

ART IN THE PUBLIC SECTOR IN MALAWI RESULTS UP TO 31st DECEMBER, 2006

Executive Summary:

By the end of December 2006, there were 103 facilities in Malawi in the public health sector delivering ART free of charge to HIV-positive eligible patients.

In the fourth quarter of 2006 (October to December), there were 12,253 new patients started on ART. For the quarter, 38% of patients were male and 9% were children (14 years and below). By the end of December 2006, there were 81,821 patients who had ever started on ART. For the cumulative analysis, 39% of patients were male and 7% were children (14 years and below).

Of 81,821 patients who ever started on free ART, their outcomes by end of December 2006 were as follows: 70% were alive and on ART at the site of registration, 11% had died, 9% were lost to follow-up, 9% had transferred out to another facility (and were presumably alive) and ~1% had stopped treatment.

Of 57,356 patients alive and on ART:- 97% were on the first line regimen, 3% were on an alternative first line regimen and a small number (148) were on a second line regimen. Of those alive and on ART, 98% were ambulatory; 96% were fit to work; 5% had one or more major side effects assessed during the month of December; and 93% of patients showed 95% or more adherence to therapy based on pill counts.

- 6-month outcome analysis on 10,608 patients starting free ART from 96 sites showed: 81% were alive (74% alive and on ART + 7% transferred out)
- 12-month outcome analysis on 7,871 patients starting free ART from 61 sites showed: 71% were alive (61% alive and on ART + 10% transferred out)
- 18-month outcome analysis on 5,477 patients starting free ART from 55 sites showed: 73% were alive (59% alive and on ART + 14% transferred out)
- 24-month outcome analysis on 3,091 patients starting free ART from 20 sites showed: 70% were alive (55% alive and on ART + 15% transferred out)

Resume of the past 4 years (2003 – 2006) in the public and private sector:

	By Dec 03	By Dec 04	By Dec 05	By Dec 06
Public sector ART sites	9	24	60	103
New patients started ART in the year	No data	10,183	24,657	43,981
Cumulative patients on ART	3,000	13,183	37,840	81,821
Patients alive on ART	No data	10,761	28,110	57,356
Private sector ART sites	0	0	23	38
New patients started ART in the year	0	0	977	2,370
Cumulative patients on ART	0	0	977	3,347
Patients alive on ART	0	0	977	2,624
Public and Private ART sites	9	24	83	141
New patients started ART in the year	No data	10,183	25,634	46,351
Cumulative patients on ART	3,000	13,183	38,817	85,168
Patients alive on ART	No data	10,761	29,087	59,980

Introduction and Methodology:

This is a report on the status of antiretroviral therapy (ART) in Malawi up to December 31st 2006. By December 2006, 103 government and mission health facilities in the country had started patients on free ART.

Between January and March 2007, there were 104 health facilities in the public sector earmarked for ART: these were visited, and they included 103 providing free ART and 1 facility (BLM-Zomba) that had not yet started ART. The visits were conducted by the Ministry of Health Clinical HIV Unit (Kelita Kamoto, Simon Makombe, Amon Nkhata and Anthony Harries), who were accompanied by their partners: Andreas Jahn, Ralf Weigel and Lameck Tambo from Lighthouse; Mindy Hochgesang, John Aberle-Grasse and Bethany Hedt from CDC; Joseph Yu from the Taiwan Medical Mission; Olesi Pasulani from Thyolo-MSF. Two ART supervisors, Dr Damas Ngoma (Lighthouse) and Dr Tewdros Bizuwork (Zomba Central Hospital) also accompanied the Unit on these visits in the Central and Southern Regions respectively. Mindy Hochgesang and Bethany Hedt assisted with the EXCEL database. Stuart Chuka from MBCA conducted the private sector supervision and wrote the private sector ART report: some data are reported here, but it will come as a separate attachment.

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).

Three data sets were collected:-

The first data set is the status of new patients who were started on free ART in Malawi between October 1st and December 31st, **the “quarterly analysis”**. 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, 2006, **the “cumulative analysis”**.

The third data set is the **6-month, 12-month, 18-month and 24-month cohort outcome analysis**, with data collected on patients starting ART in Malawi in Q2 2006, Q4 2005, Q2 2005 and Q4 2004 respectively

For all three data sets, the outcome status was censored on 31st December 2006.

Data collation and presentation for the years 2003 – 2006:

Data on ART for the 4 years (2003 – 2006) are collated and presented to show the progress made in both the public and private sector for ART. Data for the private sector are collected from the private sector ART report produced from MBCA.

Results:

General:

The 103 ART facilities in general were doing a very good job. Systems of referral to ART were working well. 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 55,518 patients alive and on first line treatment, 1,690 patients alive and on alternative first line regimens (Zidovudine-based or Efavirenz-based) for patients with adverse drug reactions, and 148 patients alive and being treated with a second line regimen for failure of the first line therapy.

Qualitative assessment of sites: All 103 ARV clinics were tidy and orderly, and the filing systems and record keeping were excellent. A qualitative assessment of the patient master cards and registers was carried out. The table, with pertinent results, compares the 103 facilities in Q4 2006 with the previous qualitative assessment of 102 facilities in Q3 2006. The standards were generally good, and Q4 was similar in many respects to Q3. Most sites had done a quarterly and cumulative cohort analysis, but, as before, only about 65% had an accurate and reliable result.

Parameter	ART sites (%) Q3 2006 N=102	ART sites (%) Q4 2006 N=103
ARV Register:		
ARV Register numbers correct and match master cards	100 (98%)	101 (99%)
All columns in the ARV register always completed	98 (96%)	102 (99%)
Dates of all adverse outcomes recorded	91 (89%)	93 (90%)
All ARV outcomes updated every three months	78 (76%)	75 (73%)
Patient Master Card:		
Case finding data properly completed on each card	95 (93%)	102 (99%)
Regular record of weight done at each patient visit	100 (98%)	102 (99%)
In each monthly visit all outcome columns completed	98 (96%)	100 (97%)
Pill counts for adherence done according to directives	99 (98%)	100 (97%)
HIV-diseases always indicated on back of master card	91 (89%)	97 (94%)
Cohort Analysis:		
Quarterly cohort analysis done by the site before visit	96 (94%)	96 (93%)
Cumulative analysis done by the site before visit	87/97 (90%)	96/102 (94%)
Cohort outcomes correctly done	62/96 (65%)	61/96 (64%)

Certificates of excellence: Between October and December 2006, sites which showed an excellent performance in completing ARV registers and master cards and correctly doing cohort analyses were awarded a certificate of excellence, approved and signed by the Secretary for Health. Altogether, there were 53 sites (52%) presented with certificates during this round of supervision. Between January and March 2007, sites were again assessed for their performance with registers, master cards and cohort analysis, and 52 sites (50%) were awarded a certificate of excellence which will be presented in the next quarterly round of supervisions.

ARV Clinics and Staff: In all facilities, a record was made of the number of days in a week that the ARV clinic is open to see either new or follow-up patients and 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 2006 was 295, translating into an average of 2.8 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 72 clinicians was working full-time in ART delivery each week. Per 1,000 patients on ART, there was a need for 1.6 clinicians, 1.8 nurses and 1.4 clerks at the time of assessment. 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: 22 sites	47	52	44.5
Central: 38 sites	172	178	133
South: 43 sites	168	200.5	144.5
Total: 103 sites	387	430.5	322
FTEs	77	86	64

Quarterly Analysis for the period October 1st to December 31st, 2006:

1. New patients started on ART between October and December 2006:

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 12,253 new patients started on ART, with males representing 38% and females representing 62% of the total. Adults comprised 91% of patients and children (aged 14 years or less) comprised 9%. There were data on occupation in 11,952 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 III.

The number of patients started on ART because of TB was 1,686 (1,438 with PTB, and 248 with EPTB). This constitutes 14% of new patients started on ART and 27% of patients registered for TB (N=6,210) during the quarter.

The number of women referred from PMTCT to start on ART was 166; 38 facilities had recorded PMTCT referrals in the ARV Register.

The three-month outcomes were good with 94% of patients being alive and on ART at the end of June. 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 2006 and Q3 2006, compared with what is expected in terms of ceilings and targets given to facilities. The two quarters are very similar. In quarter 4, 2006, there were 103 facilities (69 low burden, 27 medium burden, 2 medium/high burden, 2 high burden and 3 very high burden sites): these sites should have placed 12,975 patients on ART and in the event reached 94% of their target.

In each quarter:	Q3 2006	Q4 2006
Number of facilities	102	103
Expected number of patients to start ART	12,750	12,975
Observed number (%) of patients started on ART	12,022 (94%)	12,253 (94%)

2. HIV testing, CD4 testing capability and HIV-related diseases: October-December 2006

HIV test data:

The data on HIV test results for patients tested in the 102 facilities between October 1st and December 31st 2006 are shown below.

Parameter	North	Central	South	Total
Number HIV tested	16,784	30,255	48,244	95,283
Number (%) HIV positive	2,416 (14%)	7,060 (23%)	15,981 (33%)	25,457 (27%)
Number (%) referred to ART	1,981 (82%)	5,366 (76%)	9,182 (57%)	16,529 (65%)

Altogether, there were over 95,000 clients and patients tested in the 3-month period. This would have been more except for a shortage of HIV test kits in many sites in December 2006. About two thirds of those who were HIV-positive were referred to ARV clinics for staging. There was some regional variation in the proportion of clients tested HIV-positive and the proportion of those HIV-positive referred to ARV services.

CD4 machines:

There were 17 facilities (17% of total) where there was CD4 count capability, unchanged from the previous report: 2 sites in the North (Mzuzu Central Hospital and Mzimba DH); 9 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, Salima DH); 6 sites in the South (QECH, Blantyre Dream Site, Thyolo DH, Chiradzulu DH, Zomba Central Hospital, Machinga DH). No data were collected on this occasion 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 103 facilities during the quarter, was recorded. TB numbers were obtained from the TB registers; Kaposi's 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)	392	2,163	3,655	6,210
Kaposi's Sarcoma (KS)	64	174	348	586
Cryptococcal meningitis (CM)	141	183	360	684
Oesophageal candidiasis (OC)	180	588	604	1,372

Cumulative analysis for patients ever started on ART up to December 31st, 2006

The national data for all patients who ever started on ART up to the end of December 2006 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 81,821 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 74,801. There were males representing 39% and females representing 61% of the total. The majority of patients were adults, and 7% were children aged 14 years or below.

There were data on occupation for 78,950 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 III.

The number of patients started on ART because of TB was 13,308 (11,367 with PTB, 1,808 with EPTB and 133 with type unknown). This constitutes 16% of all patients started on ART. The number of women ever started on ART as a result of referral from PMTCT was 885 (1%), referred from within 60 ARV sites.

The cumulative primary treatment outcomes were as follows. There were 70% of patients being alive and on ART in the facility where they were first registered, and 9% transferred out to another facility and thought to be alive. Thus, 79% of patients (a proportion of whom is double counted) were probably alive. Date of death was known in all patients who died: 3,207 (34%) died in month 1; 2,069 (22%) died in month 2; 1,100 (12%) died in month 3 and 2,951 (32%) died at a later date. Default rates (i.e., patients lost to follow-up) were 9%. 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 6-, 12-, 18- and 24-months

Treatment outcomes of cohorts were performed at 6-months, 12-months, 18-months and 24-months. The 6-months survival was from patients registered for free ART between April to June 2006 and censored on 31st December 2006 (96 facilities). The 12- months survival was from patients registered for free ART between October to December 2005 and censored on 31st December 2006 (61 facilities). The 18-months survival was from patients registered for free ART between April to June 2005 and censored on 31st December 2006 (55 facilities). The 24-months survival was from patients registered for free ART between October to December 2004 and censored on 31st December 2006 (20 facilities). Results are shown in the table.

	6-months Survival	12-months survival	18-months survival	24-months survival
Number started on ART:	10,608	7,871	5,477	3,091
“Presumed Alive”	8,647 (81%)	5,604 (71%)	4,018 (73%)	2,188 (70%)
<i>Alive and on ART</i>	7,861 (74%)	4,832 (61%)	3,233 (59%)	1,715 (55%)
<i>Transferred out</i>	786 (7%)	772 (10%)	785 (14%)	473 (15%)
Dead	1,130 (11%)	1,116 (14%)	827 (15%)	447 (15%)
Lost to follow up	807 (8%)	1,097 (14%)	606 (11%)	431 (14%)
Stopped treatment	24 (<1%)	54 (1%)	26 (1%)	25 (1%)

The 6-month survival analysis indicated that just over 80% of patients were alive (74% alive and on ART + 7% transferred out and presumed alive). The 12-month, 18-month and 24-month survival analyses indicated that about 70% of patients were alive (alive and on ART + transferred out and presumed alive). What is apparent over the 4 six-month periods is that the percentage alive and on ART declines and the transfer-outs increase. Also from 12-months to 24-months the percentage of deaths and defaulters combined is approximately similar at 25-30%.

Stocks of ARV drugs and drug for HIV-diseases as of January to March 2007

In each 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 below in tabular form. According to these stocks at the time of the assessment, there are enough First line ARV drugs to start about 40,000 new patients on therapy (this lasts for 9-10 months at current rates of recruitment) and enough “Triomune” to keep the current 57,000 patients plus the new patients starting on treatment for about 6-7 months. Thus, the country has a 6-9 month stock of drugs for first line regimen.

The national supplies do not necessarily reflect stocks in facilities, where some of the under-performing sites are over-stocked and over-performing sites are becoming short of starter drugs. As always, drug redistribution occurred during supervision.

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)	6,431	12,331	11,954	30,716
Lamivir-40 – SP (15 tab tins)	2,297	4,927	5,680	12,904
Triomune-30- SP (15 tab tins)	6,651	12,397	11,825	30,873
Triomune-40 – SP (15 tab tins)	2,263	4,853	5,607	12,723
Triomune-30- CP (60 tab tins)	86,188	142,782	170,177	399,147
Triomune-40 – CP (60 tab tins)	12,467	33,122	30,183	75,772
Duovir for PEP (60 tab tins)	See next row - combined with zidovidine and lamivudine			
First line alternative ARV drugs at central hospitals	North	Central	South	Total
	Number of tins of tablets (60 or 30 in each tin)			
Zidovudine-Lamivudine (60 tab)	1,688	4,812	7,684	14,184
Nevirapine (60 tab)	1,430	5,029	9,403	15,862
Lamivir 30 (60 tab)	230	803	3,204	4,237
Lamivir 40 (60 tab)	184	998	1,482	2,664
Efavirenz (30 tab)	298	1,621	5,978	7,897
Second line drugs at central hospitals	North	Central	South	Total
	Number of tins of tablets (180 or 30 in each tin)			
Tenofovir (30 tab)	0	132	1,267	1,399
Lopinavir/ritonavir (180 caps)	0	1,360	641	2,001

Drugs for HIV-related diseases

Pill counts and stock outs for drugs for key HIV-related diseases are shown below.

Drugs for HIV-diseases	North 22 sites	Central 38 sites	South 43 sites	Total 103 sites
	Number of tablets or vials in facilities in each region			
Fluconazole tablets	4,859	35,035	20,625	60,519
Cotrimoxazole tablets	843,370	2,467,072	1,773,400	5,083,842
Acyclovir tablets	50,041	236,079	78,250	364,370
Ceftriaxone vials	300	5,341	7,042	12,683
Ciprofloxacin tablets	107,057	401,280	219,630	727,967
Vincristine vials	2,855	7,807	4,514	15,176
Morphine tablets	5,274	14,424	37,849	57,547
Amitryptiline	736,000	1,315,450	109,343	2,160,793

Drugs for HIV-diseases	North 22 sites	Central 38 sites	South 43 sites	Total 103 sites
	Number of ART facilities with NO DRUGS in stock			
Fluconazole tablets	12	14	16	42 (41%)
Cotrimoxazole tablets	3	1	7	11 (11%)
Acyclovir tablets	7	12	22	41 (40%)
Ceftriaxone vials	20	28	30	78 (76%)
Ciprofloxacin tablets	7	7	10	24 (23%)
Vincristine vials	12	9	19	40 (39%)
Morphine tablets	18	18	26	62 (60%)
Amitryptiline	5	7	12	24 (23%)

Although the number of tablets of certain drugs appears reasonable, about 40% of facilities had stock-outs of fluconazole, acyclovir and vincristine, while 60% were out of morphine. On a good note, the supplies of cotrimoxazole for the first time in 12 months were reasonable.

An audit was conducted on all sites to see if they had 3 of the key drugs needed for good quality OI care. The three drugs chosen were cotrimoxazole, vincristine and morphine. There were 40 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 63 sites providing CPT to ART patients, and in the last quarter of 2006, there were 36,942 patients receiving ART and CPT together.

Operational audit:

During this round of site visits, an operational audit was conducted into army, police and prisoners who were on ART. Results will be presented at a later date.

District ART Training:

District ART Training manuals had been distributed to all ART sites at the beginning of the year, and ARV clinic staff were asked to run trainings for hospital and health centre staff. In Q2 2006, the number of sites doing training was 30, for a total number of 1392 staff trained. In Q3 2006, the number of sites doing training was 38, for a total of 1444 staff trained. In Q4 2006, the number of sites doing training was 21, for a total of 1,038 staff trained. There is no information about the quality of these trainings.

ART data for 2003 to 2006:

This is shown below in tabular form, and shows the results from public and private facilities in Malawi providing ART using Global Fund support.

	By Dec 03	By Dec 04	By Dec 05	By Dec 06
Public Facilities:				
Number providing ART services	9	24	60	103
New patients started ART in the year	No data	10,183	24,657	43,981
Cumulative patients on ART	3,000	13,183	37,840	81,821
Patients alive on ART	No data	10,761	28,110	57,356
Private Facilities:				
Number providing ART services	0	0	23	38
New patients started ART in the year	0	0	977	2,370
Cumulative patients on ART	0	0	977	3,347
Patients alive on ART	0	0	977	2,624
Public and Private Facilities:				
Number providing ART services	9	24	83	141
New patients started ART in the year	No data	10,183	25,634	46,351
Cumulative patients on ART	3,000	13,183	38,817	85,168
Patients alive on ART	No data	10,761	29,087	59,980

Comment

ART scale up in Malawi continues to progress well. Sites are doing well. The majority are taking the initiative of doing quarterly and cumulative cohort analysis, although in one third the outcomes are incorrect. 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 for the next 6-7 months. Drugs for HIV-related diseases are still in short supply in some facilities, although for the first time for a year the supply of cotrimoxazole is good.

Challenges and potential solutions:

In previous reports, some important challenges emerging from ART scale up were highlighted for discussion and action. Progress or otherwise in these areas by December 31st 2006 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. The HIV Unit has been joined by a new ARV officer (Amon Nkhata) and that should help off-burden some of the work-load.
- Infrastructure. ART clinic rooms and pharmacies will be too small to handle patient numbers or drugs in 1-2 years time. **Despite raising this issue every quarter, there is still no progress or plans being made**
- Pharmacy management. In general there is good pharmacy management of ARV drugs and OI drugs. **However, pharmacies would benefit from CMS supervision**
- Drugs for HIV-related diseases. In June 2006, cotrimoxazole and amitriptyline will be delivered to sites along with the parallel ART drug distribution. This will allow a better stock of these essential drugs for patients, and will ensure that those in need can access regular cotrimoxazole prophylaxis
- 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 1000+ patients. These techniques have been passed on to the peripheral sites. However, a computer records system should make this easier. A pilot computer study is ready to start in 4 sites: 2 in the North (Rumphi and Nkhata Bay) and two in the Central region (Salima and Dedza)
- Data quality and supervision. Although many sites are maintaining good records and doing cohort analysis, a number of 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. Each district has now named two health centres for Round 3 ART scale up. If staff attend the training, then drugs will be ordered for these sites for October-November 2006
- Clinical supervision. The 2 ART supervisors, one at Zomba Central Hospital and one at Kamuzu Central Hospital, are doing a good job and assist greatly with the national monitoring exercise as well. Two more supervisors have also been appointed to Mzuzu Central Hospital and QECH
- 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%. CPT will hopefully start to be provided to all ART patients from June this year.
- 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
- A pilot study was conducted last year in 3 sites on provision of insecticide treated bed nets along with ART. It was successful, and a proposal has been put together to scale up provision of ITNs country-wide
- A retrospective monitoring of viral load suppression and viral drug resistance has started in three sites under the guidance of MOH, CDC and WHO, and this will inform about the efficacy or otherwise of the first line regimen. Samples have been collected for the HIV drug resistance threshold survey to monitor transmitted resistance and results expected back in the next few months

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.

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12th March 2007

Total Started	Number of patients started on ART in the 3 months		12253	
Sex	Number (%) males		4630	38%
	Number (%) females		7623	62%
Age	Number (%) adults aged 15 years and above		11144	91%
	Number (%) children aged 14 years and below		1109	9%
Occupation:	Housewife		2638	22%
	Farmer		3852	32%
	Forces		147	1%
	Teacher		305	3%
	Business		1554	13%
	HCW		134	1%
	Student		641	5%
	Other		2681	22%
	Occupation Not Known		301	
Reasons for starting ART:	Number (%) with Stage III		7874	64%
	Number (%) with Stage IV		2600	21%
	Number (%) with low CD4 count		1779	15%
	Number (%) with TB		1686	14%
	Number of patients registered with TB in the quarter		6210	
Patient Outcomes	Number of patients started on ART in the 3 months		12253	
	Number (%) alive and on ART		11542	94%
	Number (%) dead		449	4%
	Number (%) defaulted		0	0%
	Number (%) stopped treatment		29	0%
	Number (%) transferred out permanently to another site		233	2%
ART Regimen	Of those alive and on ART:-		11542	
	Number (%) on first line regimen		11387	99%
	Number (%) on alternative first line regimen		148	1%
	Number (%) on second line regimen		7	0%
Ambulatory Status	Number with ambulatory status known		10713	
	Number (%) ambulatory		10508	98%
Work Status	Number with work status known		10713	
	Number (%) at work		10103	94%
Side Effects	Number with side effects counted		10347	
	Number (%) with significant side effects		315	3%
Adherence	Number where pill count has been done		7977	
	Number (%) with pill count showing 95% adherence		7598	95%

TABLE 2: Cumulative patients ever started on ART up to December 31st, 2006				
Total Started	Total number of patients started on ART		81821	
Sex	Number (%) males		31659	39%
	Number (%) females		50162	61%
Age	Number (%) adults aged 15 years and above		76058	93%
	Number (%) children aged 14 years and below		5763	7%
Occupation	Housewife		15745	20%
	Farmer		19415	25%
	Forces		1134	1%
	Teacher		2935	4%
	Business		10055	13%
	HCW		1289	2%
	Student		3523	4%
	Other		24854	31%
	Occupation Unknown		2871	
Reasons for starting ART:	Number (%) with Stage III		53030	65%
	Number (%) with Stage IV		18958	23%
	Number (%) with low CD4 count		9833	12%
	Number (%) of patients started on ART due to TB		13308	16%
Patient Outcomes	Total number of patients started on ART		81821	
	Number (%) alive and on ART		57356	70%
	Number (%) dead		9327	11%
	Number (%) defaulted		7753	9%
	Number (%) stopped treatment		365	0%
	Number (%) transferred out permanently to another site		7020	9%
ART Regimen	Of those alive and on ART:-		57356	
	Number (%) on first line regimen		55518	97%
	Number (%) on alternative first line regimen		1690	3%
	Number (%) on second line regimen		148	0%
Ambulatory Status	Number with ambulatory status known		51440	
	Number (%) ambulatory		50551	98%
Work Status	Number with work status known		51440	
	Number (%) at work		49490	96%
Side Effects	Number with side effects counted		46969	
	Number (%) with significant side effects		2132	5%
Adherence	Number where pill count has been done		38426	
	Number (%) with pill count showing 95% adherence		35667	93%
Death	Of those who died with Date of death recorded		9327	
	Number (%) dying in the first month		3207	34%
	Number (%) dying in the second month		2069	22%
	Number (%) dying in the third month		1100	12%
	Number (%) dying after the third month		2951	32%

