

ART IN THE PUBLIC AND PRIVATE SECTORS IN MALAWI RESULTS UP TO 31st MARCH, 2008

Executive Summary:

Public sector:

By the end of March 2008, there were **157** free-standing facilities in Malawi in the public health sector delivering ART free of charge to HIV-positive eligible patients.

In the first quarter of 2008 (January to March), there were **17,642** new patients started on ART (39% male, 61% female; 91% adults and 9% children). By the end of March 2008, there were **159,111** patients who had ever started on ART (39% male, 61% female; 92% adults and 8 % children). Cumulative treatment outcomes by end of March were:- 67% alive and on ART at the site of registration, 11% dead, 11% lost to follow-up, 11% transferred out to another facility (and were presumably alive) and <1% stopped treatment. Of the 106,547 patients alive and on ART:- 96% were on the first line regimen, 4% were on an alternative first line regimen and a small number (468) were on a second line regimen.

Private sector:

By the end of March 2008, there were **45** facilities in Malawi in the private health sector delivering ART at a subsidised rate to HIV-positive eligible patients.

In the first quarter of 2008 (January to March), there were **669** new patients started on ART (44% male, 56% female, 95% adult, 5% children). By the end of March 2008, there were **6,076** patients who had ever started on ART (51% male, 49% female, 95% adults, 5% children). Cumulative treatment outcomes by end of March were:- 70% alive and on ART at the site of registration, 7% dead, 9% lost to follow-up, 14% transferred out to another facility (and were presumably alive) and <1% had stopped treatment. Of the 4,243 patients alive and on ART:- 92% were on first line regimen, 7% were on an alternative first line regimen and 1% were on a second line regimen.

Resume from January 2003 to March 2008 in the public and private sector:

	By Dec 2003	By Dec 2004	By Dec 2005	By Dec 2006	By Dec 2007	By Mar 2008
Public sector ART sites	9	24	60	103	118	157
New patients started ART in year	No data	10,183	24,657	43,981	59,628	17,642
Cumulative patients started ART	3,000	13,183	37,840	81,821	141,449	159,111
Patients alive on ART	No data	10,761	28,110	57,356	96,712	106,547
Private sector ART sites	0	0	23	38	45	45
New patients started ART in year	0	0	977	2,370	2,060	669
Cumulative patients started ART	0	0	977	3,347	5,407	6,076
Patients alive on ART	0	0	977	2,624	3,937	4,243
Public and Private ART sites	9	24	83	141	163	202
New patients started ART in year	No data	10,183	25,634	46,351	61,688	18,311
Cumulative patients started ART	3,000	13,183	38,817	85,168	146,856	165,187
Patients alive on ART	No data	10,761	29,087	59,980	100,649	110,790

Introduction and Methodology:

This is a report on the status of antiretroviral therapy (ART) in Malawi up to March 31st, 2008.

Public sector site visits: between January and March 2008, all 157 health facilities in the public sector earmarked for ART were visited. The visits were conducted by the Ministry of Health HIV Unit (Simon Makombe who was accompanied by his partners: Omba Lwanda from KCH; Joel Gumulira, Mulinde, and Fred Chipatula from the Lighthouse; Janet Chikonda from Area 18 health centre; Olesi Pasulani from MSF; four ART supervisors, Dr Tewedros Teffera (Zomba Central Hospital) and Dr K. Malisita (QECH), Dr Chaeng (KCH), Dr Mubiala (MCH), Clement Mtika (MCH), Mrs Kalitsiro (Mlambe Mission Hospital) and Mr Mazalo (SUCOMA, Clinic) 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 April and June 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 March, 2008:

The first data set is the status of new patients who were started on free ART in Malawi between January 1st and March 31st, 2008, **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 March 31st, 2008, **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 Q1 2007, Q1 2006, and Q1 2005 respectively

Data collation and presentation for the years 2003 – 2008:

Data on ART for the 4 years 3 months (2003 – 2008) are collated and presented to show the progress made in both the public and private sector for ART.

PUBLIC SECTOR RESULTS:

General:

By March 2008, 157 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 102,015 patients alive and on first line treatment; 4,064 patients alive and on alternative first line regimens (Zidovudine-based or Efavirenz-based) for patients with adverse drug reactions; and 468 patients alive and being treated with a second line regimen for failure of the first line therapy.

Qualitative assessment of sites: All 157 ART clinics were tidy and orderly, and in 149 sites the filing systems and record keeping were excellent: 8 were below par. A qualitative assessment of the patient master cards and registers was carried out. The table, with pertinent results, compares the 157 facilities in Q1 2008 with the previous qualitative assessment of 118 facilities in Q4 2007. The standards were generally good, and Q1-08 was similar in many respects to Q4-07. However, a smaller proportion of 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	ART sites (%) Q1 2008 N=157
ARV Register:			
ARV Register numbers correct and match master cards	109 (100%)	115 (97%)	149 (95%)
All columns in the ARV register always completed	108 (99%)	114 (97%)	149 (95%)
Dates of all adverse outcomes recorded	107 (98%)	110 (93%)	129 (82%)
All ARV outcomes updated every three months	95 (87%)	104 (88%)	130 (83%)
Patient Master Card:			
Case finding data properly completed on each card	107 (98%)	112 (95%)	142 (90%)
Regular record of weight done at each patient visit	109 (100%)	117 (99%)	155 (99%)
In each monthly visit all outcome columns completed	108 (99%)	116 (98%)	154 (98%)
Pill counts for adherence done according to directives	106 (97%)	115 (97%)	156 (99%)
HIV-diseases always indicated on back of master card	106 (97%)	113 (96%)	135 (86%)
Cohort Analysis:			
Quarterly cohort analysis done by the site before visit	100 (92%)	111 (94%)	138 (88%)
Cumulative analysis done by the site before visit	99 (91%)	111 (94%)	113 (72%)
Cohort outcomes correctly done	81 (74%)	84 (71%)	90 (57%)

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 = 157– Certificates awarded to 75 (48%)

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 Q1 2008 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 131 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: 31 sites	68	77	87
Central: 57 sites	294	297	244
South: 69 sites	292	343	289
Total: 157 sites	654	717	620
FTEs	131	143	124

Quarterly Analysis for the period January 1st to March 31st, 2008:

1. New patients started on ART in public sector between Jan and Marc 2008:

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 17,642 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 16,543 patients, and the most common recorded occupations were subsistence farmer, housewife and small-scale business people (eg vendors). The majority of patients (62%) were started on ART because of being in WHO Stage 3 and the percentage of people starting because of low CD4 count is increasing and due to WHO stage 4 is decreasing.

The number of patients started on ART because of TB was 1,646. This constitutes 9% of new patients started on ART and 37% of patients registered for TB (N=6,544) during the quarter.

The number of women referred from PMTCT to start on ART was 413; 75 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 March. 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 Q1 2008, Q3 2007, Q4 2007, compared with what is expected in terms of ceilings and targets given to facilities. In quarter 1, 2008, there were 157 facilities these sites should have placed 19,275 new patients on ART and in the event placed 91% : this is same with the previous quarter and reflects new 3 ART sites starting and placing few patients initially on therapy.

In each quarter:	Q3 2007	Q4 2007	Q1 2008
Number of facilities	109	118	157
Expected number of patients to start ART	15,675	16,350	19,275
Observed number (%) of patients started on ART	15,363 (98%)	14,908 (91%)	17,642 (91%)

2. HIV testing, CD4 testing capability and HIV-related diseases: Jan – Marc 2008

HIV test data:

The data on HIV test results for patients tested in the 157 facilities between January 1st and March 31st, 2008 are shown below.

Parameter	North	Central	South	Total
Number HIV tested	20,764	52,564	93,476	166,786
Number (%) HIV positive	2,787 (13%)	8,353 (16%)	19,753 (21%)	30,893 (19%)
Number (%) referred to ART	2,509 (90%)	7,611 (91%)	14,672 (74%)	24,792 (80%)

Altogether, there were over 166,786 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, Rumphu 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)	397	2,632	3,515	6,544
Kaposi's Sarcoma (KS)	64	143	627	834
Cryptococcal meningitis (CM)	108	154	229	491
Oesophageal candidiasis (OC)	238	439	630	1,307

Cumulative analysis for patients ever started on ART up to March 31st, 2008

The national data for all patients who ever started on ART up to the end of March 2008 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 159,111 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 142,191. 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 151,619 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 20,357 This constitutes 13% of all patients started on ART.

The cumulative primary treatment outcomes were as follows. There were 67% of patients being alive and on ART in the facility where they were first registered, and 11% 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: 5,659 (32%) died in month 1; 3,849 (21%) died in month 2; 2,060 (12%) died in month 3 and 5,334 (35%) died at a later date. Default rates (i.e., patients lost to follow-up) were at 11%. 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 January and March 2007 and censored on 31st March 2008 (118 facilities). The 24-months survival was from patients registered for free ART between January and March 2006 and censored on 31st March 2008 (62 facilities). The 36-months survival was from patients registered for free ART between January and March 2005 and censored on 31st March 2008 (16 facilities). Results are shown in the table.

	12-months Survival	24-months Survival	36-months Survival
Number started on ART:	13,462	9,238	4,485
“Presumed Alive”	10,484 (78%)	6,686 (72%)	3,235 (72%)
<i>Alive and on ART</i>	<i>9,210 (68%)</i>	<i>5,373 (58%)</i>	<i>2,490 (55%)</i>
<i>Transferred out</i>	<i>1,274 (9%)</i>	<i>1,313 (14%)</i>	<i>745 (17%)</i>
Dead	1,501 (11%)	1,494 (16%)	679 (15%)
Lost to follow up	1,433 (11%)	1,022 (11%)	531 (12%)
Stopped treatment	44 (<1%)	36 (<1%)	40 (1%)

The 12-month survival analysis indicated that 78% of patients were alive (68% alive and on ART + 9% transferred out and presumed alive). The 24-month survival indicated that 72% were alive while the 36-month survival analyses indicated that about 72% 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 63,000 new patients on therapy (this lasts for 10 months at current rates of recruitment) and enough “Continuation packs” to keep the current 110,790 patients plus the new patients starting on treatment for about 4 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)	9,143	28,207	13,801	51,151
Lamivir-40 – SP (15 tab tins)	2,244	5,240	3,833	11,317
Triomune-30- SP (15 tab tins)	8,631	28,835	14,607	52,073
Triomune-40 – SP (15 tab tins)	1,738	5,168	4,167	11,073
Triomune-30- CP (60 tab tins)	101,663	184,643	226,077	512,383
Triomune-40 – CP (60 tab tins)	8,538	22,181	19,064	49,783
Duovir for PEP and subst. (60 tab tins)	115	178	184	477
First line alternative and second line ARV drugs	North	Central	South	Total
	Number of tins of tablets (60 or 30 in each tin)			
Zidovudine-Lamivudine (60 tab)	1,699	6,546	15,110	23,355
Nevirapine (60 tab)	2,019	5,608	14,150	21,777
Stavudine-Lamivudine-30 (60 tab)	309	1,724	4,587	6,620
Stavudine-Lamivudine-40 (60 tab)	268	274	518	1,060
Efavirenz (30 tab)	227	2,921	5,566	8,714
Tenofovir (30 tab)	197	1,897	5,839	7,933
Kaletra (180 tab)	23	726	8,291	9,040

Drugs for HIV-diseases	North	Central	South	Total
	Number of tablets or vials in facilities in each region			
Fluconazole tablets	10,102	27,309	44,720	82,131
CPT (tins)	84,184	164,768	233,316	482,268
Acyclovir tablets	40,900	31,824	188,241	260,965
Ceftriaxone vials	180	3,579	33,273	37,032
Ciprofloxacin tablets	174,600	105,285	163,186	443,071
Vincristine vials	1,587	2,454	1,942	5,983
Morphine tablets	6,593	15,438	30,072	52,103
Amityptiline	851,938	1,137,283	2,306,020	4,295,241
Drugs for HIV-diseases	North	Central	South	Total (%)
	Number of ART facilities with no drugs in stock			
Fluconazole tablets	20	28	40	88 59%
CPT (tins)	6	9	4	19 13%

Acyclovir tablets	22	37	42	101	66%
Ceftriaxone vials	25	42	49	116	77%
Ciprofloxacin tablets	19	28	38	85	56%
Vincristine vials	24	37	51	112	74%
Morphine tablets	24	43	58	125	83%
Amitryptiline tablets	13	18	26	57	38%

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 15 (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 148 sites (94%) providing CPT to ART patients, and in the first quarter of 2008, there were 75,308 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 March 31st, 2008.

For the quarterly analysis (**Table 3**), there were 669 new patients started on ART, 44% of whom were male, 56% were females and 5% were children. Of those starting, 45% started due to Stage 3, 12% due to Stage 4 and 43% based on a low CD4 count in Stage 1 or Stage 2. There were 22 patients started on ART due to TB. Of the 669 patients started on ART, 94% were alive and on ART, 2% were dead and 3% transferred out.

For the cumulative analysis (**Table 4**), there were 6,076 patients ever started on ART, 51% of whom were male, 49% were females and 5% were children. Of those starting, 44% started due to Stage 3, 19% due to Stage 4 and 37% based on a low CD4 count in Stage 1 or Stage 2. There were 413 patients started on ART due to TB. Of the 6,076 patients started on ART, 70% were alive and on ART, 7% were dead, 9% 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 March 2008, there were 202 sites altogether providing ART in Malawi, using national systems

For the quarterly analysis (**Table 5**), there were 18,311 new patients started on ART, 39% of whom were male and 8% were children. Of those starting, 61% started due to Stage 3, 14% due to Stage 4 and 25% based on a low CD4 count in Stage 1 or Stage 2. There were 1,668 patients started on ART due to TB. Of the 18,311 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 165,187 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 20,770 patients started on ART due to TB. Of the 165,187 patients started on ART, 67% were alive and on ART by end of March, 11% were dead, 10% were lost to follow-up and 11% 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 March 2008 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 and more people now are being trained in ART delivery in their respective districts. The **ONLY** problem is with the Central Hospitals who do not have funding from NAC to run these ART trainings on their own.
- Infrastructure. ART clinic rooms and pharmacies are too small to handle patient numbers and drugs. This has become a serious issue now.
- Pharmacy management. In general there is good pharmacy management of ARV drugs and OI drugs. The national supply of drugs for January 2008 has come 3-4 months late that the HIV and AIDS Department had to press an emergency drug order through UNICEF as a stop gap measure. 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 time of supervision, and stock counts done may not accurately reflect the

stocks in facilities. Better stock counting will need to be done during the Q2, 2008 supervision. Round 3 ART sites have now received CPT supplies. The problem which was noted in some sites especially round 3 sites is that they are opening the 120 bottle tins which were met for CPT for treating other opportunistic infection since they did not receive the CTX tins of 1000 tablet tins. The anomaly was corrected.

- 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 (Rumphu 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 157 in the public sector. However, during the actual supervision (April-June 2008), most Round 3 sites had just started delivering therapy in Q1, 2008. Supervision was used to check on guidelines being followed.
- Clinical supervision. Three Supervisors are now in place for South-eastern Zone, Central West and East and the Northern Zone.
- 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 HIV Unit and its partners during these supportive visits, and we congratulate the staff in these facilities for their excellent work.

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5th July 2008

TABLE 1: PUBLIC SECTOR: New patients started on ART in Quarter 1,2008

Total Started	Number of patients started on ART in the 3 months	17,642	
Sex	Number (%) males	6,809	39%
	Number (%) females	10,833	61%
Age	Number (%) adults aged 15 years and above	16,026	91%
	Number (%) children aged 14 years and below	1,616	9%
Occupation:	Housewife	3,374	20%
	Farmer	6,382	38%
	Forces	138	1%
	Teacher	301	2%
	Business	1,755	11%
	HCW	207	1%
	Student	792	5%
	Other	3,732	22%
	Occupation Not Known	961	
Reasons for starting ART:	Number (%) with Stage III	10,861	62%
	Number (%) with Stage IV	2,519	14%
	Number (%) with low CD4 count	4,262	24%
	Number (%) with TB	1,646	9%
	Number of patients registered with TB in the quarter	6,544	
Patient Outcomes	Number of patients started on ART in the 3 months	17,642	
	Number (%) alive and on ART	16,681	95%
	Number (%) dead	517	3%
	Number (%) defaulted	3	0%
	Number (%) stopped treatment	36	0%
	Number (%) transferred out permanently to another site	405	2%
ART Regimen	Of those alive and on ART:-	16,681	
	Number (%) on first line regimen	16,445	99%
	Number (%) on alternative first line regimen	213	1%
	Number (%) on second line regimen	13	0%
Ambulatory Status	Number with ambulatory status known	16,675	
	Number (%) ambulatory	15,136	91%
Work Status	Number with work status known	16,675	
	Number (%) at work	14,813	89%
Side Effects	Number with side effects counted	15,882	
	Number (%) with significant side effects	518	3%
Adherence	Number where pill count has been done	11,101	
	Number (%) with pill count showing 95% adherence	10,223	92%

TABLE 2: PUBLIC SECTOR: Cumulative patients started on ART up to March 31st, 2008				
Total Started	Total number of patients started on ART		159,111	
Sex	Number (%) males		61,578	39%
	Number (%) females		79,533	61%
Age	Number (%) adults aged 15 years and above		145,862	92%
	Number (%) children aged 14 years and below		13,249	8%
Occupation	Housewife		31,492	21%
	Farmer		45,481	30%
	Forces		1,773	1%
	Teacher		4,539	3%
	Business		19,351	13%
	HCW		2,035	1%
	Student		7,084	5%
	Other		41,637	27%
	Occupation Unknown		5,719	
Reasons for starting ART:	Number (%) with Stage III		102,761	65%
	Number (%) with Stage IV		31,641	20%
	Number (%) with low CD4 count		24,709	16%
	Number (%) of patients started on ART due to TB		20,357	13%
Patient Outcomes	Total number of patients started on ART		159,111	
	Number (%) alive and on ART		106,547	67%
	Number (%) dead		17,978	11%
	Number (%) defaulted		16,815	11%
	Number (%) stopped treatment		851	1%
	Number (%) transferred out permanently to another site		16,920	11%
ART Regimen	Of those alive and on ART:-		106,547	
	Number (%) on first line regimen		102,015	96%
	Number (%) on alternative first line regimen		4,064	4%
	Number (%) on second line regimen		468	0%
Ambulatory Status	Number with ambulatory status known		104,492	
	Number (%) ambulatory		93,559	90%
Work Status	Number with work status known		104,492	
	Number (%) at work		92,268	88%
Side Effects	Number with side effects counted		99,679	
	Number (%) with significant side effects		4,952	4%
Adherence	Number where pill count has been done		68,232	
	Number (%) with pill count showing 95% adherence		63,987	95%
Death	Of those who died with Date of death recorded		17,900	
	Number (%) dying in the first month		5,659	32%
	Number (%) dying in the second month		3,847	21%
	Number (%) dying in the third month		2,060	12%
	Number (%) dying after the third month		6,334	35%

TABLE 3: PRIVATE SECTOR: New patients started on ART in Quarter 1, 2008

Total Started	Number of patients started on ART in the 3 months	669	
Sex	Number (%) males	296	44%
	Number (%) females	373	56%
Age	Number (%) adults aged 15 years and above	637	95%
	Number (%) children aged 14 years and below	32	5%
Occupation:	Housewife	81	12%
	Farmer	17	3%
	Forces	6	1%
	Teacher	30	4%
	Business	92	14%
	HCW	14	2%
	Student	23	3%
	Other	406	61%
	Occupation Not Known	0	
Reasons for starting ART:	Number (%) with Stage III	300	47%
	Number (%) with Stage IV	80	14%
	Number (%) with low CD4 count	289	39%
	Number (%) with TB	22	3%
	Number of patients diagnosed with TB in the quarter	19	
Patient Outcomes	Number of patients started on ART in the 3 months	669	
	Number (%) alive and on ART	630	94%
	Number (%) dead	16	2%
	Number (%) defaulted	0	0%
	Number (%) stopped treatment	1	0%
	Number (%) transferred out permanently to another site	23	3%
ART Regimen	Of those alive and on ART:-	630	
	Number (%) on first line regimen	591	94%
	Number (%) on alternative first line regimen	29	4%
	Number (%) on second line regimen	10	2%
Ambulatory Status	Number with ambulatory status known	630	
	Number (%) ambulatory	629	100%
Work Status	Number with work status known	630	
	Number (%) at work	629	100%
Side Effects	Number with side effects counted	1	
	Number (%) with significant side effects	1	100%
Adherence	Number where pill count has been done	233	
	Number (%) with pill count showing 95% adherence	233	100%

TABLE 4: PRIVATE SECTOR: Cumulative patients started on ART up to March 31st, 2008				
Total Started	Total number of patients started on ART		6,076	
Sex	Number (%) males		3,109	51%
	Number (%) females		2,967	49%
Age	Number (%) adults aged 15 years and above		5,800	95%
	Number (%) children aged 14 years and below		276	5%
Occupation	Housewife		905	12%
	Farmer		122	3%
	Forces		70	1%
	Teacher		287	4%
	Business		955	14%
	HCW		139	2%
	Student		348	3%
	Other		3,250	61%
	Occupation Unknown		0	
Reasons for starting ART:	Number (%) with Stage III		2,691	44%
	Number (%) with Stage IV		1,150	19%
	Number (%) with low CD4 count		2,235	37%
	Number (%) of patients started on ART due to TB		413	7%
Patient Outcomes	Total number of patients started on ART		6,076	
	Number (%) alive and on ART		4,243	70%
	Number (%) dead		447	7%
	Number (%) defaulted		529	9%
	Number (%) stopped treatment		10	0%
	Number (%) transferred out permanently to another site		847	14%
ART Regimen	Of those alive and on ART:-		4,243	
	Number (%) on first line regimen		3,891	92%
	Number (%) on alternative first line regimen		313	7%
	Number (%) on second line regimen		39	1%
Ambulatory Status	Number with ambulatory status known		4,243	
	Number (%) ambulatory		4,243	100%
Work Status	Number with work status known		4,243	
	Number (%) at work		4,243	100%
Side Effects	Number with side effects counted		6	
	Number (%) with significant side effects		6	100%
Adherence	Number where pill count has been done		741	
	Number (%) with pill count showing 95% adherence		724	100%
Death	Of those who died with Date of death recorded		447	
	Number (%) dying in the first month		10168	38%
	Number (%) dying in the second month		467	15%
	Number (%) dying in the third month		151	11%
	Number (%) dying after the third month		161	36%

TABLE 5: PUBLIC AND PRIVATE SECTOR: New patients on ART in Quarter 1, 2008

Total Started	Number of patients started on ART in the 3 months	18,311	
Sex	Number (%) males	7,105	39%
	Number (%) females	11,206	61%
Age	Number (%) adults aged 15 years and above	16,663	92%
	Number (%) children aged 14 years and below	1,648	8%
Occupation:	Housewife	3,455	20%
	Farmer	6,399	37%
	Forces	144	1%
	Teacher	331	2%
	Business	1,847	11%
	HCW	221	1%
	Student	815	5%
	Other	4,138	24%
	Occupation Not Known	961	
Reasons for starting ART:	Number (%) with Stage III	11,161	61%
	Number (%) with Stage IV	2,599	14%
	Number (%) with low CD4 count	4,551	25%
	Number (%) with TB	1,668	9%
	Number of patients registered with TB in the quarter	6,563	
Patient Outcomes	Number of patients started on ART in the 3 months	18,311	
	Number (%) alive and on ART	17,311	95%
	Number (%) dead	533	3%
	Number (%) defaulted	3	0%
	Number (%) stopped treatment	37	0%
	Number (%) transferred out permanently to another site	428	2%
ART Regimen	Of those alive and on ART:-	17,311	
	Number (%) on first line regimen	17,046	98%
	Number (%) on alternative first line regimen	242	1%
	Number (%) on second line regimen	23	0%
Ambulatory Status	Number with ambulatory status known	17,305	
	Number (%) ambulatory	15,765	91%
Work Status	Number with work status known	17,305	
	Number (%) at work	15,442	89%
Side Effects	Number with side effects counted	15,883	92%
	Number (%) with significant side effects	519	3%
Adherence	Number where pill count has been done	11,334	
	Number (%) with pill count showing 95% adherence	10,456	92%

TABLE 6: PUBLIC AND PRIVATE SECTOR: Cumulative patients on ART by March 31st, 2008

Total Started	Total number of patients started on ART		165,187	
Sex	Number (%) males		64,687	39%
	Number (%) females		100,500	61%
Age	Number (%) adults aged 15 years and above		151,662	92%
	Number (%) children aged 14 years and below		13,525	8%
Occupation	Housewife		32,397	20%
	Farmer		45,603	29%
	Forces		1,843	1%
	Teacher		4,826	3%
	Business		20,306	13%
	HCW		2,174	1%
	Student		7,432	5%
	Other		44,887	28%
	Occupation Unknown		5,719	
Reasons for starting ART:	Number (%) with Stage III		105,452	64%
	Number (%) with Stage IV		32,791	20%
	Number (%) with low CD4 count		26,944	16%
	Number (%) of patients started on ART due to TB		20,770	13%
Patient Outcomes	Total number of patients started on ART		165,187	
	Number (%) alive and on ART		110,790	67%
	Number (%) dead		18,425	11%
	Number (%) defaulted		17,344	10%
	Number (%) stopped treatment		861	<1%
	Number (%) transferred out permanently to another site		17,567	11%
ART Regimen	Of those alive and on ART:-		110,790	
	Number (%) on first line regimen		105,906	96%
	Number (%) on alternative first line regimen		4,377	4%
	Number (%) on second line regimen		507	<1%
Ambulatory Status	Number with ambulatory status known		108,735	
	Number (%) ambulatory		97,802	90%
Work Status	Number with work status known		108,735	
	Number (%) at work		96,511	89%
Side Effects	Number with side effects counted		99,658	
	Number (%) with significant side effects		4,958	4%
Adherence	Number where pill count has been done		68,973	
	Number (%) with pill count showing 95% adherence		64,711	94%
Death	Of those who died with Date of death recorded		18,347	
	Number (%) dying in the first month		5,827	32%
	Number (%) dying in the second month		3,914	21%
	Number (%) dying in the third month		2,111	12%
	Number (%) dying after the third month		6,495	35%