

REPORT OF A COUNTRY-WIDE SURVEY
OF
HIV /AIDS SERVICES
IN
MALAWI
FOR THE YEAR 2004

National Tuberculosis Control Programme, MOH

HIV Unit, Department of Clinical Services, MOH

National AIDS Commission, Lilongwe

Centers for Disease Control and Prevention (CDC), Malawi

May 2005

CONTRIBUTORS TO THE SITUATIONAL ANALYSIS

Planning Group:

Rhehab Chimzizi	NTP, MOH
Francis Gausi	NTP, MOH
John Kwanjana	NTP, MOH
Felix Salaniponi	NTP, MOH
Charity Golombe	NTP, MOH
Elube Manda	NTP, MOH
Angela Khonyongwa	NTP, MOH
Edwin Libamba	HIV Unit, MOH
Simon Makombe	HIV Unit, MOH
Anthony Harries	HIV Unit, MOH
Erik Schouten	HIV Coordination, MOH
John Chipeta	NAC, Lilongwe
Melachias Mwale	NAC, Lilongwe
John Aberle-Grasse	CDC, Malawi
Perry Killam	CDC, Malawi
Mindy Hochgesang	CDC, Malawi

Implementation Group:

Rhehab Chimzizi	NTP, MOH [Team Leader]
Francis Gausi	NTP, MOH
Charity Golombe	NTP, MOH
Elube Manda	NTP, MOH
Angela Khonyongwa	NTP, MOH

Data Analysis Group:

Rhehab Chimzizi	NTP, MOH
Francis Gausi	NTP, MOH
John Aberle-Grasse	CDC, Malawi
Perry Killam	CDC, Malawi
Mindy Hochgesang	CDC, Malawi
Anthony Harries	HIV Unit, MOH

Writing Group:

Rhehab Chimzizi	NTP, MOH
Anthony Harries	HIV Unit, MOH
Francis Gausi	NTP, MOH
Felix Salaniponi	NTP, MOH
Edwin Libamba	HIV Unit, MOH
Erik Schouten	HIV Coordination, MOH
John Aberle-Grasse	CDC, Malawi
Perry Killam	CDC, Malawi
Mindy Hochgesang	CDC, Malawi

LIST OF ACRONYMS USED

AIDS	Acquired immune deficiency syndrome
ANC	Antenatal clinic
ARV	Antiretroviral therapy
CDC	Centres for Disease Control and Prevention, Atlanta, USA
CH	Central Hospital
CHAM	Christian Health Association of Malawi
CL	Clinic
CMS	Central Medical Stores
CT	Counseling and HIV testing
CTX	Cotrimoxazole
DAC	District AIDS Coordinator
DFID	Department for International Development, UK
DH	District Hospital
DHMT	District Health Management Team
DOT	Directly observed treatment
DTO	District TB Officer
ELISA	Enzyme linked immunosorbent assay
EPTB	Extra-pulmonary tuberculosis
GFATM	Global Fund for AIDS, Tuberculosis and Malaria
HAART	Highly active antiretroviral therapy
HBC	Home Based Care
HC	Health Centre
HMIS	Health Management Information System
HIV	Human immunodeficiency virus
KNCV	Royal Dutch Tuberculosis Association
KPS	Karonga Prevention Study Group (in Chilumba)
MACRO	Malawi AIDS Counseling and Resource Organization
MH	Mission Hospital
MOH	Ministry of Health
MSF	Medicins sans Frontieres
NAC	National AIDS Commission
NGO	Non-Governmental Organization
NORAD	Norwegian Agency for Technical Assistance
NTP	National Tuberculosis Control Programme
PLWHA	People living with HIV and AIDS
PMTCT	Prevention of Mother to child transmission of HIV
PTB	Pulmonary tuberculosis
RH	Rural Mission Hospital
QC	Quality control
STI	Sexually transmitted infection
TB	Tuberculosis
VCT	Voluntary counseling and testing
WBRT	Whole Blood Rapid HIV Test
WHO	World Health Organization

Deleted: ¶

EXECUTIVE SUMMARY

Between March and April 2005, the third countrywide survey was undertaken to obtain up-to-date information about HIV/AIDS services in the government and CHAM sectors in Malawi for the year 2004. This information was obtained by an HIV-TB team, who visited 66 health facilities, including the main central / district/ mission hospitals in Malawi. The team also conducted site visits or obtained pre-collected data from rural hospitals/ health centres / clinics providing CT services, which were attached to these main facilities.

The main findings are summarised below:-

- There were 146 sites (central, district, mission and rural hospitals; clinics and health centres; and stand-alone sites) performing HIV testing.
- There were 283,467 persons tested for HIV in 2004: these included 62,396 blood donors (22%), 43,345 pregnant women for Prevention of Mother to Child Transmission of HIV - PMTCT (15%), and 177,726 clients and patients (63%). HIV-prevalence rates were 13% in blood donors, 14% in antenatal women and 28% in clients and patients.
Of 177,726 clients and patients tested, there were 48,527 persons who were tested in the three MACRO sites where the proportion of persons HIV-positive was 14.5%. There were 129,199 persons who were tested in the integrated health facility sites where the proportion of persons HIV-positive was 34%.
- There were 31 facilities providing PMTCT services. Of the 43,345 women tested for PMTCT services, 6,069 were HIV-positive and 2,719 pregnant mothers received nevirapine.
- There were 26,136 patients registered with TB in the public health facilities. HIV testing of TB patients occurred in 35 hospitals. Of registered TB patients, 6,681 (26%) were HIV tested, 4,804 (72% of those tested) were HIV-positive and 4,649 (97% of those HIV-positive) received cotrimoxazole adjunctive treatment.
- There were 24 sites providing HAART, 6,769 new patients were started on therapy during the year and a total of 13,183 patients had ever received treatment since ARV drugs were provided in the public sector.
- In the 146 sites there were 711 counselors in 2004, which included 345 full-time counselors. A detailed analysis was carried out in 62 sites:- all these sites ran daily CT services and 61 had a dedicated CT room and were using the national CT Register. Less than half of the sites had written referral lists for post-test services and less than half had any form of external quality assurance. Of concern, one quarter of sites experienced stock-outs of HIV test kits during 2004.

INTRODUCTION

HIV / AIDS in Malawi:

Malawi has one of the highest levels of HIV infection in the world, with AIDS now the leading cause of death among 15 - 49 year olds. In 2003, it was estimated that out of approximately 11.5 million people there were 900,000 adults and children living with HIV/AIDS. The estimated HIV/AIDS prevalence in adults (15-49 years) was 14.4%. This level of HIV infection in the adult population has remained constant in the last seven years. Every year, it is estimated that 85,000 people in Malawi die from AIDS and another 110,000 new infections occur, most of these among young people. An estimated 170,000 people are in immediate need of antiretroviral (ARV) therapy.

HIV-TB epidemic:

The HIV epidemic has fuelled an equally severe tuberculosis (TB) epidemic. TB case notifications have increased by more than 500% over a 20-year period between 1985 and 2004, and a countrywide survey in 2000 of TB patients found an HIV-seroprevalence rate of 77%. High rates of HIV infection has lead to increasing numbers of patients with "difficult to diagnose" smear-negative pulmonary TB (PTB), an increasing case fatality rate in patients with all types of TB and an increasing rate of recurrent disease.

Situational Analysis of HIV-AIDS services and HIV-TB services in 2002 and 2003:

In 2003 and 2004, two countrywide surveys were carried out to document HIV-AIDS services operating in 2002 and 2003. These surveys documented among other things a) the number of sites offering CT, b) the total number of tests carried out, c) the number of women attending ante-natal clinics being tested for PMTCT, d) the number of TB patients who were offered CT and cotrimoxazole (CTX) preventive therapy , and e) the number of patients started on ARV therapy.

In the two previous surveys, deficiencies in the services were documented, and recommendations were made, particularly to improve the state of counseling and HIV testing services in the country. These included:- i) the need for more full-time counselors; ii) dedicated CT rooms; iii) standardised CT registers; iv) an uninterrupted supply of HIV test kits; v) standardised guidelines about testing procedures; vi) standardised laboratory registers for blood donors; and vii) regular quality assurance.

In 2003, 16 hospitals in eleven districts were selected for support for expanded HIV-TB activities, particularly routine CT for all registered TB patients and adjunctive CTX for those found to be HIV-positive. This activity started in July 2003. In August 2004, another 19 hospitals started to implement expanded HIV-TB activities, and by the beginning of 2005, the remaining hospitals in the country were also included.

National Response:

The Government of Malawi has responded to the challenges posed by the HIV / AIDS epidemic, and this response has been outlined in the previous situational analysis reports. In brief, the National AIDS strategic plan was launched in October 1999. The plan is broad-based and includes a) the provision of an enabling environment, b) a behavior change intervention and advocacy strategy, c) mainstreaming HIV/AIDS in the public and private sectors, d) a prevention programme and e) a comprehensive HIV/AIDS care and support programme. Malawi's development partners pledged to support the implementation of elements of the National Strategic Plan over a five-year period, key partners being DFID, USAID, the European Union, the UN Family Canadian CIDA and NORAD. In addition, Malawi started to receive funds from the Global Fund for AIDS, tuberculosis and malaria (GFATM), and these funds are being used to support a strengthened AIDS care and support programme.

The biomedical aspects of the HIV/AIDS response include:- counseling and testing (CT), promotion of blood safety, infection control, prevention of mother to child transmission (PMTCT), control and management of sexually transmitted infections (STI), prevention and treatment of opportunistic infections [including tuberculosis], and the provision of antiretroviral drugs to patients with AIDS. NAC and the HIV/ AIDS Unit in the Ministry of Health (MOH) have made considerable progress in developing national guidelines and training materials for the implementation of several of these activities:- CT; PMTCT; Community Home-based care; Use of antiretroviral therapy; and Treatment of HIV-related diseases.

As one of the major opportunistic infections associated with HIV/AIDS, the National TB Control Programme (NTP) developed a 5-Year TB Control Plan [2002-2006], which was approved and funded by the Government of Malawi and DFID, NORAD and KNCV as the interested development partners. Nested in this plan is a 3-year plan [2003 – 2005] for expanded HIV-TB activities, supported and funded in addition by USAID, CDC and WHO. The main elements of this plan are:- voluntary counseling and HIV testing services for TB patients, provision of isoniazid preventive therapy for HIV-infected persons who do not have TB, adjunctive cotrimoxazole (CTX) preventive therapy to HIV-positive persons with TB, and provision of antiretroviral (ARV) therapy to patients with HIV-related TB.

In early 2004, Malawi saw the launch of some other major initiatives. The national HIV-AIDS Policy spelled out clearly what should be done in the country to tackle the HIV-AIDS epidemic. In February 2004, the national 2-year ARV scale up plan was approved by the government and endorsed by stakeholders, and the following month the HIV Counseling and Testing Guidelines were also approved by the Secretary for Health. In mid-2004, the government and key stakeholders also approved the national 2-year counseling and HIV testing scale up plan. The development of a national plan to scale up prevention of mother to child transmission (PMTCT) was slow in getting off the ground, and it was only approved and endorsed in 2005.

AIM AND OBJECTIVES

The aim of this survey was to build on the previous countrywide situational analyses of HIV /AIDS services in Malawi for 2002 and 2003, and obtain similar and additional data for 2004. The 2004 data was obtained with a view to informing the Ministry of Health (MOH), the National AIDS Commission (NAC) and the National TB Control Programme (NTP) about the current status with:

- a) CT and HIV testing and delivery services on the ground
- b) Expanded HIV-TB services particularly CT and adjunctive cotrimoxazole for TB patients registered in the routine system
- c) PMTCT services
- d) ARV delivery services

The survey focused on the government and mission health sector, including the health facilities of the Malawi Defence Force and the Police.

There were 7 specific objectives:-

1. To identify all the sites in Malawi providing counseling and HIV testing in 2004
2. To document the number of persons who were HIV tested in Malawi in 2004, along with HIV test results, stratified wherever possible to region, gender and “patient” / “client” status
3. To document the status of PMTCT services for 2004
4. To assess the status of routine counseling and HIV testing for patients registered with tuberculosis (TB) and the use of adjunctive cotrimoxazole in 2004
5. To assess the number of sites and the number of patients who accessed ARV therapy in 2004 and report on their standardized outcomes
6. To record information on the number of counselors and full-time counselors in Malawi, and carry out an in depth analysis of current counseling and HIV testing services in a selected number of health facilities in the country in 2004
7. To compare the status of HIV-AIDS services in 2004 with that provided in 2002 and 2003

METHODOLOGY

Background

The Ministry of Health (MOH) has the overall responsibility for health services in Malawi, and is the largest health service provider. The church mission sector (Christian Health Association of Malawi – CHAM) is the second largest. A private for profit sector has been developing for several years, but is concentrated predominately in the large urban cities and is still relatively small compared with MOH and CHAM.

There are 46 major MOH or CHAM hospitals in Malawi, which in addition to their other responsibilities, register and treat all the patients with tuberculosis (TB) in the country. These include 4 central hospitals (with Lilongwe central hospital divided into a top and bottom unit, and therefore making 5 units), 22 government district hospitals and 19 mission hospitals. Linked with these hospitals there are other mission and rural hospitals, hospitals run by the Malawi Defence Force and the Police, government and mission-run health centres, clinics (including the Illovo Clinics) and CT centres, and 3 MACRO stand-alone sites. Hospitals and health facilities in which ARV therapy was to start were visited and assessed using a structured proforma (see below). Other health facilities, which were doing VCT were also visited but not assessed in such detail.

Data Collection

Counseling and HIV test data:

In February 2005, a structured proforma was developed to collect data for the HIV-AIDS situational analysis (**Annex 1**). Letters were sent in duplicate to the Medical Officers in charge of hospitals providing information about dates and timing of visits to the hospitals. In these letters requests were made that certain registers be made available and that interviews be conducted wherever possible with the district health management team, laboratory staff, AIDS coordinator, PMTCT coordinator and TB officer. A team, consisting of Rhehab Chimzizi (team leader), Francis Gausi, Charity Golombe, Elube Manda and Angela Khonyongwa, visited 66 health facilities between March and April 2005. These facilities included all the main central/ district/ mission hospitals; hospitals/ clinics of the Malawi Army and Police; and some smaller mission hospitals and clinics.

Each hospital visit was conducted in a similar way. The officer / deputy in charge of the hospital was greeted by the study team, and briefed about the purpose of the visit. Interviews were conducted with laboratory staff, counselors, pharmacy staff, TB officers, AIDS coordinators, nurses/ matrons and officers in charge. Information was documented on CT services, CT infrastructure, laboratory HIV testing procedures, HIV test kit stocks and ARV delivery services. In each laboratory a record was made of the number of persons HIV tested from January to December 2004 (blood donors and others). In many cases the study team had to manually count the laboratory registers, as numbers for the previous year or previous months had not been collated. CT registers, ANC registers, TB registers and TB-VCT registers were also inspected and results of HIV testing for 2004 were recorded.

Laboratory staff, counselors and AIDS coordinators were also asked about other sites in the district where HIV testing and/or counseling services were provided. The study team then either traveled to these sites to collect data on the numbers of persons HIV tested in 2004 or documented pre-collected data from these sites.

Data in infection control and blood transfusion practices was also obtained for NAC and UNGASS reporting, but this data is not included in this report: it will form the substance of a separate report prepared by NAC.

At the end of the hospital visit, the study team discussed with the District Health Management Team the findings of the survey and the ways forward.

ARV therapy data:

Between January and March 2005, the HIV Unit and its partners visited the 24 hospitals, which were delivering ART, and collected data on ART up to the end of 2004. The data was collected using a structured monitoring form, and data was taken from the patient master cards and ARV patient registers.

Data Analysis

Data was entered into an EPI-INFO software package. Rhehab Chimzizi, Francis Gausi, John Aberle-Grasse, Perry Killam, Mindy Hochgesang and Anthony Harries conducted the data analysis using electronic and manual methods.

Funding modalities

Funding for the countrywide analysis was provided from i) Centers for Disease Control and Prevention, Malawi country office and ii) the Malawi National TB Control Programme. Funding was required for stationary, fuel, subsistence and accommodation. In total, the cost of the analysis was approximately USD\$20,000.

FINDINGS

1. HIV testing sites in Government and CHAM health facilities in Malawi in 2004

There were 146 sites performing HIV testing in Malawi in 2004. These included:- a) 46 major MOH and CHAM hospital sites, which provided TB registration facilities, ie 5 central hospital sites (this includes the two sites in Lilongwe – KCH and Bottom Hospital), 22 district hospital sites and 19 mission hospital sites; b) 13 mission or rural hospital sites which were not TB registration units; c) 5 Army/ Police hospital sites; d) 69 health centre sites; e) 10 counseling centre or clinic sites; f) 3 MACRO stand-alone sites, ie not integrated into hospital services. Details of these 146 sites are shown in **Annex 2**.

2. Number of persons HIV tested and HIV results in Malawi in 2004

Specific details of HIV tests and HIV-serostatus results in each of the 146 HIV testing sites are shown in **Annex 3**.

A total of 283,467 persons were HIV tested in Malawi in 2004. These included 62,396 blood donors (22%), 43,345 pregnant women for Prevention of Mother to Child Transmission of HIV - PMTCT (15%), and 177,726 clients and patients (62%). This data underestimates the total number of persons tested because there were some missing records. Records were missing on blood donors at 2 sites (Kamuzu Bottom Hospital and Nkhoma Mission Hospital); on women attending antenatal clinics at 2 sites (Livingstonia Mission Hospital and Kasungu District Hospital); and on counseling and HIV testing at 2 mission hospitals and 19 health centers.

Results of HIV testing are shown below:-

Of 283,467 persons tested in 2004, 64,635 (23%) were HIV-positive.

Of 62,396 blood donors tested, 8,098 (13%) were HIV-positive.

Of 43,345 pregnant women tested for PMTCT, 6,069 (14%) were HIV-positive

Of 177,726 clients and patients tested, 50,468 (28%) were HIV-positive

Of 177,726 clients and patients tested:-

There were 48,527 persons who were tested in the three MACRO sites where the number and proportion of persons HIV-positive was 7,046 (14.5%)

There were 129,199 persons who were tested in the integrated health facility sites where the number and proportion of persons HIV-positive were 43,422 (34%).

2.1. HIV testing and HIV results according to region:

There were regional differences with higher numbers of clients and patients HIV tested, and in general a higher proportion of those tested being HIV-positive, in the South, followed by the Central Region and then the Northern Region (see **Table 1**). This is a reflection of a) population numbers, which increase from North to South, and b) the HIV-epidemic, which first started and has been more severe in the Southern part of the country. These regional differences are consistent with national trends seen in previous years and sentinel surveillance projections.

Table 1: HIV testing and results in the North, Central and Southern Regions

	HIV tests carried out in 2004 according to Region		
	North	Central	Southern
Blood donors tested	8820	25423	28153
Blood donors HIV-positive (%)	1271 (14%)	2899 (11%)	3928 (14%)
Pregnant women tested	6646	28033	8666
Pregnant women HIV-positive (%)	701 (11%)	3502 (14%)	1866 (22%)
All clients and patients tested	32007	54446	91273
Clients and patients HIV-positive (%)	5399 (17%)	14666 (27%)	30403 (33%)
(a) MACRO Site:			
Clients tested	14700	16585	17242
Clients HIV-positive (%)	1569 (11%)	2069 (12%)	3408 (20%)
(b) Integrated Health Facility Sites:			
Clients and patients tested	17307	37861	74031
Clients / patients HIV-positive (%)	3830 (22%)	12597 (33%)	26995 (36%)

2.2. HIV tests in clients and patients at integrated health facilities (excluding blood donors and women attending antenatal clinics):

There were 6 hospitals that each performed over 3,000 HIV tests in clients/ patients in 2004 were:- Kamuzu Central Hospital/ Lilongwe Lighthouse/ Kamuzu Bottom Hospital (11,502 tests); Thyolo District Hospital - supported by MSF-Luxembourg (9,583 tests); Ekwendeni Mission Hospital (3,742 tests); Queen Elizabeth Central Hospital (3564 tests); Malamulo Mission Hospital (3,292 tests); and Chiradzulu District Hospital-supported by MSF-France (3,144 tests).

In 39 hospital / health facility CT registers, there was consistent recording of who was a “VCT Client” coming for voluntary counseling and testing (ie, the worried well or a patient with mild illness, where CT is initiated by the client) and a “patient” who was more sick coming from out-patients or the wards (where CT is initiated by the patient).

There were 59,593 “VCT clients” who were tested. Of these, 14,998 (25%) were HIV-positive. The high rate of HIV-positive results in "VCT clients" suggests that many of these persons were in fact patients.

There were 20,316 “patients” who were tested. Of these, 13,342 (66%) were HIV-positive.

2.3. HIV tests in men and women (excluding blood donors or ANC attenders):

In the three MACRO sites in Mzuzu, Lilongwe and Blantyre, there was consistent recording of gender. There were a total of 48,527 persons tested, consisting of 33,441 (69%) men and 15,086 (31%) women. Of 33,441 men who were tested, 3,398 (10%) were HIV-positive. Of 15,086 women tested, 3,648 (24%) were HIV-positive. The reasons for the higher number of men attending MACRO sites and the higher proportion of women who when tested were HIV-positive were not explored. These results were very similar to the findings of 2003.

In 56 hospital / health facility CT registers, there was consistent recording of gender. Amongst 74,707 persons attending for CT (either clients or patients), 37,302 (50%) were men and 37,405 (50%) were women. The gender ratio in health facilities was almost equal. Of the 37,302 men tested, 11,341 (30%) were HIV-positive. Of 37,405 women tested, 17,238 (46%) were HIV-positive. The reasons for the higher prevalence of HIV infection in women compared with men were not explored. [However, a higher prevalence in women versus men has been demonstrated in a number of other African countries].

The results from both Macro and integrated sites are shown in **Table 2**.

Table 2: HIV test results in males and females

	Males	Females
MACRO sites:		
Number tested	33,441	15,086
Number (%) HIV-positive	3,398 (10%)	3,648 (24%)
Integrated facilities:		
Number tested	37,302	37,405
Number (%) HIV-positive	11,341 (30%)	17,238 (46%)

3. Pregnant women attending PMTCT Services in 2004

There were 31 health facilities, along with their outlying outreach centres, which provided PMTCT services in 2004. Testing was done in the antenatal clinic in 14 sites, in the counseling and HIV testing room in 12 sites and in both antenatal clinic/ VCT room in 5 sites. There were 43,345 pregnant women tested for PMTCT of whom 6,069 (14%) were HIV-positive. Of these women, 2,719 (45%) were recorded as receiving nevirapine in the year 2004; information was not available on children receiving nevirapine. The results for each hospital are shown in **Table 3**. Kamuzu Central Hospital, through UNC, provided the bulk of PMTCT services in Malawi during 2004. This hospital tested 19,528 women (45% of the total), and provided 1028 doses of nevirapine. The rest of the country tested 23,817 women (55% of the total) and provided 1691 doses of nevirapine.

Table 3: PMTCT results for 2004:

Hospital	Number of women HIV-tested	Number of women HIV-positive	Number of women given nevirapine
Karonga DH	92	12	1
Livingstonia MH	No data	No data	11
Mzuzu Central Hospital	1702	255	65
Ekwendeni MH	959	85	52
Embangweni MH	3630	337	56
Katete MH	263	12	3
Mchinji DH	239	36	15
Kapiri MH	427	26	15
Ntcheu DH	1	1	0
Kasungu District	No data	No data	17
Dowa DH	999	53	29
St Annes Mission	142	12	12
Kamuzu Central Hosp	19528	2940	1028
Likuni Mission	1770	229	115
St Gabriels Mission	4267	156	92
Mlale Rural MH	660	49	33
Chikwawa DH	159	28	3
Ngabu SDA Clinic	21	6	3
Montfort MH	137	42	5
Mangochi DH	31	14	8
Machinga DH	492	101	52
Thyolo DH	2550	586	239
Malamulo MH	389	76	42
Mulanje DH	53	27	9
Mulanje MH	17	9	0
Mwanza DH	1579	163	82
Chiradzulu DH	583	130	65
St Josephs MH	39	14	14
QECH	2412	618	618
Lunzu DAPP	174	41	33
Mlambe MH	30	11	2

4. Counseling, HIV testing and adjunctive cotrimoxazole for TB patients in 2004

In 2004, there were 26,136 TB cases registered in Malawi in the 46 central, district and mission hospitals. HIV testing was carried out in 35 hospitals [16 for the whole year and 19 commencing in August 2004]. The remaining 11 hospitals started HIV testing of patients in January 2005. Of the 26,136 registered TB cases, 6681 (26%) patients were HIV-tested. Of those tested, 4804 (72%) were HIV-positive. Of those tested HIV-positive, 4649 (97%) received cotrimoxazole (CTX) preventive therapy. The number of TB patients who were HIV tested, the results of HIV tests and the number who were placed on CTX for each hospital are shown in **Annex 4**. 16 hospitals provided CT and CTX for the whole of 2004, having started this service in 2003. In these 16 hospitals, there were 9,311 TB patients registered, of whom 4955 (53%) were tested. Of those tested, 3593 (73%) patients were HIV-positive. Of those HIV-positive, 3470 (97%) received CTX.

5. ARV therapy in the public health sector in 2004:

Up until the end of December 2004, there were 13183 patients who had ever started on ARV therapy in 24 facilities. The full results are presented in a separate ARV report for 2004. For the quarter (October to December) and for the cumulative analysis, approximately 40% of patients were male and 60% were female; approximately 95% were adults (13 years and above) and 5% were children. Of patients who ever started on ARV therapy, 84% were alive, 8% were dead and 8% were lost to follow-up. Of those alive and on ARV therapy:- 98% were ambulatory; 85% were fit to work; 10% had one or more major side effects; and 96% showed at least 95% adherence to therapy based on pill counts. Data for the health facilities are provided in **Annex 5**.

6. Counseling and HIV testing services

An assessment of the number of counselors and full-time counselors was made in all 146 health care facilities. There were 711 counselors in 2004, of whom 345 were reported to be full-time. This is an underestimate of counselor numbers as there was no data from 5 health centers, one clinic and one youth center. The data for each facility are shown in **Annex 6**. Information was also collected on new counseling sites that had started providing services in 2005: there were 56 new sites, almost all health centers, staffed with 102 full-time counselors. The details are shown in **Annex 7**.

6.1. Counseling Services in a select number of facilities:

As with previous surveys, a detailed analysis was carried out in a select number of health facilities, in this case 62. These included all central, district and main mission hospitals plus the facilities of the army and police and the MACRO sites. Details of counseling services are shown in **Table 4**. In general, sites met the criteria or basic standards set forth in the national CT Guidelines with two exceptions: there were only a few sites with written referral lists for post-counseling activities such as PMTCT and ART, and in only a third of sites was external supervision and quality assurance carried out.

Table 4: Counseling services in 62 selected sites

Counseling services	Number (%) of sites
Provision of daily CT services	62 (100%)
Number of sites with a dedicated CT room:	61 (98%)
Total number of CT rooms	121
VCT Guidelines visible in the CT room	53 (85%)
National VCT Register being used in CT room	61 (98%)
Written referral lists for services (eg, PMTCT, ART)	26 (42%)
Condoms freely available in the CT room	54 (87%)
External supervision and quality assurance	23 (37%)

6.2 HIV testing services in a select number of facilities:

The detailed analysis was also carried out in the 62 sites. There were 59 sites with 122 trained laboratory technicians, of whom 97 had been trained in whole blood rapid HIV testing. The main test kits used were *Determine HIV-1/HIV-2* (Abbott Laboratories, Tokyo, Japan), *Uni-Gold™ HIV-1/HIV-2* (Trinity Biotech plc, Ireland), *Bioline HIV-1/HIV-2* and *Hemastrip HIV-1/HIV-2*. Test kits came from a variety of sources: central medical stores and non-governmental organizations. The testing methodology in the 62 sites is shown in **Table 5**. There were 16 (26%) health facilities that experienced a stock-out of HIV test kits during 2004 (the exact duration of stock-out and type of test absent was not determined).

Table 5: Testing methodology in the 62 health facilities using WBRT kits

Type of client tested	Type of HIV testing methodology	Number
Patients / clients	One test	0
	Two tests:	62
	Parallel (done at the same time)	60
	Serial (one test followed by another)	2
Blood donors *	One test	0
	Two tests:	54
	Parallel (done at the same time)	13
	Serial (one test followed by another)	41
Discordant tests	Use WBRT tie breaker	54
	Send the sample to another facility for repeat test	4
	Request another sample in 3-6 weeks time	4

* 8 facilities did not provide blood transfusion services

7. Comparison of HIV-AIDS services in 2004 with that provided in 2002 and 2003

Similar types of information were collected for the countrywide analysis done for the year 2002 and 2003, enabling a comparison between the three years to be made.

7.1. *Comparison of the number of persons HIV tested and their HIV results*

The comparison of the three years is shown in **Table 6**. There was a 43% increase in total persons tested between 2002 and 2003, and a 32% increase between 2003 and 2004. The number of blood donors tested increased slightly over the three years, and the number of persons visiting MACRO stand-alone sites remained almost the same. There was a large increase in the number of women being HIV tested for PMTCT services, but this is largely accounted for by the UNC contribution. There was a uniform large increase in the number of clients and patients, including those with TB, being tested at integrated health facilities. This increase was seen in both hospitals (approximately 55% increase between 2003 and 2004) and in health centers (approximately 80% increase between 2003 and 2004). The proportions of patients tested who were HIV-positive were fairly similar in each year, except for a gradual decrease in the clients and patients being tested at integrated health facilities. The number of patients receiving HAART increased during the three years.

Table 6: Comparison of HIV testing and ART in Malawi: 2002, 2003 and 2004

	2002	2003	2004
Number of counseling and HIV testing sites	70	118	146
Total number of HIV tests done: Number (%) tested who were HIV-positive	149,540 33,303 (22%)	215,269 50,115 (23%)	283,467 64,635 (23%)
Number of Blood Donors HIV-tested Number (%) tested who were HIV-positive	57,850 8,474 (15%)	60,561 9,180 (15%)	62,396 8,098 (13%)
Number of facilities providing PMTCT Number of ANC women HIV tested Number (%) tested who were HIV-positive	7 5,059 840 (17%)	17 26,791 3,383 (13%)	31 43,345 6,069 (14%)
Number of persons at MACRO HIV tested Number (%) tested who were HIV-positive	51,224 7,684 (15%)	48,333 6,794 (14%)	48,527 7,046 (15%)
Number of patients/clients at health facilities who were HIV tested Number (%) tested who were HIV-positive	35,407 16,305 (46%)	79,584 30,758 (39%)	129,199 43,422 (34%)
Number of TB patients registered in the year Number (%) who were HIV tested Number (%) tested who were HIV+ve Number (%) of HIV+ve patients who were given cotrimoxazole	25,899 2,130 (8%) 1630 (77%) Not known	26,836 3,983 (15%) 2,734 (69%) 2,349 (87%)	26,136 6,681 (26%) 4,804 (72%) 4,649 (97%)
Number of facilities providing HAART New patients started on ART in 2004 Cumulative patients ever started on ART	3 1,202 1,202	9 3,703 6,414	24 6,769 13,183

7.2. Comparison of CT services, HIV testing procedures and HIV test kits

Unfortunately, in the previous years there was no documentation of the number of counselors and full-time counselors at all sites in the country. Nevertheless, the number of full-time counselors in 2004 (at 345) is likely to be much higher than in previous years. All the 62 sites had daily services, and 61 sites respectively had a dedicated CT room and were using the national CT Register. Although improved, the number of sites with written referral lists and external supervision were still less than 50%. Just over a quarter of sites had experienced a stock-out of HIV test kits during the year.

CONCLUSION AND RECOMMENDATIONS

This country-wide survey, which involved actual visits to all sites offering counseling and HIV testing and an in-depth assessment of the major health facilities delivering HIV-AIDS services and HIV-TB activities, allows an up to date assessment of services being delivered on the ground.

Findings:

In 2004, there were 146 sites in the public sector performing HIV testing. In that 12-month period, nearly 283,500 people were HIV tested in the country, with 22% of these people being blood donors, 15 % being antenatal women and 63% being clients and patients.

In 2004, the large increase in testing took place in the integrated health facilities, with nearly 130,000 people being counseled and HIV tested, an increase of about 50,000 compared with the previous year. The number of TB patients receiving routine counseling and HIV testing, with adjunctive cotrimoxazole for those HIV-positive, and the number of patients being started on ART also increased compared with previous years. The number of pregnant women being counseled and HIV tested also increased from last year, although the number is still relatively low and only 2,700 mother and infant pairs (45% of total eligible) were recorded as receiving nevirapine. The number of blood donors being tested has increased slightly over the three years, while the number of clients accessing and being tested at Macro Sites has remained fairly constant.

There were 711 counselors, 345 full-time, working in the 146 sites in 2004. During the first three months of 2005, an additional 102 full-time counselors started to provide services in another 56 new sites (mainly health centers). Counseling services, according to the criteria used to assess the sites, had improved in 2004 – with all sites having daily CT services and the majority of sites having dedicated CT rooms and using national registers. However, of concern was the observation that over one quarter of selected sites had experienced a stock-out of HIV test kits during the year.

Strengths and limitations of the national survey:

One of the strengths of this survey was that CT sites in the country were visited, and data collected at site often by counting numbers in registers. The discussions with the health facilities at the end of each site visit were perceived to be very useful for the study team as well as the health facility staff, who were always most appreciative of the feedback and opportunity to discuss ways forward.

There were some limitations. Some of the data on numbers of persons HIV-tested in 2004 were missing, and the results of numbers of persons tested are therefore a slight underestimate. The relatively short period for site visits rapid analysis also precluded an in-depth analysis of the situation on the ground; for example, why do more men attend MACRO sites than women and why are more women HIV-positive?

Recommendations:

There is still a clear need for HIV-AIDS services to be improved if there is a wish to scale up services in both quantity and quality.

Counseling and HIV testing. There is a clear necessity to establish and implement a regular and national supervision and quality assurance scheme for both counseling and HIV testing. Just over half of registered TB patients (based on those assessed for the whole year) are being routinely counseled and HIV tested; this is not enough and needs to increase. Factors that keep this number low such as forgetting to refer patients, counselors not available and stock-outs of HIV test kits need to be minimized in the forthcoming year. In the medical wards there is also a clear need to start referring patients for counseling and HIV testing, and the introduction of a ward register to monitor this referral system should be considered. There are still stock-outs of HIV test kits, despite a large number of test kits arriving in Malawi during the year. Serious consideration should be given to establishing a regular “push” system of supplying facilities with a pre-determined number of kits, based on previous levels of use.

PMTCT. A standardized system of providing CT to pregnant women needs to be established, as currently HIV testing is variably done in either the CT room or in the antenatal clinic. There is no PMTCT register, so capturing data is a difficult task: a standardized register may improve this.

ARV Scale Up. The referral of patients from CT sites to ARV clinics for staging and consideration of ART is beginning to improve in 2005, and this should lead to more patients accessing therapy. The referral patterns need to be monitored during structured supervisions.

Acknowledgements

We thank all the staff of the hospitals for their assistance with this survey. We thank the Centers for Disease Control and Prevention, USA, for technical assistance and financial support for the survey. We thank bilateral and multi-lateral agencies for financial support of the NTP and MOH.

ANNEX 1: STRUCTURED QUESTIONNAIRE FORM FOR SITUATIONAL ANALYSIS: 2004

HOSPITAL _____ **DATE** _____

HOSPITAL/ HEALTH FACILITY VCT SERVICE:

Number of VCT counselors _____

Number Full-time _____

Number Part-Time: _____

How many counselors do HIV testing _____

Is there external supervision of counselling _____

If so, provide details _____

Is the VCT service provided daily: if not specify _____

Number of dedicated VCT rooms in the hospital (specify) _____

The main CT site:

Are national VCT guidelines visible in the counseling room _____

Is there a National CT Register in the counselling room _____

Is the National CT Register being used _____

Are there written referral lists for services (eg PMTCT, STI) _____

Are condoms freely available in the room _____

****Check on HIV test kits in the room and enter to box on following pages

CT REGISTER FOR CLIENTS/ PATIENTS (in CT room)

Assess for the year 2004:

Number tested for HIV _____

Number tested HIV-positive _____

If gender breakdown possible, then break down for men and women:

(Men tested /HIV+ve _____ / _____ Women tested / HIV+ve _____ / _____

If client/ patient breakdown possible, break down to:-

Number clients tested _____ Number clients HIV+ve _____

Number patients tested _____ Number patients HIV+ve _____

BLOOD DONOR REGISTER AND BLOOD TRANSFUSION (in Laboratory)

Is there a standardised blood donor register (Yes/No) _____

Assess for year 2004:

Number of donors in whom blood was collected for transfusion _____

Number of donors in whom HIV testing was done _____

Number tested HIV-positive _____

Are there national guidelines or a Proxy present in the laboratory _____

Specify which guidelines are present _____

Are blood units tested for Hepatitis B: Always___ Sometimes___ Never___

Are blood units tested for Syphilis: Always___ Sometimes___ Never___

Is there a Standard Blood Bank Fridge _____

If so, does the following work: Fan___ Record Chart___ Alarm___

Is the Fridge used for storing other items _____

Is there any record system for recording adverse blood reactions _____

HOSPITAL LABORATORY:

Number of qualified laboratory staff_____

Number of lab staff trained in rapid whole blood testing_____

What HIV test kits are being used_____

What is the HIV testing protocol for VCT/patients_____

What is the HIV testing protocol for Blood Donors_____ (note: 1 test or 2 tests: parallel or serial: serial – positive followed by second test or negative followed by second test)

What happens with discordant tests_____

Is there weekly QC testing of known HIV+ve and –ve blood samples_____

Is there any External quality control (proficiency tests/ retesting of samples)_____

If external QC, then how often and where to_____

Are there any visible written guidelines on HIV testing in the laboratory_____

HIV TEST KITS:

	Determine	Unigold	Bioline	Haemastrip	Other Types
Number of tests in laboratory					
Expiry date of tests in laboratory					
Number of tests in pharmacy					
Expiry date of tests in pharmacy					
Number of tests in CT room					
Expiry date of tests in CT room					
Any stock-outs for 2004					
Period of time of stock outs					
Is main source of test kit from CMS					
Total Number of HIV tests					

Any comments on HIV test kits supply:

TB-CT REGISTER (kept in TB Office)

Is there a TB-CT register (Yes/No)_____

Assess for the year 2004:

Number TB patients registered in year (ask DTO)_____

Number TB patients entered to TB-CT Register_____

Number TB patients who were HIV tested_____

Number TB patients who were HIV-positive_____

Number TB patients started on Cotrimoxazole (CTX)_____

PMTCT SERVICE:

Do you have a PMTCT service_____

Where is HIV testing of pregnant women done:

Antenatal Clinic_____ VCT Room_____ Both_____ Other_____

If yes, how many pregnant women were tested in 2004_____

How many women were HIV-positive_____

How many women were given Nevirapine_____

If possible, collect data for women aged 15 – 24 years:

If yes, how many such pregnant women were tested in 2004_____

How many such women were HIV-positive_____

How many such women were given Nevirapine_____

ARV SERVICE:

Details collected by the HIV Unit and its partners, using a different proforma:

In particular, number of patients started on ART in the previous quarter and ever since ARV therapy was started: broken down to male/ female; adults and children; reason for starting on ART: outcomes.

INFECTION PREVENTION AND WASTE MANAGEMENT

Sharp Boxes: Score 1 for each answer which is “yes”

	Male Ward	Female Ward	Paediatric Ward	Laboratory	VCT Room
Sharp Box present					
Sharp Box properly used					
Sharp Box disinfected					

Is there an Incinerator_____

Is the Incinerator used_____

Is there a Refuse Pit_____

Is the Refuse Pit protected_____

Are there Sharps present in the Refuse Pit_____

Was any PEP used in 2004 for health care staff (ask DHO)_____

If so, specify_____

FOR EACH RURAL HOSPITAL, HEALTH CENTRE AND STAND-ALONE SITE:

The site:_____integrated (I) or stand-alone (S)_____

For the year 2004:

Is the national VCT Register present_____ and is it used_____

Number of counselors_____ Number of full-time counselors_____

Is HIV testing done on site_____

Number blood donors tested_____ Number HIV-positive_____

Number clients/patients tested_____ Number HIV-positive_____

ANNEX 2: SITES IN MALAWI PERFORMING HIV TESTING IN 2004: Government and CHAM

The Northern Region:

Region	District	Main hospitals (also act as TB Registration Units)	Other Hospitals	Health centres (HC) / Clinics	Stand-alone sites
North	Chitipa	Chitipa DH	Kaseye MH	Nthalire HC Kameme HC	
	Karonga	Karonga DH		KPS-Chilumba HC Nyungwe HC Kaporo HC	
	Nkhata Bay	Nkhata Bay DH	Chinteche RH	Mpamba HC Kachere HC	
	Rumphi	Rumphi DH Livingstonia MH		Borero HC Katowo HC Mzokoto HC	
	Mzimba	Mzuzu CH Mzimba DH St.Johns MH Ekwendeni MH Embangweni MH Katete MH	Moyale Barraks H	Mzambazi HC Tovwirane VCT center Enukweni HC	Mzuzu Macro Site
Total for the North		11 hospitals	3 other hospitals	13 clinics/ health centers	1 Stand- alone site

ANNEX 2: SITES IN MALAWI PERFORMING HIV TESTING IN 2004: Government and CHAM

The Central Region

Region	District	Main hospitals (also act as TB Registration Units)	Other Hospitals	Health centers (HC) / Clinics	Stand- alone sites
Central	Mchinji	Mchinji DH	Kapiri RH	Mkanda HC	
	Ntcheu	Ntcheu DH	Mikoke RH	Lakeview HC Mzama HC Senzani HC	
	Dedza	Dedza DH Mua MH			
	Kasungu	Kasungu DH	Nkamenya MH	Estate 81 Clinic Santhe HC Kaluluma HC Mtunthama HC	
	Dowa	Dowa DH Madisi MH	Mtengawatenga MH Mponela RH (MAICC)	Chankhumbu HC Mvera Mission HC Thonje HC Msakambewa HC	
	Ntchisi	Ntchisi DH			
	Salima	Salima DH		MAFCO Army Clinic	
	Nkhotakhota	Nkhotakhota DH St Anne's MH	Alinafe RH	Dwangwa Matiki Clinic	
	Lilongwe	Kamuzu CH Lighthouse Clinic Kamuzu BH Nkhoma MH Likuni MH St Gabriels MH (Namtete)	Mlale MH Kamuzu Barracks H	Lilongwe SOS Clinic Chiwamba HC Mitundu HC Area 18 HC	Lilongwe Macro Site
Total for Central		17 hospitals	8 other hospitals	18 health centers/ clinics	1 Stand- alone

ANNEX 2: SITES IN MALAWI PERFORMING HIV TESTING IN 2004: Government and CHAM

The Southern Region

Region	District	TB Registration Units	Other Hospitals	Health centres (HC) / Clinics	Stand-alone sites
South	Nsanje	Nsanje DH Trinity MH		Kalembe HC	
	Chikwawa	Chikwawa DH Montfort MH	Ngabu RH	Sucoma Clinic Makhuwila HC Ngabu SDA HC	
	Mangochi	Mangochi DH	St Martins MH		
	Machinga	Machinga DH		Ntaja HC Liwonde HI-Clinic Chamba HC Nyambe HC Chikweo HC	
	Balaka	Balaka DH			
	Thyolo	Thyolo DH Malamulo MH		Khonjeni HC Thekerani HC Changata HC Mikolongwe HC Chimaliro HC Makungwa HC Bvumbwe HC Amalika HC Conforzi HC Satemwa HC Chipo HC	
	Mulanje	Mulanje DH Mulanje MH		Namasalima HC Chonde HC	
	Phalombe	Phalombe MH			
	Mwanza	Mwanza DH		Thambani HC Neno HC Kunenekude HC	
	Chiradzulu	Chiradzulu DH St.Joseph's MH (Nguludi)		Bilawo HC Chitela HC Mauwa HC Mbulumbuzi HC Milepa HC Namadzi HC Namtambo HC Ndunde HC Nkalo HC PIM HC	
	Zomba	Zomba CH St. Lukes MH	Zomba Police Hospital Zomba Barracks (Cobbe) Hosp Domasi RH	Nkasala HC Matawale HC Nasawa HC Chipini HC Mayaka HC Jali Youth Centre Thondwe Youth Cnt Pirimiti HC Hope for Life Clinic	
	Blantyre	Queen Elizabeth CH/ COM Mlambe MH		Ndirande HC Lunzu DAPP Clinic Limbe HC Chilomoni HC Bangwe HC	Blantyre Macro Site
Total for South		19 hospitals	5 other hospitals	49 health centers / clinics	1 Stand-alone sites

ANNEX 3: NUMBER OF PERSONS HIV TESTED AND HIV-SEROSTATUS RESULTS IN 2004
The Northern region: (the district hospital is highlighted in bold-other sites in the district are listed below)

Site	Blood donors	Blood donors: HIV+ve	Ante-Natal	Ante-natal: HIV+ve	VCT / Patients (*)	VCT / Patients: HIV+ve	Total	Total: HIV+ve
Chitipa DH	488	23	0	0	1285	242	1773	265
Kaseye MH	No data available							
Nthalire HC	No data available							
Kameme HC	No data available							
Karonga DH	1777	646	92	12	1390	420	3259	1078
KPS Clinic	0	0	0	0	461	60	461	60
Nyungwe HC	0	0	0	0	185	21	185	21
Kaporo HC	0	0	0	0	866	113	866	113
Nkhata Bay DH	532	61	0	0	658	262	1190	323
Chinteché RH	203	16	0	0	557	162	760	178
Mpamba HC	0	0	0	0	625	93	625	93
Kachere HC	0	0	0	0	66	10	66	10
Rumphi DH	301	27	0	0	1405	342	1706	369
Livingstonia MH	177	5	No data		447	76	624	81
Borero HC	No data available							
Katowo HC	0	0	0	0	122	12	122	12
Mzokoto HC	No data available							
Mzimba DH	1212	151	0	0	691	172	1903	323
Mzuzu CH	1861	216	1702	255	749	399	4312	870
Mzuzu Macro	0	0	0	0	14700	1569	14700	1569
Moyale Barracks	0	0	0	0	87	63	87	63
Mzambazi HC	No data available							
Tovwirane VCT	0	0	0	0	474	115	474	115
St Johns MH	640	60	0	0	906	478	1546	538
Ekwendeni MH	701	42	959	85	3742	485	5402	612
EmbangweniMH	623	18	3630	337	1175	162	5428	517
Katete MH	305	6	263	12	610	65	1178	83
Enukweni HC	0	0	0	0	806	78	806	78
Total for North	8820	1271	6646	701	32007	5399	47473	7371

ANNEX 3: NUMBER OF PERSONS HIV TESTED AND HIV-SEROSTATUS RESULTS IN 2004
The Central region: (the district hospital is highlighted in bold-other sites in the district are listed below)

Site	Blood donors	Blood donors: HIV+ve	Ante-Natal	Ante-natal: HIV+ve	VCT / Patients (*)	VCT / Patients: HIV+ve	Total	Total: HIV+ve
Mchinji DH	1251	110	239	36	790	267	2280	413
Kapiri MH	909	73	427	26	1724	385	3060	484
Mkanda HC	No data available							
Ntcheu DH	1591	177	1	1	536	170	2128	348
Mikoke RH	145	18	0	0	45	21	190	39
Lakeview HC	No data available							
Mzama HC	No data available							
Senzani HC	No data available							
Dedza DH	995	108	0	0	546	124	1541	232
Mua MH	520	80	0	0	684	148	1204	228
Kasungu DH	3558	451	No data available		2985	673	6543	1124
Nkhamenya MH	No data available							
Estate 81 Clinic	0	0	0	0	61	3	61	3
Santhe HC	0	0	0	0	227	16	227	16
Kaluluma HC	0	0	0	0	539	29	539	29
Mtunthama HC	0	0	0	0	174	24	174	24
Dowa DH	613	8	999	53	1908	238	3520	299
Madisi MH	1059	115	0	0	245	58	1304	173
Mponela MAICC	No data available							
Mtengawantenga MH	1276	85	0	0	805	444	2081	529
Chankhungu HC	0	0	0	0	192	9	192	9
Mvera M HC	0	0	0	0	186	8	186	8
Thonje HC	0	0	0	0	124	9	124	9
MsakambewaHC	0	0	0	0	208	14	208	14
Ntchisi DH	1047	32	0	0	1680	311	2727	343
Salima DH	1748	177	0	0	1078	382	2826	559
MAFCO Clinic	No data available							
Nkhotakota DH	112	49	0	0	731	186	843	235
St Anne's MH	611	21	142	12	2931	305	3684	338
Dwangwa Clinic	148	21	0	0	898	203	1046	224
Alanafe Hospital	0	0	0	0	301	69	301	69
Kamuzu CH LL	4728	764	19528	2940	1572	910	25828	4614
Lighthouse Cl	0	0	0	0	6585	3543	5973	3438
Kam Bottom H	No data available		0	0	3957	1934	3957	1934
Chiwamba HC	0	0	0	0	228	10	228	10
Mitundu Rural H	0	0	0	0	758	55	758	55
Area 18	Data included under Lighthouse Clinic							
Lilongwe Macro	0	0	0	0	16585	2069	12655	2069
Lilongwe SOS	0	0	0	0	554	314	554	314
Nkhoma MH	No data available		0	0	579	245	579	245
Likuni MH	1511	223	1770	229	1125	434	4406	886
St Gabriels MH	2749	288	4267	156	2397	746	9413	1190
Mlale MH	832	92	660	49	203	75	1695	216
Kam Barracks H	20	7	0	0	295	235	315	242
Total for Central Region	25423	2899	28033	3502	54446	14666	107902	21067

ANNEX 3: NUMBER OF PERSONS HIV TESTED AND HIV-SEROSTATUS RESULTS IN 2004
The Southern region: (the district hospital is highlighted in bold-other sites in the district are listed below)

Site	Blood donors	Blood donors: HIV+ve	Ante-Natal	Ante-natal: HIV+ve	VCT / Patients (*)	VCT / Patients: HIV+ve	Total	Total: HIV+ve
Nsanje DH	264	13	0	0	1379	643	1643	656
Trinity MH	644	119	0	0	815	451	1459	570
Kalemba HC	0	0	0	0	120	47	120	47
Chikwawa DH	1894	711	159	28	2370	533	4423	1272
Ngabu Rural H	0	0	0	0	369	89	369	89
Ngabu SDA	0	0	21	6	893	193	914	199
Makhuwila HC	0	0	0	0	92	30	92	30
Montfort MH	402	80	137	42	1093	439	1632	561
Sucoma Clinic	0	0	0	0	638	189	638	189
Mangochi DH	1938	237	31	14	994	339	2963	590
St Martins MH	No data available							
Machinga DH	1163	127	492	101	1271	645	2926	873
Ntaja HC	0	0	0	0	843	145	843	145
Liwonde HIC	0	0	0	0	940	114	940	114
Chamba HC	0	0	0	0	185	30	185	30
Nyambi HC	0	0	0	0	212	40	212	40
Chikweu HC	0	0	0	0	154	22	154	22
Balaka DH	846	139	0	0	1409	678	2255	817
Thyolo DH	2522	301	2550	586	9583	4510	14655	5397
Malamulo MH	705	98	389	76	3292	771	4386	945
Amalika HC	0	0	0	0	1041	218	1041	218
Bvumbwe HC	0	0	0	0	1756	546	1756	546
Makungwa HC	0	0	0	0	994	185	994	185
Chimaliro HC	0	0	0	0	1099	345	1099	345
Mikolongwe HC	0	0	0	0	925	248	925	248
Khonjeni HC	0	0	0	0	1847	663	1847	663
Changata HC	0	0	0	0	959	203	959	203
Thekerani HC	0	0	0	0	2197	367	2197	367
Conforzi HC	0	0	0	0	954	89	954	89
Satemwa HC	0	0	0	0	1008	183	1008	183
Chipo HC	0	0	0	0	474	68	474	68
Mulanje DH	1185	294	53	27	2038	1065	3276	1386
Mulanje MH	545	89	17	9	2534	1448	3096	1546
Namasalima HC	0	0	0	0	950	156	950	156
Chonde HC	0	0	0	0	878	253	878	253
Phalombe MH	763	158	0	0	1528	592	2291	750
Mwanza DH	1217	135	1579	163	1741	367	4537	665
Thambani HC	0	0	0	0	46	6	46	6
Neno HC	0	0	0	0	341	11	341	11
Kunenekude HC	0	0	0	0	44	3	44	3
Chiradzulu DH	741	139	583	130	3144	1661	4468	1930
Bilawo HC	0	0	0	0	108	59	108	59
Chitela HC	0	0	0	0	91	60	91	60
Mauwa HC	0	0	0	0	144	66	144	66
Mbulumbuzi HC	0	0	0	0	187	87	187	87
Milepa HC	0	0	0	0	527	235	527	235
Namadzi HC	0	0	0	0	216	117	216	117
Namitambo HC	0	0	0	0	454	263	454	263

Site	Blood donors	Blood donors: HIV+ve	Ante-Natal	Ante-natal: HIV+ve	VCT / Patients (*)	VCT / Patients: HIV+ve	Total	Total: HIV+ve
South Region								
Ndunde HC	0	0	0	0	255	119	255	119
Nkalo HC	0	0	0	0	350	195	350	195
PIM HC	0	0	0	0	147	65	147	65
St Joseph's MH	607	58	39	14	1142	589	1788	661
Zomba CH	2009	242	0	0	2870	1234	4879	1476
St Lukes MH	378	34	0	0	1190	538	1568	572
Zomba Police H	37	4	0	0	375	74	412	78
Zomba Army H	78	27	0	0	219	81	297	108
Nasawa HC	No data available							
Domasi Rural H	No data available							
Matawale HC	No data available							
Nasawa HC	No data available							
Chipini HC	0	0	0	0	139	30	139	30
Mayaka HC	No data available							
Jali Youth Centre	No data available							
Nthondwe HC	0	0	0	0	1041	199	1041	199
Primiti HC	No data available							
Hope for Life	0	0	0	0	200	24	200	24
QECH Blantyre	8827	768	2412	618	3564	2271	12391	3039
Ndirande HC	0	0	0	0	2446	642	2446	642
Lunzu DAPP	0	0	174	41	1141	202	1315	243
Limbe HC	0	0	0	0	1703	412	1703	412
Chilomoni HC	0	0	0	0	795	186	795	186
Bangwe HC	0	0	0	0	945	215	945	215
Mlambe MH	1388	155	30	11	632	447	2050	613
Blantyre Macro	0	0	0	0	17242	3408	17242	3408
Total for South Region	28153	3928	8666	1866	91273	30403	128092	36197

ANNEX 4: TB CASES, HIV TESTING AND ADJUNCTIVE COTRIMOXAZOLE OFFERED AT ALL GOVERNMENT AND CHAM HOSPITALS WHICH REGISTERED TB PATIENTS IN 2004

Site	TB cases registered in 2004	TB cases HIV-tested	TB Cases HIV-positive	Offered Cotrimoxazole
NORTH Region				
Chitipa DH	100	67	33	32
Karonga DH	237	84	51	51
Nkhata Bay DH	373	0	0	0
Rumphi DH	274	0	0	0
Livingstonia MH	82	0	0	0
Mzimba DH	338	143	89	88
Mzuzu CH	389	98	76	74
St Johns MH	184	41	34	34
Ekwendeni MH	133	116	94	94
EmbangweniMH	134	121	71	71
Katete MH	17	4	1	1
CENTRAL Region				
Mchinji DH	439	0	0	0
Ntcheu DH	767	99	82	81
Dedza DH	521	0	0	0
Mua MH	132	34	21	21
Kasungu DH	589	344	213	213
Dowa DH	242	77	37	35
Madisi MH	125	0	0	0
Ntchisi DH	198	35	28	23
Salima DH	519	63	37	37
Nkhotakhota DH	557	0	0	0
St Annes MH	127	0	0	0
Kamuzu BH	2999	1135	879	858
Nkhoma MH	414	44	32	32
Likuni MH	331	0	0	0
St Gabriels MH	322	197	114	114
SOUTH Region				
Nsanje DH	803	241	174	174
Trinity MH	346	302	192	191
Chikwawa DH	909	298	168	164
Montfort MH	141	67	50	50
Mangochi DH	1308	75	60	41
Machinga DH	660	133	87	78
Balaka DH	602	43	43	43
Thyolo DH	1039	914	727	712
Malamulo MH	368	350	174	137
Mulanje DH	530	214	147	143
Mulanje MH	553	444	337	326
Phalombe MH	357	0	0	0
Mwanza DH	383	23	19	19
Chiradzulu DH	740	437	376	371
St Joseph's MH	250	44	34	34
Zomba CH	2028	163	127	113
St Lukes MH	223	153	125	124
QECH, Blt	3794	0	0	0
Mlambe MH	559	78	72	70
Totals	26136	6681	4804	4649

ANNEX 5: CUMULATIVE ANALYSIS OF ARV THERAPY UP TO DECEMBER 31, 2004

Hospital	Number started on ART	Gender		Standardised Treatment Outcomes				
		Male	Female	Alive and on ART	Dead	Lost to Follow Up	Stopped ART	Transfer Out
<i>Northern Region:</i>	1321	544 41%	777 59%	1198 91%	82 6%	14 <1%	10 <1%	17 1%
Mzuzu Central H	1100	452	648	1012	69	0	10	9
Ekwendeni MH	144	72	72	121	4	12	0	7
Moyale Barracks	16	11	5	15	1	0	0	0
Livingstonia MH	51	17	34	41	8	2	0	0
Embangweni H	10	2	8	9	0	0	0	1
<i>Central Region:</i>	3568	1747 49%	1821 51%	2695 76%	69 2%	600 17%	46 1%	158 4%
Lighthouse- LL	3121	1521	1600	2318	28	585	41	149
KCH-OPD1	88	38	50	64	12	6	3	3
Lilongwe SOS	61	27	34	57	4	0	0	0
Mtengowantenga	11	7	4	11	0	0	0	0
St Theresa MH	7	0	7	7	0	0	0	0
Kamuzu Barr H	130	89	41	119	6	2	0	3
Mchinji DH	6	1	5	6	0	0	0	0
Kapiri MH	99	45	44	73	15	6	2	3
St Gabriels MH	45	19	26	40	4	1	0	0
<i>Southern Region:</i>	8294	2983 36%	5311 64%	6868 83%	875 11%	425 5%	50 0.5%	75 0.5%
Thyolo DH	1553	545	1008	1310	139	40	32	32
Malamulo MH	113	46	67	104	7	0	2	0
QECH, Blantyre	1264	544	720	1163	46	10	3	42
Chiradzulu DH	4465	1542	2923	3503	588	363	11	0
St Joseph MH	296	120	176	253	32	9	0	2
Mulanje MH	225	60	165	186	39	0	0	0
Zomba CH	147	51	96	136	11	0	0	0
St Lukes MH	120	42	78	106	12	1	1	0
Zomba Barracks	22	11	11	18	1	2	1	0
Andiamu Clinic	89	22	67	89	0	0	0	0
Total Numbers	13183	5274 40%	7909 60%	10761 82%	1026 8%	1039 8%	106 <1%	251 2%

ANNEX 6: COUNSELING AND HIV TESTING SITES, AND COUNSELORS IN 2004

Site	Number of Counselors	Number of Full-Time Counselors
North Region		
Chitipa DH	3	3
Kaseye MH	2	2
Nthalire HC	3	3
Kameme HC	4	4
Karonga DH	5	5
KPS, Chilumba	2	2
Nyungwe HC	2	2
Kaporo HC	2	2
Nkhata Bay DH	8	2
Chinteche RH	5	5
Mpamba HC	5	3
Kachere HC	2	2
Rumphu DH	3	3
Livingstonia MH	6	1
Borero HC	2	2
Katowo HC	1	1
Mzokoto HC	1	1
Mzuzu CH	25	1
Mzuzu Macro	13	11
Moyale Barracks H	2	0
Mzimba DH	10	10
Tovwirane VCT center	5	5
St Johns MH	5	2
Ekwendeni MH	16	4
Embangweni MH	6	0
Katete MH	10	0
Enukweni HC	2	2
Total for North	150	78
Central region		
Mchinji DH	12	4
Kapiri MH	6	1
Mkanda HC	2	1
Ntcheu DH	10	4
Mikoke RH	3	0
Lakeview HC	No data	No data
Mzama HC	No data	No data
Senzani HC	No data	No data
Dedza DH	7	4
Mua MH	4	2
Kasungu DH	9	4
Nkhamenya RH	2	2
Estate 81 Clinic	2	1
Santhe HC	5	2
Kaluluma HC	5	2
Mtunthama HC	2	2
Dowa DH	21	4
Madisi MH	2	0
Mtengawathenga MH	2	0

**ANNEX 6: COUNSELING AND HIV TESTING SITES, AND COUNSELORS IN 2004
(Continued)**

Site	Number of Counselors	Number of Full-Time Counselors
Central Region (cont)		
Chankhingu HC	2	2
Mvera M HC	2	2
Thonje HC	2	2
Msakambewa HC	2	2
Ntchisi DH	11	2
Salima DH	4	2
MAFCO Army Clinic	No data	No data
Nkhotakhota DH	4	3
St Anne's MH	6	2
Dwangwa Clinic	7	2
Alinafe RH	1	1
Kamuzu CH	3	3
Lighthouse Clinic	8	8
Kamuzu Bottom Hospital	4	2
Chiwamba HC	2	2
Mitundu RH (World Alive)	8	8
Area 18 HC	2	2
Lilongwe Macro Site	14	12
Lilongwe SOS	21	2
Nkhoma MH	7	0
Likuni MH	14	3
St Gabriels MH (Namitete)	15	2
Mlale RH	3	1
Kamuzu Barracks Hospital	3	1
Total for Central	239	99
South Region		
Nsanje DH	6	5
Trinity MH	3	3
Kalembe HC	5	0
Chikwawa DH	8	4
Ngabu RH	1	1
Ngabu SDA HC	3	2
Makhuwila HC	2	2
Montfort MH	2	2
Sucoma Clinic	8	1
Mangochi DH	14	7
St Martins MH	7	3
Machinga DH	6	4
Ntaja HC	6	1
Liwonde HIC	2	2
Chamba HC	1	1
Nyambi HC	4	1
Chikweu HC	1	1
Balaka DH	8	4
Thyolo DH	7	5
Malamulo MH	15	5
Amalika HC	2	2
Bvumbwe HC	4	3

**ANNEX 6: COUNSELING AND HIV TESTING SITES, AND COUNSELORS IN 2004
(Continued)**

Site	Number of Counselors	Number of Full-Time Counselors
Southern Region (cont)		
Makungwa HC	3	3
Chimaliro HC	4	3
Mikolongwe HC	2	2
Khonjeni HC	2	2
Changata HC	2	2
Thekerani HC	3	3
Conforzi HC	2	2
Satemwa HC	2	2
Chipo HC	3	3
Mulanje DH	11	4
Mulanje MH	9	4
Namasalima HC	5	1
Chonde HC	3	3
Phalombe MH	4	1
Mwanza DH	8	4
Thambani HC	2	0
Neno HC	2	0
Kunenekude HC	1	0
Chiradzulu DH	4	4
Bilawo HC	Mobile team visits	Mobile team visits
Chitela HC	Mobile team visits	Mobile team visits
Mauwa HC	1	0
Mbulumbuzi HC	1	0
Milepa HC	1	0
Namadzi HC	1	0
Namitambo HC	1	0
Ndunde HC	1	0
Nkalo HC	1	0
PIM HC	Mobile team visits	Mobile team visits
St Joseph's MH	3	1
Zomba CH	7	2
Zomba Police H	6	2
Zomba Cobbe Army H	11	0
St Lukes MH	9	5
Nasawa HC	2	2
Domasi RH	5	5
Matawale HC	3	3
Nasawa HC	2	2
Chipini HC	5	2
Mayaka HC	No data	No data
Jali Youth Centre	No data	No data
Nthondwe HC	No data	No data
Pirimiti HC	2	2
Hope for Life Community	3	3

**ANNEX 6: COUNSELING AND HIV TESTING SITES, AND COUNSELORS IN 2004
(Continued)**

Site	Number of Counselors	Number of Full-Time Counselors
Southern Region (cont)		
QECH Blt (+Tiyanjani)	7	5
Ndirande HC	6	6
Lunzu DAPP	5	4
Limbe HC	8	2
Chilomoni HC	6	4
Bangwe HC	3	2
Mlambe MH	19	1
Blantyre Macro Site	16	13
Total for South Region	322	168

ANNEX 7: NEW COUNSELING SITES WHERE TRAINED STAFF WERE PLACED IN 2005

District	New Counseling site	Number of Full-time counselors
Chitipa	Wenya HC	3
	Misuku Hills HC	3
	Ifumbo HC	2
	Pachambo HC	1
	Chisenga HC	2
	Tutulane HC	1
Nkhata Bay	Usisya HC	2
Rumphi	Chitimba HC	1
	Mlowe HC	1
	Mhuju HC	2
	BLM-Rumphi	1
Mzimba	Euthini HC	2
	Kafukule HC	1
Mchinji	Nkhwazi HC	2
	Kochilira HC	3
Dedza	Mayani HC	2
	Kanyezi HC	2
	Lobi HC	2
Ntchisi	Mkunzi HC	2
	Kasonga HC	1
	Khuwi HC	2
	Malomo HC	2
	Chinguluwe HC	2
	Kangolwa HC	2
	Thondo HC	1
	Mzandu HC	1
Salima	Kombedza HC	2
	Makiwoni HC	2
	Maganga HC	2
	Mchoka HC	2
	Lifuwu HC	2
	Chinguluwe HC	2
	Chipoka HC	2
	Kapatenga HC	2
	Senga Bay HC	2
	Nkhotakhota	Mwansambo HC
Ikunga HC		1
Dombazi HC		1
Lilongwe	Lumbadzi HC	3
	Chitedze HC	3
	Area 25	2
	Kawale HC	2
	Kabudula Rural Hospital	2
	Mbang'ombe HC	2
Nsanje	Ndamera HC	1
	Mbenje HC	1
Chikwawa	Mkumaniza HC	1
	Chipwaila HC	1
	Mfera HC	1
	Mapelela HC	1

**ANNEX 7: NEW COUNSELING SITES WHERE TRAINED STAFF WERE PLACED IN 2005
(continued)**

District	New Counseling site	Number of Full-time counselors
Mangochi	Chilipa HC	4
	Namwera HC	3
Phalombe	Nambazo HC	2
	Migowe HC	3
	Nambite HC	1
Zomba	BLM – Zomba	2
Total	56 new sites	102 new counselors