

# QUARTERLY REPORT ANTIRETROVIRAL TREATMENT PROGRAMME IN MALAWI WITH RESULTS UP TO 30<sup>th</sup> June, 2009

## Executive Summary

By the end of June 2009, there were **224** static ART clinics in Malawi in the public and private health sector; 22 of these static clinics provided ART at a total of **96** outreach or mobile sites, bringing the total to **329** ART service delivery points in Malawi in Q2 2009.

In the second quarter of 2009 (April to June) a total of **18,090** new patients initiated ART and **2571** ART patients transferred between clinics, resulting in a total of **20661** ART clinic registrations (39% male, 61% female; 91% adults and 9% children). Of those registered, 61% started in WHO Stage 3, 17% in Stage 4 and 20% in Stage 1 or 2 due to a low CD4 count.

Between the previous quarter and this quarter, the number of infants starting ART in WHO stage 1 or 2 with confirmed HIV infection (DNA-PCR) increased from 85 to **114**, while children under 18 months starting due to presumed severe HIV disease increased from 67 to **85**. This is an encouraging development and could be as a result of more experience with the EID programme and recent emphasis on presumed severe HIV disease diagnosis in children under 18 months. However, ART access through early infant diagnosis still needs to be further strengthened.

By the end of June 2009, a total of **234,395** patients had ever initiated ART and **31,930** ART patients had transferred between clinics, resulting in a cumulative total of **266,325** ART clinic registrations (39% male, 61% female; 91% adult, 9% children). **31,455** (12%) patients started ART due to TB.

Cumulative treatment outcomes by end of June 2009 were: **169,965** (64%) alive and on ART, **27,899** (10%) died, **31,958** (12%) lost to follow-up(defaulted), **35,624** (13%) transferred out to another facility and 936 (<1%) were known to have stopped ART.

Of the **169,965** patients alive and on ART: 94% were on the first line regimen, 5% were on an alternative first line regimen, fewer than 1% were on second line regimen and 1% were on a non-standard ART regimen. Non-standard regimens are not necessarily substandard regimens; they include patients continuing an ART regimen that was started outside Malawi, patients in research programmes and patients in specialist care in whom specific circumstances lead to the choice of a non-standard regimen.

Improved integration of the supervision system for the public and private sector has led to a revision of previous M&E data in the private sector and patient outcomes in the private sector no longer appear better than in the public sector.

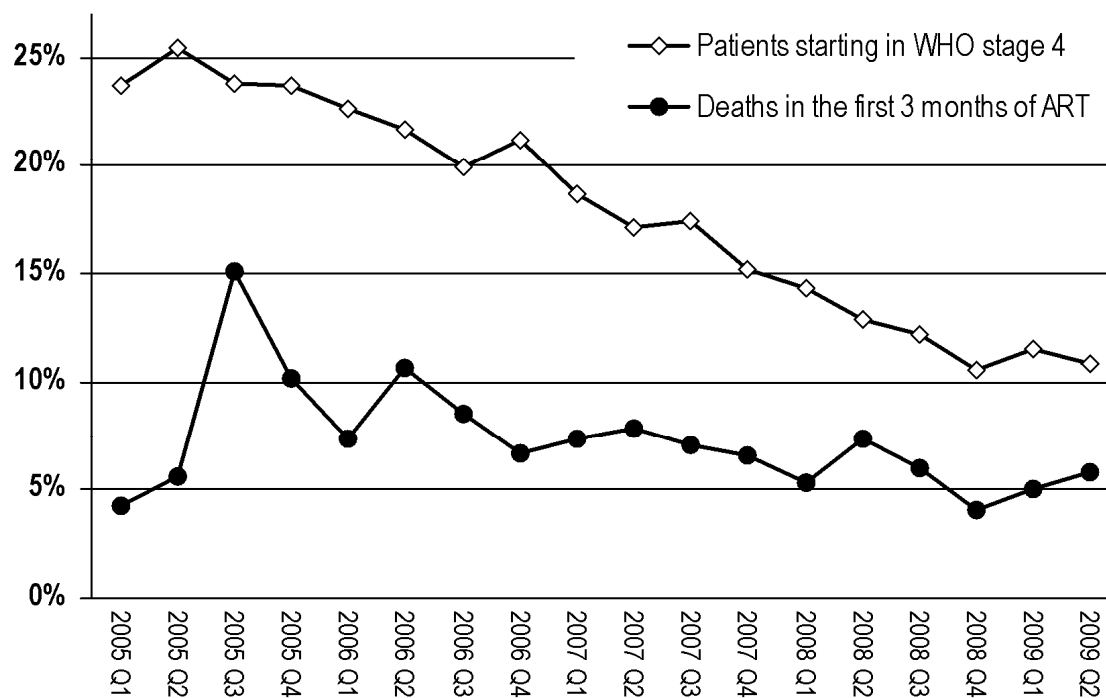
By the end of June 2009 there were 35 sites with 1,001–2,000 patients alive and on treatment; 11 sites with 2,001–5,000 and 5 with over 5,000 patients alive and on treatment.

**Table 1: ART programme resume 2003-2009 (public and private sector combined)**

|   | Dec 2003       | Dec 2004 | Dec 2005 | Dec 2006 | Dec 2007 | Dec 2008 | June 009 |
|---|----------------|----------|----------|----------|----------|----------|----------|
| <i>Total number of static ART sites</i> | 9              | 24       | 83       | 141      | 163      | 221      | 224      |
| ART clinic registrations per year       | No data        | 10,183   | 25,634   | 46,351   | 61,688   | 76,581   | 42,479   |
| Cumulative patients registered          | 3,000 (approx) | 13,183   | 38,817   | 85,168   | 146,856  | 223,437  | 266,325  |
| Patients alive on ART                   | No data        | 10,761   | 29,087   | 59,980   | 100,649  | 147,497  | 169,965  |

Since 2005, the proportion of deaths in the first 3 months has steadily declined from about 24% in 2005 Q1 to about 11% in Q2 2009 (see below graph). This correlates well with the decline in the proportion of clients starting ART in WHO clinical stage 4 from 15% in 2005 Q3 to about 6% in Q2 2009. This is a reflection of the programme initiating ART earlier in stage 3 or using CD4 count with the subsequent better prognosis and a decrease in early mortality.

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)



## Introduction and Methodology

This is a report on the status of antiretroviral therapy (ART) in Malawi up to June 30<sup>th</sup>, 2009.

### ART site visits

All health facilities in the public and private sectors offering ART were visited in July 2009 and data from 224 health facilities were collected. The data includes information from 105 outreach and mobile sites served by the static sites using mobile teams. The visits were conducted by the Ministry of Health HIV Department, MBCA, partners from DHOs, Zonal HIV supervisors, Lighthouse and MSF.

Each visit lasted up to half a day during which a structured supervision and a drug stock-level assessment were carried out, and this was followed by a monitoring and evaluation exercise. Data on ART parameters were collected from the patient master cards and the ART Registers. Much effort was made in ensuring that outcomes (particularly death and defaulter) were correct, and we believe that outcomes are accurately represented in this report. During the visits, certificates for excellent performance awarded at the last visit were presented to the clinic staff.

### Data collection, outcome status censored on 30<sup>th</sup> June, 2009

Annex 1 shows new patients registered at ART clinics during the second quarter of 2009. Data on ART clinics and staff complements, HIV-related diseases, and HIV counselling and testing were collected for this 3-month period. Annex 2 shows all patients ever registered at ART clinics in Malawi up to June 30<sup>th</sup>, 2009

.A 12, 24, 36, and 48-month cohort outcome 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.

## Public sector results

By the end of June 2009, there were **165** static health facilities, owned by government, mission and NGOs in Malawi in the public health sector delivering ART free of charge to HIV-positive eligible patients. All facilities were using the national monitoring tools.

In Q2 2009 (April to June), **17,603** new patients initiated ART and **2441** ART patients transferred between clinics, resulting in a total of **20,044** ART clinic registrations (39% male, 61% female; 90 adults and 10% children). By the end of June 2009, **226,094** patients had ever initiated ART in the public sector and **30,976** ART patients had transferred between clinics, resulting in a total of **257,070** ART clinic registrations (39% male, 61% female; 91% adults and 9 % children).

Cumulative treatment outcomes by end of June were: **164,770** (64%) alive and on ART, **27,095** (11%) died, **30,489** (12%) lost to follow-up/defaulted, **33,874** (13%) transferred out to another facility and **899** (<1%) were known to have stopped ART. Of the **164,770** patients alive and on ART: 94% were on the first line regimen, 5% were on an alternative first line regimen, <1% were on a second line regimen and 1% on a non-standard regimen.

**Table 2: ART program resume 2003-2009 (public sector)**

|  | Dec 2003 | Dec 2004 | Dec 2005 | Dec 2006 | Dec 2007 | Dec 2008 | June 2009 |
|--|----------|----------|----------|----------|----------|----------|-----------|
| <b>Public sector ART sites</b>                   | 9        | 24       | 60       | 103      | 118      | 170      | 165       |
| ART clinic registrations in the year (Jan – Dec) | No data  | 10,183   | 24,657   | 43,981   | 59,628   | 74,000   | 41,181    |
| Cumulative patients registered for ART           | 3,000    | 13,183   | 37,840   | 81,821   | 141,449  | 215,449  | 257,070   |
| Patients alive on ART                            | No data  | 10,761   | 28,110   | 57,356   | 96,712   | 142,218  | 164,770   |

Qualitative assessment of sites

A qualitative assessment of the patient master cards and registers was carried out in 159 of the 165 sites in the public sector. The table compares the 158 facilities in Q2 2009 with the previous qualitative assessment facilities in Q3, Q4 and Q1 of 2009. The standards were generally good, and Q2 2009 was similar to Q1 2009. The proportion of ART sites with pill counts recorded has improved markedly over time.

**Table 3: Qualitative assessment of public sector ART clinics 2008-2009**

| Parameter  | ART sites in Q3 2008<br>N=160 | ART sites in Q4 2008<br>N=159 | ART sites in Q1 2009<br>N=159 | ART sites in Q2 2009<br>N=159 |
|--|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| <b>General:</b>  |                               |                               |                               |                               |
| Clinic orderly and tidy  | 98%                           | 96%                           | 98%                           | 99%                           |
| Pharmacy well organised and stock cards up to date               | -                             | 86%                           | 94%                           | 94%                           |
| Standard M&E tools implemented and maintained (paper or EDS)     | 98%                           | 96%                           | 99%                           | 100%                          |
| ARV drug register in use   | 96%                           | 94%                           | 96%                           | 96%                           |
| <b>Master cards:</b>   |                               |                               |                               |                               |
| Card header details complete                                     | 93%                           | 97%                           | 99%                           |                               |
| TB status, KS and pregnancy recorded                             | 97%                           | 99%                           | 98%                           | 99%                           |
| WHO stage defining conditions circled on back of card            | 93%                           | 90%                           | 90%                           | 94%                           |
| Details of 2-week initiation visit recorded at bottom of card    | 99%                           | 99%                           | 98%                           | 97%                           |
| Weight recorded at each visit                                    | 99%                           | 99%                           | 99%                           | 99%                           |
| ART regimen and side effects recorded at each visit              | -                             | 96%                           | 99%                           | 97%                           |
| Pill counts recorded at all ARV refill visits                    | 91%                           | 95%                           | 96%                           | 99%                           |
| <b>Clinic register:</b>  |                               |                               |                               |                               |
| Register numbers assigned correctly and match cards              | 97%                           | 98%                           | 97%                           | 99%                           |
| Transfer-ins recorded  | 94%                           | 96%                           | 94%                           | 97%                           |
| All case finding columns complete (age, sex, reason, ...)        | 99%                           | 97%                           | 99%                           | 99%                           |
| Case finding data match cards                                    | 79%                           | 93%                           | 93%                           | 92%                           |
| Outcomes complete and updated every quarter                      | 81%                           | 75%                           | 83%                           | 82%                           |
| Outcome dates specified  | 86%                           | 86%                           | 89%                           | 89%                           |
| <b>Analysis:</b>   |                               |                               |                               |                               |
| Patient registration analysis done for quarter                   | 82%                           | 95%                           | 93%                           | 93%                           |
| Cumulative cohort analysis done for all patients ever registered | 80%                           | 89%                           | 83%                           | 92%                           |
| Cumulative cohort outcomes complete and accurate                 | 67%                           | 58%                           | 63%                           | 69%                           |

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: 88 (53%) the sites in the public sector received a certificate of excellence. This is an increase compared with 84 sites in Q1 2009.

## ART Clinics and Staff

For each clinic 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 all facilities in Q2 2009 was 458, translating into an average of 2.9 working days per facility in a week. Table 4 shows the total number of staff days per week for clinicians, mainly clinical officers, nurses and clerks for each of the regions and for the country as a whole. The full-time equivalents (FTEs) indicate the equivalent of full-time ART clinicians, nurses and clerks. Thus, for the country as a whole, the equivalent of 158 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   | 31    | 83              | 93                  | 104              | 99               |
| Central | 58    | 166             | 265                 | 290              | 206              |
| South   | 68    | 209             | 432                 | 474              | 365              |
| Total   | 157   | 458             | 790                 | 868              | 670              |
| FTE     |       |                 | 158                 | 174              | 134              |

### Training:

Not much training took place during the quarter under review, with only two training taking place with a total of 32 health care workers trained (see table 5). However the cumulative number of HCW trained still remained above the target. 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

**Table 5: ART training by end June 2009**

| Sector   | Target      | Achievement |
|--|-------------|-------------|
| <b>Public: No trained in Q2 2009</b>               | <b>100</b>  | <b>32</b>   |
| <b>Private: No trained in Q2 2009</b>              | <b>25</b>   | <b>0</b>    |
| <b>Public: Cumulative No trained by June 2009</b>  | <b>2400</b> | <b>2651</b> |
| <b>Private: Cumulative No trained by June 2009</b> | <b>450</b>  | <b>581</b>  |

## Quarterly Analysis for the period April 1<sup>st</sup> to June 30<sup>th</sup>, 2009

### New patients started on ART in public sector between January and March 2009

The national data for patients registered at ART clinics during these three months are shown in Annex 1. There were a total of **20,044** ART clinic registrations, representing **17,603** (88%) patients who newly initiated ART and **2,441** (12%) ART patients who transferred between clinics. Out of all clinic registrations, 39% were males and 61% were females. Adults comprised 90% of patients and children (aged 14 years or less) comprised 10%. 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 (33%) has slightly increased from the previous quarter while those starting in WHO stage 4 remain at 11%.

A total of **5,899** TB patients were registered in the TB treatment programme in Q2 2009 and **1,023 (17%)** of these were ART patients who started TB treatment while on ART. Of the remaining **4,876** TB patients who were not yet on ART, **3,820 (78%)** had their HIV status ascertained in the TB programme (either through a new HIV test or through review of previous documented HIV test results). **3,223 (66%)** of the 4,843 TB patients with known HIV status were HIV positive.

|                | Total TB cases | TB cases HIV tested | TB cases HIV pos | TB cases on ART |
|----------------|----------------|---------------------|------------------|-----------------|
| <b>North</b>   | 413            | 375                 | 204              | 88              |
| <b>Central</b> | 1,760          | 1,565               | 960              | 320             |
| <b>South</b>   | 3,726          | 2,903               | 2,059            | 615             |
| <b>Total</b>   | 5,899          | 4,843               | 3,223            | 1,023           |

The number of patients who started ART because of TB was **1,435**. This constitutes **7%** of the total ART patients registered during Q2 2009 and **65%** (1,435 / 2,200) of those known to be HIV positive and hence eligible to start ART. However 70% of all TB patients are assumed to be HIV positive and hence eligible for ART (70% of 5,899 = 4,129). 4,129 – 1,023 (already on ART) = **3,106**. Therefore estimated ART coverage for HIV infected TB patients is 1,435/3,106 = **46%**

**689 (3%)** of patients registered during Q2 2009 were pregnant women (at the time of ART initiation).

### HIV testing, CD4 testing capability and HIV-related diseases: April – June 2009

The data on HIV test results for patients tested in the 165 facilities between April and June 2009 are shown in Table 6. Altogether, there were 207,299 clients and patients tested in the 3-month period. 27% of those tested were pregnant. Of those HIV-positive, 77% were referred for clinical assessment for ART. This proportion is slightly higher compared to

previous quarter. 20% were referred for PMTCT which is an increase from the previous quarter

**Table 6: HIV testing at facilities with ART clinics during Q1 2009**

|  |         |      |
|--|---------|------|
| Total tested                               | 207,299 | 100% |
| Males tested                               | 68,043  | 33%  |
| Non-pregnant females tested                | 80,174  | 39%  |
| Pregnant females tested                    | 59,082  | 27%  |
| Total HIV positive                         | 33,000  | 16%  |
| Positives referred for ART                 | 25,521  | 77%  |
| Positive pregnant women referred for PMTCT | 6,679   | 20%  |

There were 52 facilities with CD4 count capability, an increase of 4 from previous quarter, 47 out of the 52 facilities, performed any CD4 test during Q2 2009. This is a slight increase compared to the previous quarter (42). The number of CD4 count tests performed generally remained the same (41,171) compared to last quarter, though there was a reduction in the central region with a relative increase in the north and south.

**Table 7: Facilities with CD4 count capabilities by region**

| Region                                   | North | Central | South  | Total  |
|--|-------|---------|--------|--------|
| Facilities with CD4 machines             | 11    | 21      | 20     | 52     |
| Facilities with functioning CD4 machines | 8     | 19      | 20     | 47     |
| Total CD4 tests                          | 3,763 | 9,260   | 28,148 | 41,171 |

#### HIV-related indicator diseases

Table 8 shows the number of patients with 4 key HIV-related indicator diseases, diagnosed and treated in the 165 facilities during the quarter. TB numbers were obtained from the TB registers; Kaposi' Sarcoma (KS) numbers from the ART registers; numbers of those with cryptococcal meningitis and oesophageal candidiasis from the DIFLUCAN registers kept in the pharmacy or from master cards in those sites not participating in the DIFLUCAN programme. The number of patients diagnosed with Oesophageal Candidiasis and Tuberculosis are lower this quarter compared to previous quarters, but KS and Cryptococcal meningitis are still common serious opportunistic infections in Malawi.

**Table 8: HIV related indicator diseases**

| Disease                      | Total |
|------------------------------|-------|
| Tuberculosis                 | 5,899 |
| Kaposi's Sarcoma (KS)        | 475   |
| Oesophageal Candidiasis (OC) | 810   |
| Cryptococcal meningitis (CM) | 571   |

## Cumulative analysis for patients ever started on ART up to June 30<sup>th</sup>, 2009

The national data for all patients who ever started on ART up to the end of June 2009 are shown in the Annex 2.

**30,905** of patients registered in the public sector started ART due to TB. This constitutes 12% of all patients registered in the public sector.

The cumulative primary treatment outcomes were as follows. **164,770** (64%) patients were alive and on ART, **30,489** (12%) were lost to follow-up/defaulted, 899 (0%) were known to have stopped ART, **33,874** (13%) transferred out to another facility and **27,095** (11%) died. Date of death was recorded for all patients who died: **8,155** (30%) died in month 1; **5,650** (21%) died in month 2; **2,962** (11%) died in month 3 and **10,323** (38%) died at a later date.

## Cohort follow-up outcomes at 12-, 24- 36- and 48 months after registration

Treatment outcomes were counted separately for the cohorts of patients who registered 12, 24 and 36 months before the end of quarter 2 2009. For instance, the 12-months survival analysis was based on the patients who registered for ART between April and June 2008, considering their outcomes by 30<sup>th</sup> June 2009. The 24-month survival analysis was based on the patients registered for ART between April and June 2007 and the 36-months survival was based on the patients registered between April and June 2006. A separate 12-month treatment outcome analysis was performed for children below 15 years (at the time of ART registration). Results are shown in table 9. The 12-month survival analysis indicated that 79% of adults and 82% of children were retained alive on ART. 68%, 62% and 57% of patients (all ages) were retained alive on ART at 24, 36 and 48 months after registration.

**Table 9: Cohort survival analysis 12, 24, 36 and 48 months from registration (public sector)**

|                   | 12 month<br>(adults ≥15 years) |     | 12 month<br>(children) |     | 24 month<br>(all ages) |     | 36 month<br>(all ages) |     | 48 month<br>(all ages) |     |
|-------------------|--------------------------------|-----|------------------------|-----|------------------------|-----|------------------------|-----|------------------------|-----|
| Total Registered  | 18,876                         |     | 1,594                  |     | 14,350                 |     | 9,923                  |     | 4,965                  |     |
| Transfers         | 1,756                          | 9%  | 168                    | 11% | 2,247                  | 16% | 2,001                  | 20% | 1,130                  | 23% |
| Total patients    | 17,120                         |     | 1,426                  |     | 12,103                 |     | 7,922                  |     | 3,835                  |     |
| Alive on ART      | 13,516                         | 79% | 1,172                  | 82% | 8,271                  | 68% | 4,925                  | 62% | 2,182                  | 57% |
| Died              | 1,476                          | 9%  | 98                     | 7%  | 1,647                  | 14% | 1,576                  | 20% | 880                    | 23% |
| Lost to follow-up | 2,060                          | 12% | 143                    | 10% | 2,133                  | 18% | 1,398                  | 18% | 749                    | 20% |
| Stopped ART       | 68                             | <1% | 13                     | <1% | 52                     | <1% | 23                     | <1% | 24                     | <1% |

## Stocks of ARV drugs and drug for HIV-diseases as of December 2008

In each public sector facility a physical stock count was performed for ARVs and specific drugs for HIV-related diseases. Table 10 shows the stock positions by region for ARVs (first line and alternative first line and second line) and drugs for HIV-related conditions. There were enough first line ARV drugs (starter packs) to start about 50,000 new patients on therapy (lasting for 12 months at current rates of recruitment) and enough "Continuation packs" to keep the current 169,965 patients plus the new patients starting on treatment for about 2 months (up to August 2009) However there was only enough Alternative first line to last 1 month and hence the stock outs that were experienced.



**Table 10: Drug stock positions in the public sector ART clinics (April 2009)**

| Drug                 | units | Central   | North     | South     | Total stock |
|----------------------|-------|-----------|-----------|-----------|-------------|
| d4T 30mg / 3TC       | 15    | 25,383    | 9,723     | 19,775    | 54,881      |
| d4T 30mg / 3TC / NVP | 15    | 25,973    | 9,439     | 22,351    | 57,763      |
| d4T 30mg / 3TC / NVP | 60    | 196,921   | 64,626    | 205,285   | 466,832     |
| AZT / 3TC            | 60    | 11,136    | 778       | 9,810     | 21,724      |
| AZT/3TC/NVP          | 60    | 2,991     | 206       | 2,398     | 5,595       |
| NVP                  | 60    | 1,098     | 893       | 5,405     | 7,396       |
| d4T 30mg / 3TC       | 60    | 8,286     | 1,387     | 10,190    | 19,863      |
| EFV                  | 30    | 8,174     | 1,135     | 13,395    | 22,704      |
| TDF                  | 30    | 5,134     | 447       | 4,203     | 9,784       |
| ABC                  | 60    | 96        | 103       | 1,214     | 1,413       |
| ddl                  | 30    | 805       | 80        | 447       | 1,332       |
| LPV/r                | 120   | 3,504     | 122       | 3,090     | 6,716       |
| CPT                  | 120   | 875,377   | 34,598    | 92,440    | 1,002,415   |
| Cotrimoxazole        | 1     | 5,262,429 | 2,318,230 | 3,415,064 | 10,995,723  |
| Fluconazole          | 1     | 32,848    | 66,584    | 53,718    | 153,150     |
| Ceftriaxone          | 1     | 22,559    | 24,556    | 33,620    | 80,735      |
| Acyclovir            | 1     | 293,550   | 124,389   | 171,377   | 489,316     |
| Ciprofloxazin        | 1     | 538,873   | 63,310    | 287,102   | 889,285     |
| Vincristine          | 1     | 3,442     | 1,292     | 5,016     | 9,750       |
| Morphine             | 1     | 113,058   | 208,860   | 76,869    | 398,787     |
| Amitryptiline        | 1     | 1,922,510 | 735,132   | 1,319,861 | 3,977,503   |

## PRIVATE SECTOR RESULTS

By the end of June 2009 there were 59 facilities in Malawi in the private health sector delivering ART at a subsidised rate to eligible patients. During Q2 2009, a total of **487** patients newly initiated ART and **130** transferred between clinics, resulting in a total of **617** new clinic registrations in the private sector (47% male, 53% female, 97% adult, 3% children).

**Table 11: ART programme resume 2003-2009 (private sector)**

|                                   | Dec 2003 | Dec 2005 | Dec 2006 | Dec 2007 | Dec 2008 | June 2009 |
|-----------------------------------|----------|----------|----------|----------|----------|-----------|
| <i>Private sector ART sites</i>   | 0        | 23       | 38       | 45       | 51       | 59        |
| ART clinic registrations per year | 0        | 977      | 2,370    | 2,060    | 2,580    | 1,051     |
| Cumulative patients registered    | 0        | 977      | 3,347    | 5,407    | 7,988    | 9,255     |
| Patients alive on ART             | 0        | 977      | 2,624    | 3,937    | 5,261    | 5,195     |

The results of the private sector are shown in the Annex 1 & 2.

Cumulatively, a total of 8,301 patients newly initiated ART in the private sector and 954 ART patients transferred between clinics, resulting in a total of 9,255 total clinic registrations. (50% males, 49% females, 95% adults, 4% children). Out of the total registrations in the private sector, 44% started in Stage 3, 17% in Stage 4 and 37% in Stage 1 or 2 with a low CD4 count.

5,195 (56%) were alive and on ART, 804 (9%) had died, 1,469 (16%) were lost to follow-up, 1,750 (19%) were transferred out and 37 (0%) had stopped treatment. Of the 5,195 patients alive and on ART 86% were on first line regimen, 11% were on an alternative first line regimen and 2% were on a second line regimen. There were 550 (6%) patients started on ART due to TB. The cumulative number of patients alive and on ART did not increase significantly due to the data cleaning exercise done this quarter by the supervision team.

## COMMENTS

### New supervision forms and ART monitoring tools

The HIV department has developed new revised supervision forms and ART monitoring tools, such as the ART patient master card and the ART register. A Training of Trainers 2 day training will take place in the second week of September 2009 and refresher training for providers will follow in the third quarter. The tools have been distributed to all the sites during the quarterly supervision.

A summary of action points for the sites and for central level has been compiled in letters sent to all DHOs and Zonal Offices.

### Revision of the ART scale up plan

Consultative meetings with all DHOs and ZHOs have been held in all the zones where district and zonal plans for ART scale up were drafted, these have been used to form the basis for updating the National ART scale up plan (2006-2010) which has become redundant due to its success in achieving well beyond the set targets. A draft scale up plan 2010-2013 has been produced and circulated in the department for input. This will then be circulated to all partners and stake-holders for input.

### Decentralisation of ART supervision

The ART supervision is in the process of decentralisation with increased involvement of the Zonal and District Health offices. As part of TB/HIV integration, the supervisory visit was held jointly with the TB supervisors. Some of the lessons learnt from this joint supervision were:

- A reasonable number of TB patients are tested for HIV(78%) while only 65% of these were started on ART, therefore there are issues on the referral system that need to be addressed
- There is no/minimal communication between the ART sites and the TB section as a result the ART sites were not aware of TB patients who were HIV positive and in need of ART and the TB sites sent patients to get their continuation medicines after initiation to the peripheral sites where they were lost to follow up
- There is still a belief that patients should not start ART until after 2 months of initial TB therapy, therefore TB sites wait for 2 months before referring patients for ART and this leads to loss to follow up through deaths or other reasons

It was agreed that the joint visits are useful and should continue though logistics need to be worked out.

## HIV supervisors

The HIV supervisors, previously known as ART supervisors have moved from the Central Hospitals to the Zonal Health Offices. Their tasks are not restricted to the ART programme anymore, but encompass the complete HIV programme. We expect that in the third quarter of 2009 all vacant positions will be filled. However they face various challenges including lack of transport to conduct effective supervision.

The HIV supervisors meeting was held in the 2<sup>nd</sup> quarter

## Early Infant Diagnosis

There was an increase in number of children initiated on ART on account of presumptive severe HIV disease diagnosis, compared to previous quarter (85, previous 67). While those initiated on DNA-PCR increased from 85 to 114 infants, this is encouraging though more still needs to be done. The Department for HIV and AIDS has included EID & EIT in the refresher training course that is currently being piloted to improve uptake.

## **Main Challenges**

- Training and refresher trainings have become a challenge as they are not taking place in most districts
- Delay in release of funds for ART drugs and other materials posing a challenge and this led to a stock out in Alternative first line
- Lack of adequate infrastructure and transport for the zonal level
- Lack of CD4 testing facilities at most sites – priority should be given to PMTCT sites especially with the recommended increase in the threshold CD4 for initiating ART in pregnant women from 250 to 350
- Transportation of CD4 & DBS samples and results from the ART sites to the Labs and back is a big challenge

## **Way forward and emerging issues under discussion**

- Pre-ART – discussions currently ongoing between HIV and AIDS Department and stake holders on the minimum package for ART that can be rolled out Nationwide including Pre-ART registers and M & E tools
- Continuum of care for PMTCT clients and their children from ANC through Labour ward, post-natal care and into paediatric care for children and adult care for mothers. This would also be part of Pre-ART
- Strengthening Early Infant Diagnosis (EID) using DNA-PCR and Early Infant Treatment (EIT) including presumed severe HIV disease detection and treatment in children below 18 months of age
- Increasing CD4 threshold to 350 for pregnant women has been recommended by the HIV & AIDS Technical Working Group
- Discussions to be initiated with the DHO's on the way forward on CD4 and DBS sample transportation between sites and Labs
- Discussions on Malawi's first line regimen are ongoing

We finally thank all 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.

**Participants in ART Supervision:**

|          |           |                  |         |           |                    |
|----------|-----------|------------------|---------|-----------|--------------------|
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| Stephen  | CHU       | MOH, UNV         | Joseph  | Kasola    | MOH Chitipa DH     |
| Stuart   | Chuka     | MBCA             | Mapay   | Ngalala   | MOH, UNV           |
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| Agnes    | Kalitsiro | MOH, Mlambe MH   | Olesi   | Pasulani  | MSF Thyolo         |
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| Absalom  | Kaunda    | MOH, Mzimba DHO  | Monica  | Simfukwe  | MOH, Chintheche RH |
| Prosper  | Lutala    | MOH              | Lyson   | Tenthani  | MOH                |
| Andreas  | Jahn      | MOH              | Henry   | Kanyerere | MOH                |
| Mary     | Kamiza    | NTP              | Joe     | Gumulira  | MOH                |
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**28<sup>th</sup> August 2009**

## New patients registered for ART between 01/04/2009 and 30/06/2009

|                     |                           | Public Sector |     | Private Sector |     | National Total |     |
|---------------------|---------------------------|---------------|-----|----------------|-----|----------------|-----|
| Total registrations |                           | 20,044        |     | 617            |     | 20,661         |     |
| Registration type   | Transfers in              | 2,441         | 12% | 130            | 21% | 2,571          | 12% |
|                     | New ART initiations       | 17,603        | 88% | 487            | 79% | 18,090         | 88% |
| Sex                 | Males                     | 7,807         | 39% | 292            | 47% | 8,099          | 39% |
|                     | Total females             | 12,237        | 61% | 325            | 53% | 12,562         | 61% |
|                     | Females non-pregnant      | 11,567        | 58% | 306            | 50% | 11,873         | 57% |
|                     | Females pregnant          | 670           | 3%  | 19             | 3%  | 689            | 3%  |
| Age                 | Adults                    | 17,997        | 90% | 600            | 97% | 18,597         | 90% |
|                     | Total children            | 2,047         | 10% | 17             | 3%  | 2,064          | 10% |
|                     | Children 18m-14yrs        | 1,716         | 9%  | 17             | 3%  | 1,733          | 8%  |
|                     | Children 0-17 months      | 331           | 2%  | 0              | 0%  | 331            | 2%  |
| Reason for ART      | Presumed sev. HIV <18mths | 85            | 0%  | 0              | 0%  | 85             | 0%  |
|                     | Confirmed HIV infants     | 114           | 1%  | 0              | 0%  | 114            | 1%  |
|                     | WHO 1/2, CD4 <threshold   | 6,574         | 33% | 290            | 47% | 6,864          | 33% |
|                     | WHO 2, TLC <threshold     | 2             | 0%  | 0              | 0%  | 2              | 0%  |
|                     | WHO stage 3               | 10,950        | 55% | 229            | 37% | 11,179         | 54% |
|                     | WHO stage 4               | 2,142         | 11% | 93             | 15% | 2,235          | 11% |
|                     | Reason unspecified        | 177           | 1%  | 5              | 1%  | 182            | 1%  |
|                     | TB                        | 1,403         | 7%  | 32             | 5%  | 1,435          | 7%  |
|                     | KS                        | 468           | 2%  | 7              | 1%  | 475            | 2%  |

## Cumulative patients registered for ART up to end 30/06/2009

|                     |                            | Public Sector |     | Private Sector |        | National Total |     |
|---------------------|----------------------------|---------------|-----|----------------|--------|----------------|-----|
| Total registrations |                            | 257,070       |     | 9,255          |        | 266,325        |     |
| Registration type   | Transfers in               | 30,976        | 12% | 954            | 10%    | 31,930         | 12% |
|                     | New ART initiations        | 226,094       | 88% | 8,301          | 90%    | 234,395        | 88% |
| Sex                 | Males                      | 99,172        | 39% | 4,656          | 50%    | 103,828        | 39% |
|                     | Total females              | 157,898       | 61% | 4,524          | 49%    | 162,422        | 61% |
|                     | Females non-pregnant       | 152,339       | 59% | 4,347          | 47%    | 156,686        | 59% |
|                     | Females pregnant           | 5,559         | 2%  | 177            | 2%     | 5,736          | 2%  |
| Age                 | Adults                     | 234,535       | 91% | 8,786          | 95%    | 243,321        | 91% |
|                     | Total children             | 22,535        | 9%  | 394            | 4%     | 22,929         | 9%  |
|                     | Children 18m-14yrs         | 20,138        | 8%  | 369            | 4%     | 20,507         | 8%  |
|                     | Children 0-17 months       | 2,397         | 1%  | 25             | 0%     | 2,422          | 1%  |
| Reason for ART      | Presumed sev. HIV <18mths  | 484           | 0%  | 0              | 0%     | 484            | 0%  |
|                     | Confirmed HIV infants      | 375           | 0%  | 0              | 0%     | 375            | 0%  |
|                     | WHO 1/2, CD4 <threshold    | 50,971        | 20% | 3,392          | 37%    | 54,363         | 20% |
|                     | WHO 2, TLC <threshold      | 292           | 0%  | 1              | 0%     | 293            | 0%  |
|                     | WHO stage 3                | 158,914       | 62% | 4,118          | 44%    | 163,032        | 61% |
|                     | WHO stage 4                | 42,865        | 17% | 1,617          | 17%    | 44,482         | 17% |
|                     | Reason unspecified         | 3,169         | 1%  | 127            | 1%     | 3,296          | 1%  |
|                     | TB                         | 30,905        | 12% | 550            | 6%     | 31,455         | 12% |
|                     | KS                         | 8,880         | 3%  | 135            | 1%     | 9,015          | 3%  |
| Primary outcomes    | Alive on ART               | 164,770       | 64% | 5,195          | 56%    | 169,965        | 64% |
|                     | Defaults                   | 30,489        | 12% | 1,469          | 16%    | 31,958         | 12% |
|                     | ART stops                  | 899           | 0%  | 37             | 0%     | 936            | 0%  |
|                     | Transfers out              | 33,874        | 13% | 1,750          | 19%    | 35,624         | 13% |
|                     | Deaths total               | 27,095        | 11% | 804            | 9%     | 27,899         | 10% |
|                     | Month 1                    | 8,155         | 30% | 272            | 34%    | 8,427          | 30% |
|                     | Month 2                    | 5,650         | 21% | 130            | 16%    | 5,780          | 21% |
|                     | Month 3                    | 2,962         | 11% | 87             | 11%    | 3,049          | 11% |
| After month 3       | 10,323                     | 38%           | 304 | 38%            | 10,627 | 38%            |     |
| ARV regimens        | Start                      | 154,567       | 94% | 4,462          | 86%    | 159,029        | 94% |
|                     | Alternative 1st line total | 8,584         | 5%  | 590            | 11%    | 9,174          | 5%  |
|                     | AZT                        | 5,105         | 59% | 387            | 66%    | 5,492          | 60% |
|                     | EFV                        | 3,156         | 37% | 109            | 18%    | 3,265          | 36% |
|                     | AZT+EFV                    | 323           | 4%  | 94             | 16%    | 417            | 5%  |
|                     | Unspecified / other        | 0             | 0%  | 0              | 0%     | 0              | 0%  |
|                     | Second line total          | 516           | 0%  | 96             | 2%     | 612            | 0%  |
|                     | Second line adult          | 447           | 0%  | 95             | 2%     | 542            | 0%  |
|                     | Second line children       | 69            | 0%  | 1              | 0%     | 70             | 0%  |
|                     | Non-standard               | 1,103         | 1%  | 47             | 1%     | 1,150          | 1%  |
| Side effects        | Side effects counted       | 130,216       |     | 4,129          |        | 134,345        |     |
|                     | With side effects          | 6,888         | 5%  | 351            | 9%     | 7,239          | 5%  |
| Adherence           | Pillcounts done            | 85,598        |     | 1,642          |        | 87,240         |     |
|                     | Pillc shows >95% adherence | 78,498        | 92% | 1,440          | 88%    | 79,938         | 92% |