ART IN THE PUBLIC AND PRIVATE SECTORS IN MALAWI
RESULTS UP TO 30th DECEMBER, 2007

Executive Summary:

Public sector:

By the end of December 2007, there were **118** free-standing facilities in Malawi in the public health sector delivering ART free of charge to HIV-positive eligible patients.

In the fourth quarter of 2007 (October to December), there were **14,908** new patients started on ART (39% male, 61% female; 91% adults and 9% children. By the end of December 2007, there were **141,449** patients who had ever started on ART (39% male, 61% female; 92% adults and 8 % children). Cumulative treatment outcomes by end of December were:- 68% alive and on ART at the site of registration, 12% dead, 10% lost to follow-up, 10% transferred out to another facility (and were presumably alive) and <1% stopped treatment. Of the 96,712 patients alive and on ART:- 96% were on the first line regimen, 4% were on an alternative first line regimen and a small number (343) were on a second line regimen.

Private sector:

By the end of December 2007, there were **45** facilities in Malawi in the private health sector delivering ART at a subsidised rate to HIV-positive eligible patients.

In the fourth quarter of 2007 (October to December), there were **529** new patients started on ART (50% male, 50% female, 95% adult, 5% children). By the end of December 2007, there were **5,407** patients who had ever started on ART (52% male, 48% female, 96% adults, 4% children). Cumulative treatment outcomes by end of December were:- 72% alive and on ART at the site of registration, 7% dead, 6% lost to follow-up, 14% transferred out to another facility (and were presumably alive) and <1% had stopped treatment. Of the 3,937 patients alive and on ART:- 92% were on first line regimen, 6% were on an alternative first line regimen and 1% were on a second line regimen.

Resume from January 2003 to December 2007 in the public and private sector:

	By Dec 2003	By Dec 2004	By Dec 2005	By Dec 2006	**By Dec 2007**
Public sector ART sites	9	24	60	103	**118**
New patients started ART in year	No data	10,183	24,657	43,981	**59,628**
Cumulative patients started ART	3,000	13,183	37,840	81,821	**141,449**
Patients alive on ART	No data	10,761	28,110	57,356	**96,712**
Private sector ART sites	0	0	23	38	**45**
New patients started ART in year	0	0	977	2,370	**2,060**
Cumulative patients started ART	0	0	977	3,347	**5,407**
Patients alive on ART	0	0	977	2,624	**3,937**
Public and Private ART sites	9	24	83	141	**163**
New patients started ART in year	No data	10,183	25,634	46,351	**61,688**
Cumulative patients started ART	3,000	13,183	38,817	85,168	**146,856**
Patients alive on ART	No data	10,761	29,087	59,980	**100,649**

Introduction and Methodology:

This is a report on the status of antiretroviral therapy (ART) in Malawi up to December 31st, 2007.

Public sector site visits: between January and March 2008, all 118 health facilities in the public sector earmarked for ART were visited. The visits were conducted by the Ministry of Health HIV Unit (Simon Makombe and Amon Nkhata), who were accompanied by their partners: Omba Lwanda from KCH; Ralf Weigel, Lameck Thambo, and Fred Chipatula from the Lighthouse; Janet Chikonda from Area 18; Olesi Pasulani from Thyolo-MSF; Cosmas Matawere from Mchinji; Ashley Pakiza from QECH. Two ART supervisors, Dr Tewedros Teffera (Zomba Central Hospital) and Dr William Katamba (QECH) also accompanied the Unit.

Each visit lasted 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 ARV Register. 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 (see below).

Private sector site visits: between January and March 2008, all 45 ART sites in the private sector were visited by Stuart Chuka from MBCA, using the same core methodology as for the public sector.

Data collection in public / private sector, outcome status censored on 31st December, 2007:-

The first data set is the status of new patients who were started on free ART in Malawi between October 1st and December 31st , 2007, **the "quarterly analysis"**. In the public sector only, data on ART clinics and staff complements, HIV-related diseases, and HIV counselling and testing were also collected for this 3-month period.

The second data set is the status of all patients who ever started on free ART in Malawi up to December 31st, 2007, **the "cumulative analysis"**.

The third data set collected only in the public sector is the **12-month, 24- month and 36-month cohort outcome analysis**, with data collected on patients starting ART in Malawi in Q4 2006, Q4 2005, and Q4 2004 respectively

Data collation and presentation for the years 2003 – 2007:

Data on ART for the 4 years (2003 – 2007) are collated and presented to show the progress made in both the public and private sector for ART.

PUBLIC SECTOR RESULTS:

General:

By December 2007, 118 free-standing government and mission health facilities in the country had started patients on free ART. All the facilities were using the national monitoring tools.

ARV regimens: All facilities were using the recommended first line regimen (Stavudine + Lamivudine + Nevirapine) for the majority of their patients. There were 92,766 patients alive and on first line treatment; 3,603 patients alive and on alternative first line regimens (Zidovudine-based or Efavirenz-based) for patients with adverse drug reactions; and 343 patients alive and being treated with a second line regimen for failure of the first line therapy.

Qualitative assessment of sites: All 118 ART clinics were tidy and orderly, and in 115 sites the filing systems and record keeping were excellent: 3 were below par. A qualitative assessment of the patient master cards and registers was carried out. The table, with pertinent results, compares the 118 facilities in Q4 2007 with the previous qualitative assessment of 109 facilities in Q3 2007. The standards were generally good, and Q4-07 was similar in many respects to Q3-07. However, fewer sites this time round had done a correct quarterly and cumulative cohort analysis.

Parameter	**ART sites (%) Q3 2007 N=109**	**ART sites (%) Q4 2007 N=118**
ARV Register:		
ARV Register numbers correct and match master cards	**109 (100%)**	**115 (97%)**
All columns in the ARV register always completed	**108 (99%)**	**114 (97%)**
Dates of all adverse outcomes recorded	**107 (98%)**	**110 (93%)**
All ARV outcomes updated every three months	**95 (87%)**	**104 (88%)**
Patient Master Card:		
Case finding data properly completed on each card	**107 (98%)**	**112 (95%)**
Regular record of weight done at each patient visit	**109 (100%)**	**117 (99%)**
In each monthly visit all outcome columns completed	**108 (99%)**	**116 (98%)**
Pill counts for adherence done according to directives	**106 (97%)**	**115 (97%)**
HIV-diseases always indicated on back of master card	**106 (97%)**	**113 (96%)**
Cohort Analysis:		
Quarterly cohort analysis done by the site before visit	**100 (92%)**	**111 (94%)**
Cumulative analysis done by the site before visit	**99 (91%)**	**111 (94%)**
Cohort outcomes correctly done	**81 (74%)**	**84 (71%)**

Certificates of excellence: Sites which show an excellent performance in completing ART registers and master cards and correctly doing cohort analyses are awarded a certificate of excellence, approved and signed by the Secretary for Health.
Results for the last three quarters, including the current quarter are shown below:
April to June 2007: sites = 106 – Certificates awarded to 64 (60%)
July to September 2007: sites = 109 – Certificates awarded to 69 (63%)
September to December 2007: sites = 109 – Certificates awarded to 76 (70%)
January to March 2008: sites = 118 – Certificates awarded to 72 (61%)

ART Clinics and Staff: a record is made in all facilities of the number of days in a week that the ART clinic is open to see either new or follow-up patients plus the number of staff who operate the clinic when it is functioning. The total number of days in a week given for ART at all facilities in Q4 2007 was 381, translating into an average of 3.2 working days in a week when facilities operate an ART clinic.
The table shows the 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 FTE parameters indicate the number of clinicians, nurses and clerks working full-time per week on ART. Thus, for the country as a whole, the equivalent of 98 clinicians was working full-time in ART delivery each week. The workload to man ART clinics is obviously increasing quarter by quarter (compare previous reports).

	Clinician days/week	Nurse days/week	Clerk days/week
North: 27 sites	50	48	65
Central: 41 sites	219	240	179
South: 50 sites	222	245	217
Total: 118 sites	**491**	**533**	**461**
FTEs	**98**	**107**	**92**

Quarterly Analysis for the period October 1st to December 31st, 2007:

1. New patients started on ART in public sector between Oct and Dec 2007:

The national data for new patients started on ART in these three months are shown in **Table 1** on quarterly analysis. The details of patients and their outcomes from each facility according to region are shown in the **Annexes**.

There were 14,908 new patients started on ART, with males representing 39% and females representing 61% of the total. Adults comprised 91% of patients and children (aged 14 years or less) comprised 9%. There were data on occupation in 14,720 patients, and the most common recorded occupations were subsistence farmer, housewife and small-scale business people (eg vendors). The majority of patients (64%) were started on ART because of being in WHO Stage 3.

The number of patients started on ART because of TB was 1,442 (1,253 with PTB, and 189 with EPTB). This constitutes 10% of new patients started on ART and 24% of patients registered for TB (N=6,009) during the quarter.

The number of women referred from PMTCT to start on ART was 343; 61 facilities had recorded PMTCT referrals in the ARV Register.

The three-month outcomes were good with 95% of patients being alive and on ART at the end of December. Other outcomes such as ambulatory status, work status, side effects and pill counts (where done) were very satisfactory.

The table below shows the recruitment of new patients to ART in Q4 2007 and Q3 2007, compared with what is expected in terms of ceilings and targets given to facilities. In quarter 4, 2007, there were 118 facilities (78 low burden, 28 medium burden, 6 medium/high burden, 2 high burden, 2 very high burden sites and 2 super high burden sites): these sites should have placed 16,350 new patients on ART and in the event placed 91%.: this is less than the previous quarter and reflects new Round 3 ART sites starting and placing few patients initially on therapy.

In each quarter:	**Q3 2007**	**Q4 2007**
Number of facilities	109	118
Expected number of patients to start ART	15,675	16,350
Observed number (%) of patients started on ART	15,363 (98%)	14,908 (91%)

2. HIV testing, CD4 testing capability and HIV-related diseases: Oct – Dec 2007

HIV test data:
The data on HIV test results for patients tested in the 118 facilities between October 1st and December 31st, 2007 are shown below.

Parameter	**North**	**Central**	**South**	**Total**
Number HIV tested	20,260	37,486	78,078	135,824
Number (%) HIV positive	2,586 (13%)	6,366 (17%)	18,998 (24%)	29,914 (19%)
Number (%) referred to ART	2,449 (95%)	6,017 (95%)	14,033 (74%)	22,499 (80%)

Altogether, there were over 135,000 clients and patients tested in the 3-month period. Of those HIV-positive, 80% were referred for clinical assessment for ART – for unknown reasons this percentage was less in the South compared with the other 2 regions. Nevertheless, the high proportion of referrals is a good development, and one that is being encouraged by the HIV Unit of the Ministry of Health.

CD4 machines:
There were 35 facilities (18% of total) where there was CD4 count capability, with CD4 machines placed in district hospitals in the last 3 months: **8 sites in the North** (Mzuzu Central Hospital, Ekwendeni MH, Chitipa DH, Karonga DH, Nkata Bay DH, Rumphi DH, Mzimba DH, Euthini RH); **15 sites in the Central region** (Kamuzu Central Hospital, Lilongwe SOS, Likuni Mission Hospital, Partners in Hope, St Gabriels MH, Kapiri MH, Dowa DH, Mtengwanthenga MH-Dream, Salima DH, LifeLine Clinic, Kasungu DH, Nkotakota DH, Nchisi DH, Ntcheu DH, Dedza DH); **12 sites in the South** (QECH, Blantyre Dream Site, Thyolo DH, Chiradzulu DH, Zomba Central Hospital, Machinga DH, Mangochi DH, Mulanje DH, Chikwawa DH, Nsanje DH, Balaka DH). No data were collected on number of tests done or on functioning status of the machines.

HIV-related indicator diseases:
The number of patients with 4 key HIV-related indicator diseases, diagnosed and treated in the 118 facilities during the quarter, was recorded. 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 data are shown in the table below: the data are very similar to data reported in previous quarters:-

HIV Disease	**North**	**Central**	**South**	**Total**
Tuberculosis (TB)	430	1,958	3,711	6,009
Kaposi's Sarcoma (KS)	30	157	249	436
Cryptococcal meningitis (CM)	55	114	254	423
Oesophageal candidiasis (OC)	182	413	593	1,188

Cumulative analysis for patients ever started on ART up to December 31st, 2007

The national data for all patients who ever started on ART up to the end of December 2007 are shown in **Table 2** on cumulative analysis. The details of patients and their outcomes from each facility according to region are shown in the **Annexes**.

There were 141,449 patients who had ever started on ART – this includes patients who transfer-in from other sites, and it is understood that these patients are counted twice. If we assume that all patients who transfer-out then transfer-in, then the number of new patients ever started on ART is 127,924. There were males representing 39% and females representing 61% of the total. The majority of patients were adults (92%), and 8% were children aged 14 years or below.

There were data on occupation for 136,698 patients, and the most common occupations were housewife, farmer and small-scale business (e.g. vendor). The majority of patients (65%) were started on ART because of being in WHO Stage 3.

The number of patients started on ART because of TB was 19,769 (16,824 with PTB, 2,938 with EPTB and 7 with type unknown). This constitutes 14% of all patients started on ART. The number of women ever started on ART as a result of referral from PMTCT was 2,826 (3% of all women), referred from within 90 ART sites.

The cumulative primary treatment outcomes were as follows. There were 68% of patients being alive and on ART in the facility where they were first registered, and 10% transferred out to another facility and thought to be alive. Thus, 78% of patients (a proportion of whom is double counted) were probably alive. Date of death was known in all patients who died: 5,142 (31%) died in month 1; 3,583 (22%) died in month 2; 1,903 (12%) died in month 3 and 5,747 (35%) died at a later date. Default rates (i.e., patients lost to follow-up) were just below 10%. The number of patients stopping treatment was small at less than 1%. The cumulative secondary outcomes (ambulatory and work status, side effects and pill counts) were good.

Treatment outcomes of cohorts at 12-, 24- and 36- months

Treatment outcomes of cohorts were performed at 12-months, 24-months and 36-months. The 12-months survival was from patients registered for free ART between October and December 2006 and censored on 31st December 2007 (102 facilities). The 24- months survival was from patients registered for free ART between October and December 2005and censored on 31st December 2007 (62 facilities). The 36-months survival was from patients registered for free ART between October and December 2004 and censored on 31st December 2007 (16 facilities). Results are shown in the table.

	12-months Survival	**24-months Survival**	**36-months Survival**
Number started on ART:	12,244	7,827	2,397
"Presumed Alive"	**9,248 (76%)**	**5,353 (68%)**	**1,575 (66%)**
Alive and on ART	*8,180 (67%)*	*4,303 (55%)*	*1,062 (44%)*
Transferred out	*1,068 (9%)*	*1,050 (13%)*	*513 (22%)*
Dead	1,456 (12%)	1,261 (16%)	404 (17%)
Lost to follow up	1,492 (12%)	1,172 (15%)	397 (17%)
Stopped treatment	48 (<1%)	41 (1%)	21 (<1%)

The 12-month survival analysis indicated that 76% of patients were alive (68% alive and on ART + 9% transferred out and presumed alive). The 24-month survival indicated that 68% were alive while the 36-month survival analyses indicated that about 66% of patients were alive (alive and on ART + transferred out and presumed alive).

Stocks of ARV drugs and drug for HIV-diseases as of January and March 2008

In each public sector facility a stock count was performed of ARV drugs and certain specific drugs for HIV-related diseases.

ARV Drugs:

Stocks of ARV drugs (first line and alternative first line and second line) are shown on the next page in tabular form. According to the stocks at the time of the assessment, there were enough First line ARV drugs to start about 40,000 new patients on therapy (this lasts for 8 months at current rates of recruitment) and enough "Continuation packs" to keep the current 100,000 patients plus the new patients starting on treatment for about 4-5 months.

Drugs for HIV-related diseases

Pill counts and stock outs for drugs for key HIV-related diseases are also shown on the next page. The assessments coincided with distributions of cotrimoxazole (120 and 1000 tabs per tin) and some of the stock levels for this drug may not be accurate. Major problems were with vincristine and morphine where three quarters or more of sites had complete stock-outs.

First line ARV drugs + Duovir	North	Central	South	Total
	Number of tins of tablets (either 15 or 60 in each tin)			
"Lamivir-30" – SP (15 tab tins)	7,863	7,597	16,710	32,170
"Lamivir-40" – SP (15 tab tins)	3,016	5,306	4,064	12,386
"Triomune-30"- SP (15 tab tins)	8,960	8,408	17,258	34,626
"Triomune-40" – SP (15 tab tins)	3,195	4,982	4,265	12,442
"Triomune-30"- CP (60 tab tins)	113,158	93,313	333,701	540,172
"Triomune-40" – CP (60 tab tins)	16,054	27,662	42,912	86,628
First line alternative/second line ARV drugs	**North**	**Central**	**South**	**Total**
	Number of tins of tablets (60 or 30 in each tin)			
Zidovudine-Lamivudine [also PEP] (60 tab)	2,604	7,895	14,656	25,155
Nevirapine (60 tab)	2,501	8,089	14,510	25,100
Stavudine-Lamivudine-30 (60 tab)	2,272	1,774	6,978	11,024
Stavudine-Lamivudine-40 (60 tab)	231	361	911	1,503
Efavirenz (30 tab)	1,064	3,684	3,717	8,465
Tenofovir (30 tab)	363	1,455	1,213	3,031
Kaletra (180 tab)	561	1,060	940	2,561

Drugs for HIV-diseases	North	Central	South	Total
	Number of tablets or vials in facilities in each region			
Fluconazole tablets	17,100	39,489	30,364	86,953
Cotrimoxazole 120 tabs per tin	10,014,360	27,740,040	32,182,320	69,936,720
Cotrimoxazole 1000 tabs per tin	10,277,000	23,870,000	21,935,000	56,082,000
Acyclovir tablets	39,100	146,804	63,952	249,856
Ceftriaxone vials	773	7,555	5,872	14,200
Ciprofloxacin tablets	72,500	156,037	178,214	406,751
Vincristine vials	1,322	5,570	1,906	8,798
Morphine tablets	0	1,883	5,721	7,604
Amitryptiline	1,075,300	2,344,634	1,142,626	4,562,560

Drugs for HIV-diseases	North	Central	South	Total	(%)
	Number of ART facilities with no drugs in stock				
Fluconazole tablets	20	19	22	61	54%
Cotrimoxazole tablets	2	3	0	5	4%
Acyclovir tablets	19	16	23	58	51%
Ceftriaxone vials	22	30	33	85	75%
Ciprofloxacin tablets	18	18	17	53	46%
Vincristine vials	24	22	33	79	69%
Morphine tablets	27	35	41	103	90%
Amitryptiline tablets	12	5	17	34	30%

An audit was conducted on all sites to see if they had 3 of the key drugs (cotrimoxazole, vincristine and morphine) needed for good quality OI care. There were only 12 (10%) facilities that had all three drugs present in the pharmacy.

An audit was carried out on cotrimoxazole preventive therapy (CPT). In the ART clinic, patients on CPT are indicated in master cards, and at the moment, this is the only data available for CPT usage. Thus, the number of ART patients taking CPT was documented. There were 113 sites providing CPT to ART patients, and in the fourth quarter of 2007, there were 88,077 patients receiving ART and CPT together.

PRIVATE SECTOR RESULTS:

The results of the private sector are shown in Tabular Form in **Table 3** and **Table 4**. There were 45 sites providing ART in the private sector by December 31st, 2007.

For the quarterly analysis (**Table 3**), there were 529 new patients started on ART, 50% of whom were male and 5% were children. Of those starting, 47% started due to Stage 3, 14% due to Stage 4 and 39% based on a low CD4 count in Stage 1 or Stage 2. There were 17 patients started on ART due to TB. Of the 529 patients started on ART, 94% were alive and on ART, 3% were dead and 3% transferred out.

For the cumulative analysis (**Table 4**), there were 5,407 patients ever started on ART, 52% of whom were male and 4% were children. Of those starting, 44% started due to Stage 3, 20% due to Stage 4 and 36% based on a low CD4 count in Stage 1 or Stage 2. There were 391 patients started on ART due to TB. Of the 5,407 patients started on ART, 72% were alive and on ART, 7% were dead, 6% were lost to follow-up and 14% were transferred out.

PUBLIC AND PRIVATE SECTOR RESULTS COMBINED:

The results of the public and private sector together are shown in Tabular Form in **Table 5** and **Table 6**. By December 2007, there were 163 sites altogether providing ART in Malawi, using national systems

For the quarterly analysis (**Table 5**), there were 15,437 new patients started on ART, 39% of whom were male and 8% were children. Of those starting, 63% started due to Stage 3, 15% due to Stage 4 and 22% based on a low CD4 count in Stage 1 or Stage 2. There were 1,459 patients started on ART due to TB. Of the 15,437 patients started on ART, 95% were alive and on ART, 3% were dead and 2% transferred out.

For the cumulative analysis (**Table 6**), there were 146,856 patients ever started on ART, 39% of whom were male and 8% were children. Of those starting, 64% started due to Stage 3, 20% due to Stage 4 and 16% based on a low CD4 count in Stage 1 or Stage 2. There were 20,160 patients started on ART due to TB. Of the 146,856 patients started on ART, 69% were alive and on ART by end of December, 11% were dead, 10% were lost to follow-up and 10% were transferred out.

COMMENT

ART scale up in Malawi continues to progress well. Sites are doing well, despite the increasing burden of work. The majority are taking the initiative of doing quarterly and cumulative cohort analysis, although nearly one third of sites are still not coming up with correct outcomes. This will require continued and regular vigilance and supervision. The treatment outcomes for ART are reasonable. Early death rates are still a problem, and defaults still constitute a significant proportion of the outcomes.

ARV drug stocks were again assessed, and nationally drugs stocks are adequate. However, some sites are over-performing to a large extent and causing problems with drug stocks (both for starter packs and continuation packs). The quarterly drug stock taking assists in the activity of re-distributing drugs from under- to over-performing sites.

Some drugs for HIV-related diseases, particularly morphine and vincristine, are out of stock in most facilities.

Challenges and potential solutions:

As in previous reports, some important challenges emerging from ART scale up are highlighted for discussion and action. Progress or otherwise in these areas by December 2007 is discussed below in bullet point style, and action points are in bold:-

- Human resources. There is still a dire shortage of staff at all facilities and at the central unit. Formal ART training (and funding) for peripheral staff was decentralised to districts at the beginning of the year, and this resulted in a collapse of regular trainings. Plans have been put in place to reconvene trainings, jointly organised by HIV Unit and peripheral sites

- Infrastructure. ART clinic rooms and pharmacies are too small to handle patient numbers and drugs. This will become a serious issue in the future

- Pharmacy management. In general there is good pharmacy management of ARV drugs and OI drugs. The national supply of drugs for October has come 3-4 months late. This late arrival of drugs, which seems likely to continue, is a source of concern

- Drugs for HIV-related diseases. The CPT and CTX was distributed during the supervisions, and stock counts done may not accurately reflect the stocks in facilities. Better stock counting will need to be done during the Q3 supervision

- Cohort analysis. The supervision teams have learnt to be time –effective with the manual system of doing cohort analysis, and are coping with ART sites having 1500+ patients. These techniques have been passed on to the peripheral sites. However, a computer records system should make this easier. A pilot computer study has started in 4 sites: 2 in the North (Rumphi and Nkhata Bay) and two in the Central region (Salima and Dedza): these are and will be formally analysed

- Data quality and supervision. Although many sites are maintaining good records and doing cohort analysis, some sites are still unable to generate accurate cohort analyses. Supervision visits continue to be a critical mechanism to ensure that complete and accurate facility (and national) level data are available for monitoring and drug forecasting needs

- Access to services and follow-up of patients. Some of the Round 3 ART sites started delivering therapy during the quarter, and this meant that the number of ART sites increased to 118 in the public sector. However, during the actual supervision (Jan-Mar 2008), most Round 3 sites were delivering therapy. Supervision was used to check on guidelines being followed

- Clinical supervision. Two ART supervisors, one from the North and one from the Central Region, left Malawi at the beginning of the year, leaving only two experienced staff in place. Two new staff have since been recruited

- High early death rates. Still, two thirds of the ART deaths occur in the first three months of treatment. Cotrimoxazole preventive therapy (CPT) has been shown in an operational audit to reduce these deaths by about 40%. Now that sites are well stocked with CPT, early death rates may start to decrease

- Rewarding good performance in ARV clinics. The quarterly issuing of certificates for excellent performance continues to be a popular and cheap way to motivate staff

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

Report compiled by:

Kelita Kamoto	(HIV Unit, MOH)
Simon Makombe	(HIV Unit, MOH)
Amon Nkhata	(HIV Unit, MOH)
Anthony Harries	(HIV Unit, MOH)
Erik Schouten	(HIV Unit, MOH)
Stuart Chuka	(MBCA- Private sector ART)
Olesi Pasulani	(MSF-Thyolo District)
Omba Lwanda	(KCH, Lilongwe)
Cosmas Matawere	(Mchinji District Hospital, Mchinji)
Ralf Weigel	(Lighthouse, Lilongwe)
Lameck Thambo	(Lighthouse, Lilongwe)
Fred Chipatula	(Lighthouse, Lilongwe)
Ashley Pakiza	(QECH, Blantyre)
Tewedros Teffera	(ART Supervisor, South)
William Katamba	(ART Supervisor, South)

18th March 2008

TABLE 1: PUBLIC SECTOR: New patients started on ART in Quarter 4, 2007				
Total Started	**Number of patients started on ART in the 3 months**		**14,908**	
Sex	Number (%) males		5758	39%
	Number (%) females		9150	61%
Age	Number (%) adults aged 15 years and above		13518	91%
	Number (%) children aged 14 years and below		1390	9%
Occupation:	Housewife		3026	21%
	Farmer		5250	36%
	Forces		130	1%
	Teacher		311	2%
	Business		1790	12%
	HCW		133	1%
	Student		689	5%
	Other		3391	23%
	Occupation Not Known		188	
Reasons for starting ART:	Number (%) with Stage III		9532	64%
	Number (%) with Stage IV		2271	15%
	Number (%) with low CD4 count		3105	21%
	Number (%) with TB		1442	10%
	Number of patients registered with TB in the quarter		6009	
Patient Outcomes	Number of patients started on ART in the 3 months		14908	
	Number (%) alive and on ART		14180	95%
	Number (%) dead		446	3%
	Number (%) defaulted		0	0%
	Number (%) stopped treatment		21	0%
	Number (%) transferred out permanently to another site		261	2%
ART Regimen	Of those alive and on ART:-		14180	
	Number (%) on first line regimen		13927	98%
	Number (%) on alternative first line regimen		240	2%
	Number (%) on second line regimen		13	0%
Ambulatory Status	Number with ambulatory status known		14180	
	Number (%) ambulatory		13509	95%
Work Status	Number with work status known		14048	
	Number (%) at work		13270	94%
Side Effects	Number with side effects counted		12793	
	Number (%) with significant side effects		431	3%
Adherence	Number where pill count has been done		9991	
	Number (%) with pill count showing 95% adherence		9578	96%

TABLE 2: PUBLIC SECTOR: Cumulative patients started on ART up to December 31st, 2007				
Total Started	**Total number of patients started on ART**		**141,449**	
Sex	Number (%) males		54755	39%
	Number (%) females		86694	61%
Age	Number (%) adults aged 15 years and above		129828	92%
	Number (%) children aged 14 years and below		11621	8%
Occupation	Housewife		28117	21%
	Farmer		39082	29%
	Forces		1642	1%
	Teacher		4210	3%
	Business		17608	13%
	HCW		1870	1%
	Student		6372	5%
	Other		37797	28%
	Occupation Unknown		4751	
Reasons for starting ART:	Number (%) with Stage III		91994	65%
	Number (%) with Stage IV		29004	21%
	Number (%) with low CD4 count		20451	14%
	Number (%) of patients started on ART due to TB		19769	14%
Patient Outcomes	Total number of patients started on ART		141449	
	Number (%) alive and on ART		96712	68%
	Number (%) dead		16375	12%
	Number (%) defaulted		14078	10%
	Number (%) stopped treatment		759	0%
	Number (%) transferred out permanently to another site		13525	10%
ART Regimen	Of those alive and on ART:-		96712	
	Number (%) on first line regimen		92766	96%
	Number (%) on alternative first line regimen		3603	4%
	Number (%) on second line regimen		343	0%
Ambulatory Status	Number with ambulatory status known		96275	
	Number (%) ambulatory		92519	96%
Work Status	Number with work status known		95436	
	Number (%) at work		90659	95%
Side Effects	Number with side effects counted		89045	
	Number (%) with significant side effects		3422	4%
Adherence	Number where pill count has been done		72847	
	Number (%) with pill count showing 95% adherence		69426	95%
Death	Of those who died with Date of death recorded		16375	
	Number (%) dying in the first month		5142	31%
	Number (%) dying in the second month		3583	22%
	Number (%) dying in the third month		1903	12%
	Number (%) dying after the third month		5747	35%

TABLE 3: PRIVATE SECTOR: New patients started on ART in Quarter 4, 2007				
Total Started	**Number of patients started on ART in the 3 months**		**529**	
Sex	Number (%) males		265	50%
	Number (%) females		264	50%
Age	Number (%) adults aged 15 years and above		505	95%
	Number (%) children aged 14 years and below		24	5%
Occupation:	Housewife		81	16%
	Farmer		17	3%
	Forces		4	1%
	Teacher		32	6%
	Business		112	21%
	HCW		10	2%
	Student		25	4%
	Other		248	47%
	Occupation Not Known		0	
Reasons for starting ART:	Number (%) with Stage III		247	47%
	Number (%) with Stage IV		74	14%
	Number (%) with low CD4 count		208	39%
	Number (%) with TB		17	3%
Patient Outcomes	Number of patients started on ART in the 3 months		529	
	Number (%) alive and on ART		500	94%
	Number (%) dead		15	3%
	Number (%) defaulted		0	0%
	Number (%) stopped treatment		0	0%
	Number (%) transferred out permanently to another site		14	3%
ART Regimen	Of those alive and on ART:-		500	
	Number (%) on first line regimen		468	94%
	Number (%) on alternative first line regimen		20	4%
	Number (%) on second line regimen		12	2%
Ambulatory Status	Number with ambulatory status known		500	
	Number (%) ambulatory		499	100%
Work Status	Number with work status known		500	
	Number (%) at work		499	100%
Side Effects	Number with side effects counted		7	
	Number (%) with significant side effects		7	1%
Adherence	Number where pill count has been done		148	
	Number (%) with pill count showing 95% adherence		148	100%

TABLE 4: PRIVATE SECTOR: Cumulative patients started on ART up to December 31st, 2007				
Total Started	**Total number of patients started on ART**		**5,407**	
Sex	Number (%) males		2785	52%
	Number (%) females		2622	48%
Age	Number (%) adults aged 15 years and above		5163	96%
	Number (%) children aged 14 years and below		244	4%
Occupation	Housewife		824	15%
	Farmer		105	2%
	Forces		64	1%
	Teacher		257	5%
	Business		863	16%
	HCW		125	2%
	Student		325	6%
	Other		2844	53%
	Occupation Unknown		0	
Reasons for starting ART:	Number (%) with Stage III		2391	44%
	Number (%) with Stage IV		1070	20%
	Number (%) with low CD4 count		1946	36%
	Number (%) of patients started on ART due to TB		391	7%
Patient Outcomes	Total number of patients started on ART		5407	
	Number (%) alive and on ART		3937	72%
	Number (%) dead		405	7%
	Number (%) defaulted		309	6%
	Number (%) stopped treatment		8	<1%
	Number (%) transferred out permanently to another site		748	14%
ART Regimen	Of those alive and on ART:-		3937	
	Number (%) on first line regimen		3666	93%
	Number (%) on alternative first line regimen		244	6%
	Number (%) on second line regimen		27	1%
Ambulatory Status	Number with ambulatory status known		3937	
	Number (%) ambulatory		3937	100%
Work Status	Number with work status known		3937	
	Number (%) at work		3936	100%
Side Effects	Number with side effects counted		17	
	Number (%) with significant side effects		14	82%
Adherence	Number where pill count has been done		683	
	Number (%) with pill count showing 95% adherence		678	99%
Death	Of those who died with Date of death recorded		405	
	Number (%) dying in the first month		151	37%
	Number (%) dying in the second month		64	16%
	Number (%) dying in the third month		48	12%
	Number (%) dying after the third month		142	35%

TABLE 5: PUBLIC AND PRIVATE SECTOR: New patients on ART in Quarter 4, 2007			
Total Started	**Number of patients started on ART in the 3 months**	**15,437**	
Sex	Number (%) males	6023	39%
	Number (%) females	9414	61%
Age	Number (%) adults aged 15 years and above	14023	92%
	Number (%) children aged 14 years and below	1414	8%
Occupation:	Housewife	3107	20%
	Farmer	5267	35%
	Forces	134	1%
	Teacher	343	2%
	Business	1902	12%
	HCW	143	1%
	Student	714	5%
	Other	3639	24%
	Occupation Not Known	188	
Reasons for starting ART:	Number (%) with Stage III	9779	63%
	Number (%) with Stage IV	2345	15%
	Number (%) with low CD4 count	3313	22%
	Number (%) with TB	1459	9%
	Number of patients registered with TB in the quarter	6009	24%
Patient Outcomes	Number of patients started on ART in the 3 months	15437	
	Number (%) alive and on ART	14680	95%
	Number (%) dead	461	3%
	Number (%) defaulted	0	0%
	Number (%) stopped treatment	21	<1%
	Number (%) transferred out permanently to another site	275	2%
ART Regimen	Of those alive and on ART:-	14680	
	Number (%) on first line regimen	14395	98%
	Number (%) on alternative first line regimen	260	2%
	Number (%) on second line regimen	25	<1%
Ambulatory Status	Number with ambulatory status known	14680	
	Number (%) ambulatory	14008	95%
Work Status	Number with work status known	14548	
	Number (%) at work	13769	95%
Side Effects	Number with side effects counted	12800	
	Number (%) with significant side effects	438	3%
Adherence	Number where pill count has been done	10139	
	Number (%) with pill count showing 95% adherence	9726	96%

TABLE 6: PUBLIC AND PRIVATE SECTOR: Cumulative patients on ART by December 31st, 2007				
Total Started	**Total number of patients started on ART**		**146,856**	
Sex	Number (%) males		57540	39%
	Number (%) females		89316	61%
Age	Number (%) adults aged 15 years and above		134991	92%
	Number (%) children aged 14 years and below		11865	8%
Occupation	Housewife		28941	20%
	Farmer		39187	28%
	Forces		1706	1%
	Teacher		4467	3%
	Business		18471	13%
	HCW		1995	1%
	Student		6697	5%
	Other		40641	29%
	Occupation Unknown		4751	
Reasons for starting ART:	Number (%) with Stage III		94385	64%
	Number (%) with Stage IV		30074	20%
	Number (%) with low CD4 count		22397	16%
	Number (%) of patients started on ART due to TB		20160	14%
Patient Outcomes	Total number of patients started on ART		146856	
	Number (%) alive and on ART		100649	69%
	Number (%) dead		16780	11%
	Number (%) defaulted		14387	10%
	Number (%) stopped treatment		767	<1%
	Number (%) transferred out permanently to another site		14273	10%
ART Regimen	Of those alive and on ART:-		100649	
	Number (%) on first line regimen		96432	96%
	Number (%) on alternative first line regimen		3847	4%
	Number (%) on second line regimen		370	<1%
Ambulatory Status	Number with ambulatory status known		100212	
	Number (%) ambulatory		96456	96%
Work Status	Number with work status known		99373	
	Number (%) at work		94595	95%
Side Effects	Number with side effects counted		89062	
	Number (%) with significant side effects		3436	4%
Adherence	Number where pill count has been done		73530	
	Number (%) with pill count showing 95% adherence		70104	95%
Death	Of those who died with Date of death recorded		16780	
	Number (%) dying in the first month		5293	32%
	Number (%) dying in the second month		3647	22%
	Number (%) dying in the third month		1951	12%
	Number (%) dying after the third month		5889	34%