

ARV THERAPY IN MALAWI - UP TO 30th SEPTEMBER, 2006

Executive Summary:

By the end of September 2006, there were 102 facilities in Malawi in the public health sector delivering ART free of charge to HIV-positive eligible patients. In the third quarter of 2006 (July to September), there were 12,022 new patients started on ART. Up until the end of September 2006, there were 69,547 patients who had ever started on ART. For the quarter, 37% of patients were male and 9% were children (14 years and below). For the cumulative analysis, 39% of patients were male and 7% were children (14 years and below).

Of 69,547 patients who ever started on free ART, their outcomes by end of September 2006 were as follows: 71% were alive and on ART at the site of registration, 11% had died, 9% were lost to follow-up, 8% had transferred out to another facility (and were presumably alive) and ~1% had stopped treatment.

Of 49,487 patients alive and on ART:- 97% were on the first line regimen, 3% were on an alternative first line regimen and a small number (149) were on a second line regimen. Of those alive and on ART, 96% were ambulatory; 94% were fit to work; 6% had one or more major side effects assessed during the month of September; and 93% of patients showed 95% or more adherence to therapy based on pill counts.

A 6-month outcome analysis on 8,961 patients starting free ART from 66 sites showed: 80% were alive (72% alive and on ART + 8% transferred out).

A 12-month outcome analysis on 7,846 patients starting free ART from 60 sites showed: 74% were alive (64% alive and on ART + 10% transferred out).

An 18-month outcome analysis on 4,582 patients starting free ART from 34 sites showed: 75% were alive (62% alive and on ART + 13% transferred out).

Introduction and Methodology:

This is a report on the status of antiretroviral therapy (ART) in Malawi up to September 30th 2006. By September 2006, 102 government and mission health facilities in the country (60 Round 1 sites and 42 Round 2 sites) had started patients on free ART.

Between October and December 2006, there were 104 health facilities in the public sector earmarked for ART: these were visited, and they included 102 providing free ART and 2 facilities that had not yet started ART. The visits were conducted by the Ministry of Health Clinical HIV Unit (Simon Makombe, Anthony Harries and Erik Schouten), who were accompanied by their partners: Andreas Jahn, Ralf Weigel, Lameck Tambo and Hannok Tweya from Lighthouse; Mindy Hochgesang and John Aberle-Grasse 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 some of these visits. Mindy Hochgesang, Bethany Hedt and Lighthouse staff assisted with the EXCEL data-base and some of the data entry.

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 July 1st and September 30th, 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 September 30th 2006, the **“cumulative analysis”**.

The third data set is the **6-month, 12-month and 18-month cohort outcome analysis**, with data collected on patients starting ART in Malawi in Q1 2006, Q3 2005, and Q1 2005 respectively.

For all three data sets, the outcome status was censored on 30th September 2006.

Results:

General:

The 102 ART facilities in general were doing an excellent job. Systems of referral to ART were working well. All the facilities, except the 2 Dream Project sites, were using the Malawi national monitoring tools. The Dream projects are working to start using the Malawi standard tools by the next quarter.

ARV regimens: All facilities were using the recommended first line regimen (Stavudine + Lamivudine + Nevirapine) for the majority of their patients. There were 47,775 patients alive and on first line treatment, 1563 patients alive and on alternative first line regimens (Zidovudine-based or Efavirenz-based) for patients with adverse drug reactions, and 149 patients alive and being treated with a second line regimen for failure of the first line therapy.

Qualitative assessment of sites: All 102 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 102 facilities in Q3 2006 with the previous qualitative assessment of 94 facilities in Q2 2006. The standards were generally good. More sites had performed a cohort analysis before the site visit, but fewer sites on this occasion had done a correct cohort analysis, usually because the ARV registers had not been updated from master cards.

Parameter	ART sites (%) Q2 2006 N=94	ART sites (%) Q3 2006 N=102
ARV Register:		
ARV Register numbers correct and match master cards	90 (96%)	100 (98%)
All columns in the ARV register always completed	90 (96%)	98 (96%)
Dates of all adverse outcomes recorded	84 (89%)	91 (89%)
All ARV outcomes updated every three months	77 (82%)	78 (76%)
Patient Master Card:		
Case finding data properly completed on each card	86 (91%)	95 (93%)
Regular record of weight done at each patient visit	91 (97%)	100 (98%)
In each monthly visit all outcome columns completed	89 (95%)	98 (96%)
Pill counts for adherence done according to directives	91 (97%)	99 (98%)
HIV-diseases always indicated on back of master card	84 (89%)	91 (89%)
Cohort Analysis:		
Quarterly cohort analysis done by the site before visit	81 (86%)	96 (94%)
Cumulative analysis done by the site before visit	66/78 (85%)	87/97 (90%)
Cohort outcomes correctly done	62 (66%)	62/99 (63%)

Certificates of excellence: Between July and September 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 46 sites (49%) presented with certificates during this round of supervision. Between October and December 2006, sites were again assessed for their performance with registers, master cards and cohort analysis, and 53 sites (52%) were awarded a certificate of excellence which will be presented in the next quarterly round of supervisions. The award of certificates appears to be a good motivator for upholding standards, and is greatly appreciated by the clinic staff and the officers in charge of facilities.

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 Q3 2006 was 278.5, translating into an average of 2.7 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 70 clinicians was working full-time in ART delivery each week. The workload to man ART clinics is obviously increasing quarter by quarter

	Clinician days/week	Nurse days/week	Clerk days/week
North: 22 sites	44	48.5	46.5
Central: 38 sites	150.3	157.25	108
South: 42 sites	155.5	180	125
Total: 102 sites	349.75	385.75	279.5
FTEs	70	77	56

Quarterly Analysis for the period July 1st to September 30th 2006:

1. New patients started on ART between July and September 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 12,022 new patients started on ART, with males representing 37% and females representing 63% of the total. Adults comprised 91% of patients and children (aged 14 years or less) comprised 9%. There were data on occupation in 11,531 patients, and the most common recorded occupations were subsistence farmer, housewife and small-scale business people (eg vendors). The majority of patients (67%) were started on ART because of being in WHO Stage III.

The number of patients started on ART because of TB was 1,748 (1,519 with PTB, and 229 with EPTB). This constitutes 15% of new patients started on ART and 26% of patients registered for TB (N=6,726) during the quarter. Assuming 70% of these patients are HIV-positive (N=4710), then 37% of HIV-positive TB patients accessed ART in the quarter.

The number of women referred from PMTCT to start on ART was 161; 37 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 Q3 2006 and Q2 2006, compared with what is expected in terms of ceilings and targets given to facilities. In quarter 2, 2006, there were 94 facilities (56 low burden, 32 medium burden, 2 medium/high burden, 3 high burden and 1 very high burden sites): these sites were expected to place 11,700 patients on ART and in the event reached 89% of their target. In quarter 3, 2006, there were 102 facilities (70 low burden, 25 medium burden, 2 medium/high burden, 2 high burden and 3 very high burden sites): these sites should have placed 12,750 patients on ART and in the event reached 94% of their target.

In each quarter:	Q2 2006	Q3 2006
Number of facilities	94	102
Expected number of patients to start ART	11,700	12,750
Observed number (%) of patients started on ART	10,465 (89%)	12,022 (94%)

2. HIV testing, CD4 testing capability and HIV-related diseases – July to September 2006

HIV test data:

The data on HIV test results for patients tested in the 102 facilities between July 1st and September 30th 2006 are shown below.

Parameter	North	Central	South	Total
Number HIV tested	20,985	39,429	49,165	109,579
Number (%) HIV positive	3,026 (14%)	8,482 (22%)	13,805 (28%)	25,313 (23%)
Number (%) referred to ART	2,485 (82%)	5,248 (62%)	9,793 (71%)	17,526 (69%)

Altogether, there were over 109,000 clients and patients tested in the 3-month period, nearly 20,000 more than in the previous quarter, presumably due to the effects of HIV testing week. Nearly 70% 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 102 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)	478	2,253	3,995	6,726
Kaposi's Sarcoma (KS)	42	160	312	514
Cryptococcal meningitis (CM)	84	370	252	706
Oesophageal candidiasis (OC)	199	557	589	1,345

Cumulative analysis for patients ever started on ART up to September 30th 2006

The national data for all patients who ever started on ART up to the end of September 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 69,547 patients who had ever started on ART, with 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 66,273 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 11,788 (9,908 with PTB, 1,743 with EPTB and 137 with type unknown). This constitutes 17% of all patients started on ART. The number of women ever started on ART as a result of referral from PMTCT was 746 (1%), referred from within 53 ARV sites.

The cumulative primary treatment outcomes were as follows. There were 71% of patients being alive and on ART in the facility where they were first registered, and 8% transferred out to another facility and thought to be alive (operational research is being conducted in the Northern Region to test this hypothesis). Thus, 79% of patients were probably alive. Date of death was known in 7,928 of 7,983 patients who died. Of those where date of death was known: 2,645 (33%) died in month 1: 1,906 (24%) died in month 2: 1,007 (13%) died in month 3 and 2,370 (30%) 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- and 18- months

Treatment outcomes of cohorts were performed at 6-months, 12-months and 18-months. The 6-months survival was from patients registered for free ART between January to March 2006 and censored on 30th September 2006 (66 facilities). The 12-months survival was from patients registered for free ART between July to September 2005 and censored on 30th September 2006 (60 facilities). The 18-months survival was from patients registered for free ART between January to March 2005 and censored on 30th September 2006 (34 facilities). Results are shown in the table.

	6-months Survival	12-months survival	18-months survival
Number started on ART:	8,961	7,846	4,582
“Presumed Alive”	7,085 (80%)	5,795 (74%)	3,403 (75%)
<i>Alive and on ART</i>	<i>6,411 (72%)</i>	<i>5,014 (64%)</i>	<i>2,820 (62%)</i>
<i>Transferred out</i>	<i>674 (8%)</i>	<i>781 (10%)</i>	<i>583 (13%)</i>
Dead	1,092 (12%)	1,213 (15%)	648 (14%)
Lost to follow up	755 (8%)	788 (10%)	481 (10%)
Stopped treatment	29 (<1%)	50 (1%)	50 (1%)

The 6-month survival analysis indicated that 80% of patients were alive (72% alive and on ART + 8% transferred out and presumed alive). The 12-month survival analysis indicated that 74% of patients were alive (64% alive and on ART + 10% transferred out and presumed alive). The 18-month survival analysis indicated that 75% of patients were alive (62% alive and on ART + 13% transferred out and presumed alive).

Stocks of ARV drugs and drug for HIV-diseases as of July-September 2006

In each facility a stock count was performed of ARV drugs and certain specific drugs for HIV-related diseases. The country was in the middle of receiving its October orders, but most sites (particularly Round 1) at the time of the drug stock assessment had not received the major order of first line ART, PEP or second line treatment

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 26,000 new patients on therapy (this lasts for 6 months at current rates of recruitment) and enough “Triomune” to keep the current 50,000 patients plus the new patients starting on treatment for about 4-5 months. Thus, the country has a 4-6 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. Drug redistribution occurred during supervision where needed

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)	3,797	6,793	8,456	19,046
Lamivir-40 – SP (15 tab tins)	1,395	2,147	4,030	7,572
Triomune-30- SP (15 tab tins)	4,122	6,355	8,559	19,036
Triomune-40 – SP (15 tab tins)	1,353	2,152	3,987	7,492
Triomune-30- CP (60 tab tins)	56,829	101,731	135,414	293,974
Triomune-40 – CP (60 tab tins)	4,900	15,130	22,545	42,575
Duovir for PEP (60 tab tins)	173	166	82	421
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)	1,024	5,320	9,188	15,532
Nevirapine (60 tab)	980	5,423	7,244	13,647
Lamivir 30 (60 tab)	71	219	2,286	2,576
Lamivir 40 (60 tab)	104	636	965	1,705
Efavirenz (30 tab)	56	1,953	4,870	6,879
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	276	1,044	1,320
Lopinavir/ritonavir (180 caps)	0	586	1,190	1,776

Drugs for HIV-related diseases

Stocks of key drugs for treating HIV-related diseases were counted. Although the number of tablets of certain drugs appears reasonable, there were many facilities with no drugs for HIV-related diseases. In nearly 50% of ART sites, there were complete stock-outs of fluconazole, cotrimoxazole and vincristine, and in almost 60% of sites a complete stock out of morphine. Pill counts and stock outs are shown in tabular form.

Drugs for HIV-diseases	North 22 sites	Central 38 sites	South 42 sites	Total 102 sites
	Number of tablets or vials in facilities in each region			
Fluconazole tablets	8,936	14,180	29,011	52,127
Cotrimoxazole tablets	379,000	1,065,550	1,286,000	2,730,550
Acyclovir tablets	63,855	156,477	195,960	416,292
Ceftriaxone vials	886	4,118	6,014	11,018
Ciprofloxacin tablets	112,520	216,741	204,200	533,461
Vincristine vials	2,612	5,070	1,803	9,485
Morphine tablets	8,643	19,328	19,245	47,216
Amitryptiline	1,108,101	183,000	2,770,351	4,061,452

Drugs for HIV-diseases	North 18 sites	Central 38 sites	South 38 sites	Total 94 sites
	Number of ART facilities with NO DRUGS in stock			
Fluconazole tablets	13	14	21	48 (47%)
Cotrimoxazole tablets	13	14	22	49 (48%)
Acyclovir tablets	8	13	23	44 (43%)
Ceftriaxone vials	19	31	32	82 (80%)
Ciprofloxacin tablets	8	9	19	36 (35%)
Vincristine vials	13	13	24	50 (49%)
Morphine tablets	16	20	24	60 (59%)
Amitryptiline	7	12	13	32 (31%)

Operational audit:

During this round of site visits, an operational audit was conducted into teachers and 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, only 30 sites (32%) managed to do any training in the 3 months, 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.

Distribution of ARV Monitoring tools:

All facilities were re-stocked in this quarter with new Registers, new and follow-up master cards, identity cards, polythene sleeves, stamps and ink pads and hard arch back files – all sites received enough stock to last another 12 months.

Comment

By September 30th 2006, there should have been 104 facilities in the public sector offering treatment. In the event, 102 were providing treatment with Chancellor College Clinic and BLM-Zomba yet to start.

Although ARV facilities are generally good at monitoring their patients and keeping excellent records, the ARV registers are still not being updated in all sites and consequently cohort analyses are still incorrect in about one third of sites. Thus, if Malawi wants to have reliable and accurate data, the current form of supervision and monitoring must continue.

There has been an improvement in the number of children, the number of patients with TB and the number from PMTCT accessing ART, and this is probably the result of the refresher trainings and supervisions which have taken place this year.

The treatment outcomes for ART were reasonable. Death rates have slightly increased while default rates have slightly decreased, a reflection that sites are trying to ascertain the outcomes of patients who are registered as “default”, many of whom have in fact died.

The large increase in numbers of clients and patients being HIV tested this quarter may have been a result of the HIV testing week. This is encouraging and suggests that HIV testing week is a good initiative. Unfortunately, the problem with uninterrupted HIV test kit supply still remains.

ARV drug stocks were again assessed, and nationally drugs stocks are adequate for the next 4 - 6 months. The October ARV drug order was late and is only just being distributed, but this should allay some of the site specific problems in the last few months. Stocks of drugs for key HIV-related diseases were assessed. Complete stock-outs were very common and becoming more so: this is something that requires attention.

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 September 30th 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. **More personnel need to be brought into the HIV Unit of the MOH to allow the escalating ART work load of training, supervision, drug forecasting and service provision to be managed**

- Infrastructure. ART clinic rooms and pharmacies are becoming too small to handle patient numbers or drugs in 1-2 years time. **Despite addressing 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. **However, pharmacies would benefit from CMS supervision**
- Drugs for HIV-related diseases. In many facilities, especially in the CHAM and other non-governmental organization sites, there are complete stock-outs of OI drugs. **Next year, cotrimoxazole and amitriptyline will be delivered to sites along with the parallel ART drug distribution, and this should allow a better stock of these essential drugs for patients. fluconazole and amitriptyline in their pharmacies**
- 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, and HIV Unit awaits the results of a consultation exercise about piloting an electronic data base at district level. In the event of a computer system not working out, the cohort analysis may have to be simplified down to primary outcomes only
- Access to services and follow-up of patients. To remain on the agenda. **Some districts are working on decentralisation to health centres, and in 2007 new ART sites need to be earmarked for Round 3.**
- Clinical supervision. The 2 ART supervisors, one at Zomba Central Hospital and one at Kamuzu Central Hospital, are doing a good job. Congratulations are extended to them for raising the quality of care at the ART sites under their umbrella
- 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%. **An operational plan has been put in place to bring CPT into country next year for patient use with ART**
- Support for training in districts. Under decentralisation, funds should be available at the district level through the training line item in the District Implementation Plans (DIPs) . **Facilities need to be made aware how to use these resources, and implementers at districts need more guidance on planning and requesting moneys from DIPs**
- Rewarding good performance in ARV clinics. The regular structured supervision of sites has meant that it is possible to assess performance on a quarterly basis. Every quarter sites will be assessed to determine whether or not they should receive a certificate of excellence, and these will be presented to the ARV clinic staff and the hospital management team at the subsequent supervisory visit

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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9th December 2006

TABLE 1: New patients started on ART between July 1st and September 30th 2006

Total Started	Number of patients started on ART in the 3 months	12022	
Sex	Number (%) males	4459	37%
	Number (%) females	7563	63%
Age	Number (%) adults aged 15 years and above	10939	91%
	Number (%) children aged 14 years and below	1083	9%
Occupation:	Housewife	2542	22%
	Farmer	3685	32%
	Forces	152	1%
	Teacher	321	3%
	Business	1674	15%
	HCW	155	1%
	Student	573	5%
	Other	2429	21%
	Occupation Not Known	491	
Reasons for starting ART:	Number (%) with Stage III	8101	67%
	Number (%) with Stage IV	2394	20%
	Number (%) with low CD4 count	1527	13%
	Number (%) with TB	1748	15%
	Number of patients registered with TB in the quarter	6726	
Patient Outcomes	Number of patients started on ART in the 3 months	12022	
	Number (%) alive and on ART	11254	94%
	Number (%) dead	507	4%
	Number (%) defaulted	0	0%
	Number (%) stopped treatment	21	0%
	Number (%) transferred out permanently to another site	240	2%
ART Regimen	Of those alive and on ART:-	11254	
	Number (%) on first line regimen	11135	99%
	Number (%) on alternative first line regimen	111	1%
	Number (%) on second line regimen	7	0%
Ambulatory Status	Number with ambulatory status known	10925	
	Number (%) ambulatory	10657	98%
Work Status	Number with work status known	10925	
	Number (%) at work	10092	92%
Side Effects	Number with side effects counted	10394	
	Number (%) with significant side effects	332	3%
Adherence	Number where pill count has been done	7873	
	Number (%) with pill count showing 95% adherence	7294	93%

TABLE 2: Cumulative patients ever started on ART up to September 30th, 2006

Total Started	Total number of patients started on ART		69547	
Sex	Number (%) males		26942	39%
	Number (%) females		42605	61%
Age	Number (%) adults aged 15 years and above		64935	93%
	Number (%) children aged 14 years and below		4612	7%
Occupation	Housewife		13073	20%
	Farmer		15474	23%
	Forces		1032	2%
	Teacher		2620	4%
	Business		8523	13%
	HCW		1144	2%
	Student		2792	4%
	Other		21615	33%
	Occupation Unknown		3274	
Reasons for starting ART:	Number (%) with Stage III		45386	65%
	Number (%) with Stage IV		16469	24%
	Number (%) with low CD4 count		7692	11%
	Number (%) of patients started on ART due to TB		11788	17%
Patient Outcomes	Total number of patients started on ART		69547	
	Number (%) alive and on ART		49487	71%
	Number (%) dead		7983	11%
	Number (%) defaulted		6055	9%
	Number (%) stopped treatment		345	0%
	Number (%) transferred out permanently to another site		5677	8%
ART Regimen	Of those alive and on ART:-		49487	
	Number (%) on first line regimen		47775	97%
	Number (%) on alternative first line regimen		1563	3%
	Number (%) on second line regimen		149	0%
Ambulatory Status	Number with ambulatory status known		45383	
	Number (%) ambulatory		43752	96%
Work Status	Number with work status known		45383	
	Number (%) at work		42683	94%
Side Effects	Number with side effects counted		41488	
	Number (%) with significant side effects		2407	6%
Adherence	Number where pill count has been done		30798	
	Number (%) with pill count showing 95% adherence		28565	93%
Death	Of those who died with Date of death recorded		7928	
	Number (%) dying in the first month		2645	33%
	Number (%) dying in the second month		1906	24%
	Number (%) dying in the third month		1007	13%
	Number (%) dying after the third month		2370	30%