

## QUARTERLY REPORT ANTIRETROVIRAL TREATMENT PROGRAMME IN MALAWI WITH RESULTS UP TO 31<sup>st</sup> DECEMBER, 2008

### Executive Summary:

By the end of December 2008, there were **221** health facilities in Malawi in the public and private health sector delivering ART to HIV-positive eligible patients.

In the fourth quarter of 2008 (October to December) a total of **19,092** patients registered at ART sites in Malawi (39% male, 61% female; 91% adults and 9% children). Of those, 54% started in WHO stage 3, 11% in stage 4 and 33% based on a low CD4 count in Stage 1 or Stage 2. In the quarter a total of 30 infants started ART because of confirmed HIV infection (DNA-PCR) and 30 children under 18 months started because of presumed severe HIV disease.

By the end of December 2008, there were **223,437** patients ever registered for ART (39% male, 61% female; 92% adult, 8% children) of which 27,843 had started on ART due to TB. The 223,437 patients who had ever registered on ART include 27,069 patients who transferred-out to other ART sites, and it is understood that these patients will be counted twice in the total patients ever registered. If we deduct the number of people transferred-out the number of people ever started on ART is 196,368.

Cumulative outcomes of all patients ever registered by end of December 2008 were: 66% alive and on ART at the site of registration, 11% dead, 11% lost to follow-up, 12% transferred out to another facility and <1% stopped treatment.

Of the **147,479** patients alive and on ART: 94% were on the first line regimen, 5% were on an alternative first line regimen, less than 1% were on second line regimen and 1% were on a non-standard ART regimen. Non-standard regimens are not necessarily substandard regimens; they include patients continuing an ART regimen that was started outside Malawi, patients in research programmes and patients in specialist care in whom specific circumstances lead to the choice of a non-standard regimen.

By the end of December 2008 there were 28 sites with 1,001-2,000 patients alive and on treatment; 10 sites with 2,001-5,000 and 5 with over 5,000 patients alive and on treatment.

### Resume from January 2003 to December 2008:

	By Dec 2003	By Dec 2004	By Dec 2005	By Dec 2006	By Dec 2007	By Dec 2008
<b>Total number of static ART sites</b>	9	24	83	141	163	<b>221</b>
New patients started ART in the year (Jan – Dec)	No data	10,183	25,634	46,351	61,688	<b>76,581</b>
Cumulative patients registered on ART	3,000 (approx)	13,183	38,817	85,168	146,856	<b>223,437</b>
Patients alive on ART	No data	10,761	29,087	59,980	100,649	<b>147,479</b>

## **Introduction and Methodology:**

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

ART site visits: in January and February 2009, 210 facilities with ART services in the public and private sector were visited, collecting data on 221 ART clinics. One site, Phimbi health centre in Balaka could not be visited due poor road conditions and data for Phimbi are therefore missing in the quarterly and cumulative cohort analysis<sup>1</sup>. The visits were conducted by the Ministry of Health HIV Unit, MBCA, partners from DHOs, Zonal HIV supervisors, Lighthouse and MSF.

Each visit lasted up to half a day during which a structured supervision and a drug stock-level assessment were carried out, and this was followed by a monitoring and evaluation exercise. Data on ART parameters were collected from the patient master cards and the ART 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.

### Update of data collection tools:

The ART data collection form was updated in order to account more accurately for the increasing number of patients transferring between clinics and to obtain more detailed data on access and treatment outcomes among children.

### Data collection, outcome status censored on 31<sup>st</sup> December, 2008:

The first table (see Annex 1) shows the characteristics of new patients who were registered at ART clinics in the fourth quarter of 2008, the **“New patients registered for ART between 1/10/2008 and 31/12/2008”**. 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 table (see Annex 2) shows the status of all patients who ever started on ART in Malawi up to December 31<sup>st</sup>, 2008, the **“Cumulative patients registered for ART up to end 31/12/2008”**.

Additional data were collected in the public sector such as the **12-month, 24- month and 36-month cohort outcome analysis**, with data collected on patients registered at ART clinics in Malawi during Q4 2007, Q4 2006, and Q4 2005, respectively. For the first time, we performed a separate 12-month outcome analysis for children under 15 years of age (at the time of registration).

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<sup>1</sup> Phimbi Health Centre had registered 98 new patients during the previous quarter (2008 Q3) and had a cumulative total of 225 patients registered.

## **Public sector results:**

### **General:**

By the end of December 2008, there were **170** free-standing health facilities, owned by government, mission and NGOs in Malawi in the public health sector delivering ART free of charge to HIV-positive eligible patients. 159 facilities were using the standard national monitoring tools and 11 facilities in Chiradzulu District were operating the custom MSF monitoring system.

In the fourth quarter of 2008 (October to December), there were **16,222** (88%) new patients initiated on ART and **2,239** (12%) patient transfers between clinics, resulting in a total of **18,461** clinic registrations. Out of total registrations, there were: 39% male, 61% female; 91% adults and 9% children.

By the end of December 2008, there were a cumulative total of **193,587** (90%) new patients initiated on ART and **21,862** (10%) patient transfers between clinics, resulting in a total of **215,449** clinic registrations. Out of total registrations, there were: 39% male, 61% female; 92% adults and 8 % children.

Cumulative treatment outcomes by end of December were: 66% alive and on ART at the site of registration, 11% dead, 11% lost to follow-up, 12% transferred out to another facility and <1% stopped treatment. Of the **142,218** patients alive and on ART: 95% were on the first line regimen, 4% were on an alternative first line regimen, less than 1% were on a second line regimen and 1% on a non-standard regimen.

	By Dec 2003	By Dec 2004	By Dec 2005	By Dec 2006	By Dec 2007	By Dec 2008
<b>Public sector ART sites</b>	<b>9</b>	<b>24</b>	<b>60</b>	<b>103</b>	<b>118</b>	<b>170</b>
ART clinic registrations in year	No data	10,183	24,657	43,981	59,628	<b>74,000</b>
Cumulative ART clinic registrations	3,000	13,183	37,840	81,821	141,449	<b>215,449</b>
Patients alive on ART	No data	10,761	28,110	57,356	96,712	<b>142,218</b>

*Qualitative assessment of sites:* A qualitative assessment of the patient master cards and registers was carried out in 159 sites of the 170 sites in the public sector. The table compares the 159 facilities in Q4 2008 with the previous qualitative assessment facilities in Q3 and Q2 2008. The standards were generally good, and Q4 2008 was similar in many respects to Q3 2008. 90% of sites had performed a cumulative cohort outcome analysis for all patients ever registered and 58% of these were correct.

Parameter	ART sites in Q2 2008 N=162	ART sites in Q3 2008 N=160	ART sites in Q4 2008 N=159
<b>General:</b>			
Clinic orderly and tidy	98%	98%	96%
Pharmacy well organised and stock cards up to date	-	-	86%
Standard M&E tools implemented and maintained (paper orEDS)	99%	98%	96%
ARV drug register in use	96%	96%	94%
<b>Master cards:</b>			
Card header details complete	97%	93%	97%
TB status, KS and pregnancy recorded	99%	97%	99%
WHO stage defining conditions circled on back of card	91%	93%	90%
Details of 2-week initiation visit recorded at bottom of card	98%	99%	99%
Weight recorded at each visit	100%	99%	99%
ART regimen and side effects recorded at each visit	-	-	96%
Pill counts recorded at all ARV refill visits	99%	91%	95%
<b>Clinic register:</b>			
Register numbers assigned correctly and match cards	98%	97%	98%
Transfer-ins recorded	94%	94%	96%
All case finding columns complete (age, sex, reason, ...)	97%	99%	97%
Case finding data match cards	94%	79%	93%
Outcomes complete and updated every quarter	84%	81%	75%
Outcome dates specified	86%	86%	86%
<b>Analysis:</b>			
Patient registration analysis done for quarter	88%	82%	95%
Cumulative cohort analysis done for all patients ever registered	86%	80%	89%
Cumulative cohort outcomes complete and accurate	67%	67%	58%

**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: 77 sites in the public sector received a certificate of excellence.

**Staffing of ART Clinics:** For each ART clinic visited, the supervision team recorded the scheduled number of days per week that the clinic is operating and the average number of clinicians, nurses and clerks working during clinic days. The total number of days in a week given for ART at all facilities in Q4 2008 was 438, 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 142 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).

Region	Sites	ART Clinic days/ week	Clinician days/ week	Nurse days/ week	Clerk days/ week
North	31	71.5	83.5	94	100
Central	60	170.5	227	334.5	257
South	68	196	317.5	292	269
<b>Total</b>	<b>159</b>	<b>438</b>	<b>628</b>	<b>720.5</b>	<b>626</b>
<b>FTE</b>			<b>142</b>	<b>163</b>	<b>142</b>

**Quarterly Analysis for the period October 1<sup>st</sup> to December 31st, 2008:**

**1. New patients started on ART in public sector between October and December 2008:**

The national data for new patients started on ART in these three months are shown in **Annex 1** on quarterly analysis.

There were a total of 18,461 new ART clinic registrations, representing 16,222 (88%) patients who newly initiated ART and 2,239 (12%) transfers between clinics. Out of all clinic registrations, 39% were males and 61% were females. Adults comprised 91% and children (aged 14 years or less) comprised 9%. The majority of patients (55%) started ART in WHO Stage 3. The percentage of people starting in WHO stage 1 or 2 with because of low CD4 count (33%) is increasing while those starting in WHO stage 4 (11%) represent a decreasing proportion.

The number of patients started on ART because of TB was 1,633. This constitutes 9% of the total patients registered and 51% of HIV-infected TB patients registered for TB treatment during quarter 4 2008. (estimated at 70% HIV prevalence among 5,370 new TB registrations)

The number of women started ART while pregnant was 618.

**2. HIV testing, CD4 testing capability and HIV-related diseases: October - December 2008**

**HIV test data:**

The data on HIV test results for patients tested in the 170 facilities between October 1<sup>st</sup> and December 31st, 2008 are shown below.

	Males tested	Non-preg. females tested	Pregnant females tested	Total tested	Total positive	Positives referred for ART	Positives referred for PMTCT
North	12,257 39%	13,280 42%	6,029 19%	31,566	2,893 9%	2,498 86%	618 21%
Central	28,434 34%	30,818 37%	23,186 28%	82,438	10,758 13%	8,786 82%	2,023 19%
South	31,334 32%	38,885 40%	27,033 28%	97,252	18,271 19%	12,232 67%	4,485 25%
Total	72,025 34%	82,983 39%	56,248 27%	211,256	31,922 15%	23,516 74%	7,126 22%

Altogether, there were 211,256 clients and patients tested in the 3-month period. Almost one third of tests were in pregnant women. Of those HIV-positive, 74% were referred for clinical assessment for ART. The national HIV testing week campaign which took place in November is likely to be the reason for an increased number of persons tested and may be associated with a lower than average proportion of HIV positives referred for ART (73% in Q4 vs. 83% in Q3).

**CD4 machines:**

There were 42 facilities with CD4 count capability. In 39 out of the 42 facilities CD4 count tests were performed. This is a significant improvement compared to the previous quarter. The number of CD4 count tests performed increased from 37,415 in the previous quarter to 39,067 in the last quarter.

Region	North	Central	South	Total
Facilities with CD4 machines	7	19	16	41
Facilities with CD4 machines functioning	7	19	13	39
Total CD4 tests	4,131	11,556	23,380	39,067

***HIV-related indicator diseases:***

The number of patients with 4 key HIV-related indicator diseases, diagnosed and treated in the 170 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 number of patients diagnosed with Oesophageal Candidiasis and Cryptococcal Meningitis are lower this quarter compared to previous quarters.

Region	North	Central	South	Total
Tuberculosis	432	2,099	3,048	5,579
Kaposi's Sarcoma (KS)	37	150	292	489
Oesoph. Candidiasis (OC)	222	307	668	1,197
Cryptococcal meningitis (CM)	49	82	487	618

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

The national data for all patients ever registered at ART sites up to the end of December 2008 are shown in **Table 2** on cumulative analysis.

The number of patients started on ART because of TB was 27,345. This constitutes 13% of all patients registered at ART sites.

The cumulative primary treatment outcomes were as follows. There were 66% of patients being alive and on ART in the facility where they were first registered, and 12% transferred out to another facility. Date of death was recorded for all patients who died: 7,040 (31%) died in month 1; 4,912 (21%) died in month 2; 2,614 (11%) died in month 3 and 8,478 (37%) 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 (769) at less than 1%.

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

Treatment outcomes were counted separately for the cohorts of patients who registered 12, 24 and 36 months before the end of quarter 4 2008. For instance, the 12-months survival analysis was based on the patients who registered for ART between October and December 2007, considering their outcomes by 31st December 2008. The 24- months survival analysis was based on the patients registered for ART between October and December 2006 and the 36-months survival was based on the patients registered between October and December 2005. A separate 12-month treatment outcome analysis was performed for children below 15 years (at the time of ART registration). Results are shown in the table.

	<b>12 month (adults ≥15 years)</b>		<b>12 month children</b>		<b>24 month (all ages)</b>		<b>36 month (all ages)</b>	
Total registered	13,751		1,108		12,033		7,596	
Transfers	1,769	15%	144	15%	1,744	14%	1,452	19%
Total patients	11,982		964		10,289		6,144	
<b>Alive on ART</b>	<b>9,118</b>	<b>76%</b>	<b>733</b>	<b>76%</b>	<b>6,881</b>	<b>67%</b>	<b>3,614</b>	<b>59%</b>
Died	1,127	9%	85	9%	1,688	16%	1,290	21%
Lost to follow-up	1,692	14%	141	15%	1,662	16%	1,203	20%
Stopped ART	45	<1%	5	1%	58	1%	37	1%

The 12-month survival analysis indicated that 76% of adults and children were retained alive on ART. The distribution of 12-month follow-up outcomes was very similar for adults and children. The 24-month survival indicated that 67% were alive while the 36-month survival analyses indicated that 59% of patients were alive.

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

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

Stocks of ARVs and OI drugs are shown in the table below. At the time of stock taking, there were enough first line ARV drugs to start about 85,000 new patients on therapy (this lasts for 12 months at current rates of recruitment) and enough "Continuation packs" to keep the current 147,479 patients plus the new patients starting on treatment for about 6 months.

Drug	units	Central	North	South	Total stock
d4T 30mg / 3TC	15	34,460	12,931	34,952	82,343
d4T 40mg / 3TC	15	1,346	991	1,128	3,465
d4T 30mg / 3TC / NVP	15	34,888	15,413	35,172	85,473
d4T 30mg / 3TC / NVP	60	513,763	142,695	615,766	1,272,224
d4T 40mg / 3TC / NVP	60	6,216	1,759	5,344	13,319
AZT / 3TC	60	14,809	3,507	33,410	51,726
NVP	60	8,672	3,388	19,554	31,614
d4T 30mg / 3TC	60	12,235	2,526	19,890	34,651
EFV	30	13,198	2,628	25,351	41,177
TDF	30	4,515	239	4,117	8,871
LPV/r	120	706	445	5,695	6,846
ABC	60	209	134	529	872
ddl	30	411	113	737	1,261
CPT	120	138,707	67,716	315,438	521,861
Cotrimoxazole	1	10,215,480	4,637,946	5,322,950	20,176,376
Fluconazole	1	18,493	20,078	32,486	71,057
Ceftriaxone	1	5,827	7,760	31,039	44,626
Ciprofloxacin	1	471,570	77,934	368,690	918,194
Vincristine	1	1,180	5,471	3,749	10,400
Morphine	1	18,899	22,307	60,242	101,448
Amityrtiline	1	772,876	663,400	1,233,200	2,669,476

## **PRIVATE SECTOR RESULTS:**

By the end of December 2008, there were **51** facilities in Malawi in the private health sector delivering ART at a subsidised rate to eligible patients. In the fourth quarter of 2008 (October to December), there were **631** new patients started on ART (52% male, 48% female, 94% adult, 6% children).

	By Dec 2003	By Dec 2004	By Dec 2005	By Dec 2006	By Dec 2007	By Dec 2008
<b>Private sector ART sites</b>	0	0	23	38	45	<b>51</b>
New patients started ART in year	0	0	977	2,370	2,060	<b>2,580</b>
Cumulative patients started ART	0	0	977	3,347	5,407	<b>7,988</b>
Patients alive on ART	0	0	977	2,624	3,937	<b>5,261</b>



The results of the private sector are shown in Tabular Form in **Table 1** and **Table 2**.

For the cumulative analysis (**Table 2**), there were 7,988 patients ever registered on ART, 51% of whom were male, 49% were females and 4% were children. Of those starting, 46% started due to Stage 3, 18% due to Stage 4 and 37% based on a low CD4 count in Stage 1 or Stage 2. There were 498 patients started on ART due to TB. Of the 7,988 patients started on ART, 66% were alive and on ART, 8% were dead, 9% were lost to follow-up, 16% were transferred out and less than 1% had stopped treatment. Of the 5,261 patients alive and on ART: 88% were on first line regimen, 10% were on an alternative first line regimen and 2% were on a second line regimen.

## **COMMENTS**

- New supervision forms and ART monitoring tools

The HIV department developed new supervision forms and ART monitoring tools, such as the ART patient master card and the ART register. These have been discussed with a large group of users and stakeholders and will be introduced in 2009

- Revision of the ART scale up plan

The ART team is organising consultative meetings with all DHOs and ZHOs. These meetings are taking place between December 2008 and March 2009. One of the main subjects is the update of the ART scale up plan.

- Decentralisation of ART supervision

The ART supervision is in the process of decentralisation with increased involvement of the Zonal and District Health offices.

- HIV supervisors

The HIV supervisors, previously known as ART supervisors have moved from the Central Hospitals to the Zonal Health Offices. Their tasks are not restricted to the ART programme anymore, but encompass the complete HIV programme. We expect that in the first quarter of 2009 all vacant positions will be filled.

Several observations from the ART supervision:

- Waiting lists

At this time, there should be no significant waiting lists for patients eligible for ART at any of the ART clinics in Malawi. For planning purposes, all sites have been classified according to the expected monthly number of new registrations (low, medium, high burden, etc.). Usually, these targets can be readily adjusted to accommodate an increased patient burden after consultation with the ART team in the MoH. In situations where patient access has been limited due to staffing capacity, we would like to discuss with the DHO and the teams from other ART sites in the area to consider strategies for referrals and potentially establishing new sites

- ART eligibility/role of CD4 counts

As stipulated in the national ART guidelines, all HIV infected patients should be clinically examined and staged according to WHO criteria. All patients clinically eligible for ART should start treatment without requirement for any further investigations, such as CD4 counts. When CD4 counts (or other lab tests as indicated) are available, these should be prioritized for patients who are clinically not eligible for ART (WHO stage 1 or 2). It will be to the detriment of a clinically eligible patient if ART initiation is delayed because CD4 counts are made a general requirement before ART is started.

- Presumptive treatment of children

In children under 18 months of age, maternal antibodies might lead to false positive HIV rapid test results. While PCR testing for infants is becoming more widely available, it is important to recognize that children under 18 months with a positive rapid test and specific clinical symptoms (see ART guidelines) are eligible for ART as 'Presumed severe HIV disease'. While this is fully covered in the 2<sup>nd</sup> edition Malawi ART guidelines, we have noticed that very few children have been started on ART under these conditions and it is likely that many children who would have fulfilled these criteria have not gained access to ART, with very poor prognosis for their survival. We have identified some misconceptions among providers that might explain this unsatisfactory implementation of policy:

1. A child started on ART on the basis of 'presumed severe HIV disease' under 18 months should be tested again after 18 months of age (using the regular serial HIV rapid testing protocol). If this test is negative, ART should simply be stopped and there will have been no harm done (assuming that the child did not develop toxicity to ART). Considering the high probability of AIDS in any child that fulfils the criteria for 'presumed severe HIV disease', the benefits of ART clearly outweigh the risks of potentially 'unnecessary' treatment.
2. A child who has received ART and who turns out not to be HIV infected (and is subsequently stopped) is not at increased risk of developing ARV drug-resistance if infected later in life. This is because it is the virus and not the body of the patient that can develop drug-resistance and if the child was not infected at the start, there was also no virus that could have developed drug-resistance.

We would therefore like to remind all sites to start implementing this policy. Please see summary of the WHO clinical staging and immunological classification of HIV related disease in adults and children on the revised ART patient master card. Please contact us for any further advice if required. The MOH is preparing refresher courses for all ART providers and presumptive treatment of children under 18 months is an important part of the course.

- Managing remaining tablets in the ARV container

We strongly discourage the practice of removing tablets from a new tin when dispensing ARVs in an attempt to balance the number of 'hanging' tablets remaining in the old tin. Handling of individual tablets outside a well equipped pharmacy should be avoided whenever possible for hygienic reasons and because it might lead to hastened degradation of drugs; it also bears the risk of mixing different batches of drugs with different expiry dates. We would like to remind all providers of the national policy on managing 'hanging pills' (ART guidelines, p 60, second edition)

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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## New patients registered for ART between 01/10/2008 and 31/12/2008

		Public Sector	Private Sector	National Total			
Total registrations		18,461	631	19,092			
Registration type	Transfers in	2,239	12%				
	New ART initiations	16,222	88%				
Sex	Males	7,138	39%	331	52%	7,469	39%
	Total females	11,323	61%	300	48%	11,623	61%
	Females non-pregnant	10,717	58%	288	46%	11,005	58%
	Females pregnant	606	3%	12	2%	618	3%
Age	Adults	16,735	91%	606	96%	17,341	91%
	Total children	1,726	9%	25	4%	1,751	9%
	Children 18m-14yrs	1,455	8%				
	Children 0-17 months	271	1%				
Reason for ART	Presumed sev. HIV <18mths	30	0%				
	Confirmed HIV infants	30	0%				
	WHO 1/2, CD4 <threshold	6,017	33%	334	53%	6,351	33%
	WHO 2, TLC <threshold	24	0%				
	WHO stage 3	10,102	55%	224	35%	10,326	54%
	WHO stage 4	1,942	11%	73	12%	2,015	11%
	Reason unspecified	316	2%	0	0%	316	2%
	TB	1,609	9%	24	4%	1,633	9%
	KS	479	3%			3%	

## Cumulative patients registered for ART up to end 31/12/2008

		Public Sector	Private Sector	National Total			
Total registrations		215,449	7,988	223,437			
Registration type	Transfers in	21,862	10%				
	New ART initiations	193,587	90%				
Sex	Males	83,087	39%	4,071	51%	87,158	39%
	Total females	132,362	61%	3,917	49%	136,279	61%
	Females non-pregnant	127,285	59%	3,800	48%	131,085	59%
	Females pregnant	5,077	2%	117	1%	5,194	2%
Age	Adults	197,197	92%	7,629	96%	204,826	92%
	Total children	18,252	8%	359	4%	18,611	8%
	Children 18m-14yrs	16,522	8%				
	Children 0-17 months	1,730	1%				
Reason for ART	Presumed sev. HIV <18mths	153	0%				
	Confirmed HIV infants	68	0%				
	WHO 1/2, CD4 <threshold	42,882	20%	2,951	37%	45,833	21%
	WHO 2, TLC <threshold	245	0%				
	WHO stage 3	132,200	61%	3,639	46%	135,839	61%
	WHO stage 4	36,586	17%	1,398	18%	37,984	17%
	Reason unspecified	3,315	2%	0	0%	3,315	1%
	TB	27,345	13%	498	6%	27,843	12%
	KS	7,325	3%			3%	
Primary outcomes	Alive on ART	142,218	66%	5,261	66%	147,479	66%
	Defaults	23,655	11%	754	9%	24,409	11%
	ART stops	769	0%	12	0%	781	0%
	Transfers out	25,763	12%	1,306	16%	27,069	12%
	Deaths total	23,044	11%	655	8%	23,699	11%
	Month 1	7,040	31%	236	36%	7,276	31%
	Month 2	4,912	21%	98	15%	5,010	21%
	Month 3	2,614	11%	66	10%	2,680	11%
	After month 3	8,478	37%	255	39%	8,733	37%
ARV regimens	Start	134,716	95%	4,639	88%	139,355	94%
	Alternative 1st line total	6,266	4%	533	10%	6,799	5%
	AZT	3,613	58%	325	61%	3,938	58%
	EFV	2,415	39%	104	20%	2,519	37%
	AZT+EFV	238	4%	89	17%	327	5%
	Unspecified / other	0	0%	15	3%	15	0%
	Second line total	429	0%	89	2%	518	0%
	Second line adult	388	0%	89	2%	477	0%
	Second line children	41	0%	0	0%	41	0%
	Non-standard	807	1%	0	0%	807	1%
Side effects	Side effects counted	126,652		5,261		131,913	
	With side effects	4,854	4%	13	0%	4,867	4%
Adherence	Pillcounts done	92,265		1,063		93,328	
	Pillc shows >95% adherence	85,777	93%	1,060	100%	86,837	93%