



**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*

**April – June 2010**

**HIV TESTING AND COUNSELLING - HTC  
QUARTERLY REPORT  
REPORTING PERIOD: APRIL – JUNE 2010**

**1. Number of People Tested and Counsellled for HIV**

***1.1 People tested and counseled in the fiscal year July 2009 to June 2010***

The total number of people tested and counsellled for HIV for fiscal year July 2009-June 2010 was **1,724,190 (1.7 Million)**. Refer to Table 1 below. This was an increase of just 12 thousand persons from the previous fiscal year July 2008-June 2009, in which 1,712,170 people were tested.

The HIV positive rate remained the same at **11%**. The pattern of regional differences in HIV rates remained the same as well. The Northern Region and Central Region rates were lower at 6.7% and 8.0% respectively; and the Southern Region was 15.8%. In the previous fiscal year July 2008-June 2009, the northern region rate was 9.6%, the Central Region was 13.9% and the Southern Region was 21.8%. The regional HIV rates for 2009-10 have decreased from the previous year by a range of 2 to 5 percentage points.

The pattern of gender differences remained the same as in previous years; the uptake by males was 33%, the females non-pregnant was 37.5% and 29% were females pregnant.

The number of people testing and knowing their HIV status for the first time in their lives was **922,236 (53%)**. This is a significant drop from **1,079,598 (63%)** knowing their HIV status for the first time in the previous year. The number of people testing as partners increased by one percentage point from 11.2% in July 2008-June 2009 to 12.2% in July 2009-June 2010.

**1.2. Static HTC sites**

The number of cumulative operational static HTC sites increased from 700 by the end of June 2009 to 742 by the end of June 2010

**1.3 Trained HTC Counsellors/ HTC Supervisors and HTC TOT**

The number of cumulative trained and certified HTC counsellors from July 2009 to June 2010 was 623. There were also 17 HTC supervisors and HTC trainers trained in the same period.

**Table 1: HTC Fiscal Year Achievements July 2009 - June 2010**

Indicator	July – Sept 09		Oct – Dec 09		Jan – Marc 10		April – June 10		July 09 – June 10	
	#s	%	#s	%	#s	%	#s	%	#s	%
1 Number tested and counselled for HIV	420,030		403,838		416,370		483,952		1,724,190	
2 # and % HIV positive	50,646	12.06%	47,820	11.8%	42,894	10.3%	52,033	10.7%	193,393	11.2%
2[a] # Tested for Northern Region and % HIV +	65,313	6.9%	61,251	6.9%	59,177	6.3%	58,785	6.6%	244,526	6.7%
2[b] # Tested for Central Region and % HIV +	172,019	9.2%	153,054	8.5%	181,780	7.9%	216,264	6.4%	723,117	8.0%
2[c] # Tested for Southern Region and % HIV +	182,698	16.6%	189,533	16.2%	175,413	14.0%	208,903	16.5%	756,547	15.8%
3 # and % of exposed children [0-17months testing positive with rapid HIV Tests]	5,969	12.8%	5,510	12.5%	6,086	18.3%	7,343	11.6%	24,908	13.8%
4 # and % of Males	138,297	32.9%	136,246	33.7%	139,163	33.4%	160,607	33.2%	574,314	33.3%
5 # and % of females Non-Pregnant Females	156,724	37.3%	149,373	37.0%	158,986	38.2%	181,889	37.6%	646,972	37.5%
6 # and % of Females Pregnant	125,009	29.8%	118,219	29.3%	118,221	28.4%	141,456	29.2%	502,905	29.2%
7 # and % Never tested before	233,976	55.3%	217,091	53.7%	225,396	54.1%	245,773	50.8%	922,236	53.4
8 # and % tested and counselled with a partner	47,593	11.3%	45,334	11.2%	48,993	11.8%	68,003	14.0%	209,923	12.2%
9 # and % of Age Group A [0-17months] tested and parents/guardians counselled.	5,969	1.4%	5,510	1.4%	6,086	1.4%	7,343	1.5%	24,908	1.4%
10 # and % of Age Group B [18 months- 14 yrs] tested and counselled.	28,514	6.9%	35,552	8.8%	29,651	7.1%	31,894	6.6%	125,611	7.3%
11 # and % of Age Group C [15 – 24 yrs] tested and counselled.	164,242	39.0%	166,371	41.2%	164,614	39.5%	189,473	39.2%	684,700	39.7%
12 # and % of Age Group D [25 years and above] tested and counselled.	221,398	52.7%	202,201	50.1%	216,197	51.9%	253,647	52.4%	893,443	51.8%
13 # referred for ART and % for all referrals	37,546	53.1%	35,013	53.3%	31,807	54.7%	37,825	54.6%	142,191	53.9%
14 # referred for TB and % for all referral	2,552	3.6%	2,563	3.9%	1,853	3.2%	2,813	4.0%	9,781	3.7%
15 # referred for PMTCT and % for all referrals	20,012	28.3%	18,094	27.6%	12,831	22.0%	19,658	28.4%	70,595	26.1%
16 # referred to Other Services and % for all referrals	10,625	15.0%	9,952	15.2%	11,714	20.1%	8,925	13.0%	41,216	15.6
17 Total # referred and % referred for all tested and counselled	70,753	16.8%	65,622	16.3%	58,205	14.0%	69,221	14.3%	263,801	15.3%
18. # of cumulative HTC Static Sites	715		728		735		742		742	
19. # of HTC Counsellors Trained and certified	161		85		248		129		623	
20. # of HTC Supervisors trained	0		17		0		0		17	
21 # of HTC TOT Trained and Certified	0		0		20		20		20	

## 2. People Tested and Counselling from April – June 2010

The total number tested for the quarter was 483,952. This is an increase of 67 thousand people tested from the previous quarter. See Table 2 below. The HIV positive rate for all people tested and counselled was 10.7%. The number of people testing and knowing their HIV status for the first time in their lives was 245,773 [50.4%], an increase by 20 thousand from the previous quarter.

As in previous quarters, the Northern Region and Central Region had the lowest positive rate of 6.6% and 6.4% respectively and the Southern Region had the highest rate of 16.5%.

The uptake by males was 33.2%, by females not-pregnant was 37.6% and by females pregnant was 29.2%.

The number of people tested and counselled as partners was 14%, showing an increase from 12% in the last quarter.

**Table 2: : HTC Achievements April – June 2010**

	Indicator	April – June 2010	
		#s	%
<b>1</b>	Number tested and counselled for HIV	<b>483,952</b>	
<b>2</b>	# and % HIV positive	52,033	<b>10.7%</b>
<b>2[a]</b>	# Tested for <i>Northern Region</i> and % HIV +	58,785	6.6%
<b>2[b]</b>	# Tested for <i>Central Region</i> and % HIV +	216,264	6.4%
<b>2[c]</b>	# Tested for <i>Southern Region</i> and % HIV +	208,903	16.5%
<b>3</b>	# tested and % of exposed children [0-17months testing positive with rapid HIV Tests]	7,343	11.6%
<b>4</b>	# and % of Males	160,607	33.2%
<b>5</b>	# and % of Non-Pregnant Females	181,889	37.6%
<b>6</b>	# and % of Pregnant Females	141,456	29.2%
<b>7</b>	# and % Never tested before	245,773	50.8%
<b>8</b>	# and % tested and counselled with a partner	68,003	14.0%
<b>9</b>	# and % of Age Group A [0-17months] tested and parents/guardians counselled.	7,343	1.5%
<b>10</b>	# and % of Age Group B [18 months- 14 yrs] tested and counselled.	31,894	6.6%
<b>11</b>	# and % of Age Group C [15 – 24 yrs] tested and counselled.	189,473	39.2%
<b>12</b>	# and % of Age Group D [25 years and above] tested and counselled.	253,647	52.4%
<b>13</b>	# referred for ART and % for all referrals	37,825	54.6%
<b>14</b>	# referred for TB and % for all referral	2,813	4.0%
<b>15</b>	# referred for PMTCT and % for all referrals	19,658	28.4%
<b>16</b>	# referred to other Services and % for all referrals	8,925	13.0%
<b>17</b>	Total # referred and % referred for all tested and counselled	69,221	14.3%
<b>18</b>	# of cumulative HTC static sites operating by end of June 2010	<b>742</b>	
<b>19</b>	# Outreach sites operating during the quarter	<b>401</b>	

0.3% not classified to age groups [1,590]

## **2. Number of HTC sites.**

The number of cumulative HTC static sites reported through DHOs quarterly reports by end of June 2010 was **742**. It should be noted that central hospitals, district and community hospitals and some big CHAM facilities are counted as operating one HTC static site, whilst in reality these institutions have more than one site operating in their premises. The number of outreach sites that operated during the quarter was **401**.

## **3. Development of Human Resource Capacity for Delivery of HTC Services**

### **3.1 HTC Training**

From April to June there were 129 HTC counselors trained and certified by NGOs and DHOs. The cumulative HTC counsellors trained and certified from 2004 to end of June 2010 is now 4,215. This excludes health care workers trained in HTC as an integrated component in PMTCT training.

### **3.2 HTC Supervision Training**

There were 14 health care workers, with at least one year experience in HTC counselling, that were trained and certified as HTC Supervisors. The training was held from 19 – 23 April 2010 at Natherenje in Lilongwe Rural.

### **3.3 Orientation of HTC Trainers in PITC Training**

32 HTC Trainers from the Central and Northern Regions completed a two day orientation in PITC training. This was held from 4<sup>th</sup> to 5<sup>th</sup> May at Kamundi in Lilongwe. Another group of 42 HTC trainers from the Southern Region had a similar two day orientation in PITC training at Limbe Cathedral Youth Centre in Blantyre from 6<sup>th</sup> to 7<sup>th</sup> May.

## **4. HTC Quarterly Supervision**

During the month of May, three HTC teams from the central level, assisted by zonal health staff, i.e. zonal HTC supervisors and zonal laboratory technicians, visited all districts for the quarterly HTC supervision.

The areas for focus were, as in previous quarters:

- visiting and documenting new HTC sites
- verifying correct names of all static HTC sites in each district
- ensuring that the new HTC sites complied with HTC Guidelines
- ensuring compliance with HTC protocols in HIV Testing and Counselling in ANC settings
- checking the status of test kits stock levels
- ensuring that the HTC registers were being filled in correctly
- ensuring timely quarterly reporting of district HTC data, i.e. by 21<sup>st</sup> day of month following the end of the quarter

## **5. Challenges for quarter.**

A number of activities were not implemented due constraints in the flow of funding. A planned TOT had to be cancelled during the course of the quarter. Delays in the procurement procedures have also delayed publication of HTC guidelines, Couples HTC Training materials and stop watches for HTC sites.

# MALAWI PMTCT PROGRAMME

## QUARTERLY REPORT

### APRIL TO JUNE 2010

## 1 Executive Summary

Between April and June 2010, **458** facilities in Malawi were providing PMTCT at ANC and/or maternity. **6,345 (71%)** of 8,944 women attending ANC who were known to be HIV positive received ARVs. This represents **35% PMTCT coverage** among the estimated 18,210 HIV positive pregnant women in Malawi during this quarter. **6,173 (90%)** of infants born to known HIV infected mothers at maternity received ARV prophylaxis. This represents **34% 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. However, this second quarterly report from the new tools is only based on data from first ANC visits. It is therefore likely that the final HIV testing and ARV coverage at ANC will be slightly higher than shown in this preliminary report as women who will receive these services at subsequent visits are counted as not covered. Full ANC reports will be available from July 2010.

Data was 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. As the tools have just been introduced, 5 workshops with service providers were conducted in order to support all district teams in the compilation and cleaning of their data. All data was entered into an access data base at the Department for HIV and AIDS.

Unlike in the past, data from ANC and maternity were collated and presented separately. This was done because the records do not identify the women individually hence are subject to double counting if not separated.

Coverage was calculated by dividing the number 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 2010, there were **458** facilities that had provided ARVs for at least one HIV infected woman at ANC and/or one woman and her infant at maternity.

District-level reports indicated a varying number of missing reports from ANC and maternity sites. At the time of compilation of this report, over one third of ANC and/or maternity facility reports were missing from Blantyre, Chikwawa, Mzimba North, Mzimba South, Nkhata Bay, Salima and Thyolo. This explains the lower number of women attending ANC included in this report (138,228), compared with the previous quarter (141,410)

## **3.2 ANC**

Between April and June 2010, **138,228** women attended ANC for their first visit. This is equivalent to **91%** of the expected 151,750 pregnant women in the population during the quarter and is probably an underestimate due to incomplete facility reports. **13,251 (10%)** of women started ANC in their first trimester. **15,816 (11%)** of women were tested for syphilis at ANC a slight decrease from the 15% tested in the previous quarter. **727 (5%)** of those tested were syphilis positive. The proportion of positive syphilis tests is higher than the estimated syphilis prevalence among pregnant women (<1% in the 2007 ANC sentinel surveillance). This suggests that syphilis tests were preferentially used for women who were considered at increased risk, as many ANC clinics had insufficient supplies of syphilis test kits to implement routine testing for all women.

### **3.2.1 HIV Testing**

**96,023 (69%)** of ANC attendees had their HIV status ascertained. This slight decrease from the 74% reported in the previous quarter was probably related to test kits stock outs. **9,210 (10%)** out of women with ascertained HIV status presented with a valid documented previous HIV test result and **86,813 (90%)** received a new HIV test result at ANC. A total of **8,944 (9%)** women were HIV positive. The **96,023** women whose HIV status was ascertained at ANC represent **63%** of the expected 151,750 pregnant women in the population.

### **3.2.2 ARV Coverage**

**6,345 (71%)** of HIV infected women attending ANC received maternal ARVs. This represents **35%** coverage of the estimated 18,210 HIV positive pregnant women in the population in this quarter (est. 12% of 151,750).

Of the 6,345 women who received any ARVs, **2,878 (45%)** were given a single tablet of nevirapine to take home and **1,821 (29%)** were started on AZT combination regimen. This represents a decrease from the 39% who started AZT in the previous quarter.

5,131 (57%) of 8,944 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. 1,796 (35%) were found eligible and 1,646 were on ART as of the first ANC visit. This represents **18%** ART coverage of the estimated 9,105 pregnant women eligible for ART in the population.<sup>1</sup>

**7,682 (86%)** of HIV infected women at ANC were on Cotrimoxazole Preventive Therapy.

**857 (10%)** 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 2010, **91,174** women were admitted for delivery to maternity. This is equivalent to **60%** of the expected 151,750 deliveries in the population during the quarter. Out of all admissions, 86,839 (95%)

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<sup>1</sup> About half all HIV positive pregnant women in Malawi are estimated to have a CD4 count <350 cells/mm<sup>3</sup> and are therefore eligible for ART.

delivered at the facility, while 4,494 (5%) had already delivered before reaching the facility. This is consistent with the 57% of deliveries that were estimated to take place at health facilities in Malawi (2004 DHS).

A total of **86,251 (95%)** of deliveries were conducted by skilled birth staff, **1028 (1%)** by paramedical staff and **3,895 (4%)** were not attended by any of the above (probably mainly among women who delivered before reaching maternity). **9,255 (9%)** of women developed obstetric complications. The most common leading complications were obstructed / prolonged labour (**2,586 cases, 28%**) and haemorrhage (**1,635 cases, 18%**). A total of **91,333** babies were born, **87,563 (96%)** were singletons and **3,770 (4%)** were twins/multiples. There were **89,574 (98%)** live births and **1,759 (2%)** stillbirths. **88,547 (99%)** of babies born alive were discharged alive and **1,027 (1%)** died before discharge. **90,595 (99%)** of women were discharged alive and **579 (1%)** women died before discharge, which is equivalent to a maternal mortality ratio of **646** per 100,000 live births among women attending maternity. There was an observation from the data verification meetings that some infant deaths were erroneously recorded as maternal deaths in the maternity registers at some sites. This may have led to a slight over-reporting of maternal deaths as not all facility registers / reports were reviewed and corrected.

### 3.3.1 HIV Testing

**85,652 (88%)** women had their HIV status ascertained at maternity. Out of these, **79,311 (93%)** presented with a valid previous HIV test result and **6,341 (7%)** received a new HIV test result. A total of **7,769 (9%)** women were HIV positive and **77,883 (91%)** were negative. The **85,652** women whose HIV status was ascertained at maternity represent **56%** of the expected 151,750 women delivering in the population, an increase from last quarters **49%**.

HIV exposure status was ascertained for **79,238 (89%)** out of **88,547** babies born and discharged alive. **6,888 (9%)** were born to a known HIV positive mother.

### 3.3.2 ARV Coverage

A total of **6,327 (81%)** of known HIV infected women attending maternity received ARVs during labour. Out of these, **2,773 (43%)** received the labour dose of AZT combination regimen, **1,926 (30%)** received single dose nevirapine and **1,668 (26%)** were on ART. **4,657 (60%)** women were already taking ARVs during pregnancy: **2,629 (56%)** of these were on AZT combination regimen and **2,028 (44%)** were on ART (lifelong triple therapy). AZT and ART should be taken for more than 4 weeks during pregnancy to ensure optimal effectiveness. **1,593 (61%)** of women on AZT and **1,722 (85%)** of women on ART had received the respective regimen for over 4 weeks during pregnancy.

A total of **6,173 (90%)** of infants who were known HIV exposed and discharged alive received ARV prophylaxis at maternity. This represents **34% coverage** of the estimated 18,210 HIV exposed infants born in the population in this quarter (est. 12% of 151,750). **2,026 (33%)** HIV exposed infants received single dose nevirapine and **4,145 (67%)** started AZT combination regimen. **2,845 (69%)** of infants on AZT combination regimen received nevirapine + AZT syrup and **1,300 (31%)** received only AZT syrup.

## 4 Trainings

A total of 60 existing PMTCT providers from Dowa, Salima, Ntchisi and Nkhotakota received further training in early infant diagnosis and AZT combination regimen during Q2 of 2010. An additional 33 HTC counsellors received training in early infant diagnosis.

## 5 Comments

The ascertainment of HIV status for PMTCT has reached high levels in Malawi: almost 90% of women attending maternity had their HIV status ascertained and 93% of these presented with a valid previous HIV test result (presumably mostly from ANC). However, the recorded PMTCT coverage at the population level has been lower



than expected during this quarter. The actual PMTCT population coverage may be somewhat higher as there was evidence for incomplete reporting from ANC and maternity. In addition, ANC data in this quarter were only based on women's status at their first visit and it is likely that further women access HIV testing and ARV prophylaxis during subsequent visits. Data covering all subsequent visits will be available from July 2010.

In Q2 of 2010, the PMTCT team of the Department for HIV and AIDS in collaboration with implementing partners continued to conduct zonal mentorship meetings for PMTCT and carried out supportive supervision for facilities providing early infant diagnosis.

Overall, the PMTCT program has experienced several challenges during this quarter:

There were wide-spread stock-outs of HIV and syphilis rapid test kits and ARVs and these shortages of supplies are probably the main reason for the 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.

The proportion of HIV positive women at ANC (9%) and maternity (9%) is lower 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 PMTCT team from the Department for HIV and AIDS has continued to lead supportive quarterly supervision to PMTCT sites and data from Q2 of 2010 suggest that the adherence to protocols for AZT combination regimen has improved around the country. Problems with the supply chain for test kits and ARVs continue to be the most significant challenge for the PMTCT program in Malawi. The MOH continues to work with implementing partners to address these bottlenecks.

# 2010 Q2 ANC Report

## Facility Data

## National coverage

## Indicator

Population denominator

Total women attending first ANC	138,228		151,750	91%	PMTCT 5
<b>Trimester of first visit</b>					
First visits at 0-12 weeks	13,251	10%			
First visits at >12 weeks	124,977	90%			
<b>Tetanus toxoid doses received</b>					
0-1	89,998	65%			
2 or more	48,230	35%	151,750	32%	
<b>SP doses received</b>					
None	47,557	34%			
Any	90,671	66%	151,750	60%	
<b>Iron and folate tablets received</b>					
0-119 tabs	127,046	92%			
120 or more tabs	11,182	8%	151,750	7%	
<b>Syphilis status</b>					
Total women not tested for syphilis	122,412	89%			
Total women tested for syphilis	15,816	11%	151,750	10%	
Syphilis negative	15,089	95%			
Syphilis positive	727	5%			
<b>HIV status</b>					
Total women with unknown HIV status	42,205	31%			
Total women with ascertained HIV status	96,023	69%	151,750	63%	
Total women with valid previous result	9,210	10%			PMTCT 6
Negative	6,782	74%			
Positive	2,428	26%			PMTCT 7
Total women newly tested at ANC	86,813	90%			PMTCT 8
Negative	80,297	92%			
Positive	6,516	8%			PMTCT 9
Total women HIV negative	87,079	91%	133,540	65%	
Total women HIV positive	8,944	9%	18,210	49%	PMTCT 10
<b>ART eligibility among HIV positive women</b>					
Total women with unknown ART eligibility	3,813	43%			
Total women assessed for ART eligibility	5,131	57%			PMTCT 11
ART not eligible	3,335	65%			
ART eligible	1,796	35%			PMTCT 12
<b>CPT coverage among HIV infected women</b>					
Not on CPT	1,262	14%			
On CPT	7,682	86%	18,210	42%	PMTCT 17
<b>ARV regimen among HIV infected women</b>					
Total women receiving no ARVs	2,599	29%			
Total women receiving ARVs	6,345	71%	18,210	35%	PMTCT 16
ART (1)	1,646	26%	9,105	18%	PMTCT 13
Single dose NVP	2,878	45%			PMTCT 14
AZT combination regimen	1,821	29%			PMTCT 15
<b>ARVs dispensed for infant dose</b>					
ARVs not dispensed	8,087	90%			
ARVs dispensed	857	10%	18,210	5%	PMTCT 18

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

# 2010 Q2 Maternity Report (Page 1)

	Facility Data	National coverage	Indicator
Total admissions to Labour & Delivery (1)	97,536	Population denominator	
Total women attending Labour & Delivery	91,174	151,750 60%	PMTCT 19
<b>HIV status</b>			
Total women with unknown HIV status	11,884 12%		
Total women with ascertained HIV status	85,652 88%	151,750 56%	
<hr/>			
Total women with valid previous result	79,311 93%		PMTCT 20
Negative	72,195 91%		
Positive	7,116 9%		PMTCT 21
<hr/>			
Total women newly tested at maternity	6,341 7%		PMTCT 22
Negative	5,688 90%		
Positive	653 10%		PMTCT 23
Total women HIV negative	77,883 91%	133,540 58%	
Total women HIV positive	7,769 9%	18,210 43%	PMTCT 24
<b>ARVs during pregnancy among HIV positives</b>			
Total women receiving no ARVs	3,112 40%		
Total women receiving ARVs	4,657 60%	18,210 26%	
<hr/>			
AZT combination regimen	2,629 56%	18,210 14%	
AZT <4 weeks	1,036 39%		
AZT ≥4 weeks	1,593 61%		
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ART (triple therapy)	2,028 44%	18,210 11%	
ART <4weeks	306 15%		
ART ≥4 weeks	1,722 85%		
<b>ARVs received during labour among HIV positives</b>			
Total women receiving no ARVs	1,442 19%		
Total women receiving ARVs	6,327 81%	18,210 35%	PMTCT 28
<hr/>			
ART	1,668 26%	18,210 9%	PMTCT 27
Single dose NVP	1,926 30%	18,210 11%	PMTCT 25
AZT combination regimen	2,733 43%	18,210 15%	PMTCT 26
<b>Obstetric complications</b>			
Total women with no complications	88,281 91%		
Total women with complications	9,255 9%		
<hr/>			
Haemorrhage	1,635 18%		
Obstructed / prolonged labour	2,586 28%		
(pre-) Eclampsia	580 6%		
Maternal sepsis	353 4%		
Ruptured uterus	158 2%		
Other maternal complications	3,943 43%		
<b>Referred out before delivery</b>			
No	91,174 93%		
Yes	6,362 7%		
<b>Staff conducting delivery</b>			
MO, CO, nurse/midwife, MA	86,251 95%	151,750 57%	
PA, WA, HSA	1,028 1%		
Other	3,895 4%		
<b>Mother survival</b>			
Discharged alive	90,595 99%		
Died	579 1%	89,574 646	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)

Population denominator

<b>Twins</b>					
Total babies born	91,333		151,750	60%	
Singleton babies	87,563	96%			
Twin / multiple babies	3,770	4%			
<b>Delivery place</b>					
Total deliveries at a health facility	86,839	95%	151,750	57%	
This facility	85,954	99%			
Other facility	885	1%			
Total deliveries before reaching the facility	4,494	5%			
In transit	2,456	55%			
Home / TBA	2,038	45%			
<b>Delivery mode</b>					
Spontaneous vaginal	83,519	91%			
Vacuum extraction	939	1%			
Breech	1,819	2%			
Caesarean section	5,056	6%	151,750	3%	
<b>Infant complications</b>					
Total infants with no complications	81,441	89%			
Total infants with complications	9,892	11%			
Prematurity	3,116	32%			
Low birth weight (<2500g)	3,199	32%			
Asphyxia	1,664	17%			
Newborn sepsis	733	7%			
Other infant complications	1,180	12%			
<b>Infant survival</b>					
Total live births	89,574	98%			
Discharged alive	88,547	99%			
Neonatal deaths	1,027	1%			
Stillbirths	1,759	2%			
Fresh	1,003	57%			
Macerated	756	43%			
<b>Infant HIV exposure and ARV prophylaxis</b>					
Infants with unknown HIV exposure status	9,309	11%			
Infants with known HIV exposure status	79,238	89%	151,750	52%	
Infants not HIV exposed	72,350	91%			
Infants HIV exposed	6,888	9%	18,210	38%	PMTCT 29
Received no ARVs	715	10%			
Received any ARVs	6,173	90%	18,210	34%	PMTCT 32
Single dose NVP	2,028	33%	18,210	11%	PMTCT 30
AZT prophylaxis	4,145	67%	18,210	23%	PMTCT 31
Started AZT + sd NVP	2,845	69%	18,210	16%	
Started AZT only	1,300	31%	18,210	7%	
<b>Breast feeding initiated</b>					
No	4,190	5%			
Yes	87,143	95%			

# Malawi Antiretroviral Treatment Programme

## QUARTERLY REPORT

### Results up to 30<sup>th</sup> June 2010

#### Executive Summary

By the end of June 2010, **225,010** patients were alive and on ART in Malawi, equivalent to **58%** coverage of the estimated population in need of ART. There were **396** ART clinics (**290** static clinics and **106** outreach / mobile clinics).

Out of the **307,683** patients ever initiated on ART, **225,010** (73%) were retained alive on ART, **36,069** (12%) had died, **45,550** (15%) were lost to follow-up (defaulted) and **1,174** (<1%) were known to have stopped ART. **78%** of adults and **82%** of children were retained alive on ART 12 months after ART initiation. An estimated **204,759** adults and **20,251** children (<15 years) were alive on ART by the end of June 2010.

In the second quarter of 2010 (April to June) a total of **18,228** new patients initiated ART. **5,785** ART patients transferred between clinics (24% of the total **24,079** new ART clinic registrations). Among new registrations 39% were male, 61% female; 91% were adults and 9% children.

The number of infants starting ART in the second quarter of 2010 in WHO stage 1 or 2 with confirmed HIV infection (DNA-PCR) decreased from **131 to 107**, while children under 18 months starting due to presumed severe HIV disease decreased from **139 to 138**.

The delayed release of funds in 2009 has continued to affect the supply chain for ARVs during quarter 2, 2010, as drugs continued to arrive late and in small batches, requiring several rounds of distribution and re-location of remaining stocks. An emergency order of 500,000 tins of first line regimen has arrived in July through September 2010 to boost national stocks before arrival of the next scheduled consignment in August 2010 (now expected to arrive from September 2010).

In June 2010, MOH management endorsed a change in PMTCT and ART and infant feeding policy, preparing the way for a revision of national guidelines. Work on the new guidelines continues and implementation is scheduled for July 2011.

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

	Dec 2003	Dec 2004	Dec 2005	Dec 2006	Dec 2007	Dec 2008	Dec 2009	Jun 2010
ART sites	9	24	83	141	163	221	377	396
Patients alive on ART	No data	10,761	29,087	59,980	100,649	147,497	198,846	225,010
Coverage of pop. in need of ART <sup>1</sup>	No Data	3%	9%	17%	28%	41%	53%	58%
New ART registrations in year	No Data	10,183	25,634	46,351	61,688	76,581	88,126	47,206
Cumulative registrations	~3000	13,183	38,817	85,168	146,856	223,437	312,476	359,771

<sup>1</sup> ART need defined by CD4<250 cells/mm<sup>3</sup>

## Methods

This report includes quarterly data from all patients who registered at ART clinics in Malawi between April and June 2010 and cumulative data from all patients who ever registered up to 30<sup>th</sup> June 2010.

All health facilities with static ART clinics in the public and private sectors were visited during June / July 2010. Data collected covered all 290 static and 106 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.

**41 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 **705 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 master 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/mm<sup>3</sup>.

## 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 2010 there were **396 ART delivery sites** in Malawi, owned by government, mission, NGOs and the private sector. **55** of these 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 2010

In Q2, 2010, there were a total of 24,079 ART clinic registrations, representing **18,228** (76%) patients who newly initiated ART and 5,785 (24%) 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). The majority of patients (**53%**) started ART in WHO Stage 3. The proportion of patients starting in Stage 1 or 2 with a low CD4 count (**35%**) has slightly increased from the previous quarter (32%) while those starting in WHO stage 4 decreased to **11%**. **138 (38%)** of 363 children under 18 months of age who started ART were infants in WHO stage 1 or 2 with confirmed HIV infection (DNA-PCR, policy of universal ART for infected infants). **1,219 (5%)** of patients registered during Q2, 2010 were pregnant women (at the time of ART initiation).

### Cumulative patients ever registered up to June 2010

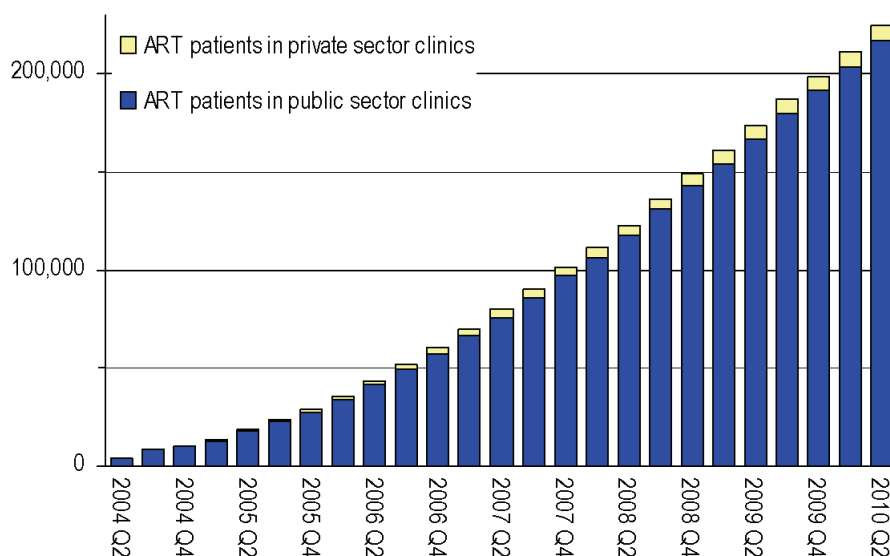
By the end of June 2010, there were a cumulative total of 359,771 clinic registrations, representing **307,683** (86%) patients who newly initiated ART and 51,968 (14%) ART patients who transferred between clinics. Out of

all clinic registrations, 39% were males and 61% were females, 91% were adults and 9% were children (<15 years). Private sector clinics accounted for **13,667 (3.8%)** of total patient registrations.

## Treatment Outcomes

By the end of June 2010, a total of **225,010 patients were alive and on ART**. This number includes 3,478 patients who were assumed to be 'in transit' as of the 30<sup>th</sup> June 2010, based on the difference between 55,446 patients *transferred out* and 51,968 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: Patients alive on ART in public and private sector clinics in Malawi**



**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 **13,764** in Q2 of 2010. 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 accelerate ART access, putting more strain on human and financial resources.

**Table 2:**

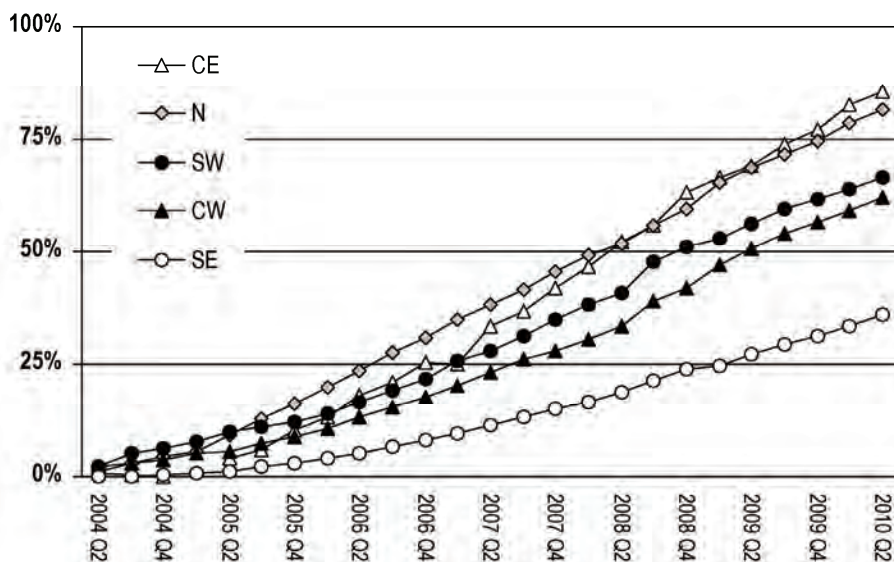
ART coverage among adults and children in the 5 Zones. Proportion of the population in need of ART who were alive on ART at the end of 2010 Q2 (ART need based on SPECTRUM projection CD4<250)

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.
<b>N</b>	25,169	23,209	<b>92%</b>	5,977	2,186	<b>37%</b>	31,146	25,395	<b>82%</b>
<b>CW</b>	65,824	46,078	<b>70%</b>	15,632	4,654	<b>30%</b>	81,456	50,732	<b>62%</b>
<b>CE</b>	19,691	19,309	<b>98%</b>	4,676	1,543	<b>33%</b>	24,367	20,852	<b>86%</b>
<b>SW</b>	98,092	73,322	<b>75%</b>	23,295	7,381	<b>32%</b>	121,387	80,703	<b>66%</b>
<b>SE</b>	105,736	43,227	<b>41%</b>	25,111	4,101	<b>16%</b>	130,847	47,328	<b>36%</b>
<b>Nat. Total</b>	314,512	205,145	<b>65%</b>	74,691	19,865	<b>27%</b>	389,203	225,010	<b>58%</b>

**Table 2** shows the **national ART coverage** at the end of June 2010: 225,010 (**58%**) of 389,203 population in need were on ART. Coverage by geographical zone was inversely related to the absolute population in need of ART: 20,852 (**86%**) of 24,367 people in need of ART in the **Central East Zone** were on ART, while only 47,328 (**36%**) of 130,847 people in the **South East Zone** were covered. Coverage among children and adults was **27%** and **65%**, respectively a slight increase from the previous quarter. The average population in need per ART site was **623** in the **Northern** and **2,469** 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.).

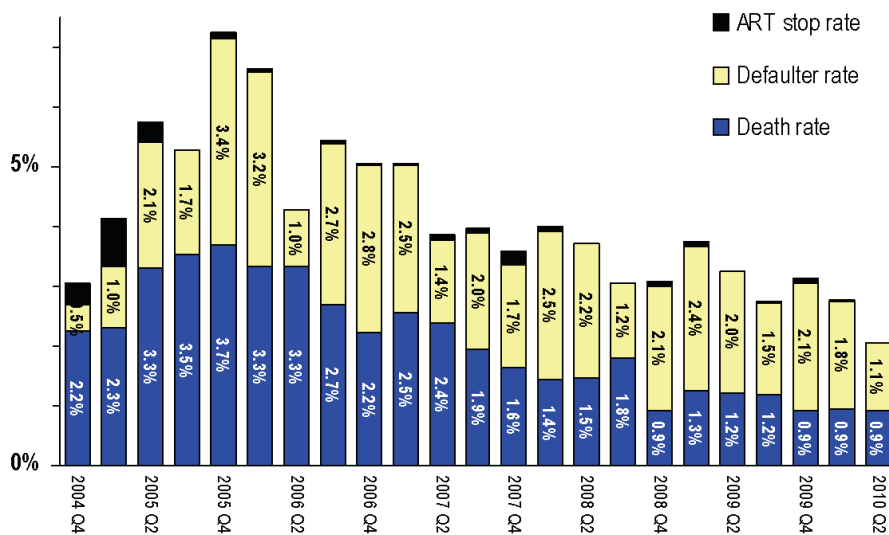
**Figure 2:** ART coverage by Zone. Proportion of the population in need of ART who were alive on ART at the end of the quarter (ART need based on SPECTRUM projection CD4<250)



**Figure 2** shows that ART coverage has increased much faster in the Central East and Northern Zone than in the South East Zone. There is an indication that the increase in coverage in the Central West and South West Zones may have started to slow down.

**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



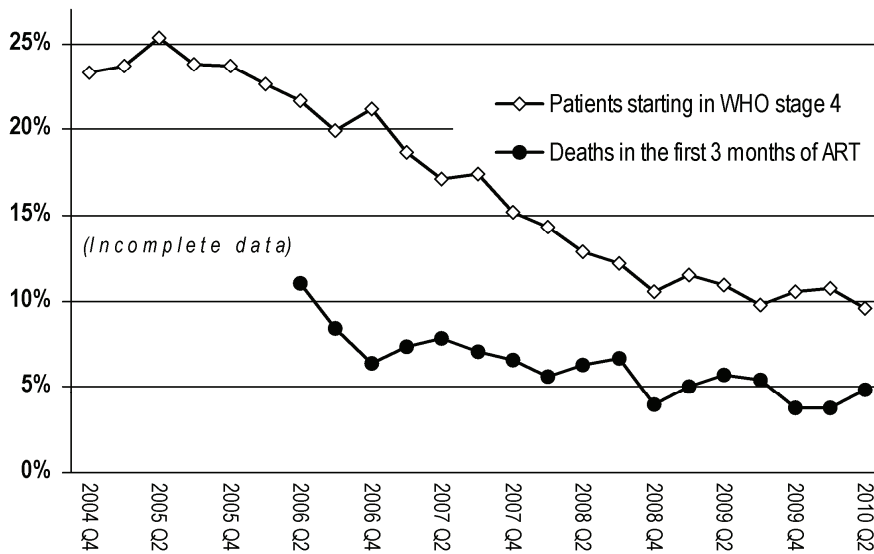
**Figure 3** shows the general steady decrease of death and defaulter rates since the start of the national programme. During Q2 2010, there were **2,080** new deaths, **2,555** new defaulters and **120** new ART re-initiations. This translates into a quarterly death rate of **0.9%** and a defaulter rate of **1.1%** among the patients alive and on treatment during this quarter. By end of June 2010, a cumulative **36,069** (12%) patients were known to have **died**, **45,550** (15%) were **lost to follow-**

**up/defaulted**, and **1,171** (<1%) were known to have **stopped ART**. This is less than last quarter because **120 patients had re-initiated**. Based on previous operational studies, about half of the patients classified as lost to follow-up are thought to have died.



**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 Q2 2010. This correlates well with

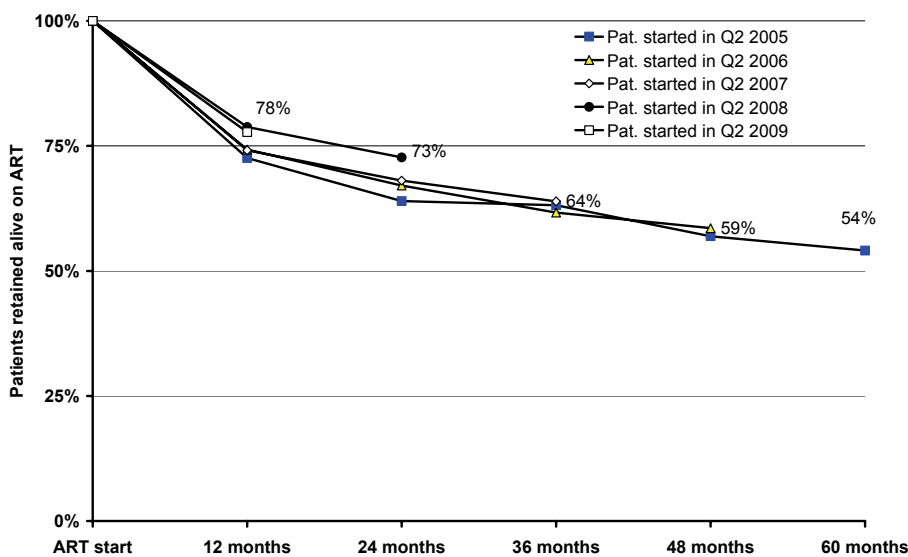
**Figure 4:** Patients starting ART in WHO stage 4 and deaths in the first 3 months after ART initiation. (Shown as proportions among new patients registered each quarter)



the decline in the proportion of patients starting ART in WHO clinical stage 4 from 25% in 2005 Q2 to about 9% in Q2 2010. 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 patients will be started on ART from a CD4 threshold of <350

### Cohort Survival Analysis

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



A 12, 24, 36, and 48-month 'cohort outcome survival analysis' was conducted for patients registered in 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 2008. **78% of adults and 82% of children (an increase from 81% in**

**children in last Quarter)** were retained alive on ART after 12 months on treatment: **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 **203,382** patients alive on ART who remained at their sites at end of the quarter (secondary outcomes are not available for 3,478 patients *in transit*).

### ART Regimens

**92%** were on the first line, **7%** were on alternative first line and fewer than **1%** were on second line regimen. **1%** were on a non-standard ART regimen. These 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

**91%** of 133,231 patients with data on the number of doses missed were classified as >95% adherent. 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. In Q2 of 2010, most ART sites were recording this new measure consistently and adherence data was now available for 65% (41% in Q1) of patients alive on treatment. It is expected that this situation will further improve over the next quarters.

## Side Effects

**6,457 (2.9%)** of patients on ART had documented drug side effects at their last clinic visit up to end June 2010. 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 intends to move to a new first line regimen with fewer side effects in 2011.

## Current TB Status

The revised ART patient master 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. 192,018 (**85%**) of patients alive on ART were screened for TB at their last visit before end of June 2010. Out of these, **205 (<1%)** were new TB suspects and 2,567 (1%) had current confirmed TB. As of the last visit before the end of June 2010, **1,846 (72%)** of these were on TB treatment while **721** were not yet / currently not taking TB treatment.

## Cotrimoxazole Preventive Therapy (CPT)

As of the end of June 2010, **95%** of ART patients were on CPT. A cumulative total of 259,766 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 diagnosed and 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 increased from the previous quarter while the number of new TB cases was similar. Of the 86% TB patients who were tested for HIV, 57% were HIV positive and 37% of positives were already on ART when starting TB treatment. KS cases decreased significantly this quarter.

**Table 3: HIV-related indicator diseases**

	TB cases	TB HIV tested	TB HIV pos	TB already on ART	OC	CM	KS		
<b>2009 Q3</b>	6,394	5,558	87%	3,416 61%	1,189	35%	1,459	561	450
<b>2009 Q4</b>	5,617	4,671	83%	3,103 66%	1,337	43%	916	386	610
<b>2010 Q1</b>	5,655	4,853	86%	2,752 57%	1,018	37%	1,101	593	471
<b>2010 Q2</b>	5,572	4,887	88%	2,924 60%	1,073	37%	1,128	459	517

## TB / HIV

Approximately **73%** of HIV infected TB patients were receiving ART in Q2 2010. This estimate is based on the following triangulation of TB and ART program data:

*TB Program Data:* A total of **5,572** TB patients were registered during Q2 2010. Assuming an average HIV prevalence of 66% among TB patients, **3,676** of TB patients were estimated to be HIV positive and therefore in need of ART. Given that **1,073** TB patients registered were already on ART at the time of starting TB treatment,  $3,676 - 1,073 = \mathbf{2,603}$  TB patients needed to initiate ART.

*ART Program Data:* An estimated **1,606** patients<sup>2</sup> started ART with a current or recent episode of TB during Q2 2010, which is **62%** (1,606 of 2,603) of the TB patients who needed to start ART in Q2 2010. This means that a total of  $1,073 + 1,606 = \mathbf{2,679}$  (**73%**) of the estimated 3,676 HIV infected TB patients were receiving ART in Q2 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: 99 (42%) sites in the public sector received a certificate of excellence. This is the same number as last quarter.

### ART workload and staffing

By the end of June 2010 there were **186** static sites with fewer than 1,000 patients, **41** sites with 1,001–2,000 patients, **39** sites with 2,001–5,000 and **13** sites with over 5,000 patients registered. The number of sites with over 5,000 patients has increased from **11** to **13**, reflecting the ever-increasing workload.

For 215 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 Q2 2010 was 555, translating into an average of 2.6 working days per facility per week.

**Table 4** shows the total number of staff days per week by cadre and region. 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 208 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 region (public sector)**

Region	Sites	ART Clinic days	Clinician days/ wk.	Nurse days/ week	Clerk days/ week
North	42	99	108	117	101
Central	76	188	274	318	271
South	97	268	417	442	520
Total	215	555	944	877	892
FTE		2.6	208	228	232

<sup>2</sup> 24% of the 2,009 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 (July 2010). **Table 5** shows the total national drug stocks found at facilities with ART clinics. There were enough first line ARV starter packs (30,504 tins) to start about 30,000 new patients on ART, estimated to last for at least 5 months at current rates of recruitment. The 494,350 tins of first line regimen were sufficient to keep the current 225,010 patients plus the new patients starting on treatment for about 2 months (up to end August 2010). Stocks of alternative first line ARVs (AZT 64,163 tins) were sufficient to last for about 9 months (up to April 2011) and stocks of EFV (61,518 tins) for more than 12 months. An emergency order of 500,000 tins of first line regimen arrived July through September 2010 to boost national stocks before arrival of the next scheduled consignment (June 2010), which is delayed to September 2010.

Only 127 (46%) of facilities visited had any stocks of ARVs for maternal PMTCT prophylaxis and 110 (40%) had ARVs for infant PMTCT prophylaxis (single dose nevirapine or AZT combination regimen). This is similar to the previous quarter.

**Table 5: Drug stocks at all facilities with ART clinics as of June 2010**

Drug	Unit	North	Central	South	Total national stock	Sites with any stock
Lamivir Baby	14	475	1,427	4,548	6,450	36%
d4T 30mg / 3TC	15	4,103	12,053	14,348	30,504	88%
d4T 30mg / 3TC / NVP	15	5,307	14,072	16,787	36,166	92%
Triomune Baby	30	6,496	21,673	30,158	58,327	39%
d4T 30mg / 3TC / NVP	60	72,942	171,711	249,697	494,350	98%
AZT 3TC NVP	60	12,017	16,541	35,605	64,163	69%
AZT / 3TC	60	1,820	10,093	19,547	31,460	81%
NVP	60	586	977	6,950	8,513	22%
d4T 30mg / 3TC	60	6,202	19,937	28,955	55,094	62%
EFV	30	6,775	24,153	30,590	61,518	64%
TDF	30	487	1,783	8,321	10,591	100% <sup>3</sup>
ABC	60	416	508	1,202	2,126	100% <sup>3</sup>
ddl	30	212	943	2,431	3,586	100% <sup>3</sup>
LPV/r	120	934	2,341	2,015	5,290	100% <sup>3</sup>
CPT	60	6,889	276,816	45,807	329,512	31%
Cotrimoxazole	1	1,720,334	2,826,768	14,593,501	19,140,612	72%
Fluconazole	1	23,142	30,642	212,332	266,116	35%
Ceftriaxone	1	27,428	59,497	96,596	183,521	35%
Acyclovir	1	229,110	352,862	951,672	1,533,644	57%
Ciprofloxacin	1	47,850	265,730	210,815	524,395	50%
Vincristine	1	4,870	3,764	9,830	18,464	20%
Morphine	1	39,877	89,973	136,600	266,450	17%
Amitriptyline	1	406,100	602,929	964,236	1,973,265	57%
NVP (PMTCT)	1	15,505	18,391	9,307	43,203	31%
NVP syrup (PMTCT)	1	1,916	1,200	1,337	4,453	28%
AZT (PMTCT)	1	53,986	114,170	92,340	260,496	29%
AZT syrup (PMTCT)	1	578	2,951	6,599	10,128	29%

<sup>3</sup> Second line treatment is initiated at 10 centres of excellence. All of these had stocks of these regimens.

## Post Exposure Prophylaxis (PEP)

251 clients received PEP in Q2 of 2010. This is 35 fewer than in the previous quarter.

## Availability of CD4 counts

A total of 52 facilities had CD4 count machines installed, but only 41 of these produced any results during Q2 2010. The quarterly number of CD4 count results produced increased by about 1,500 to 44,841.

**Table 6: CD4 counts performed by quarter**

	Total CD4 machines	Functional CD4 machines	CD4 samples processed
<b>2009 Q3</b>	52	47	43,882
<b>2009 Q4</b>	52	44	53,017
<b>2009 Q1</b>	53	42	43,343
<b>2010 Q2</b>	52	41	44,841

## Training

Only 4 trainings took place in Q2 of 2010: three 5-day initial trainings funded through the district assemblies (**43** participants: 1 doctor, 29 nurses, 13 clinicians) and one training of trainers (**31** health worker participated), bringing the total to 43 ART trainers in the country. Staff from the Department for HIV and AIDS provided facilitation support for all these trainings. There were consistent problems with inadequate organization and preparation of materials and venues. Funding for training is given directly to the districts and hence there is a need for NAC to inform the HIV & AIDS Department when money is released to the districts so that the Department can follow up with the DHO's office on the training plans implementation. There was no training in the private sector due to problems with MBCA securing funding. The cumulative number of HCW trained since the start of the national program remained above the target.

**Table 2: ART training by end March 2010**

Sector	Target	Achievement
Public sector providers trained in Q1 2010	100	43
Private sector providers trained in Q1 2010	25	0
Public sector providers trained (cumulative)	2,600	3,247
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. Detailed plans have been developed in the context of the Round 10 proposal to the Global Fund, which was submitted in August 2010.

### New Integrated PMTCT / ART Guidelines

The Department for HIV and AIDS is currently revising national PMTCT, ART, paediatric ART and infant feeding guidelines with support from development partners following the adoption/approval of the new WHO recommendations the MOH management. A new integrated scale-up plan for PMTCT/Pre-ART/ART/FP 2010-2013 is being developed.

The following steps are in progress:

- Revision and development of integrated ART/PMTCT/Pre-ART guidelines and scale up plans
- Revision, production and implementation of integrated training curriculum
- Reprogramming of the RCC budget to accommodate the implementation of the new guidelines
- Proposal development for submission for GF Round 10 to cover increased program cost

### **Electronic data system (EDS)**

The electronic data system has now been rolled out to 13 sites and a further 6 sites are planned before end 2010. There are now 13 sites with more than 5,000 registered patients and manual supervision is becoming a challenge with teams taking 2 days to supervise one site.

### **TB/HIV integration**

Joint TB/HIV supervision has resumed in Q2 of 2010. It was agreed that the joint visits are useful and should continue though logistics & funding for the TB team need to be worked out. A final draft for 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. Further TB/HIV integration will be achieved by training ART providers in TB treatment initiation and decentralization of TB treatment initiation sites,

### **Participants in Q2 2010 ART Supervision**

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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.

**20<sup>th</sup> September 2010**

**New patients registered for ART  
between 01/04/2010 and 30/06/2010**

		Public Sector		Private Sector		National Total	
Total registrations		22,991		1,088		24,079	
Registration type	New ART initiations (Patients)	17,602	77%	626	58%	18,228	76%
	ART Re-initiations	56	0%	10	1%	66	0%
	Transfers in	5,333	23%	452	42%	5,785	24%
Sex	Males	8,964	39%	460	42%	9,424	39%
	Total females	14,027	61%	628	58%	14,655	61%
	Females non-pregnant	12,856	56%	580	53%	13,436	56%
	Females pregnant	1,171	5%	48	4%	1,219	5%
Age	Adults	20,778	90%	1,016	93%	21,794	91%
	Total children	2,213	10%	72	7%	2,285	9%
	Children 18m-14yrs	1,856	8%	66	6%	1,922	8%
	Children 0-17 months	357	2%	6	1%	363	2%
Reason for ART	Presumed sev. HIV <18mths	134	1%	4	0%	138	1%
	Confirmed HIV infants	107	0%	0	0%	107	0%
	WHO 1/2, CD4 <threshold	8,084	35%	352	32%	8,436	35%
	WHO 2, TLC <threshold	2	0%	0	0%	2	0%
	WHO stage 3	12,198	53%	558	51%	12,756	53%
	WHO stage 4	2,128	9%	170	16%	2,298	10%
	Reason unspecified	338	1%	4	0%	342	1%
	Total TB	2,013	9%	109	10%	2,122	9%
	TB in last 2 years	1,038	5%	70	6%	1,108	5%
	Current TB	975	4%	39	4%	1,014	4%
	KS	490	2%	27	2%	517	2%

## Cumulative patients registered for ART up to end 30/06/2010

		Public Sector		Private Sector		National Total	
Total registrations		345,765		14,006		359,771	
Registration type	New ART initiations (Patients)	295,789	86%	11,894	85%	307,683	86%
	ART Re-initiations	106	0%	14	0%	120	0%
	Transfers in	49,870	14%	2,098	15%	51,968	14%
Sex	Males	133,802	39%	6,781	48%	140,583	39%
	Total females	211,963	61%	7,225	52%	219,188	61%
	Females non-pregnant	202,101	58%	6,929	49%	209,030	58%
	Females pregnant	9,862	3%	296	2%	10,158	3%
Age	Adults	314,638	91%	13,389	96%	328,027	91%
	Total children	31,127	9%	617	4%	31,744	9%
	Children 18m-14yrs	27,063	8%	583	4%	27,646	8%
	Children 0-17 months	4,064	1%	34	0%	4,098	1%
Reason for ART	Presumed sev. HIV <18mths	938	0%	6	0%	944	0%
	Confirmed HIV infants	945	0%	0	0%	945	0%
	WHO 1/2, CD4 <threshold	82,216	24%	5,307	38%	87,523	24%
	WHO 2, TLC <threshold	81	0%	5	0%	86	0%
	WHO stage 3	205,380	59%	6,187	44%	211,567	59%
	WHO stage 4	51,958	15%	2,324	17%	54,282	15%
	Reason unspecified	4,247	1%	177	1%	4,424	1%
	Total TB	38,838	11%	1,059	8%	39,897	11%
	TB in last 2 years	32,505	9%	981	7%	33,486	9%
	Current TB	6,333	2%	78	1%	6,411	2%
KS	10,846	3%	269	2%	11,115	3%	
Primary outcomes	Alive on ART (1)	216,712	73%	8,298	70%	225,010	73%
	Defaults	43,150	15%	2,400	20%	45,550	15%
	ART stops	1,129	0%	45	0%	1,174	0%
	Deaths total	34,904	12%	1,165	10%	36,069	12%
	Month 1	10,080	29%	388	33%	10,468	29%
	Month 2	6,905	20%	190	16%	7,095	20%
	Month 3	3,700	11%	112	10%	3,812	11%
	After month 3	14,219	41%	475	41%	14,694	41%
Transfers out	52,414		3,032		55,446		
ARV regimens (2)	Start	197,357	92%	6,025	82%	203,382	92%
	Alternative 1st line total	13,866	6%	1,108	15%	14,974	7%
	AZT	8,679	63%	823	74%	9,502	63%
	EFV	4,304	31%	138	12%	4,442	30%
	AZT+EFV	883	6%	147	13%	1,030	7%
	Second line total	857	0%	129	2%	986	0%
	Second line adult	714	83%	126	98%	840	85%
	Second line children	143	17%	3	2%	146	15%
Other / Non-standard	2,088	1%	102	1%	2,190	1%	
Side effects	Side effects counted	203,370	94%	7,233	87%	210,603	94%
	With side effects	5,877	3%	580	8%	6,457	3%
Adherence	Adherence recorded	141,002	65%	5,047	61%	146,049	65%
	>95% adherent	128,293	91%	4,938	98%	133,231	91%
Current TB status	Status recorded	184,880	85%	7,138	86%	192,018	85%
	TB suspected	197	0%	8	0%	205	0%
	TB confirmed, not on Rx	721	0%	0	0%	721	0%
	TB confirmed, on Rx	1,800	1%	46	1%	1,846	1%

(1) Includes 3,478 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

### APRIL TO JUNE 2010

## 1 Access to STI treatment and coverage

Between April and June 2010, 44,814 STI clients were seen at health facilities in Malawi, representing 45% of the 98,600 expected quarterly STI cases in the population<sup>1</sup>. Out of all clients seen, 18,368 (41%) were male and 26,446 (59%) were female. 3,502 (13%) of female STI clients were pregnant. 29,280 clients (65%) were over 24 years, 11,092 (25%) were 20-24 years and 4,336 (10%) were below 20 years old. Considering the estimated STI case burden in the population<sup>1</sup>, access to STI clinics was particularly low among under 20 year olds: 4,336 (25%) 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

35,275 (79%) of clients were index cases and 9,410 (21%) were partners of index cases. 6,008 (64%) of partners were asymptomatic. Considering that a total of 20,624 partner notification slips were issued, only 46% of those notified presented to the clinic. 32,186 (72%) of clients presented with their first episode of STI in life, 7,778 (17%) clients reported to have had an STI in over three months ago and 4,725 (11%) of clients reported having had an STI within the last three months. Re-occurrence of an STI after a recent episode may be due to re-infection or treatment failure. The fact that 28% of clients presented with a renewed episode may indicate that risk reduction is inadequate among many STI clients.

## 3 HIV Status

HIV status was ascertained for 24,432 (55%) clients and 7,375 (30%) of these were HIV positive. 2,510 (34%) of positives were identified through a new test initiated at the STI clinic, while 4,865 (66%) presented with a documented previous positive HIV test result.<sup>2</sup> 2,557 (53%) 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 suggests poor translation of positive living strategies promoted during counselling.

## 4 STI Syndromes

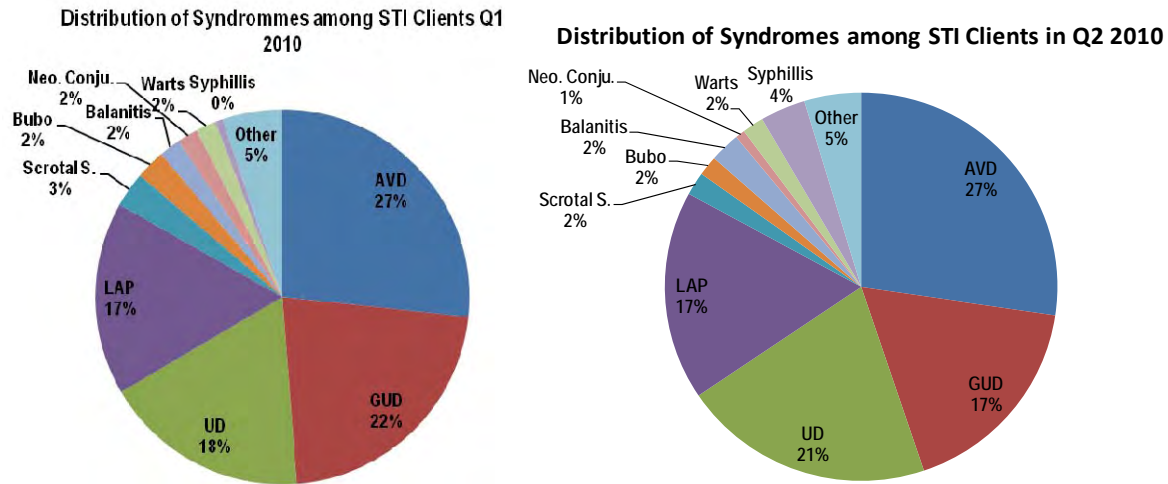
Figures 1 and 2 show the distribution of STI syndromes among the 44,350 and 44,814 cases presenting to STI clinics in the Q2 and Q1 respectively. Like the last quarter the most frequent syndrome was abnormal vaginal discharge (AVD) 12,931 (27%) of cases. There was an increase in the cases with Urethral Discharge (UD) from 8,260 (18%) in the previous quarter to 9,797 (21%) in this quarter. Genital Ulcer Disease (GUD) cases decreased from 10,286 (22%) to 8,221 (17%). The number of cases with lower abdominal pain remained similar at 7,742 (17%).

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<sup>1</sup> 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.

<sup>2</sup> 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.

Serologically confirmed syphilis has increased from 303 (<1%) in Q1 to 1,756 (4%) in Q2. This is likely due to an increased availability of syphilis test kits in Q2 of 2010. Similar to the previous quarter, balanitis, bubo, warts and neonatal conjunctivitis each accounted for 1 – 3% of cases.



Figures 1 and 2: Distribution of Syndromes of the 44,115 STI clients in Q1 and 44,814 clients in Q2 of 2010

## 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 8,059 (22%) of the 37,439 STI clients with unknown or new negative test result were referred for repeat HTC. 1,920 (76%) of 2,510 clients who were newly tested HIV positive were referred for ART eligibility assessment. This is an increase from the previous quarter (58%), but remains lower than expected.

# 2010 Q2 STI Report

## National coverage

Total Number of Clients			Population denominator	
44,814			98,600	45%
<b>Gender and Pregnancy</b>				
Males	18,368	41%	38,000	48%
Females	26,446	59%	60,600	44%
Females Non Pregnant	22,944	87%		
Females Pregnant	3,502	13%		
<b>Age</b>				
Age A (<20 years)	4,336	10%	17,323	25%
Age B (20 - 24 years)	11,092	25%	24,952	44%
Age C (25 years and above)	29,280	65%	56,799	52%
<b>Type</b>				
Index cases	35,275	79%		
Partners	9,410	21%		
Asymptomatic	6,008	64%		
Symptomatic	3,402	36%		
<b>Partner Notification</b>				
Partner Slips issued	20,624			
Partners	9,410	46%		
<b>STI History</b>				
Never	32,186	72%		
Old (previous STI >3months ago)	7,778	17%		
Recent (previous STI <3months ago)	4,725	11%		
<b>HIV Status</b>				
HIV status unknown	20,382	45%		
HIV Status ascertained	24,432	55%		
Total HIV negative (new test)	17,057	70%		
Total HIV positive	7,375	30%		
Total new HIV positive	2,510	34%		
Total previous HIV positive	4,865	66%		
Not on ART	2,308	47%		
On ART	2,557	53%		
<b>Syndromes</b>				
<b>Total Syndromes*</b>	<b>47,179</b>			
Abnormal Varginal Discharge Total	12,931	27%		
Low Risk	5,727	44%		
High Risk	7,204	56%		
Genital Ulcer Disease	8,221	17%		
Urethral Discharge	9,797	21%		
Lower abdominal Pain	8,175	17%		
Scrotal Swelling	910	2%		
Bubo	774	2%		
Balanitis	1,172	2%		
Neonatal Conjunctivitis	368	1%		
Warts	840	2%		
Syphillis	1,756	4%		
Other	2,235	5%		
<b>Referrals (multiple possible)</b>				
Repeat HTC <sup>&amp;</sup>	8,059	22%		
ART	1,920			
Lab	912			
PMTCT	422			
Gynae	631			
Surgical	686			
Other	1,084			

\* 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