



**Government of Malawi
Ministry of Health**

Quarterly HIV Programme Report

HIV Testing and Counseling

Prevention of Mother to Child Transmission

Antiretroviral Therapy

Treatment of Sexually Transmitted Infections

January – March 2011

MALAWI HIV TESTING AND COUNSELLING PROGRAMME

QUARTERLY REPORT

JANUARY TO MARCH 2011

1 People Tested and Counselling for HIV

437,182 people were reported to have been tested and counselled between January and March 2011. This represents an **18% increase** from the previous quarter and follows an improvement in the supply of test kits. Out of the total number tested, 205,038 (**47%**) accessed HTC for the first time in their life; 56,166 (**13%**) attended HTC with their partner; 51,555 (**12%**) of all tests were positive.

143,914 (33%) of those tested were males and **293,268 (67%)** were females. Testing of pregnant women contributed **129,883 (30%)** of all tests done during Q1 2011. Excluding the provider-initiated testing of pregnant women, the proportions of males (47%) and females (53%) tested were almost equal and very similar to the sex-ratio in the population.

221,624 (**51%**) of people tested were 25 years or above, 168,404 (**39%**) were 15-24 years and only 46,917 (**11%**) were children under 15 years. There is an increase in the proportion of children under 15 years testing from the previous quarter (7%) and a decline among the youth (15-24 years).

A total of **3,301,818** people have accessed HTC in Malawi since introduction of the current M&E tools in July 2007. This is determined from the cumulative number of people testing for the first time, which eliminates multiple counting of people coming for repeat testing.

2 HTC sites

772 static HTC sites were operating and reporting data in Q1 2011. The total number of HTC sites in operation will be verified during July/August 2011. Data from mobile, door to door, and outreach HTC services are reported through static HTC sites and are included in this report.

3 Provider Initiated HIV Testing and Counselling (PITC)

A group of master trainers and senior experienced counsellors finalised the PITC training participant and trainer's manuals in this quarter.

4 Development of Human Resource Capacity

Between January and March, **196** participants successfully completed the national HTC training. Cumulatively, a total of **4,766** individuals have been certified through the national HTC training. NGOs and other implementing partners have supported the trainings.

Using a standardized tool, the Department for HIV and AIDS supervised 8 out of the 12 site counsellors' trainings that took place. It was observed that HTC trainers are facilitating in vernacular languages to enable the participants understand the materials. However the failure rate of counsellors still remains high at 11% (15% in the previous quarter).

5 HIV Test Kits Supply System

Most districts in the country reported stock outs of test kits during this quarter, leading to missed opportunities for HIV testing between January and March 2011. Despite these supply chain challenges, the number of tests done increased from the previous quarter.

6 Challenges

- Frequent / persistent stock out of test kits is negatively affecting all HIV programs implementation.

7 Way Forward

- The Pharmaceutical Unit in collaboration with the Department for HIV and AIDS should further strengthen efforts to facilitate the timely ordering and shipment of test kits to ensure uninterrupted availability of test kits at all sites.

8 HTC Supportive Supervision

Selected sites in all districts were supervised in Q1 2011 by teams from the Department for HIV and AIDS, and from the zonal and district offices. The focus areas were:

- Availability of test kits and stock levels
- Infrastructure
- Availability of certified counselors
- Ensuring compliance with HTC protocols
- Ensuring infection prevention measures were being followed
- Ensuring proper documentation in HTC registers
- Ensuring timely quarterly reporting of district HTC data, i.e. by 21st day of month following the end of the quarter

2011 Q1 HTC Report

National coverage

Population denominator

Number of clients tested				
Clients ever tested since 2007	3,301,818			
Clients tested in this quarter	437,182		3,772,503	12%
Gender and Pregnancy				
Males	143,914	33%	1,891,196	8%
Females	293,268	67%	1,881,306	16%
Females Non Pregnant	163,385	56%	1,274,306	13%
Females Pregnant	129,883	44%	151,750	86%
Age				
25 years and above	221,624	51%	1,230,000	18%
15 - 24 years	168,404	39%	702,000	24%
Children Below 15	46,917	11%	1,665,000	3%
18months - 14 years	37,411	80%	834,160	4%
Below 18months	9,506	20%	830,840	1%
HIV Test History				
Previously tested	232,144	53%		
Never tested before	205,038	47%		
Counselling Type				
Counseled with partner	56,166	13%		
Counseled alone	381,016	87%		
HIV Test Results				
Single test negative	382,752	88%		
First and second test negative	2,809	1%		
First and second test positive	50,040	11%		
First and second test discordant	1,526	0%		
Final Result				
No of children <18months with antibody positive	1,114	0%		
Positive	51,555	12%		
Negative	384,840	88%		
Inconclusive	237	0%		
Referrals (multiple possible)				
ARVs	47,005			
TB	1,905			
PMTCT	12,818			
Other	10,618			

MALAWI PMTCT PROGRAMME

QUARTERLY REPORT

JANUARY TO MARCH 2011

1 Executive Summary

Between July and September 2010, **486** facilities in Malawi were providing PMTCT at ANC and/or maternity. **7,809 (83%)** of 9,418 women attending ANC who were known to be HIV positive received ARVs. This represents **43% PMTCT coverage** among the estimated 18,210 HIV positive pregnant women in Malawi during this quarter. **6,095 (94%)** of 6,509 infants born to known HIV infected mothers at maternity received ARV prophylaxis. This represents **33% PMTCT coverage** among the estimated 18,210 HIV exposed infants born in Malawi during this 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. Unlike the previous two preliminary reports based on a single visit the current report takes into account the services that women receive in their subsequent visits.

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 quarter 1 2011, 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 January and March 2010, **140,383** women attended ANC for their first visit. This is equivalent to **95%** of the expected 151,750 pregnant women in the population during the quarter which is slightly lower than the 97% of pregnant women who are expected to attend ANC in Malawi according to the 2010 DHS. This is likely due to incomplete reporting from facilities caused by the passive reporting system.

The following report covers the **outcomes** of the **143,891** women who started ANC between July and September 2010 and who finished ANC by March 2011. **11,648 (8%)** of women started ANC in their first trimester. **21,257 (15%)** of women were tested for syphilis at ANC and **785 (4%)** were syphilis positive. The syphilis testing rate remains low due to the limited availability of syphilis rapid test kits. 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 **359,039**. Only 19% of women in this cohort attained the minimum of 4 focussed ANC visits.

3.2.1 HIV Testing

111,855 (78%) of 143,891 ANC attendees had their HIV status ascertained. Out of these, **7,992 (7%)** presented with a valid documented previous HIV test result and **103,863 (93%)** received a new HIV test result at ANC. A total of **9,418 (8%)** 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 **111,855** women whose HIV status was ascertained at ANC represent **74%** 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

7,809 (83%) of HIV infected women attending ANC received maternal ARVs. This represents **43%** coverage of the estimated 18,210 HIV positive pregnant women in the population in this quarter (12% of 151,750). This is a decrease from the previous 51% and probably a result of ruptures in the supply chain for test kits and ARVs at facilities.

Of the 7,809 women who received any ARVs, **2,718 (35%)** were given a single tablet of nevirapine to take home and **3,168 (41%)** were started on AZT combination regimen.

6,043 (64%) of 9,418 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. 2,274 (38%) were found eligible and 1,923 were on ART during their ANC follow-up. This represents **21%** ART coverage of the estimated 9,105 pregnant women eligible for ART in the population.¹

6,757 (72%) of HIV infected women at ANC were on Cotrimoxazole Preventive Therapy.

300 (3%) of HIV infected women attending ANC received the infant dose of ARVs (single dose nevirapine syrup) to take home.

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.

3.3 Maternity

Between January and March 2011, **87,813** women were admitted for delivery to maternity. This is equivalent to **58%** of the expected 151,750 deliveries in the population during the quarter. Out of all admissions, 86,789 (97%) delivered at the facility, while 2,261 (3%) had already delivered before reaching the 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 **82,433 (94%)** of deliveries were conducted by skilled birth staff, **1,293 (1%)** by paramedical staff and **4,087 (5%)** were not attended by any of the above (probably mainly among women who delivered before reaching maternity). **8,756 (9%)** of women developed obstetric complications. The most common leading complications were obstructed / prolonged labour (**2,825 cases, 32%**) and haemorrhage (**1,475 cases, 17%**). A total of **89,050** babies were born, **85,755 (96%)** were singletons and **3,295 (4%)** were twins/multiples. There were **87,488 (98%)** live births and **1,562 (2%)** stillbirths. **86,643 (99%)** of babies born alive were discharged alive and **845 (1%)** died before discharge. **87,715 (>99%)** of women were discharged alive and **98 (<1%)** women died before discharge, which is equivalent to a maternal mortality ratio of **91** per 100,000 live births among women attending maternity.

3.3.1 HIV Testing

79,987 (87%) women had their HIV status ascertained at maternity. Out of these, **75,686 (95%)** presented with a valid previous HIV test result and **4,301 (5%)** received a new HIV test result. A total of **7,325 (9%)** women were HIV positive and **72,662 (91%)** were negative. The **79,987** women whose HIV status was ascertained at maternity represent **53%** of the expected 151,750 women delivering in the population.

HIV exposure status was ascertained for **76,600 (88%)** out of 86,643 babies born and discharged alive. **6,509 (8%)** were born to a known HIV positive mother.

3.3.2 ARV Coverage

A total of **6,285 (86%)** of HIV infected women attending maternity received ARVs during labour an increase from the previous quarter's 80%. Out of these, **1,896 (30%)** received the labour dose of AZT combination regimen, **3,474 (55%)** received single dose nevirapine and **915 (15%)** were on ART. **5,292 (72%)** women were already taking ARVs during pregnancy: **3,234 (61%)** of these were on AZT combination regimen and **2,058 (39%)** were on ART (lifelong triple therapy). AZT and ART should be taken for more than 4 weeks during pregnancy to ensure optimal effectiveness. **2,151 (67%)** of women on AZT and **1,765 (86%)** of women on ART had received the respective regimen for over 4 weeks during pregnancy.

A total of **6,095 (94%)** of infants who were known HIV exposed and discharged alive received ARV prophylaxis at maternity. This represents **33% coverage** of the estimated 18,210 HIV exposed infants born in the population in this quarter (12% of 151,750). **817 (13%)** HIV exposed infants received single dose nevirapine and **5,278 (87%)** started AZT combination regimen. **3,808 (72%)** of infants on AZT combination regimen received nevirapine + AZT syrup and **1,470 (28%)** received only AZT syrup.

4 Trainings

A total of 26 health care workers were trained for the first time and certified in PMTCT in Nkhata Bay. 564 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 drawn from all the zones were trained in supervision.

5 Comments

The intermittent stock-outs of HIV and syphilis rapid test kits and ARVs continue to result in sub-optimal PMTCT coverage recorded during this quarter.

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 (8%) 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 department alongside other partners are working at improving on these service delivery bottlenecks in order to improve outputs of the PMTCT program.

2011Q1 ANC Report

National coverage

			Population denominator		
Total women attending first ANC (Jan - March 2011)	140,383		151,750	93%	<i>PMTCT 5</i>
Total women attending first ANC (July - Sept 2010)	143,891		151,750	95%	
Total number of ANC visits (July-Sept 2010)	359,039				
Distribution of women by number of visits					
Women with 1 visit	33,620	23%			
Women with 2 visits	40,671	28%			
Women with 3 visits	42,150	29%			
Women with 4 visits	22,232	15%			
Women with 5 or more visits	5,218	4%			
Trimester of first visit					
First visits at 0-12 weeks	11,648	8%	151,750	8%	
First visits at >12 weeks	132,264	92%	151,750	87%	
(Pre-) Eclampsia					
No	136,689	95%			
Yes	7,115	5%			
TTV doses					
0-1	64,713	45%			
2 or more	79,168	55%			
SP doses received					
0-1	60,550	42%			
2 or more	83,382	58%			
Iron and folate tablets received					
0-119 tabs	110,349	77%			
120 or more tabs	33,542	23%			
Syphilis status					
Total women not tested for syphilis	122,532	85%			
Total women tested for syphilis	21,257	15%	151,750	14%	
Syphilis negative	20,472	96%			
Syphilis positive	785	4%			
HIV status					
Total women with unknown HIV status	31,799	22%			
Total women with ascertained HIV status	111,855	78%	151,750	74%	
Total women with valid previous test result	7,992	7%			<i>PMTCT 6</i>
Negative	5,522	69%			
Positive	2,470	31%			<i>PMTCT 7</i>
Total women newly tested at ANC	103,863	93%			<i>PMTCT 8</i>
Negative	96,915	93%			
Positive	6,948	7%			<i>PMTCT 9</i>
Total women HIV negative	102,437	92%	133,540	77%	
Total women HIV positive	9,418	8%	18,210	52%	<i>PMTCT 10</i>
ART eligibility among HIV positive women					
Total women with unknown ART eligibility	3,270	35%	18,210	18%	
Total women assessed for ART eligibility	6,043	64%	18,210	33%	<i>PMTCT 11</i>
ART not eligible	3,769	62%			
ART eligible	2,274	38%			<i>PMTCT 12</i>
CPT coverage among HIV infected women					
Not on CPT	2,555	27%			
On CPT	6,757	72%			<i>PMTCT 17</i>
ARV regimen among HIV infected women					
Total women receiving no ARVs	1,582	17%	18,210	9%	
Total women receiving ARVs	7,809	83%	18,210	43%	<i>PMTCT 16</i>
ART (1)	1,923	25%	9,105	21%	<i>PMTCT 13</i>
Single dose NVP	2,718	35%			<i>PMTCT 14</i>
AZT combination regimen	3,168	41%			<i>PMTCT 15</i>
ARVs dispensed for infant dose					
ARVs not dispensed	9,114	97%			
ARVs dispensed	300	3%			<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 Q1 Maternity Report (Page 1)

National coverage

Total admissions to Labour & Delivery (1)	92,389		Population denominator	
Total women attending Labour & Delivery	87,813		151,750	58%
HIV status				
Total women with unknown HIV status	12,402	13%		
Total women with ascertained HIV status	79,987	87%	151,750	53%
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Total women with valid previous result	75,686	95%		
Negative	68,783	91%		
Positive	6,903	9%		
<hr/>				
Total women newly tested at maternity	4,301	5%		
Negative	3,879	90%		
Positive	422	10%		
Total women HIV negative	72,662	91%	133,540	54%
Total women HIV positive	7,325	9%	18,210	40%
ARVs during pregnancy among HIV positives				
Total women receiving no ARVs	2,033	28%		
Total women receiving ARVs	5,292	72%	18,210	29%
<hr/>				
AZT combination regimen	3,234	61%	18,210	18%
AZT <4 weeks	1,083	33%		
AZT ≥4 weeks	2,151	67%		
<hr/>				
ART (triple therapy)	2,058	39%	18,210	11%
ART <4weeks	293	14%		
ART ≥4 weeks	1,765	86%		
ARVs received during labour among HIV positives				
Total women receiving no ARVs	1,040	14%		
Total women receiving ARVs	6,285	86%	18,210	35%
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ART	915	15%	18,210	5%
Single dose NVP	3,474	55%	18,210	19%
AZT combination regimen	1,896	30%	18,210	10%
Obstetric complications				
Total women with no complications	83,633	91%		
Total women with complications	8,756	9%		
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Haemorrhage	1,475	17%		
Obstructed / prolonged labour	2,825	32%		
(pre-) Eclampsia	437	5%		
Maternal sepsis	128	1%		
Ruptured uterus	121	1%		
Other maternal complications	3,770	43%		
Referred out before delivery				
No	87,813	95%		
Yes	4,576	5%		
Staff conducting delivery				
MO, CO, nurse/midwife, MA	82,433	94%	151,750	54%
PA, WA, HSA	1,293	1%		
Other	4,087	5%		
Mother survival				
Discharged alive	87,715	100%		
Died	98	0%	107,888	91 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)

2010 Q3 Maternity Report (Page 2)

National coverage

Population denominator

Twins			
Total babies born	89,050		151,750 59%
Singleton babies	85,755	96%	
Twin / multiple babies	3,295	4%	
Delivery place			
Total deliveries at a health facility	86,789	97%	151,750 57%
This facility	84,208	97%	
Other facility	2,581	3%	
Total deliveries before reaching the facility	2,261	3%	
In transit	464	21%	
Home / TBA	1,797	79%	
Delivery mode			
Spontaneous vaginal	81,522	92%	
Vacuum extraction	1,042	1%	
Breech	1,845	2%	
Caesarean section	5,022	6%	151,750 3%
Infant complications			
Total infants with no complications	79,370	89%	
Total infants with complications	9,680	11%	
Prematurity	3,035	31%	
Low birth weight (<2500g)	2,923	30%	
Asphyxia	1,739	18%	
Newborn sepsis	717	7%	
Other infant complications	1,266	13%	
Infant survival			
Total live births	87,488	98%	
Discharged alive	86,643	99%	
Neonatal deaths	845	1%	
Stillbirths	1,562	2%	
Fresh	849	54%	
Macerated	713	46%	
Infant HIV exposure and ARV prophylaxis			
Infants with Unknown HIV exposure status	10,084	12%	
Infants with known HIV exposure status	76,600	88%	151,750 50%
Infants not HIV exposed	70,091	92%	
Infants HIV exposed	6,509	8%	18,210 36%
Received no ARVs	414	6%	
Received any ARVs	6,095	94%	18,210 33%
Single dose NVP	817	13%	18,210 4%
AZT prophylaxis	5,278	87%	18,210 29%
Started AZT + sd NVP	3,808	72%	18,210 21%
Started AZT only	1,470	28%	18,210 8%
Breast Feeding Initiated			
No	3,828	4%	
Yes	85,135	96%	

**MALAWI ANTIRETROVIRAL TREATMENT PROGRAMME
QUARTERLY REPORT
RESULTS UP TO 31ST MARCH 2011**

Executive Summary

By the end of March 2011, **264,512** patients were alive and on ART in Malawi, equivalent to **65%** coverage of the estimated population in need of ART¹. There were **433** ART clinics (**297** static clinics and **136** outreach / mobile clinics).

Out of the **365,191** patients ever initiated on ART, **264,512 (72%)** were retained alive on ART, **42,549 (12%)** had died, **56,662 (16%)** were lost to follow-up (defaulted) and **1,761 (<1%)** were known to have stopped ART. **80%** of adults and **78%** of children were retained alive on ART 12 months after ART initiation. An estimated **240,581** adults and **23,931** children (<15 years) were alive on ART by the end of March 2011.

In the first quarter of 2011 (January to March) a total of **18,807** new patients initiated ART. **4,406** patients transferred between clinics (19% of the total **23,273** new ART clinic registrations). Among new registrations 40% were males, 60% females; 90% were adults and 10% children.

The number of infants starting ART in the first quarter of 2011 in WHO stage 1 or 2 with confirmed HIV infection (DNA-PCR) increased slightly at **173** (previous **141**), while children under 18 months starting due to presumed severe HIV disease increased from **165** to **209**.

In June 2010, MOH management endorsed a change in PMTCT and ART and infant feeding policy. New national guidelines and training materials have been developed and implementation is scheduled from July 2011.

Table 1: ART programme December 2003- December 2010 (public and private sector)

	Dec 2003	Dec 2004	Dec 2005	Dec 2006	Dec 2007	Dec 2008	Dec 2009	Dec 2010	Mar 2011
ART sites	9	24	83	141	163	221	377	417	433
Patients alive on ART	No data	10,761	29,087	59,980	100,649	147,497	198,846	250,987	264,690
Coverage of pop. in need of ART ¹	No Data	3%	9%	17%	28%	41%	53%	63%	65%
New ART registrations in year	No Data	10,183	25,634	46,351	61,688	76,581	88,126	88,813	23,273
Patients ever initiated on ART (cumulative)	~3000	12,848	35,621	75,503	129,276	200,901	271,105	345,598	365,191

¹ ART need defined by CD4<250 cells/mm³

Methods

This report includes quarterly data from all patients who registered at ART clinics in Malawi between January and March 2011 and cumulative data from all patients who ever registered up to 31st March 2011.

All health facilities with static ART clinics in the public and private sectors were visited during April/May 2011. Data collected covered all 297 static and 136 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.

31 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 **620 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 death and defaulter) were correct, and we believe that outcomes are accurately represented in this report. Certificates were awarded to clinic teams with excellent performance during the previous supervision visit.

All data were entered into an MS Access database at the Department for 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 March 2011, there were **297 static ART sites** in Malawi, owned by government, mission, NGOs and the private sector. Out of these, **59** were ART facilities in the private sector, charging a nominal MK500 per monthly prescription of drugs per patient.

New patients registered between January and March 2011

In Q1 2011, there were a total of 23,273 ART clinic registrations, representing **18,807 (81%)** patients who newly initiated ART and 4,406 (19%) ART patients who transferred between clinics. Out of all clinic registrations, 40% were males and 60% were females, 90% were adults and 10% were children (<15 years). The majority of patients (**55%**) started ART in WHO Stage 3. The proportion of patients starting in Stage 1 or 2 with a low CD4 count (**32%**) has slightly reduced as compared to the previous quarter (34%), and those starting in WHO stage 4 (**10%**) remains the same.

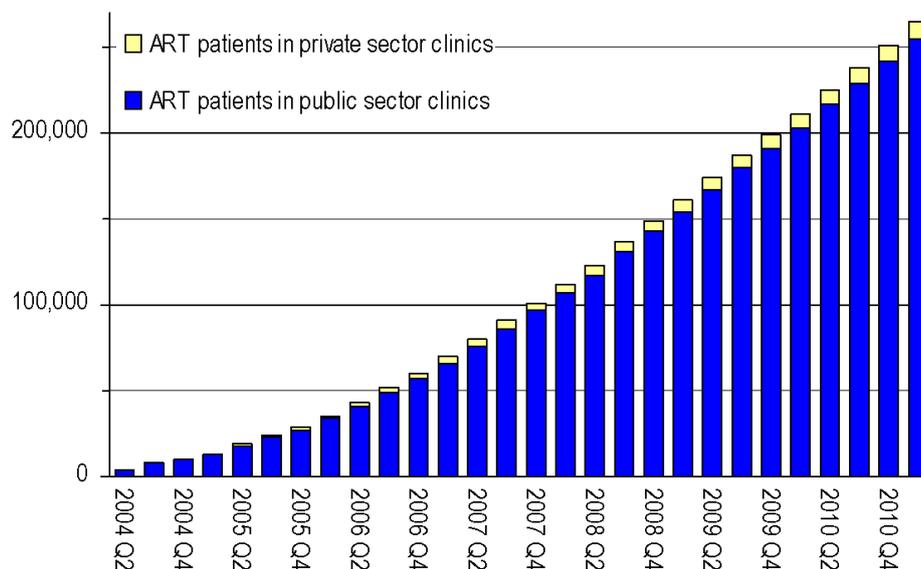
Out of **540** children under 18 months of age who started ART, **173 (32%)** were infants in WHO stage 1 or 2 with confirmed HIV infection (previous **141**) (DNA-PCR, policy of universal ART for infected infants); **209** (previous **165**) were initiated as presumed severe HIV disease; and **158** started in WHO stage 3 or 4. **1,141 (5%)** of patients registered during Q1, 2011 were pregnant women (at the time of ART initiation).

Cumulative patients ever registered up to March 2011

By the end of March 2011, there were a cumulative total of **429,897** clinic registrations, representing **365,191** (85%) patients who newly initiated ART and **64,413** (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 **16,423** (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 March 2011, a total of **264,512 patients were alive on ART**. This number includes 4,316 patients who were assumed to be 'in transit' as of the 31st March 2011, based on the difference between 68,729 patients *transferred out* and 64,413 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 **13,525** in Q1 of 2011. This growth has been very consistent over time allowing for reliable forecasting and quantification.

Implementation of revised PMTCT and ART guidelines in 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 Q1 (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	26,181	26,770	102%	6,297	2,547	40%	32,478	29,317	90%
CW	68,470	53,460	78%	16,468	5,441	33%	84,938	58,901	69%
CE	20,483	22,254	109%	4,926	1,903	39%	25,409	24,157	95%
SW	102,037	85,534	84%	24,541	8,710	35%	126,578	94,244	74%
SE	109,988	52,552	48%	26,454	5,341	20%	136,442	57,893	42%
Nat. Total	327,159	240,570	74%	78,686	23,942	30%	405,845	264,512	65%

Table 2 shows the **national ART coverage at the end of March 2011, 264,512 (65%)** of 405,845 population in need were on ART. Coverage by geographical zone was inversely related to the absolute population in need of ART: 24,157 (**95%**) of 25,409 people in need of ART in the **Central East Zone** were on ART, while only 57,893 (**42%**) of

136,442 people in the **South East Zone** were covered. Coverage among children and adults was **30%** and **74%**, respectively, a slight increase from the previous quarter (29% and 71%). The average population in need per ART site was **637** in the **Northern** and **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. 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 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)

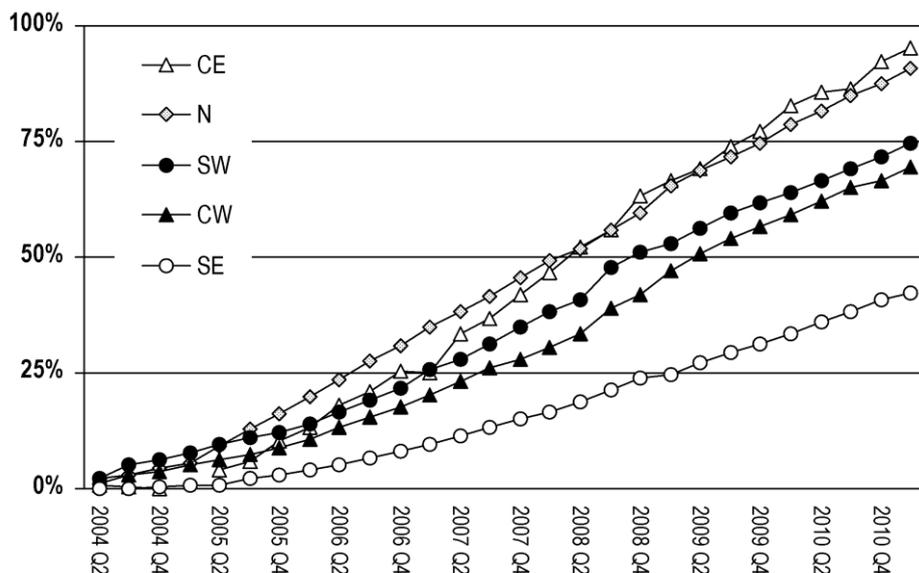


Figure 2 shows that ART coverage has increased much faster in the Central East and Northern Zone than in the South East Zone.

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)

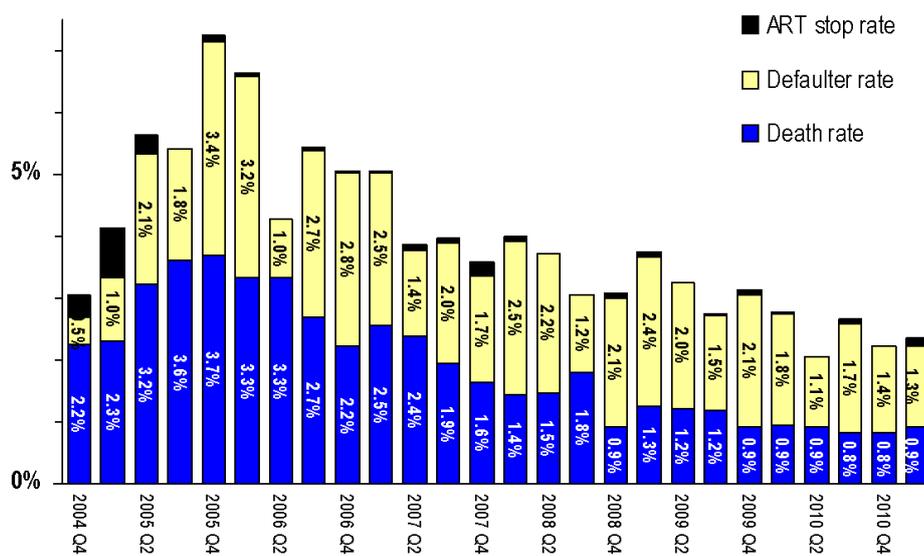
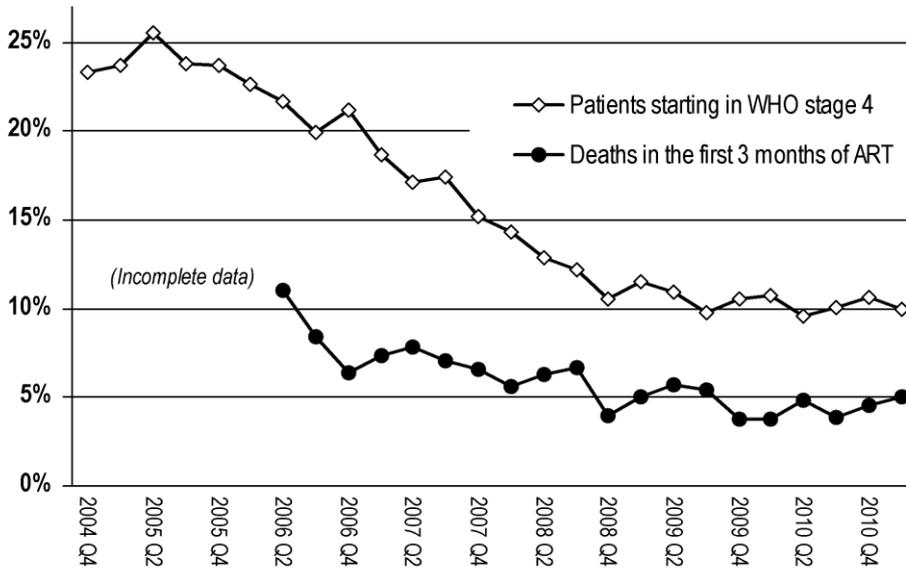


Figure 3 shows the general steady decrease of death and defaulter rates since the start of the national programme. During Q1 2011, there were **2,338** new deaths, **3,381** new defaulters, **411** new ART stops and **62** new ART re-initiations. This translates into a quarterly death rate of **0.9%** and a defaulter rate of **1.3%** among the patients alive and on treatment during this quarter. By end of March 2011, a cumulative **42,549** (12%) patients were

known to have died **56,662 (16%)** were lost to follow-up and **1,761 (<1%)** were known to have **stopped ART**. Based on previous operational studies, about half of the patients classified as lost to follow-up are thought to have died.

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)

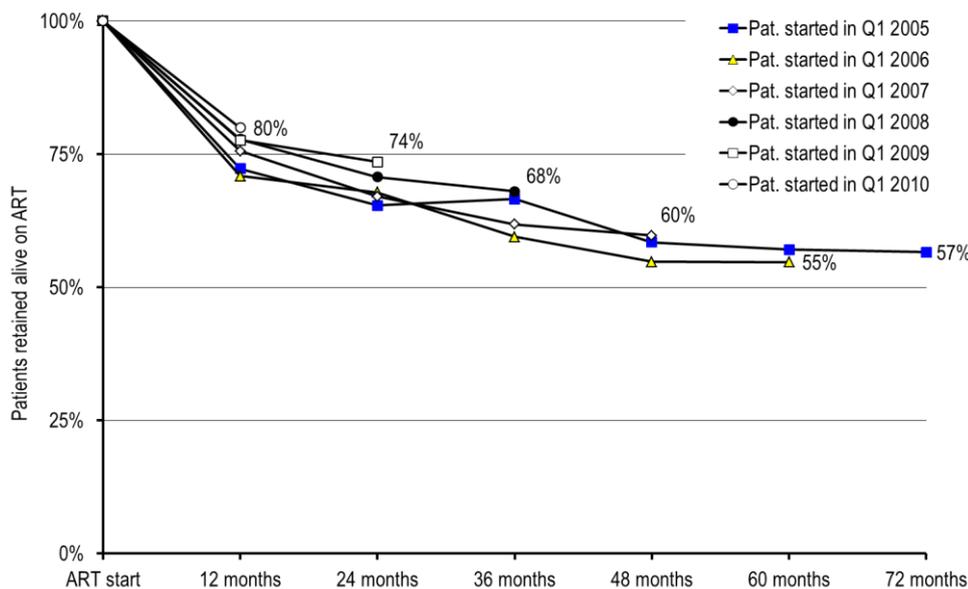


Early mortality has declined considerably (**Figure 4**). In 2006 Q2, 11% of new patients died within the first 3 months after ART initiation. Early mortality has declined to less than 5% in Q1 2011. This correlates well with the decline in the proportion of patients starting ART in WHO clinical stage 4 from 25% in 2005 Q2 to about 10% in Q1 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 2 years).

Cohort Survival Analysis

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



A 12, 24, 36, 48, and 60 - month **'cohort outcome survival analysis'** was conducted for patients registered in Q1 2010, Q1 2009, Q1 2008, Q1 2007, Q1 2006, and Q1 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 Q1 2010. **80% of adults** and

78% of children were retained alive on ART after 12 months on treatment (similar to the previous quarter): **Figure 5** shows the continuous improvement of long-term treatment outcomes over time. However, the current '12-month survival rate' is still below the WHO target of 85%.

Secondary outcomes of patients retained on ART

Secondary outcomes are available for the **260,196** patients alive on ART who remained at their sites at end of the quarter. Secondary outcomes are not available for **4,316** patients *in transit*.

ART Regimens

90% were on the first line, 8% 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

200,146 (91%) out of 220,269 with data on the number of doses missed were classified as >95% adherent in Q1 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 83% of patients alive on treatment.

Side Effects

6,301 (2%) of patients on ART had documented drug side effects at their last clinic visit before end March 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

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. 259,162 (98%) of patients alive on ART were screened for TB at their last visit before end of March 2011. Out of these, 557 were new TB suspects and 2,830 (1%) had confirmed current TB. As of the last visit before the end of March 2011, 2,122 (74%) of these were on current TB treatment while 708 (25%) were not (yet) on TB treatment.

Cotrimoxazole Preventive Therapy (CPT)

As of the end of March 2011, 95% of ART patients were on CPT. A cumulative total of 362,175 patients (pre-ART and ART) had been entered in CPT registers. CPT registers have not been used consistently by all sites.

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) and cryptococcal meningitis (CM) cases continues to decrease from the previous two quarters, probably due to unavailability of fluconazole drugs at some sites. The number of new TB cases decreased considerably. 87% (Q4:89%) of TB patients were tested for HIV, 64% of these were HIV positive and 43% 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 Q2	5,586	4,895	88%	2,934	60%	1,077	37%	1,128	459	517
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

TB / HIV

Approximately **82%** of HIV infected TB patients were receiving ART in Q1 2011. This estimate is based on the following triangulation of TB and ART program data:

TB Program Data: A total of **4,844** TB patients were registered during Q1 2011. Assuming an average HIV prevalence of 66% among TB patients, **3,197** TB patients were estimated to be HIV positive and therefore in need of ART. Given that **1,145** TB patients registered were already on ART at the time of starting TB treatment, $3,197 - 1,145 = \mathbf{2,052}$ TB patients needed to initiate ART.

ART Program Data: An estimated **1,470** patients² started ART with a current or recent episode of TB during Q1 2011, which is **72%** (1,470 of 2,052) of the TB patients who needed to start ART in Q4 2010. This means that a total of $1,145 + 1,470 = \mathbf{2,615}$ (**82%**) of the estimated 3,197 HIV infected TB patients were receiving ART in Q4 2010.

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: **166 (56%)** sites (public and private sector) received a certificate of excellence. This is similar to the last quarter.

ART workload and staffing

By the end of March 2011 there were **179** static sites with fewer than 1,000 patients, **48** sites with 1,001–2,000 patients, **42** 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 224 of all clinics 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 days in a week given for ART at these facilities in Q4 2010 was 566, translating into an average of 2.5 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 **218** clinicians was working full-time in ART delivery each week. 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	45	98	100	115	109
CW	42	119	223	248	231
CE	37	77	95	98	90
SW	51	147	224	241	252
SE	49	125	199	243	199
Total	224	566	841	945	881
FTE			218	246	229

² 20% of the 2,091 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 drug 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 (April/May). **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 33,000 new patients on ART, estimated to last for less than 2 months at current rates of recruitment. Standard first line stocks (612,000 tins) were enough for about 2.5 months of consumption. Stocks of alternative first line ARVs (AZT based regimen 61,147 tins) were sufficient to last for about 4 months and stocks of EFV (78,662 tins) for more than 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) to be used as first line regimen for HIV infected pregnant women (PMTCT option B+) has arrived and will be distributed in July 2011. 197 (69%) of facilities visited had any stocks of ARVs for maternal PMTCT prophylaxis and 183 (64%) had ARVs for infant PMTCT prophylaxis (single dose nevirapine or AZT combination regimen). This represents further improvement of the availability of PMTCT drugs compared with the previous quarters.

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	1,024	2,108	6,755	9,887	54%
d4T 30mg / 3TC	15	3,068	10,530	20,244	33,842	93%
d4T 30mg / 3TC / NVP	15	3,509	10,793	24,295	38,597	92%
Triomune Baby	30	2,690	9,595	39,907	52,192	56%
d4T 30mg / 3TC / NVP	60	74,352	192,750	344,528	611,630	99%
AZT 3TC NVP	60	6,907	26,232	28,008	61,147	91%
AZT / 3TC	60	3,294	12,945	82,609	98,848	79%
NVP	60	416	1,417	3,969	5,802	24%
d4T 30mg / 3TC	60	4,667	14,916	30,278	49,861	95%
EFV	30	6,508	18,072	54,082	78,662	95%
TDF	30	182	494	501	1,177	100%
ABC	60	581	698	1,514	2,793	100%
ddl	30	178	1,751	1,475	3,404	100%
LPV/r	120	100	938	1,448	2,486	100%
CPT	60	50,736	199,840	2,829,950	3,080,526	90%
Cotrimoxazole	1	3,287,216	7,917,002	14,949,018	26,153,236	95%
Fluconazole	1	41,711	1,091,072	198,971	1,331,754	35%
Ceftriaxone	1	25,354	49,688	40,260	115,302	38%
Acyclovir	1	113,456	181,114	1,313,975	1,608,545	56%
Ciprofloxacin	1	209,840	272,962	388,577	871,379	57%
Vincristine	1	3,291	8,980	7,483	19,754	24%
Morphine	1	18,530	283,382	75,787	377,699	11%
Amitriptyline	1	343,410	451,552	954,093	1,749,055	64%
NVP (PMTCT)	1	5,403	135,500	67,150	208,053	52%
NVP syrup (PMTCT)	1	4,555	2,015	4,756	11,326	52%
AZT (PMTCT)	1	48,647	133,460	870,789	1,052,896	58%
AZT syrup (PMTCT)	1	769	1,964	27,932	30,665	54%

Post Exposure Prophylaxis (PEP)

285 clients received PEP in Q1 of 2011, representing a decline from 353 recorded in Q4 2010.

Availability of CD4 counts

A total of 62 facilities had CD4 count machines installed and 53 of these produced any results during Q1 2011 as compared to 52 in Q4 2010. The total quarterly output of CD4 results declined by **1,443 (45,772 in Q4 to 44,279 in Q1)**. 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 Q2	52	41	44,841
2010 Q3	58	54	45,833
2010 Q4	59	52	45,722
2011 Q1	62	53	44,279

Trainings

In preparation for the re-training of all providers using the integrated PMTCT/ART curriculum from June 2011, all trainings using the previous curriculum were suspended during Q1 2011.

The table below shows the cumulative number of ART providers who were trained on old curriculum who need to be re-trained on the new curriculum that has been developed. This table does not include previous PMTCT providers.

Table 7: ART training by end September 2010

Sector	Target	Achievement
Public sector providers trained in Q4 2010	100	33
Private sector providers trained in Q 2010	25	0
Public sector providers trained (cumulative)	2,700	3,280
Private sector providers trained (cumulative)	500	581

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 care. This will entail expanding services to all the ANC sites in country as well as ANC outreach sites. It is anticipated that this will accelerate coverage as sites delivering the integrated services will increase from the current 295 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 3,500 health workers will be (re-)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 has now been rolled out to 19 sites and a further 4 sites are planned before July 2011.

TB/HIV integration

Joint TB/HIV supervision could not take place for Q1 2011 due to other commitments of the TB department; however, joint TB/ART supervision has been useful and should continue. Logistics and funding for the TB team need to be further worked out. A final draft of TB/HIV guidelines has been developed by the TB/HIV Technical Working group in line with the TB/HIV operational framework. Operational research is being conducted by the TB team on INH prophylaxis with an aim to the roll out of INH prophylaxis in 2011. Standard Operating Procedures for providing ART in TB clinics has been developed and finalised. Further TB/HIV integration will be achieved by training TB clinicians in ART initiation and management, while decentralization of TB registration sites is taking place to ensure wider coverage. As of March 2011, a further 7 facilities had been established as TB treatment registration sites and plans are in progress to decentralise to an additional 100 sites. Almost all ART patients are now screened for TB at each using a standard WHO recommended screening tool.

Participants in Q1 2011 ART Supervision

Janet Chikonda	Joseph Kasola	Mapay Ngalala	<u>Report compiled by</u> F. Chimbwandira A. Mnthambala Eustice Mhango Simon Makombe Joseph Njala Lyson Tenthani Andreas Jahn Zengani Chirwa
Felix Chinguwo	Prosper Lutala	Stanley Ngoma	
Zengani Chirwa	Tifane Makocha	Joseph Njala	
Stephen Chu	Simon Makombe	Sabina Phiri	
Stuart Chuka	Hannock Matupi	Macleod Piringu	
Peter Donda	Benjamin Mazalo	Monica Simfukwe	
Suleiman Ibrahim	Loyna Mbewe	Emmanuel Singano	
Agnes Kalitsiro	Eustice Mhango	Mark Suzumire	
Mike Kalulu	Austin Mnthambala	Everista Tchuwa	
Henry Kamwetsa	Ekwala Mubiala	Lyson Tenthani	
Rehema Kansonkho	HB Mwenelupembe		

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.

30th June 2011

**New patients registered for ART
between 01/01/2011 and 31/03/2011**

		Public Sector		Private Sector		National Total	
Total registrations		22,558		715		23,273	
Registration type	New ART initiations (Patients)	18,293	81%	514	72%	18,807	81%
	ART Re-initiations	48	0%	12	2%	60	0%
	Transfers in	4,217	19%	189	26%	4,406	19%
Sex	Males	9,080	40%	315	44%	9,395	40%
	Total females	13,478	60%	400	56%	13,878	60%
	Females non-pregnant	12,376	55%	361	50%	12,737	55%
	Females pregnant	1,102	5%	39	5%	1,141	5%
Age	Adults	20,169	89%	679	95%	20,848	90%
	Total children	2,389	11%	36	5%	2,425	10%
	Children 18m-14yrs	1,854	8%	31	4%	1,885	8%
	Children 0-17 months	535	2%	5	1%	540	2%
Reason for ART	Presumed sev. HIV <18mths	206	1%	3	0%	209	1%
	Confirmed HIV infants	173	1%	0	0%	173	1%
	WHO 1/2, CD4 <threshold	7,059	31%	295	41%	7,354	32%
	WHO 2, TLC <threshold	3	0%	5	1%	8	0%
	WHO stage 3	12,590	56%	313	44%	12,903	55%
	WHO stage 4	2,217	10%	96	13%	2,313	10%
	Reason unspecified	310	1%	3	0%	313	1%
	Total TB	1,760	8%	60	8%	1,820	8%
	TB in last 2 years	806	4%	43	6%	849	4%
	Current TB	954	4%	17	2%	971	4%
KS	570	3%	20	3%	590	3%	

Cumulative patients registered for ART up to end 31/03/2011

		Public Sector		Private Sector		National Total	
Total registrations		413,474		16,423		429,897	
Registration type	New ART initiations (Patients)	351,590	85%	13,601	83%	365,191	85%
	ART Re-initiations	237	0%	56	0%	293	0%
	Transfers in	61,647	15%	2,766	17%	64,413	15%
Sex	Males	160,690	39%	7,896	48%	168,586	39%
	Total females	252,784	61%	8,527	52%	261,311	61%
	Females non-pregnant	239,537	58%	8,123	49%	247,660	58%
	Females pregnant	13,247	3%	404	2%	13,651	3%
Age	Adults	375,341	91%	15,662	95%	391,003	91%
	Total children	38,133	9%	761	5%	38,894	9%
	Children 18m-14yrs	32,275	8%	708	4%	32,983	8%
	Children 0-17 months	5,858	1%	53	0%	5,911	1%
Reason for ART	Presumed sev. HIV <18mths	1,413	0%	21	0%	1,434	0%
	Confirmed HIV infants	1,323	0%	0	0%	1,323	0%
	WHO 1/2, CD4 <threshold	101,600	25%	6,186	38%	107,786	25%
	WHO 2, TLC <threshold	91	0%	8	0%	99	0%
	WHO stage 3	241,633	58%	7,316	45%	248,949	58%
	WHO stage 4	59,184	14%	2,693	16%	61,877	14%
	Reason unspecified	8,230	2%	199	1%	8,429	2%
	Total TB	44,192	11%	1,239	8%	45,431	11%
	TB in last 2 years	31,826	8%	1,082	7%	32,908	8%
	Current TB	12,366	3%	157	1%	12,523	3%
	KS	12,624	3%	362	2%	12,986	3%
Primary outcomes	Alive on ART (1)	254,924	73%	9,588	70%	264,512	72%
	Defaults	54,033	15%	2,629	19%	56,662	16%
	ART stops	1,705	0%	56	0%	1,761	0%
	Deaths total	41,165	12%	1,384	10%	42,549	12%
	Month 1	11,597	28%	449	32%	12,046	28%
	Month 2	7,829	19%	204	15%	8,033	19%
	Month 3	4,264	10%	122	9%	4,386	10%
	After month 3	17,475	42%	609	44%	18,084	43%
Transfers out	65,262		3,467		68,729		
ARV regimens (2)	Start	227,861	91%	6,659	75%	234,520	90%
	Alternative 1st line total	19,117	8%	1,887	21%	21,004	8%
	AZT	12,380	65%	1,529	81%	13,909	66%
	EFV	5,401	28%	184	10%	5,585	27%
	AZT+EFV	1,336	7%	174	9%	1,510	7%
	Second line total	1,049	0%	182	2%	1,231	0%
	Second line adult	847	81%	177	97%	1,024	83%
	Second line children	202	19%	5	3%	207	17%
Other / Non-standard	3,282	1%	159	2%	3,441	1%	
Side effects	Side effects counted	251,216	99%	8,887	93%	260,103	98%
	With side effects	6,084	2%	217	2%	6,301	2%
Adherence	Adherence recorded	213,103	84%	7,166	75%	220,269	83%
	>95% adherent	193,072	91%	7,074	99%	200,146	91%
Current TB status	Status recorded	250,277	98%	8,885	93%	259,162	98%
	TB suspected	554	0%	3	0%	557	0%
	TB confirmed, not on Rx	708	0%	0	0%	708	0%
	TB confirmed, on Rx	2,085	1%	37	0%	2,122	1%

(1) Includes 4,316 patients in transit (transferred out but not yet transferred in at the new site).

(2) Excludes patients in transit

MALAWI STI TREATMENT PROGRAMME

QUARTERLY REPORT

JANUARY TO MARCH 2011

1 Access to STI treatment and coverage

Between January and March 2011, **40,694** STI clients were served at health facilities in Malawi, representing **41%** of the **98,600** expected quarterly STI cases in the population¹. Out of all clients, **16,350 (40%)** were male and **24,344 (60%)** were female. **3,077 (13%)** of female STI clients were pregnant. **25,892** clients (**64%**) were 25 years and above, **10,727 (26%)** were 20-24 years and **3,945 (10%)** were under 20 years old. Considering the estimated STI case burden in the population ¹, access to STI clinics remained particularly low among under 20 year olds: 3,945 (**23%**) of the expected 17,323 STI cases in this age group were seen at the health facilities during this quarter.

2 Client Type and STI History

32,099 (79%) of clients were index cases and **8,465 (21%)** were partners of index cases. **5,239 (62%)** of partners were asymptomatic. Considering that a total of **22,667** partner notification slips were issued, only **37%** of those notified presented to the clinic. **27,826 (68%)** of clients presented with their first lifetime episode of STI, **9,432 (23%)** clients reported to have had an STI in over three months ago and **3,447 (8%)** 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. The proportion of STI clients with a renewed episode (**31%**) was higher than in the previous quarter (**20%**).

3 HIV Status

HIV status was ascertained for **20,547 (50%)** clients and **6,473 (32%)** of these were HIV positive. **2,116 (33%)** of positives were identified through a new test initiated at the STI clinic, while **4,357 (67%)** presented with a documented previous positive HIV test result.² **2,217 (51%)** of clients with a previous positive HIV test result were on ART.

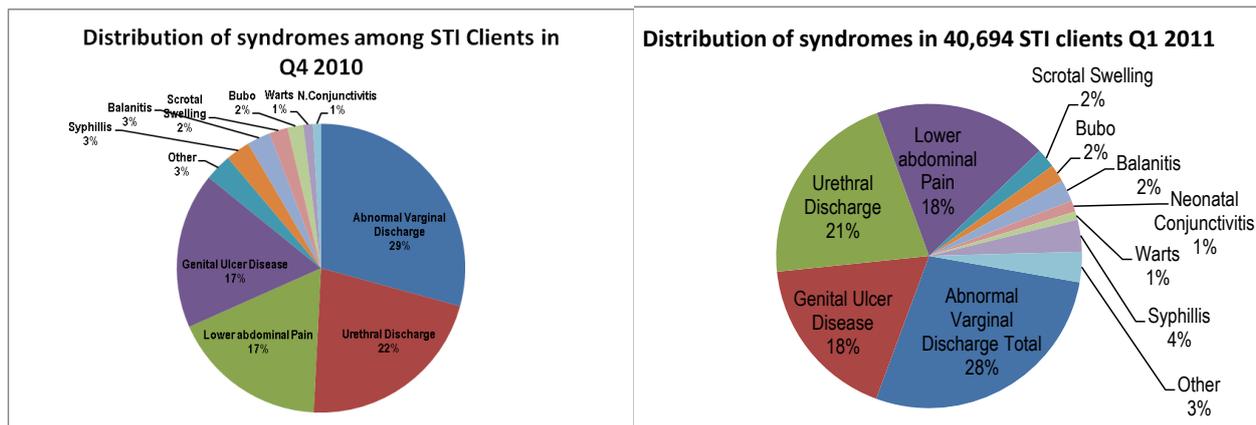
The rate of HIV status ascertainment is still low at STI clinics in Malawi. This is likely due to poor implementation of provider initiated testing and counselling, combined with weak back-referral systems which may lead to incomplete documentation of new HIV test results at the STI clinics. It is worth 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.

4 STI Syndromes

Figures 1 and 2 show the distribution of STI syndromes among the 46,917 and 38,809 cases presenting to STI clinics in the Q3 and Q4 respectively. Similar to the last quarter, the most common syndrome was abnormal vaginal discharge (AVD) with **11,955 (28%)** cases. Similar to the previous quarter, balanitis, bubo, warts and neonatal conjunctivitis each accounted for 1 – 3% of cases.

¹ STI case burden in the population is estimated by applying the age-specific rates of STIs from the 2004 Malawi DHS to the projected population.

² Due to the high risk of recent HIV infection among STI clients, previous negative test results are not considered valid and new HIV tests should be performed in all of these cases.



Figures 1 and 2: Distribution of Syndromes among the 46,917 clients in Q4 of 2010 and in Q1 of 2011

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 **10,755 (31%)** of the 34,323 STI clients with unknown or new negative test result were referred for repeat HTC. **1,654 (78%)** of 2,116 clients who were newly tested HIV positive were referred for ART eligibility assessment. This is an increase from the previous quarters (73% and 75%), but remains below target.

6 Trainings

District level trainings were pending and awaiting disbursement of funding from NAC.

7 STI Commodities Supply

STI drug supply has been satisfactory during Q1 2011. Only 10% of facilities experienced any stock-outs of the 4 main antibiotics (benzthine penicillin, gentamycin, doxycycline, metronidazole) during this quarter.

2011 Q1 STI Report

National coverage

			Population denominator	
			98,604	41%
Total Number of Clients	40,694			
Gender and Pregnancy				
Males	16,350	40%	37,993	43%
Females	24,344	60%	60,612	40%
Females Non Pregnant	21,267	87%		
Females Pregnant	3,077	13%		
Age				
Age A (<20 years)	3,945	10%	17,323	23%
Age B (20 - 24 years)	10,727	26%	24,952	43%
Age C (25 years and above)	25,892	64%	56,799	46%
Type				
Index cases	32,099	79%		
Partners	8,465	21%		
Asymptomatic	5,239	62%		
Symptomatic	3,226	38%		
Partner Notification				
Partner Slips issued	22,667			
Partners	8,465	37%		
STI History				
Never	27,826	68%		
Old (previous STI >3months ago)	9,432	23%		
Recent (previous STI <3months ago)	3,447	8%		
HIV Status				
HIV status unknown	20,249	50%		
HIV Status ascertained	20,547	50%		
Total HIV negative (new test)	14,074	68%		
Total HIV positive	6,473	32%		
Total new HIV positive	2,116	33%		
Total previous HIV positive	4,357	67%		
Not on ART	2,140	49%		
On ART	2,217	51%		
Syndromes				
Total Syndromes*	42,936			
Abnormal Varginal Discharge Total	11,955	28%		
Low Risk	5,091	43%		
High Risk	6,864	57%		
Genital Ulcer Disease	7,610	18%		
Urethral Discharge	9,068	21%		
Lower abdominal Pain	7,898	18%		
Scrotal Swelling	883	2%		
Bubo	794	2%		
Balanitis	995	2%		
Neonatal Conjunctivitis	514	1%		
Warts	376	1%		
Syphillis	1,460	3%		
Other	1,383	3%		
Referrals (multiple possible)				
Repeat HTC ^{&}	10,755	31%		
ART	1,654	78%		
Lab	922			
PMTCT	311			
Gynae	514			
Surgical	178			
Other	1,539			

* Syndromes more than number of clients due to multiple syndromes

& All patients with a negative test and unknown status were supposed to have been referred for repeat HTC