

ARV THERAPY IN MALAWI - UP TO 31st MARCH 2005

Summary:

In the first quarter of 2005, there were 4530 new patients started on ARV therapy in 34 health facilities in Malawi. Up until the end of March 2005, there were 17601 patients who had ever started on ARV therapy in these same 34 facilities. For the quarter and for the cumulative analysis, approximately 39% of patients were male and 61% were female, and approximately 95% were adults (13 years and above) and 5% were children. Of patients who ever started on ARV therapy, 81% were alive, 8% had died, 7% were lost to follow-up, 3 % transferred out and 1% had stopped treatment. Of those alive and on ARV therapy:- 98% were ambulatory; 91% were fit to work; 10% had one or more major side effects; and 95% based on pill counts showed 95% or more adherence to therapy. These qualitative results were similar to those obtained 3 months previously and are encouraging.

Introduction and Methodology:

This is a report on the status of antiretroviral therapy (ART) in Malawi up to March 31st 2005. Between April and June, 2005, all the health facilities in Malawi that were providing ARV therapy up until the end of March 2005 were visited by staff of the Clinical HIV Unit who were accompanied and assisted by their partners: Eustice Mhango and Amanda Varela from Lighthouse; John Aberle-Grasse and Mindy Hochgesang from CDC; Olga Ascurra de Teck from Thyolo-MSF. We are immensely grateful to Olesi Pasulani and Margaret Fitzgerald from Thyolo-MSF for helping to extract the relevant information from the Chiradzulu-MSF electronic data-base, where data was difficult to extract. Support for these site visits was from the Global Fund.

Each visit lasted half a day during which a structured supervision, including drug stock-levels, was carried out and this was followed by a monitoring and evaluation exercise. Data on the parameters shown below were collected from the Patient Master Cards and the ARV Register. In many facilities, peripheral staff had already carried out their own cohort analyses, and these data sets were checked and amended as necessary by the visiting team.

Two data sets were collected:-

The first data set is the status of new patients who were started on ART in Malawi between January 1st and March 31st 2005, **the so-called quarterly analysis**. Added to this we collected for the same time period:- a) sex and age breakdown of new patients registered for ART and b) information about HIV testing and referral to ARV clinics, placement of CD4 machines in sites and information of 4 key HIV-related indicator diseases (TB, KS, cryptococcal meningitis and oesophageal candidiasis).

The second data set is the status of all patients who ever started on ART in Malawi up to March 31st 2005, **the so-called cumulative analysis**. Added to this and to be presented in a separate report we collected data on all children treated with ART up to March 31st 2005. For each group of patients their treatment outcomes were assessed up to March 31st 2005.

Results:

General:

There were 34 hospitals/ clinics that were providing ART. These included:- 23 hospitals providing free drugs through the Global Fund; 3 army hospitals providing free drugs through funds from the Malawi Defence Force; 7 mission hospitals providing in general free drugs through private donations; and 1 district hospital (Dowa) providing free drugs through MSF-Greece. In a few patients the mission hospitals charged a fee for the ARV drugs.

The systems of referral were working well, and the VCT registers in general indicate who is referred to the ART clinic. The VCT Registers have no name of the client. However, in Mangochi District Hospital the VCT staff kept a separate confidential book recording the names and addresses of all those HIV-positive persons who were referred to the ART clinic, so that they can be traced if they drop off the referral system. This seems a good initiative.

All 34 hospitals were using the Malawi national systems, and were using the recommended first line regimen (Stavudine + Lamivudine + Nevirapine). Sixteen hospitals were using alternative first line regimens (Zidovudine-based or Efavirenz-based), which they had purchased using their own funds, for managing patients with side effects. Chiradzulu District Hospital had the highest number of patients (723 or 14% of all their patients) on alternative first line therapy. There were 91 patients, mainly in Chiradzulu through MSF-France, being treated with a second line regimen (Didanosine + Zidovudine + Nelfinavir) for failure of the first line therapy.

Quarterly Analysis for the period January 1st to March 31st 2005:

1. New patients started on ART between January and March 2005:

The national data for new patients started on ART in these three months are shown in tabular form on page 6. The details of patients and their outcomes from each facility and from each region are shown in Tables 1 – 4 on pages 8-11.

There were 4530 new patients started on ART, with males representing 38% and females representing 62% of the total. The majority of patients were adults, although 5% were children aged 12 or below. There was data on occupation in 2852 patients, and the commonest occupations were subsistence farmer, housewife and small-scale business people (eg vendors). The majority of patients (66%) were started on ART because of being in WHO Stage III.

The number of patients started on ART because of TB was 702 (590 with PTB and 112 with EPTB). This constitutes 15% of new patients started on ART and 16% of patients registered for TB during the quarter. The number of women started on ART as a result of referral from PMTCT was 29 – many units had no data.

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

2. Gender and age groupings of new patients started on ART between Jan-Mar 2005

The detailed information for each site and for each region is shown in Tables 9-10 on pages 16-17. The national data (excluding Chiradzulu, which could not provide data) is shown below:-

	Age groupings in years						
	0-5	6- 12	13-19	20-24	25-34	35-44	45 and >
Male	2%	3%	3%	2%	25%	41%	24%
Female	1%	2%	2%	7%	41%	31%	16%

As expected, the peak age group for males accessing ART was 35-44 years while the peak age for females was ten years younger at 25-34 years.

3. CT and HIV test data and HIV-related indicator diseases between Jan-Mar 2005

The detailed information for each site and for each region is shown in Table 11 on page 18.

In the 34 sites, 29,615 persons were HIV-tested during the 3-month period, of whom 10,961 were HIV-positive and 5,897 (54%) were referred to the ART clinic for staging.

There were 14 facilities where a CD4 machine had been placed. 6 facilities used the Beckton-Dickinson FACS machine and 7 used a Partek Cy-Flow machine; in one facility the information on type of machine was not obtained.

For the first time, the unit documented the number of 4 key HIV-related indicator diseases diagnosed in the facilities during the quarter. TB numbers were obtained from the TB registers; Kaposi' Sarcoma (KS) numbers from the ART registers in the belief that eventually all KS patients will be started on ART; cryptococcal meningitis and oesophageal candidiasis from the DIFLUCAN registers kept in the pharmacy. In the 3-month period in the 34 sites, there were 4495 registered cases of TB, 219 cases of KS, 455 cases of cryptococcal meningitis and 979 cases of oesophageal candidiasis.

Cumulative analysis for patients who ever started on ART up to March 31st 2005

The national data for all patients who ever started on ART up to the end of the year are shown in tabular form on page 7. The details from each facility and from each region are shown in Tables 5-8 on pages 12-15.

There were 17,601 patients who had ever started on ART, with males representing 39% and females representing 61% of the total. The majority of patients were adults, although 5% were children aged 12 or below. There was data on occupation in 7420 patients, and the commonest occupations were housewife, farmer and small-scale business (eg vendor). The majority of patients (55%) were started on ART because of being in WHO Stage III.

The number of patients started on ART because of TB was 2076 (1701 with PTB, 362 with EPTB and 13 with type unknown). This constitutes 12% of all patients started on ART. The number of women ever started on ART as a result of referral from PMTCT was 68.

The three-month outcomes were good with 81% of patients being alive and on ART, and 3% transferred out to another facility and thought to be alive. Of the 8% of patients who were known to have died, the large proportion (75%) of deaths occurred in the first three months, reflecting the patients' severe illness and the fact that their immune status was too low for them to be salvaged by ART. Default rates (i.e., patients lost to follow-up) were still high at 7%, mainly due to high numbers in Lighthouse when it was a fee-paying system and in Chiradzulu (see under Comment). The number of patients stopping treatment was small, with the main reasons as before:- a) side effects, b) taking "Chambe" in the belief that ART is then not needed and c) to persuasion by the church that prayer is good enough on its own.

Other outcomes such as ambulatory status, work status, side effects and pill counts (where done) were satisfactory. 10% of the patients complained of side effects. These were qualitatively assessed in 80 patients, of whom 74% had a peripheral neuropathy, 22% a skin reaction and 4% had to stop because of clinical hepatitis.

Comment

The facilities in general were doing a very good job of completing ARV patient master cards, registering details in the ARV register, recording the dates when patients die/ default/ stop therapy or transfer-out, and compiling cohort analyses. The mistakes, which were being made at the first supervisory visit, had been reduced although not eliminated.

This report is very similar to the previous 3-month report, except that numbers have increased. Women on ART outnumbered men. The peak age range of females on ART was 25-34 years, which was ten years before the peak age range of males at 35-44 years. The more comprehensive information this time round suggested that nearly half of the patients started on ART were housewives or subsistence farmers. The number of children on ART was still small. Nevertheless, 13 facilities were treating children (aged 12 year or below) and a total of 886 children had ever been started on therapy. This is a technically demanding area, where diagnosis and treatment of young children is difficult. There will be a consultative visit from WHO and UNICEF in July or August, which will assist the Ministry of Health and paediatric colleagues to re-assess the paediatric section of the National ARV Guidelines.

The majority of patients were placed on ART because of being in WHO Clinical Stage III. All TB patients are potentially eligible for ART, but the number placed on ART was still small. However, the proportion being started on ART was higher than three months ago as a result of better coordination between the district TB office and the ARV clinic. Very few women from the PMTCT programme were started on ART. This may again be a recording problem, but it needs looking into.

The treatment outcomes were in general good. The death rate was 8%, and the largest proportion of deaths occurred in the first three months of treatment, as reported in the previous report. This needs to be looked into and as far as possible prevented. There was a relatively high default rate, with the main contributors to this high number being Lighthouse and Chiradzulu District Hospital. Default means “lost to follow-up”. In Lighthouse, the default rate reflects the fact that patients before June 2004 had to pay for their treatment. The Lighthouse team is now implementing an operational research study to find out why these patients are lost to follow-up, and if they discover this is because patients stopped, died or transferred out, the outcome status will be amended in the next reports. In Chiradzulu, many of the patients who defaulted came from Blantyre, and it will be difficult to trace these patients. Some patients have permanently transferred out to another facility, and therefore if they arrived at this facility they are being counted twice in the Malawi national model.

Drug stocks were taken and in most hospitals there were enough drugs for the next few months until the next consignment arrives in June/July.

A number of issues are outstanding and are being answered by observation and operational research. These include:- a) the best management of the “hanging tablets”, i.e., the tablets left over after the clinic visit and pill count; b) storage of the “hanging tablets” in the home; c) ways to decentralise treatment out from the hospital; d) the pathways to getting on to ART, the numbers who drop out and the reasons for this; e) what happens to ARV pills from those who have died at home.

We finally thank all the facilities for their sincere welcome and co-operation with the Unit and its partners during these supportive visits. These visits were once again highly appreciated by the peripheral staff

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New patients started on ART between January 1st and March 31st 2005

Number of patients started on ART in the 3 months	4530
Number (%) males	1741 (38%)
Number (%) females	2789 (62%)

Number (%) adults aged 13 years and above	4327 (95%)
Number (%) children aged 12 years and below	203 (5%)

Occupation: [measured in 29 hospitals]

Of 2852 patients with occupation recorded, 692 (24%) were housewives, 642 (23%) were farmers, 444 (16%) were in business, 154 (5%) were students /at school, 151 (5%) were teachers, 108 (4%) were health care workers, 68 (2%) were in the army or police and 593 (21%) were miscellaneous [ie, a number of different occupations such as accountancy, driving, cleaner].

Reasons for starting ART:

Number (%) with Stage III	3007	(66%)
Number (%) with Stage IV	1072	(24%)
Number (%) with low CD4 count	451	(10%)

Number of patients started on ART due to TB	702
Number of patients registered with TB in the quarter	4495

Number of patients started on ART in the 3 months	4530	
Number (%) alive and on ART	4294	(95%)
Number (%) dead	151	(3%)
Number (%) defaulted	16	(<1%)
Number (%) stopped treatment	25	(<1%)
Number (%) transferred out permanently to another site	44	(1%)

Of those alive and on ART:-	4294	
Number (%) on first line regimen	4250	(99%)
Number (%) on alternative first line regimen	44	(1%)
Number (%) on second line regimen	0	
Number with ambulatory status known	3621	
Number (%) ambulatory	3552	(98%)
Number with work status known	3316	
Number (%) at work	3544	(94%)
Number with side effects counted	3012	
Number (%) with significant side effects	158	(5%)
Number where pill count has been done	3443	
Number (%) with pill count showing 95% adherence	3207	(93%)

Results from individual hospitals and from regions are shown in Tables 1 - 4

All Patients who ever started on ART up to March 31st 2005

Number of patients ever started on ART	17601	
Number (%) males	6944	(39%)
Number (%) females	10657	(61%)
Number (%) adults aged 13 years and above	16715	(95%)
Number (%) children aged 12 years and below	886	(5%)

Occupation: [measured in 29 hospitals]

Of 7420 patients with occupation recorded, 1710 (23%) were housewives, 1074 (14%) were farmers, 1152 (16%) were in business, 522 (7%) were teachers, 444 (6%) were students /at school, 247 (4%) were in the army or police, 240 (3%) were health care workers and 2031 (27%) were miscellaneous [ie, a number of different occupations such as accountancy, driving, cleaner].

Reasons for starting ART:

Number (%) with Stage III	9660	(55%)
Number (%) with Stage IV	4093	(23%)
Number (%) with low CD4 count	3846	(22%)
<i>Number not known</i>	2	

Number of patients started on ART due to TB 2076

Number of patients ever started on ART	17601	
Number (%) alive and on ART	14298	(81%)
Number (%) dead	1355	(8%)
Number (%) defaulted	1167	(7%)
Number (%) stopped treatment	219	(1%)
Number (%) transferred out permanently to another site	562	(3%)

Of those alive and on ART:-	14298	
Number (%) on first line regimen	13300	(93%)
Number (%) on alternative first line regimen	906	(6%)
Number (%) on second line regimen	92	(1%)
Number with ambulatory status known	10245	
Number (%) ambulatory	10057	(98%)
Number with work status known	10004	
Number (%) at work	9082	(91%)
Number with side effects counted	7337	
Number (%) with significant side effects	726	(10%)
Number where pill count has been done	10768	
Number (%) with pill count showing 95% adherence	10272	(95%)

<u>Of those who died with date of death recorded:-</u>	721	
Number (%) dying in first month	258	(36%)
Number (%) dying in second month	170	(24%)
Number (%) dying in third month	111	(15%)
Number (%) dying after third month	182	(25%)

Results from individual hospitals and regions are shown in Tables 5 - 8

Table 1. Quarterly cohort analysis of case registration data for New Patients started on ART between January 1st and March 31st, 2005

Hospital	Number started on ART	Male	Female	Adult	Child	Stage III	Stage IV	Low CD4 Count	TB
<i>Northern Region:</i>	768	310	458	746	22	555	129	84	83
Mzuzu Central H	367	159	208	350	17	241	54	72	31
Ekwendeni MH	127	42	85	123	4	110	15	2	8
Moyale Barracks	15	12	3	15	0	11	4	0	5
Livingstonia MH	16	7	9	15	1	15	1	0	1
Embangweni H	2	1	1	2	0	2	0	0	0
Chitipa DH	56	23	33	56	0	44	12	0	12
Rumphi DH	105	29	76	105	0	63	32	10	18
Nkhata Bay DH	80	37	43	80	0	69	11	0	8
<i>Central Region:</i>	1504	638	866	1464	40	932	389	183	206
Lighthouse- LL	611	260	351	573	38	387	154	70	9
KCH-OPD1	62	29	33	62	0	18	12	32	6
Lilongwe SOS	77	37	40	77	0	43	9	25	23
Mtengowantenga	72	37	35	70	2	52	14	6	16
St Theresa MH	12	1	11	12	0	8	4	0	4
Kamuzu Barr H	28	16	12	28	0	18	5	5	7
Mchinji DH	84	24	60	84	0	63	13	8	13
Kapiri MH	18	6	12	18	0	16	1	1	2
St Gabriels MH	30	8	22	30	0	17	10	3	3
Dowa DH	154	69	85	154	0	106	27	21	38
Ntchisi DH	79	33	46	79	0	29	49	1	9
Kasungu DH	112	49	63	112	0	86	18	8	35
Dedza DH	60	21	39	60	0	46	12	2	18
Salima DH	105	48	57	105	0	43	61	1	23
<i>Southern Region:</i>	2258	793	1465	2117	141	1520	554	184	413
Thyolo DH	318	103	215	291	27	227	73	18	93
Malamulo MH	91	31	60	90	1	74	13	4	23
QECH, Blantyre	441	170	271	394	47	296	88	57	54
Chiradzulu DH	691	243	448	648	43	405	198	88	94
St Joseph MH	74	23	51	71	3	50	23	1	4
Mulanje MH	82	23	59	80	2	64	16	2	27
Zomba CH	150	55	95	150	0	78	70	2	33
St Lukes MH	66	33	33	66	0	49	12	5	11
Zomba Barracks	6	6	0	6	0	6	0	0	2
Andiamu Clinic	125	29	96	107	18	109	16	0	26
Chikwawa DH	75	32	43	75	0	52	22	1	28
Mangochi DH	139	45	94	139	0	110	23	6	18
Total	4530	1741 38%	2789 62%	4327 95%	203 5%	3007 66%	1072 24%	451 10%	702 15%

Table 2. Quarterly cohort analysis of “occupation” for New Patients started on ART between January 1st and March 31st, 2005

Hospital	House-wife	Farmer	Soldier Police	Teacher	Business	HCW	School Student	Other	DK
<i>Northern Region:</i>	163	143	21	42	96	48	32	189	34
Mzuzu Central H	81	42	7	18	36	28	18	137	0
Ekwendeni MH	37	48	0	6	12	1	5	18	0
Moyale Barracks	1	0	11	0	2	1	0	0	0
Livingstonia MH	3	9	0	0	0	0	1	3	0
Embangweni H	0	0	0	0	0	1	0	1	0
Chitipa DH	5	11	0	6	17	2	5	10	0
Rumphi DH	30	23	2	11	11	11	2	15	0
Nkhata Bay DH	6	10	1	1	18	4	1	5	34
<i>Central Region:</i>	377	325	34	70	231	40	87	228	112
Lighthouse- LL	194	30	5	28	125	5	64	110	50
KCH-OPD1	-	-	-	-	-	-	-	-	62
Lilongwe SOS	11	4	0	8	18	0	5	31	0
Mtengowantenga	11	8	3	10	14	2	7	17	0
St Theresa MH	1	7	0	1	0	3	0	0	0
Kamuzu Barr H	11	0	13	1	0	0	0	3	0
Mchinji DH	5	60	0	2	6	6	1	4	0
Kapiri MH	7	3	0	2	3	1	1	1	0
St Gabriels MH	20	7	0	2	1	0	0	0	0
Dowa DH	25	65	9	7	14	6	3	25	0
Ntchisi DH	4	61	2	1	7	2	1	1	0
Kasungu DH	30	40	2	5	21	5	1	8	0
Dedza DH	14	18	0	3	10	5	0	10	0
Salima DH	44	22	0	0	12	5	4	18	0
<i>Southern Region:</i>	152	174	13	39	117	20	35	176	1532
Thyolo DH	-	-	-	-	-	-	-	-	318
Malamulo MH	10	30	1	3	20	3	0	24	0
QECH, Blantyre	-	-	-	-	-	-	-	-	441
Chiradzulu DH	-	-	-	-	-	-	-	-	691
St Joseph MH	28	12	0	5	13	1	2	13	0
Mulanje MH	-	-	-	-	-	-	-	-	82
Zomba CH	23	37	6	6	28	7	9	34	0
St Lukes MH	5	21	0	9	10	2	3	16	0
Zomba Barracks	0	0	6	0	0	0	0	0	0
Andiamu Clinic	45	22	0	8	8	1	17	24	0
Chikwawa DH	23	17	0	3	9	3	0	20	0
Mangochi DH	18	35	0	5	29	3	4	45	0
Total	692	642	68	151	444	108	154	593	1678

HCW = Health care worker; DK = don't know

Table 3. Quarterly cohort analysis of main treatment outcomes for New Patients started on ART between January 1st and March 31st, 2005

Hospital	Number of patients started on ART in the quarter	Number of patients started on ART in the quarter who are				
		Alive	Dead	DF	Stop	TO
<i>Northern Region:</i>	768	728	33	2	2	3
Mzuzu Central H	367	347	19	0	1	0
Ekwendeni Mission H	127	120	4	2	0	1
Moyale Barracks H	15	15	0	0	0	0
Livingstonia MH	16	16	0	0	0	0
Embangweni MH	2	2	0	0	0	0
Chitipa DH	56	51	5	0	0	0
Rumphu DH	105	100	4	0	1	0
Nkhata Bay DH	80	77	1	0	0	2
<i>Central Region:</i>	1504	1439	49	3	2	11
Lighthouse- LLW	611	609	2	0	0	0
KCH-OPD1 Clinic	62	57	3	0	0	2
Lilongwe SOS Clinic	77	70	4	2	1	0
Mtengowantenga MH	72	72	0	0	0	0
St Theresa H, Mikoko	12	9	1	1	1	0
Kamuzu Barracks H	28	28	0	0	0	0
Mchinji DH	84	81	3	0	0	0
Kapiri MH	18	14	3	0	0	1
St Gabriels MH	30	26	1	0	0	3
Dowa DH	154	144	7	0	0	3
Ntchisi DH	79	71	7	0	0	1
Kasungu DH	112	109	3	0	0	0
Dedza DH	60	58	2	0	0	0
Salima DH	105	91	13	0	0	1
<i>Southern Region:</i>	2258	2127	69	11	21	30
Thyolo District H	318	294	13	0	9	2
Malamulo MH	91	87	4	0	0	0
QECH, Blantyre	441	395	13	10	3	20
Chiradzulu District H	691	673	10	0	0	8
St Joseph H, Nguludi	74	74	0	0	0	0
Mulanje Mission H	82	77	5	0	0	0
Zomba Central H	150	144	5	0	1	0
St Lukes MH, Zomba	66	58	5	0	3	0
Zomba Barracks H	6	6	0	0	0	0
Andiamu Clinic	125	123	1	0	1	0
Chikwawa DH	75	68	5	0	2	0
Mangochi DH	139	128	8	1	2	0
Total Numbers	4530	4294 95%	151 3%	16 <1%	25 <1%	44 1%

DF = defaulted [ie, not seen in the clinic for three months or longer]

Stopped = stopped treatment for any reason

TO = transferred permanently out of the district

Table 4. Quarterly cohort analysis of additional outcome data for New Patients started on ART and alive and on ART between January 1st and March 31st, 2005

Hospital	Number of patients alive and on ART	Of those alive and on ART:			Number of patients alive and with pill counts	Number of patients whose drug adherence >95%
		Number Ambulatory	Number at work	Number with side effects		
Northern Region:	728	712	679	67	711	624
Mzuzu Central H	347	337	315	67	347	340
Ekwendeni MH	120	117	117	0	113	86
Moyale Barracks H	15	14	13	0	15	15
Livingstonia MH	16	14	14	0	6	6
Embangweni MH	2	2	2	0	2	1
Chitipa DH	51	51	49	0	51	51
Rumphi DH	100	100	92	0	100	48
Nkhata Bay DH	77	77	77	0	77	77
Central Region:	1439	1409	1357	44 of 830	820	784
Lighthouse- LLW	609	603	597	ND	ND	ND
KCH-OPD1 Clinic	57	56	56	2	57	45
Lilongwe SOS Clinic	70	69	69	2	67	67
Mtengowantenga H	72	72	71	0	68	64
St Theresa MH	9	8	8	0	9	8
Kamuzu Barracks H	28	28	26	0	28	25
Mchinji DH	81	81	81	0	81	79
Kapiri MH	14	10	9	4	14	12
St Gabriels MH	26	26	24	2	26	26
Dowa DH	144	132	106	18	144	139
Ntchisi DH	71	67	58	1	70	66
Kasungu DH	109	109	108	8	108	106
Dedza DH	58	58	54	7	58	57
Salima DH	91	90	90	0	90	90
Southern Region:	2127	1431 of 1454	1280 of 1377	47 of 1454	1912	1799
Thyolo District H	294	294	294	0	267	265
Malamulo MH	87	84	75	11	86	86
QECH, Blantyre	395	380	369	10	358	307
Chiradzulu District H	673	ND	ND	ND	599	564
St Joseph H, Nguludi	74	70	70	0	74	54
Mulanje Mission H	77	77	ND	1	77	73
Zomba Central H	144	144	98	16	71	70
St Lukes MH, Zomba	58	57	50	7	55	55
Zomba Barracks H	6	6	6	0	6	6
Andiamu Clinic	123	123	123	0	123	123
Chikwawa DH	68	68	68	0	68	68
Mangochi DH	128	128	127	2	128	128
Total	4294	3552 of 3621 98%	3316 of 3544 94%	158 of 3012 5%	3443	3207 93%

Table 5. Cumulative Analysis of Case Registration data for All Patients who ever started on ART up to March 31st, 2005

Hospital	Number started on ART	Male	Female	Adult	Child	Stage III	Stage IV	Low CD4 Count	TB
<i>Northern Region:</i>	2089	844	1245	2059	30	1435	391	263	131
Mzuzu Central H	1467	591	876	1447	20	949	270	248	68
Ekwendeni MH	271	114	157	266	5	231	36	4	10
Moyale Barracks	31	23	8	31	0	20	11	0	7
Livingstonia MH	67	24	43	62	5	52	15	0	6
Embangweni H	12	3	9	12	0	7	4	1	2
Chitipa DH	56	23	33	56	0	44	12	0	12
Rumphi DH	105	29	76	105	0	63	32	10	18
Nkhata Bay DH	80	37	43	80	0	69	11	0	8
<i>Central Region:</i>	5054	2378	2676	4819	235	2186	798	2070	390
Lighthouse- LL	3732	1781	1951	3502	230	1409	453	1870	111
KCH-OPD1	150	67	83	150	0	51	51	48	18
Lilongwe SOS	138	64	74	138	0	94	15	29	40
Mtengowantenga	72	37	35	70	2	52	14	6	16
St Theresa MH	12	1	11	12	0	8	4	0	4
Kamuzu Barr H	158	105	53	158	0	86	23	49	45
Mchinji DH	90	25	65	90	0	65	13	12	15
Kapiri MH	117	51	66	114	3	78	21	18	6
St Gabriels MH	75	27	48	75	0	33	37	5	12
Dowa DH	154	69	85	154	0	106	27	21	38
Ntchisi DH	79	33	46	79	0	29	49	1	9
Kasungu DH	112	49	63	112	0	86	18	8	35
Dedza DH	60	21	39	60	0	46	12	2	18
Salima DH	105	48	57	105	0	43	61	1	23
<i>Southern Region:</i>	10458	3722	6736	9837	621	6039	2904	1513	1555
Thyolo DH	1867	647	1220	1748	119	1419	383	65	303
Malamulo MH	204	75	129	199	5	161	39	4	73
QECH, Blantyre	1705	715	990	1590	115	758	450	497	88
Chiradzulu DH	5156	1785	3371	4822	334	2677	1581	898	767
St Joseph MH	370	143	227	346	24	217	145	8	23
Mulanje MH	307	84	223	301	6	234	58	15	95
Zomba CH	297	106	191	297	0	156	134	7	70
St Lukes MH	185	44	141	185	0	125	50	10	55
Zomba Barracks	28	17	11	28	0	21*	3	2	9
Andiamu Clinic	125	29	96	107	18	109	16	0	26
Chikwawa DH	75	32	43	75	0	52	22	1	28
Mangochi DH	139	45	94	139	0	110	23	6	18
Total	17601	6944 39%	10657 61%	16715 95%	886 5%	9660 55%	4093 23%	3846 22%	2076 12%

* includes 2 not known

Table 6. Cumulative Analysis of “occupation” for All Patients who ever started on ART up to March 31st, 2005

Hospital	House-wife	Farmer	Soldier Police	Teacher	Business	HCW	School Student	Other	DK
<i>Northern Region:</i>	428	252	54	117	193	105	73	811	56
Mzuzu Central H	306	126	30	71	105	66	51	712	0
Ekwendeni MH	60	63	0	22	34	8	9	53	22
Moyale Barracks	4	0	21	1	3	2	0	0	0
Livingstonia MH	15	18	0	5	5	4	5	15	0
Embangweni H	2	1	0	0	0	8	0	1	0
Chitipa DH	5	11	0	6	17	2	5	10	0
Rumphi DH	30	23	2	11	11	11	2	15	0
Nkhata Bay DH	6	10	1	1	18	4	1	5	34
<i>Central Region:</i>	960	461	164	330	715	91	305	938	1090
Lighthouse- LL	672	121	45	264	588	46	275	781	940
KCH-OPD1	-	-	-	-	-	-	-	-	150
Lilongwe SOS	17	6	1	14	28	0	9	63	0
Mtengowantenga	11	8	3	10	14	2	7	17	0
St Theresa MH	1	7	0	1	0	3	0	0	0
Kamuzu Barr H	46	0	100	5	0	1	0	7	0
Mchinji DH	5	60	0	2	6	12	1	4	0
Kapiri MH	47	34	1	12	11	4	4	4	0
St Gabriels MH	44	19	1	6	4	0	0	1	0
Dowa DH	25	65	9	7	14	6	3	25	0
Ntchisi DH	4	61	2	1	7	2	1	1	0
Kasungu DH	30	40	2	5	21	5	1	8	0
Dedza DH	14	18	0	3	10	5	0	10	0
Salima DH	44	22	0	0	12	5	4	18	0
<i>Southern Region:</i>	322	361	29	75	244	44	66	282	9035
Thyolo DH	-	-	-	-	-	-	-	-	1867
Malamulo MH	17	73	1	7	43	6	3	54	0
QECH, Blantyre	-	-	-	-	-	-	-	-	1705
Chiradzulu DH	-	-	-	-	-	-	-	-	5156
St Joseph MH	128	108	0	5	73	5	19	32	0
Mulanje MH	-	-	-	-	-	-	-	-	307
Zomba CH	39	57	12	23	61	19	17	69	0
St Lukes MH	45	49	0	24	21	3	6	37	0
Zomba Barracks	7	0	16	0	0	4	0	1	0
Andiamu Clinic	45	22	0	8	8	1	17	24	0
Chikwawa DH	23	17	0	3	9	3	0	20	0
Mangochi DH	18	35	0	5	29	3	4	45	0
Total	1710	1074	247	522	1152	240	444	2031	10181

HCW = health care worker; DK = don't know

Table 7. Cumulative Analysis of Main Treatment Outcomes for All Patients who ever started on ART up to March 31st, 2005

Hospital	Number of patients ever started on ART	Number of patients started on ART in the quarter who are				
		Alive	Dead	DF	Stop	TO
<i>Northern Region:</i>	2089	1656	141	77	3	212
Mzuzu Central H	1467	1115	112	56	2	182
Ekwendeni Mission H	271	226	7	15	0	23
Moyale Barracks H	31	28	2	0	0	1
Livingstonia MH	67	48	10	6	0	3
Embangweni MH	12	11	0	0	0	1
Chitipa DH	56	51	5	0	0	0
Rumphi DH	105	100	4	0	1	0
Nkhata Bay DH	80	77	1	0	0	2
<i>Central Region:</i>	5054	4036	136	624	51	207
Lighthouse- LLW	3732	2908	34	600	39	151
KCH-OPD1 Clinic	150	115	16	11	3	5
Lilongwe SOS Clinic	138	120	12	5	1	0
Mtengowantenga MH	72	72	0	0	0	0
St Theresa H, Mikoko	12	9	1	1	1	0
Kamuzu Barracks H	158	120	10	1	1	26
Mchinji DH	90	87	3	0	0	0
Kapiri MH	117	66	23	6	5	17
St Gabriels MH	75	66	5	0	1	3
Dowa DH	154	144	7	0	0	3
Ntchisi DH	79	71	7	0	0	1
Kasungu DH	112	109	3	0	0	0
Dedza DH	60	58	2	0	0	0
Salima DH	105	91	13	0	0	1
<i>Southern Region:</i>	10458	8606	1078	466	165	143
Thyolo District H	1867	1517	190	62	52	46
Malamulo MH	204	188	15	1	0	0
QECH, Blantyre	1705	1543	66	18	6	72
Chiradzulu District H	5156	4053	634	363	93	13
St Joseph H, Nguludi	370	325	35	6	0	4
Mulanje Mission H	307	241	63	1	1	1
Zomba Central H	297	258	32	2	2	3
St Lukes MH, Zomba	185	141	27	10	5	2
Zomba Barracks H	28	21	2	2	1	2
Andiamu Clinic	125	123	1	0	1	0
Chikwawa DH	75	68	5	0	2	0
Mangochi DH	139	128	8	1	2	0
Total Numbers	17601	14298 81%	1355 8%	1167 7%	219 1%	562 3%

DF = defaulted [ie, not seen in the clinic for three months or longer]

Stopped = stopped treatment for any reason

TO = transferred permanently out of the district

Table 8. Cumulative Analysis of additional outcome data for All Patients ever started on ART and alive and on ART up to March 31st, 2005

Hospital	Number of patients alive and on ART	Of those alive and on ART:			Number of patients alive and with pill counts	Number of patients whose drug adherence >95%
		Number Ambulatory	Number at work	Number with side effects		
Northern Region:	1656	1557	1426	203	1599	1495
Mzuzu Central H	1115	1068	949	191	1107	1091
Ekwendeni MH	226	181	181	0	197	162
Moyale Barracks H	28	27	26	7	28	28
Livingstonia MH	48	42	41	3	28	28
Embangweni MH	11	11	11	2	11	10
Chitipa DH	51	51	49	0	51	51
Rumphi DH	100	100	92	0	100	48
Nkhata Bay DH	77	77	77	0	77	77
Central Region:	4036	3961	3679	56 of 1128	1112 of 1128	1060 of 1112
Lighthouse- LLW	2908	2860	2635	ND	ND	ND
KCH-OPD1 Clinic	115	113	113	10	112	89
Lilongwe SOS Clinic	120	119	119	2	116	116
Mtengowantenga H	72	72	71	0	68	64
St Theresa MH	9	8	8	0	9	8
Kamuzu Barracks H	120	120	113	0	120	115
Mchinji DH	87	87	87	0	87	85
Kapiri MH	66	60	53	8	64	59
St Gabriels MH	66	66	64	2	66	66
Dowa DH	144	132	106	18	144	139
Ntchisi DH	71	67	58	1	70	66
Kasungu DH	109	109	108	8	108	106
Dedza DH	58	58	54	7	58	57
Salima DH	91	90	90	0	90	90
Southern Region:	8606	4539 of 4553	3977 of 4312	467 of 4553	8057	7717
Thyolo District H	1517	1516	1514	31	1435	1433
Malamulo MH	188	186	174	32	184	183
QECH, Blantyre	1543	1539	1315	348	1691	1541
Chiradzulu District H	4053	ND	ND	ND	3519	3350
St Joseph H, Nguludi	325	325	325	1	325	315
Mulanje Mission H	241	241	ND	1	241	237
Zomba Central H	258	255	182	32	186	182
St Lukes MH, Zomba	141	138	131	19	137	137
Zomba Barracks H	21	20	18	1	20	20
Andiamu Clinic	123	123	123	0	123	123
Chikwawa DH	68	68	68	0	68	68
Mangochi DH	128	128	127	2	128	128
Total	14298	10057 of 10245 98%	9082 of 10004 91%	726 of 7337 10%	10768	10272 95%

Table 9. Age groups (in years) in MALE patients started on ART between January 1st and March 31st, 2005

Hospital	0-5	6-12	13-19	20-24	25-34	35-44	45 +	Total
<i>Northern Region:</i>	3	7	8	5	78	121	88	310
Mzuzu Central H	2	6	5	2	45	64	35	159
Ekwendeni MH	0	1	0	2	11	13	15	42
Moyale Barracks	0	0	0	0	2	7	3	12
Livingstonia MH	1	0	0	0	2	2	2	7
Embangweni H	0	0	0	0	0	0	1	1
Chitipa DH	0	0	2	0	3	8	10	23
Rumphu DH	0	0	0	1	6	13	9	29
Nkhata Bay DH	0	0	1	0	9	14	13	37
<i>Central Region:</i>	1	10	16	12	167	296	136	638
Lighthouse- LL	1	9	6	6	77	129	32	260
KCH-OPD1	0	0	0	1	6	10	12	29
Lilongwe SOS	0	0	2	1	6	19	9	37
Mtengowantenga	0	1	3	0	7	16	10	37
St Theresa MH	0	0	0	0	0	1	0	1
Kamuzu Barr H	0	0	0	0	2	11	3	16
Mchinji DH	0	0	0	0	5	10	9	24
Kapiri MH	0	0	0	0	3	2	1	6
St Gabriels MH	0	0	0	0	5	2	1	8
Dowa DH	0	0	1	1	17	29	21	69
Ntchisi DH	0	0	1	1	6	14	11	33
Kasungu DH	0	0	1	0	12	23	13	49
Dedza DH	0	0	0	1	6	7	7	21
Salima DH	0	0	2	1	15	23	7	48
<i>Southern Region:</i>	25	29	17	10	133	192	143	550
Thyolo DH	4	10	3	1	27	33	25	103
Malamulo MH	0	0	0	1	11	13	6	31
QECH, Blantyre	17	9	8	5	33	53	45	170
Chiradzulu DH	ND	ND	ND	ND	ND	ND	ND	ND
St Joseph MH	0	2	0	1	11	4	5	23
Mulanje MH	1	0	0	0	7	10	5	23
Zomba CH	0	0	1	0	16	25	13	55
St Lukes MH	0	0	1	2	6	15	9	33
Zomba Barracks	0	0	0	0	1	2	3	6
Andiamu Clinic	4	8	3	0	7	6	1	29
Chikwawa DH	0	0	0	0	7	9	16	32
Mangochi DH	0	0	1	0	7	22	15	45
Total	29	46	41	27	378	609	367	1498

Table 10. Age groups (in years) in FEMALE patients started on ART between January 1st and March 31st, 2005

Hospital	0-5	6-12	13-19	20-24	25-34	35-44	45 +	Total
<i>Northern Region:</i>	<i>1</i>	<i>11</i>	<i>11</i>	<i>29</i>	<i>162</i>	<i>165</i>	<i>79</i>	<i>458</i>
Mzuzu Central H	1	8	7	12	83	73	24	208
Ekwendeni MH	0	3	0	5	27	31	19	85
Moyale Barracks	0	0	0	0	2	1	0	3
Livingstonia MH	0	0	0	2	2	3	2	9
Embangweni H	0	0	0	0	0	1	0	1
Chitipa DH	0	0	2	2	14	10	5	33
Rumphu DH	0	0	1	4	20	30	21	76
Nkhata Bay DH	0	0	1	4	14	16	8	43
<i>Central Region:</i>	<i>7</i>	<i>5</i>	<i>19</i>	<i>57</i>	<i>377</i>	<i>291</i>	<i>110</i>	<i>866</i>
Lighthouse- LL	7	4	7	20	178	102	33	351
KCH-OPD1	0	0	0	1	11	16	5	33
Lilongwe SOS	0	0	2	2	10	17	9	40
Mtengowantenga	0	1	1	2	12	18	1	35
St Theresa MH	0	0	0	0	3	5	3	11
Kamuzu Barr H	0	0	0	1	4	6	1	12
Mchinji DH	0	0	1	7	21	22	9	60
Kapiri MH	0	0	1	0	6	5	0	12
St Gabriels MH	0	0	2	6	10	4	0	22
Dowa DH	0	0	1	7	38	32	7	85
Ntchisi DH	0	0	1	3	23	12	7	46
Kasungu DH	0	0	0	3	34	13	13	63
Dedza DH	0	0	0	2	11	13	13	39
Salima DH	0	0	3	3	16	26	9	57
<i>Southern Region:</i>	<i>16</i>	<i>25</i>	<i>24</i>	<i>87</i>	<i>423</i>	<i>267</i>	<i>165</i>	<i>1017</i>
Thyolo DH	6	5	5	21	96	57	25	215
Malamulo MH	0	1	0	2	33	17	7	60
QECH, Blantyre	8	13	7	22	96	65	60	271
Chiradzulu DH	ND	ND	ND	ND	ND	ND	ND	ND
St Joseph MH	1	0	1	6	20	14	9	51
Mulanje MH	0	1	1	7	31	10	9	59
Zomba CH	0	0	4	7	38	32	14	95
St Lukes MH	0	0	0	2	19	6	6	33
Zomba Barracks	0	0	0	0	0	0	0	0
Andiamu Clinic	1	5	3	4	51	26	6	96
Chikwawa DH	0	0	0	6	10	17	10	43
Mangochi DH	0	0	3	10	29	33	19	94
Total	24	41	54	173	962	723	354	2341

Table 11. VCT data and HIV-related diseases recorded between January 1st and March 31st, 2005

Hospital	Counselling and Testing			HIV-related indicator diseases:			
	HIV tested	HIV positive	ART referred	TB	KS	Cryptococcal Meningitis	Oesophageal Candida
<i>Northern Region:</i>	4600	979	473	356	30	41	61
Mzuzu Central H	204	85	35	80	16	20	45
Ekwendeni MH	847	158	99	33	0	1	0
Moyale Barracks	28	14	5	5	2	1	0
Livingstonia MH	251	31	26	1	0	2	4
Embangweni H	1312	163	155	13	0	0	0
Chitipa DH	751	137	25	21	6	0	9
Rumphi DH	776	208	90	93	3	17	3
Nkhata Bay DH	431	183	38	110	3	No record	No record
<i>Central Region:</i>	9804	3850	2901	1358	87	147	465
Lighthouse- LL	3789	1785	1887	754	9	103	286
KCH-OPD1							
Lilongwe SOS	205	133	117	ND	4	0	1
Mtengowantenga	184	105	99	ND	4	16	47
St Theresa MH	48	29	5	ND	0	0	0
Kamuzu Barr H	34	20	12	23	4	0	2
Mchinji DH	625	293	56	70	4	7	42
Kapiri MH	525	111	81	ND	1	0	1
St Gabriels MH	768	215	17	77	0	0	0
Dowa DH	625	154	146	70	10	4	7
Ntchisi DH	628	143	111	40	20	5	27
Kasungu DH	924	247	60	98	9	9	6
Dedza DH	466	160	136	110	5	3	40
Salima DH	983	455	174	116	17	0	6
<i>Southern Region:</i>	15211	6132	2523	2781	102	267	453
Thyolo DH	6526	2100	105	284	33	40	22
Malamulo MH	1299	312	74	100	7	18	9
QECH, Blantyre	896	525	283	958	NR	104	274
Chiradzulu DH	2705	1301	1301	164	NR	0	0
St Joseph MH	343	165	118	63	3	43	23
Mulanje MH	767	430	12	133	2	24	9
Zomba CH	1408	718	264	425	22	14	75
St Lukes MH	260	132	33	71	2	16	10
Zomba Barracks	93	48	37	ND	2	0	0
Andiamu Clinic	4	3	3	ND	1	0	0
Chikwawa DH	202	78	NR	206	16	6	12
Mangochi DH	708	320	293	377	14	2	19
Total	29615	10961	5897	4495	219	455	979