of ART patients treated for 4 key HIV-related indicator diseases (data from TB, ART and Diflucan registers or ART treatment cards). Oesophageal candidiasis (OC) cases have continued to decrease while cryptococcal meningitis cases increased from the previous quarter. The number of new TB cases has been decreasing considerably. 84% of TB patients were tested for HIV, 65% of these were HIV positive and 46% of positives were already on ART when starting TB treatment.

Table 3: HIV-related indicator diseases

	TB cases	TB HIV tested	TB HIV pos	TB already on ART	OC	CM	KS			
2010 Q3	6,120	5,218	85%	3,088	59%	1,439	47%	1,309	613	575
2010 Q4	5,209	4,617	89%	3,000	65%	1,190	40%	834	374	546
2011 Q1	4,844	4213	87%	2,693	64%	1,145	43%	744	209	591
2011 Q2	4,505	3,767	84%	2,462	65%	1,133	46%	481	392	468

TB / HIV

Approximately **85%** of HIV infected TB patients were receiving ART in Q2 2011. This estimate is based on the following triangulation of TB and ART program data:

TB Program Data: a total of **4,505** TB patients were registered during Q2 2011. Assuming an average HIV prevalence of 66% among TB patients, **2,973** TB patients were estimated to be HIV positive and therefore in need of ART. Given that **1,133** TB patients registered were already on ART at the time of starting TB treatment, $2,973 - 1,133 = \mathbf{1,840}$ TB patients needed to initiate ART.

ART Program Data: an estimated **1,382** patients¹ started ART with a current or recent episode of TB during Q2 2011. This is **75%** (1,382 of 1,840) of the TB patients who needed to start ART in Q1 2011. This means that a total of $1,133 + 1,382 = \mathbf{2,515}$ (**85%**) of the estimated 2,973 HIV infected TB patients were receiving ART in Q1 2011.

Certificates of excellence

Sites with excellent performance in patient and clinic management, including completion of ART registers and master cards and correct cohort analysis are awarded a certificate of excellence: **143 (47 %)** sites (public and private sector) received a certificate of excellence. This is fewer than in the last quarter (166).

ART workload and staffing

By the end of June 2011 there were **185** static sites with fewer than 1,000 patients, **46** sites with 1,001–2,000 patients, **46** sites with 2,001–5,000 and **17** sites with over 5,000 patients registered. The number of sites with high patient burden continues to increase.

For 227 sites visited, the supervision team recorded the number of scheduled clinic days per week and the average number of clinicians, nurses and clerks working during clinic days. The total number of ART clinic days provided per week was 553, translating into an average of 2.4 (553/227) working days per facility per week.

Table 4 shows the total number of staff days per week by cadre and zone. The full-time equivalents (FTEs) indicate the equivalent of full-time ART clinicians, nurses and clerks. Thus, for the country as a whole, assuming clinicians work for an average of 200 days per year, the equivalent of **207** clinicians ($796 \times 52/200$) was working full-time in ART delivery each week (previous Q, FTE was 218). The workload per staff in ART clinics is obviously increasing quarter by quarter (compare previous reports).

Table 4: Total average staffing of ART services by zone (public sector)

Zone	Sites	ART clinic days	Clinician days/ wk.	Nurse days/ week	Clerk days/ week
N	44	83	83	84	92
CW	44	121	224	221	205
CE	36	90	112	156	98
SW	54	141	198	220	317
SE	49	118	179	235	200
Total	227	553	796	916	912
FTE		2.4	207	238	237

¹ 21% of the 1,728 ART patients who were registered 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.

Stocks of ARV drugs and drugs for HIV-diseases

Physical stock counts for ARVs and drugs for HIV-related diseases were performed at all sites at the time of the supervision visit (July). **Table 5** shows the total national drug stocks found at facilities with ART clinics. There were enough first line ARV starter packs to start about 34,000 new patients on ART, estimated to last for about 5 months at current rates of recruitment. Standard first line stocks (1,006,335 tins) were enough for about 4 months of consumption. Stocks of alternative first line ARVs (AZT based regimen 106,090 tins) were sufficient to last for about 6 months and stocks of EFV (74,367 tins) for over 6 months. The regular 6 month consignment of ARVs designated for the first half of 2011 arrived with delay in May/June 2011 and expedited distribution was started in June to supply sites with critically low stock levels. The first consignment of TDF/3TC/EFV (97,000 tins) has arrived and will be distributed in July 2011. 62% of facilities visited had any stocks of ARVs for maternal PMTCT prophylaxis and 58% had ARVs for infant PMTCT prophylaxis (single dose nevirapine or AZT combination regimen). This represents a reduction of the availability of PMTCT drugs compared with the previous quarters, attributable to challenges with supply through CMS.

Table 5: Drug stocks at all facilities with ART clinics as of March 2011

Drug	Unit	North	Central	South	Total national stock	Sites with any stock
Lamivir Baby	14	552	1,035	3,206	4,793	42%
d4T 30 / 3TC	15	3,886	11,851	18,284	34,021	89%
d4T 30 / 3TC / NVP	15	3,519	12,687	19,920	36,126	89%
Triomune Baby	30	1,131	7,631	21,461	30,223	44%
d4T 30 / 3TC / NVP	60	89,042	327,908	589,385	1,006,335	94%
AZT 300 / 3TC /NVP	60	6,479	39,502	60,109	106,090	85%
AZT_300 / 3TC_150	60	2,647	28,227	22,278	53,152	68%
NVP	60	431	4,092	8,867	13,390	19%
d4T 30 / 3TC	60	3,934	13,337	37,492	54,763	89%
EFV	30	5,972	29,942	38,453	74,367	91%
TDF	30	2,045	3,003	6,316	11,364	23%
ABC	60	401	425	2,679	3,505	100%
ddl	30	315	1,391	589	2,295	100%
LPV/ r	120	808	2,036	9,604	12,448	100%
CPT	60	194,983	479,307	633,052	1,307,342	85%
Cotrimoxazole_480	1	2,657,903	8,142,243	11,632,224	22,432,370	83%
Fluconazole	1	78,838	112,067	335,395	526,300	33%
Ceftriaxone	1	6,479	58,576	32,562	97,617	32%
Acyclovir	1	855,862	1,411,170	3,076,336	5,343,368	83%
Ciprofloxacin	1	635,550	585,385	557,287	1,778,222	55%
Vincristine	1	1,596	4,178	10,399	16,173	21%
Morphine	1	21,407	129,960	85,378	236,745	12%
Amitriptyline	1	400,350	287,951	501,045	1,189,346	54%
NVP (PMTCT)	1	21,875	27,333	3,618	52,826	35%
NVP liquid 25ml	1	3,139	1,126	101,498	105,763	43%
AZT (PMTCT)	1	37,435	121,354	383,415	542,204	55%
AZT syrup (PMTCT)	1	165	1,327	14,721	16,213	42%

Post Exposure Prophylaxis (PEP)

254 clients received PEP in Q2 of 2011, representing a decline from 285 recorded in Q1 2011.

Availability of CD4 counts

A total of 58 facilities had CD4 count machines installed and **50** of these produced any results during Q2 2011 (53 in Q1 2011). The total quarterly output of CD4 results declined by **11,315** (from **44,223** in Q1 to **32,908** in Q2). This may be explained by break down of equipment and/or interrupted supply of reagents.

Table 6: CD4 counts performed by quarter

	Total CD4 machines	Functional CD4 machines	CD4 samples processed
2010 Q3	58	54	45,833
2010 Q4	59	52	45,722
2011 Q1	62	53	44,279
2011 Q2	58	50	32,908

Trainings

The table below shows the cumulative number of ART providers who have been trained on new integrated PMTCT/ART Guidelines curriculum since May 2011

Table 7: PMTCT/ART training by end June 2011

Training Curriculum	Trained	Q 2 2011		Cumulative	
		Targeted	Achieved	Targeted	Achieved
ART	Public sector	0	0	2,700	3,280
	<i>Private sector</i>	0	0	500	581
	Total	0	0	3,200	3,861
PMTCT/ART	Public sector	120 (trainers)	120 (trainers)	120 (trainers)	120 (trainers)
	<i>Private sector</i>	0	0	0	0
	Total	120 (trainers)	120 (trainers)	120 (trainers)	120 (trainers)

The first phase of re-trainings targeting the existing 4,300 ART and PMTCT providers will be finalised 3rd week of October 2011. This will be followed by second phase that will target 1,500 providers that have not previously been trained in PMTCT or ART. This second phase is expected to be completed in December 2011. At the same time, MOH is rolling out a new standard clinical mentorship program to support implementation of the 2011 integrated guidelines. Trainings for 200 mentors have been scheduled for the first week of November 2011, aiming to establish teams of 2-8 mentors per district.

Way Forward

Coverage

ART coverage was lowest in the SE zone that has the highest estimated HIV burden. MOH are addressing this situation by accelerating the opening of new ART sites in this zone and by assessing other potential factors such as access to HTC. The MOH is preparing the roll-out of integrated PMTCT/ART and Family planning services nationally, including Pre-ART and HIV exposed child follow-up. This will entail expanding services to all the ANC and maternity sites. It is anticipated that this will accelerate coverage as sites delivering the integrated services will increase from the current 303 static sites to around 700 by the end of 2011.

New Integrated PMTCT / ART Guidelines

The Department for HIV and AIDS has revised the national PMTCT, ART, paediatric ART and infant feeding guidelines with support from development partners following the adaptation of the new WHO recommendations by MOH. The new integrated guidelines "*Clinical Management of HIV in Children and Adults*" were published in June 2011 and form the basis for the 2011 integrated PMTCT/ART training curriculum. Between June and September 2011, about 4,300 health workers will be trained and certified using the new curriculum. This major exercise is supported by several implementing partners and has received significant budget and technical support from USG / PEPFAR.

The Global Fund RCC grant budget for phase 1 and phase 2 has been reprogrammed to accommodate the implementation of the new guidelines.

Electronic data system (EDS)

The standard national electronic data system for ART patient management has now been rolled out to 18 sites.

TB/HIV integration

TB and ART program clinic supervision was carried out jointly for Q2 2011. Standard Operating Procedures for providing ART in TB clinics have been finalised. TB/HIV integration will be further strengthened by training TB clinicians in ART initiation and management, and ART providers will be trained in TB treatment initiation. Access to TB treatment will be further improved through decentralization and opening of an additional 100 TB treatment initiation sites. Intensified case finding (ICF) has been successfully implemented in ART clinics using a standard WHO recommended screening tool. ICF and Isoniazid Preventive Therapy (IPT) will also be implemented in the new pre-ART services in the 2nd half of 2011.

Participants in Q2 2011 ART Supervision

Loyd Chakwawa	Prospere Lutala	Hendricks Mwenelupembe	<u>Report compiled by</u>
Lincy Chalunda	Mercy Magombo	Mapay Ngalala	F. Chimbwandira
Salome Chiwewe	A Makanjira	Joseph Njala	A. Mnthambala
Stuart Chuka	Simon Makombe	Sabina Phiri	Eustice Mhango
Peter Donda	Hannock Matupi	Macleod Piringu	Simon Makombe
CMO Gondwe	Benjamin Mazalo	Monica Simfukwe	Joseph Njala
Domminic Gondwe	Loyna Mbewe	Everista Tchuwa	Lyson Tenthani
Elifa Jere	Eustice Mhango	Dyson Telela	Andreas Jahn
Vera Kajawo	Maurene Mtambo	Monica Telera	Zengani Chirwa
Agnes Kalitsiro	Ekwala Mubiala	Cecelia Tenesi	Gerald Zomba
C Kasamu	Fainala Muyila	Lyson Tenthani	Jonas Nyasulu
Joseph Kasola	Alfeyo Mwale		
Catherine Kassam	E Mwale		
Rodrick Kaulele	Austin Mwenechanya		

We finally thank all staff at the facilities for their sincere welcome and co-operation with the HIV Department and its partners during these supportive visits, and we congratulate the staff in these facilities for their excellent work.

5th October 2011

**New patients registered for ART
between 01/04/2011 and 30/06/2011**

		Public Sector		Private Sector		National Total	
Total registrations		22,710		724		23,434	
Registration type	New ART initiations (Patients)	17,886	79%	556	77%	18,442	79%
	ART Re-initiations	100	0%	15	2%	115	0%
	Transfers in	4,724	21%	153	21%	4,877	21%
Sex	Males	9,186	40%	353	49%	9,539	41%
	Total females	13,524	60%	371	51%	13,895	59%
	Females non-pregnant	12,310	54%	328	45%	12,638	54%
	Females pregnant	1,214	5%	43	6%	1,257	5%
Age	Adults	20,490	90%	688	95%	21,178	90%
	Total children	2,220	10%	36	5%	2,256	10%
	Children 18m-14yrs	1,736	8%	29	4%	1,765	8%
	Children 0-17 months	484	2%	7	1%	491	2%
Reason for ART	Presumed sev. HIV <18mths	135	1%	5	1%	140	1%
	Confirmed HIV infants	198	1%	1	0%	199	1%
	WHO 1/2, CD4 <threshold	7,496	33%	268	37%	7,764	33%
	WHO 2, TLC <threshold	8	0%	1	0%	9	0%
	WHO stage 3	12,499	55%	324	45%	12,823	55%
	WHO stage 4	2,120	9%	109	15%	2,229	10%
	Reason unspecified	254	1%	16	2%	270	1%
	Total TB	1,669	7%	59	8%	1,728	7%
	TB in last 2 years	779	3%	33	5%	812	3%
	Current TB	890	4%	26	4%	916	4%
	KS	454	2%	14	2%	468	2%

Cumulative patients registered for ART up to end 30/06/2011

		Public Sector		Private Sector		National Total	
Total registrations		434,447		17,099		451,546	
Registration type	New ART initiations (Patients)	368,857	85%	14,096	82%	382,953	85%
	ART Re-initiations	328	0%	74	0%	402	0%
	Transfers in	65,262	15%	2,928	17%	68,190	15%
Sex	Males	169,080	39%	8,228	48%	177,308	39%
	Total females	265,367	61%	8,871	52%	274,238	61%
	Females non-pregnant	250,971	58%	8,415	49%	259,386	57%
	Females pregnant	14,396	3%	456	3%	14,852	3%
Age	Adults	394,191	91%	16,296	95%	410,487	91%
	Total children	40,256	9%	803	5%	41,059	9%
	Children 18m-14yrs	33,907	8%	743	4%	34,650	8%
	Children 0-17 months	6,349	1%	60	0%	6,409	1%
Reason for ART	Presumed sev. HIV <18mths	1,569	0%	26	0%	1,595	0%
	Confirmed HIV infants	1,522	0%	1	0%	1,523	0%
	WHO 1/2, CD4 <threshold	108,702	25%	6,481	38%	115,183	26%
	WHO 2, TLC <threshold	99	0%	9	0%	108	0%
	WHO stage 3	252,950	58%	7,595	44%	260,545	58%
	WHO stage 4	61,227	14%	2,764	16%	63,991	14%
	Reason unspecified	8,378	2%	223	1%	8,601	2%
	Total TB	45,670	11%	1,303	8%	46,973	10%
	TB in last 2 years	32,312	7%	1,112	7%	33,424	7%
	Current TB	13,358	3%	191	1%	13,549	3%
	KS	12,978	3%	367	2%	13,345	3%
Primary outcomes	Alive on ART (1)	266,896	72%	10,091	72%	276,987	72%
	Defaults	57,946	16%	2,609	19%	60,555	16%
	ART stops	1,363	0%	61	0%	1,424	0%
	Deaths total	42,980	12%	1,410	10%	44,390	12%
	Month 1	12,049	28%	453	32%	12,502	28%
	Month 2	8,163	19%	216	15%	8,379	19%
	Month 3	4,462	10%	119	8%	4,581	10%
	After month 3	18,306	43%	622	44%	18,928	43%
Transfers out	69,800		3,619		73,419		
ARV regimens (2)	Start	235,673	90%	6,870	73%	242,543	89%
	Alternative 1st line total	22,135	8%	2,132	23%	24,267	9%
	AZT	15,359	69%	1,726	81%	17,085	70%
	EFV	5,730	26%	206	10%	5,936	24%
	AZT+EFV	1,046	5%	200	9%	1,246	5%
	Second line total	1,075	0%	211	2%	1,286	0%
	Second line adult	852	79%	209	99%	1,061	83%
	Second line children	223	21%	2	1%	225	17%
Other / Non-standard	3,475	1%	187	2%	3,662	1%	
Side effects	Side effects counted	262,358	98%	9,400	93%	271,758	98%
	With side effects	4,859	2%	282	3%	5,141	2%
Adherence	Adherence recorded	231,981	87%	7,582	75%	239,563	86%
	>95% adherent	214,303	92%	7,469	99%	221,772	93%
Current TB status	Status recorded	242,057	91%	9,294	92%	251,351	91%
	TB suspected	356	0%	0	0%	356	0%
	TB confirmed, not on Rx	320	0%	0	0%	320	0%
	TB confirmed, on Rx	1,518	1%	51	1%	1,569	1%

(1) Includes 5,229 patients in transit (transferred out but not yet transferred in at the new site).

(2) Excludes patients in transit