REPORT OF A COUNTRY-WIDE SURVEY

OF

HIV /AIDS SERVICES

IN

MALAWI

(for the year 2003)

National Tuberculosis Control Programme, MOH

HIV / AIDS Unit, Department of Clinical Services, MOH

National AIDS Commission

March 2004

CONTRIBUTORS TO THE SITUATIONAL ANALYSIS

Planning Group:

Rhehab Chimzizi	NTP, MOH
Anthony Harries	HIV Unit, MOH
Maxwell Gondwe	NTP, MOH
Felix Salaniponi	NTP, MOH
Edwin Libamba	HIV Unit, MOH
Erik Schouten	HIV Coordination, MOH
Simon Makombe	HIV Unit, MOH
Francis Gausi	NTP, MOH
Charity Golombe	NTP, MOH
Elube Manda	NTP, MOH
Angela Khonyongwa	NTP, MOH
Andrina Mwansambo	NAC
Rex Mpazanje	Clinical Services, MOH

Implementation Group:

Rhehab Chimzizi	NTP, MOH
Francis Gausi	NTP, MOH
Charity Golombe	NTP, MOH
Elube Manda	NTP, MOH
Angela Khonyongwa	NTP, MOH

Data Analysis Group:

Anthony Harries	HIV Unit, MOH
Rhehab Chimzizi	NTP, MOH

Writing Group:

Rhehab Chimizi	NTP, MOH
Anthony Harries	HIV Unit, MOH
Edwin Libamba	HIV Unit, MOH
Simon Makombe	HIV Unit, MOH
Erik Schouten	HIV Coordination, MOH
Maxwell Gondwe	NTP, MOH
Andrina Mwansambo	NAC
Felix Salaniponi	NTP, MOH
Rex Mpazanje	Clinical Services, MOH

LIST OF ACRONYMS USED

AIDS	Acquired immune deficiency syndrome
ANC	Antenatal clinic
ARV	Antiretroviral therapy
CDC	Centres for Disease Control, Atlanta, USA
CH	Central Hospital
CHAM	Christian Health Association of Malawi
CMS	Central Medical Stores
CTX	Cotrimoxazole
DAC	District AIDS Coordinator
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
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
NTP	National Tuberculosis Control Programme
PLWHA	People living with HIV and AIDS
PMTCT	Prevention of Mother to child transmission of HIV
PTB	Pulmonary tuberculosis
RWBT	Rapid Whole Blood test
QC	Quality control
STI	Sexually transmitted infection
TB	Tuberculosis
VCT	Voluntary counseling and testing
WHO	World Health Organization

Deleted: ¶

EXECUTIVE SUMMARY

Between January and March 2004, a country-wide survey was undertaken to obtain comprehensive and up-to-date information about HIV/AIDS services in the government and CHAM sectors in Malawi for the year 2003. The main findings are summarised below:-

- There were 117 sites (central, district, mission and rural hospitals; clinics and health centres; and stand-alone sites) performing HIV testing.

- There were a total of 215,269 HIV tests carried out in the year: these included 60,561 HIV tests on blood donors (28%), 26,791 tests on pregnant women for Prevention of Mother to Child Transmission of HIV - PMTCT (12%), and 127,917 HIV tests on clients and patients (60%).
  HIV-prevalence rates were 15% in blood donors, 13% in antenatal women and 29% in clients and patients.
  Of 127,917 clients and patients tested, there were 48,333 persons who were tested in the three MACRO sites where the proportion of persons HIV-positive was 14%. There were 79,584 persons who were tested in the integrated health facility sites where the proportion of persons HIV-positive were 39%.

- There were 17 facilities providing PMTCT services. Of the 26,791 women tested for PMTCT services, 3,383 were HIV-positive and 2,198 mother-child pairs received nevirapine.

- There were 26,742 patients registered with TB in the public health facilities. HIV testing of TB patients occurred in 23 hospitals. Of registered TB patients, 3,983 (15%) were HIV tested, 2,734 (69% of those tested) were HIV-positive and 2,349 (87% of those HIV-positive) received cotrimoxazole adjunctive treatment.

- There were 9 sites providing HAART, and 3,703 patients started HAART during 2003.

- In the 57 health facilities assessed, there was some form of counseling and HIV testing (VCT). There was a total of 417 counselors, of whom 48 were full-time. 86 counselors had been trained in rapid whole blood testing. In 13 (23%) hospitals there was some form of external quality assurance of VCT. There were 51 health facilities, which provided VCT on five days a week. Thirty seven (65%) had one or more dedicated VCT rooms, and 41 (72%) had some form of VCT register to record data.

- There were 120 trained laboratory staff in these 57 health facilities, of whom 71 (59%) had been formally trained in rapid whole blood testing. There were 55 health facilities using rapid HIV test kits, usually Determine and Unigold. For clients and patients, all but one hospital used two tests (either parallel or serial). For blood donors, 27 hospitals used one test and 25 used two tests. Only one hospital had external quality control.

- There were 6 (11%) health facilities with stock-outs of HIV test kits in 2003. At the time of the visit, 3 facilities had no Determine in stock and 11 had no Unigold. In 8 (15%) hospitals, some of the Determine and Unigold test kits had expired.

- There was an improvement in HIV-AIDS services in 2003 compared with 2002. In 2003, there were another 47 sites providing VCT in the public health sector and another 65,729 persons HIV tested compared with the previous year. The number of blood donors tested and the number of persons visiting MACRO sites remained similar between the two years. The largest differences were in the increased number of women being HIV tested for PMTCT services and the increased numbers of clients and patients, including TB patients, being tested at integrated health facilities. The proportions of those tested who were HIV-positive were fairly similar in each year.

- With regard to VCT and HIV testing services in 2003 compared with 2002, there was a higher proportion of full-time counselors, more hospitals having dedicated VCT rooms and using some form of VCT register. External quality assurance was still weak. In the laboratories just over a quarter of hospitals had standardised blood donor registers, making the collation of HIV test data much easier than in the previous year. Rapid whole blood testing was the norm in both years, and all clients and patients in 2003 were being tested using serial or parallel testing. External quality control was virtually absent.

- Hospitals were assessed as to whether they had capacity to expand HIV-TB activities. There were 16 hospitals in 13 districts, which were selected for expansion of HIV-TB activities, the main activity being routine VCT and adjunctive CTX to patients found to be HIV-positive. The hospital staff will be trained between April and June, with implementation starting in July 2004. These will be additional to the existing 15 hospitals, which are already providing routine counseling and testing and cotrimoxazole adjunctive treatment for those HIV-positive.

- All health facilities, listed in Appendix 1 and some from Appendix 2 of the ARV Scale Up Plan, which not delivering ART stated that they could make a room available for ARV therapy. There was one hospital which stated it would have difficulty releasing a clinical officer for ARV duties because of staff shortages in the hospital. All health facilities stated they could release a nurse, a counselor and a clerk for ART delivery. A list of health facilities to be invited to the briefing sessions on ART scale up was prepared as a result of this assessment.

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 10.5 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, as many as 80,000 people in Malawi die from AIDS and another 110,000 new infections occur, most of these among young people.

HIV-TB epidemic:
The HIV epidemic has fuelled an equally severe tuberculosis (TB) epidemic. TB case notifications have risen by a factor of 500% between 1985 and 2001, and a country-wide 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:
Between January to March 2003 a country-wide analysis was carried out to document HIV-AIDS services operating in 2002. There were 70 sites offering VCT, with a total number of 149,540 HIV tests carried out during that year. Of patients who were tested, just over 5,000 women attending ante-natal clinics were tested for PMTCT and about 35,000 clients and patients were tested in the integrated VCT sites. Just over 2000 TB patients (8% of those registered for treatment) were offered VCT . Given the state of the HIV epidemic in Malawi, these numbers were considered small. Antiretroviral (ARV) therapy was offered in three hospitals, and in 2002 a total of 1202 patients were started on HAART.

Deficiencies in counseling and HIV testing services were documented. A useful finding was that that hospitals with a high volume of HIV testing had more full-time counselors, counselors who undertook HIV testing themselves and a dedicated VCT room. A number of recommendations were made about how to scale up and improve VCT in the country. In particular, counseling services needed:- i) full-time counselors; ii) dedicated VCT rooms; iii) standardised VCT registers; iv) and regular quality assurance. HIV testing services in particular needed:- i) an uninterrupted supply of HIV test kits; ii) standardised guidelines about testing procedures; iii) standardised laboratory registers for blood donors; and iv) regular external quality control.

Based on objective assessment criteria, 15 hospitals in eleven districts were ear-marked for support for expanded HIV-TB activities, particularly routine VCT for all registered TB patients and adjunctive cotromoxazole for those found to be HIV-positive. This activity started in July 2003.

National Response:
The Government of Malawi has responded to the challenges posed by the HIV / AIDS epidemic, and this response was outlined in the previous situational analysis report. 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 behaviour 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 have 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. Funds have started to flow. In addition, Malawi has started to receive funds from the Global Fund for AIDS, tuberculosis and malaria (GFATM), and these funds will be used to support a strengthened AIDS care and support programme. In 2004, Malawi also launched its HIV-AIDS Policy spelling out clearly what should be done in the country to tackle the HIV-AIDS epidemic.

The biomedical aspects of the HIV/AIDS response include:- voluntary counseling and testing (VCT), 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:- VCT; 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 – 2006] for expanded HIV-TB activities, supported and funded in addition by USAID 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 preventive therapy to HIV-positive persons with TB, and provision of antiretroviral (ARV) therapy to patients with HIV-related TB.

One of the major HIV care-related activities to be implemented in 2004 is the national scale up of ARV therapy. A two-year plan has been developed and approved by the MOH with the main element being the implementation of first-line HAART in the major central, government and mission hospitals in Malawi during July - December 2004, provided those hospitals want to start ARV delivery and are assessed as ready to start. One of the important activities listed in the ARV Scale Up Plan was a country-wide situational analysis, which was listed as an activity to be undertaken in the first three months (January to March) of 2004.

AIM AND OBJECTIVES

The aim of this survey was to build on the previous country-wide situational analysis of HIV /AIDS services in Malawi for 2002, and obtain similar and additional data for 2003. The 2003 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:-

a) the current VCT and HIV testing and delivery services on the ground
b) where to expand HIV-TB services particularly VCT and adjunctive cotrimoxazole for TB patients registered in the routine system
c) the current state of ARV delivery services and the possibility for ARV scale up at facility level.

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

There were 9 specific objectives:-

1. To identify all the sites in Malawi providing counseling and HIV testing in 2003

2. To document the number of persons who were HIV tested in Malawi in 2003, along with HIV test results

3. To document the status of PMTCT services for 2003

4. To assess the status of routine counseling and HIV testing for patients registered with tuberculosis (TB) and the use of adjunctive cotrimoxazole in 2003

5. To assess the number of sites and the number of patients who accessed ARV therapy in 2003

6. To record information on the currrent counseling and HIV testing services in the major health facilities in the country, particularly in those institutions ear-marked for ARV Scale up in 2004

7. To compare the status of HIV-AIDS services in 2003 with that provided in 2002

8. To assess which hospitals had strong enough HIV services and TB control services in order to expand the number of sites providing joint HIV-TB activities

9. To brief hospitals about the plans for ARV Scale Up and to explore with DHMTs whether human resources and infrastructure could be made available for Malawi's ARV Scale Up Plan for 2004.

METHODOLOGY

Background

The Ministry of Health and Population (MOHP) 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 MOHP and CHAM.

There are 45 major MOHP 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 18 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 and VCT centres, and 3 MACRO stand-alone sites. Hospitals and health facilities in which it was thought that ARV therapy might start in 2004 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

In early January 2004, 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 and TB officer. All these hospitals were visited by a team consisting of Rhehab Chimzizi, Francis Gausi, Charity Golombe, Eluba Manda and Angela Knonyongwa between January and March 2003.

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 VCT services, VCT 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 2003 (blood donors and others). In many cases manual counting of the laboratory registers had to be carried out by the study team as numbers for the previous year or previous months had not been collated. VCT registers, ANC registers, TB registers and TB-VCT registers were also inspected and results of HIV testing for 2003 were recorded. If ARV therapy was provided then information on the number of patients being started on ART for 2003 were documented.

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 traveled to these sites to collect data on the numbers of persons HIV tested in 2003.

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. In particular, DHMTs were briefed about the current plans for ARV scale up in the country, and for those not yet providing ARV services they were asked about the possibility of releasing full-time staff for this activity and making available a dedicated room. Some of the hospitals were already providing routine counseling and HIV testing for TB patients. For those hospitals not yet providing this service, they were assessed according to criteria developed in early 2003 for support for starting VCT and cotrimoxazole for TB patients.

Data Analysis

Data was entered into an EPI-INFO software package, and data analysis conducted by Anthony Harries and Rhehab Chimzizi.

Funding modalities

Funding for the country-wide analysis were provided from STOP-TB, World Health Organization, Geneva as part of their support for expanded HIV-TB activities in Malawi. Funding was required for stationary, fuel, subsistence and accommodation. In total, the cost of the analysis was USD$7,500.

FINDINGS

1. HIV testing sites in Government and CHAM health facilities in Malawi in 2003

There were 117 sites performing HIV testing in Malawi in 2003. These included:- a) 45 major MOH and CHAM hospital sites, which provided TB registration facilities, ie 5 central hospital sites, 22 district hospital sites and 18 mission hospital sites; b) 13 mission or rural hospital sites which were not TB registration units; c) 4 Army and 1 police hospital sites; d) 43 health centre sites; e) 8 counseling centre or clinic sites; f) 3 MACRO stand-alone sites, ie not integrated into hospital services. Details of these 117 sites are shown in **Annex 2.**

2. Number of persons HIV tested and HIV results in Malawi in 2003

Specific details of HIV tests and HIV-serostatus results in each of the 117 HIV testing sites are shown in **Annex 3.**

A total of 215,269 HIV tests were performed in Malawi in 2003. These included 60,561 HIV tests on blood donors (28%), 26,791 HIV tests on pregnant women for Prevention of Mother to Child Transmission of HIV - PMTCT (12%), and 127,917 HIV tests on clients and patients (60%). This data slightly underestimates the total number of persons tested because there were some missing or incomplete records. Records were missing or incomplete on blood donors at Nkhamenya Mission Hospital, MAFCO Clinic, Nkhoma Mission Hospital, and Lilongwe Barracks Hospital. There were also no records of HIV tests done at Nasawa health centre in the Southern Region.

Results of HIV testing are shown below.
Of 215,269 persons tested in 2003, 50,115 (23%) were HIV-positive.
Of 60,561 blood donors tested, 9,180 (15%) were HIV-positive.
Of 26,791 pregnant women tested for PMTCT, 3,383 (13%) were HIV-positive
Of 127,917 clients and patients tested, 37,552 (29%) were HIV-positive

Of 127,917 clients tested:-
There were 48,333 persons who were tested in the three MACRO sites where the number and proportion of persons HIV-positive was 6,794 (14%)
There were 79,584 persons who were tested in the integrated health facility sites where the number and proportion of persons HIV-positive were 30,758 (39%).

2.1. HIV testing and HIV results according to region:

There were regional differences with higher numbers of clients and patients HIV tested, and 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.

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

	HIV tests carried out in 2003 according to Region		
	North	**Central**	**Southern**
Blood donors tested	9882	22628	28051
Blood donors HIV-positive (%)	980 (10%)	3218 (14%)	4982 (18%)
Pregnant women tested	5522	16202	5067
Pregnant women HIV-positive (%)	327 (6%)	2173 (13%)	883 (17%)
Clients and patients tested	24609	39893	63415
Clients and patients HIV-positive (%)	4885 (20%)	10727 (27%)	21944 (35%)
MACRO Site:			
Clients tested	13335	16860	18138
Clients HIV-positive (%)	1489 (11%)	2031 (12%)	3274 (18%)
Integrated Health Facility Sites:			
Clients and patients tested	11274	23033	45277
Clients and patients HIV-positive (%)	3396 (30%)	8696 (38%)	18670 (41%)

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

The major hospitals carrying out HIV testing in 2003 were:- Lilongwe Lighthouse and Lilongwe Bottom Hospital (7960); Thyolo District Hospital - supported by MSF-Luxembourg (6575); Chiradzulu District Hospital- supported by MSF-France (6556); and Queen Elizabeth Central Hospital (3428). In contrast to 2002, a lot more testing was done in health centres and clinics (20,075): this figure is also an underestimate as some health centre data was not available on site and was kept and reported with hospital data.

In 30 hospital / health facility VCT 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) and a “patient” who was more sick coming from out-patients or the wards. Amongst 41,618 persons with such records, 17,528 were "patients" and 24,090 were "VCT clients". Of 17,528 "patients", 10,820 (62%) were HIV-positive. Of 24,090 "VCT clients", 7,502 (31%) were HIV-positive. With the high rate of HIV-seropositivity in "VCT clients", it is likely that many of these persons were in fact patients.

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 48,333 persons tested, consisting of 34,444 (71%) men and 13,889 (29%) women. Of 34,444 men who were tested, 3302 (10%) were HIV-positive. Of 13,889 women tested, 3,492 (25%) 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.

In 15 hospital / health facility VCT registers, there was consistent recording of gender. Amongst 10,270 persons attending for VCT (either clients or patients), 5,367 (52%) were men and 4,903 (48%) were women. The gender ratio in health facilities was almost equal. Of the 5,367 men tested, 1,444 (27%) were HIV-positive. Of 4,903 women tested, 1,863 (38%) were HIV-positive. The reasons for the higher prevalence of HIV infection in women compared with men was not explored.

3. Pregnant women attending PMTCT Services in 2003

There were 17 health facilities, along with their outlying outreach centres, which provided PMTCT services in 2003. There were 26,791 pregnant women tested for PMTCT of whom 3,383 (13%) were HIV-positive. Of these women, 2,198 (65%) received nevirapine in the year 20003. The results for each hospital are shown in **Table 2.** Lilongwe Central Hospital, through UNC, provided the bulk of PMTCT services in Malawi during 2003.

Table 2: PMTCT results for 2003:

Hospital	Number of women HIV-tested	Number of women HIV-positive	Number of women given nevirapine
Chitipa District	37	3	0
Karonga (KPS)	867	83	18
Livingstonia Mission	894	76	10
Ekwendeni	328	42	33
Embangweni	3396	123	52
Kasungu District	131	29	11
St Annes Mission	12	12	11
LLW Central Hosp	11823	1916	1600
LLW Mlale Mission	111	6	0
Likuni Mission	297	52	24
St Gabriels Mission	3828	158	53
Mangochi District	1	0	0
Thyolo District	2650	513	255
Malamulo Mission	19	2	2
Mwanza District	1565	205	87
Chiradzulu District	731	144	23
St Josephs Mission	101	21	19

4. Counseling, HIV testing and adjunctive cotrimoxazole for TB patients in 2003.

4.1. Results over the whole year: January to December 2003:

In 2003, there was a total of 26,742 TB cases registered in Malawi in the 44 central, district and mission hospitals. HIV testing was carried out in 23 hospitals [15 hospitals supported for expanded HIV-TB activities and 8 other hospitals]. The number of TB patients who were HIV tested, the results of HIV tests and the number who were placed on cotrimoxazole for each hospital are shown in **Annex 4.**

The total numbers for the public health sector for Malawi in 2003 are shown in **Table 3.** In summary, 15% of TB patients in the country were HIV tested, of whom 69% were HIV-positive. Of those HIV-positive, 87% were placed on cotrimoxaole (CTX). The reason for 13% of patients not receiving CTX was that some sites had not been supported for expanded HIV-TB activities, and as such had no special programme of providing cotrimoxazole to HIV-positive TB patients.

Table 3: Total number of TB patients registered, HIV tested and placed on cotrimoxazole in 2003

For the Year 2003: Jan – December	Number (%)
Registered TB patients	26742
TB patients who were HIV tested	3983 (15%)
TB patients who were HIV-positive	2734 (69%)
TB patients placed on cotrimoxazole	2349 (87%)

4.2. Results in 15 hospitals providing expanded HIV-TB services: July – December 2003:

There were 15 hospitals supported in 2003 for expanded HIV-TB activities. All these hospitals were operational starting in July 2003, although some (Thyolo and Malamulo) had been operational for some years before. The number of patients registered, the number HIV tested and placed on cotrimoxazole for the last six months of 2003 (July to December) are shown in **Table 4.** In the last six months of 2003, in the 15 hospitals with expanded HIV-TB activities, 69% of the registered TB patients were HIV tested. Of those tested, 67% were HIV-positive. Of those who were HIV-positive, 98% received cotrimoxazole (CTX). Of those receiving CTX, 86% received the drug within 7 days of being registered.

Table 4: Number of TB patients and number HIV tested and placed on cotrimoxazole (CTX) between July and December 2003

Hospital	No. TB patients between July 1st and December 31st 2003 who were				
	Registered	HIV tested	HIV-positive	Placed on CTX	Placed on CTX within 7 days of Registration
Chitipa	49	41	23	21	20
Mzimba	130	107	59	56	35
Ekwendeni	74	65	53	53	53
Embangweni	57	49	25	25	24
Lilongwe CH	1187	688	406	396	348
Kasungu	276	216	132	129	96
Ntcheu	286	164	76	72	46
St Gabriels	97	83	50	49	48
Thyolo	488	420	332	320	223
Malamulo	149	111	91	91	82
Chiradzulu	514	386	311	311	311
Mulanje M	233	161	129	125	121
Machinga	367	192	121	118	111
St.LukesMalosa	89	60	43	43	39
Trinity-Muona	126	82	48	44	40
Total	**4122**	**2825**	**1899**	**1853**	**1597**

5. ARV therapy in the public health sector in 2003:

At the end of 2003, there were 9 sites providing ARV therapy to AIDS patients: In 6 of these sites patients had to pay and in the other 3 sites (Chiradzulu District Hospital, St Joseph's Hospital Nguludi, and Thyolo District Hospital), which are supported by MSF, the treatment was free. At the end of December 2003, these sites had been providing ART from between 6 months to 42 months previously. According to the information provided, a total of 6,414 patients had been started on ART ever since the ART programmes had started.

Data for the health facilities are provided in **Table 5.** Altogether 3,703 patients started on ART during 2003. The number of patients on ART at the end of 2003 is not known as both QECH and Lighthouse were unable to provide these figures; however it is likely to be higher than the number started in 2003 and therefore might be estimated at about 4,000.

Table 5: ARV therapy in the 9 health facilities providing this service

Health facility	No. months providing the service	No. personnel trained in ART	No. patients started on ART in 2003	No. patients on ART at the end of 2003
Ekwendeni MH	6	2	59	55
Lighthouse LLW	26	9	1068	Not known
Mtengwathenga MH	12	5	37	30
ABC Hospital – LLW	12	2	100	105
Mikoke Hosp Ntcheu	12	None	20	Not known
Chiradzulu DH	30	16	1472	1795
St Josephs MH Nguludi	11	4	88	80
Thyolo DH	8	7	425	391
QECH Blantyre	40	9	434	Not known

At the time of the survey, another hospital (Mulanje Mission Hospital) had geared up to provide ART with rooms refurbished and staff trained.

6. Counseling and HIV testing services

This assessment was carried out in all the hospitals and health facilities listed in the ARV Scale Up Plan- Appendix 1- with some additions from Appendix 2. Altogether 57 health facilities were assessed, and the name of each facility and the data collected for each facility are shown in **Annex 5.**

6.1. Counseling Services:

In the 57 health facilities, there was some form of voluntary counseling and testing service. There a total of 417 VCT counselors, 48 of whom were full-time and 369 part-time. 86 of these counselors had been trained in how to do whole blood rapid HIV testing. There were 38 hospitals, where there was some form of internal quality assurance of counseling, and 13 (23%) hospitals, where some form of external quality assurance was carried out. 51 hospitals provided a counseling service on five days a week. 41 (72%) hospitals recorded counseling and HIV testing information in some form of VCT register.

In 37 (65%) facilities there were one or more dedicated rooms for VCT counseling. Details about these rooms are shown in **Table 6.** Almost all the rooms were open from 8.00am to 5.00pm, with over 60% having a good waiting area and over 75% having condoms and a demonstration penis. Less satisfactory was the general absence of written referral systems for continuum of care and the general absence of National VCT Guidelines.

Table 6: Services provided in the 37 hospitals with a dedicated VCT room

VCT Service provided	**Number (%)**
Room open all day	36 (97%)
Good waiting area	23 (62%)
Condoms available	30 (81%)
Demonstration penis available	29 (78%)
Written systems for referral for continuum of care	4 (11%)
National VCT Guidelines available	14 (38%)

6.2. HIV Testing:

Altogether, there were 120 trained laboratory staff working in these 57 health facilities. 6 facilities had no trained staff, 17 had one trained technician or assistant, 22 had two and 12 had three or more. Of these laboratory staff, 71 (59%) had been formally trained in how to conduct rapid whole blood HIV (RWBT) testing.

There were 55 hospitals using RWBT kits: 53 using *Determine HIV-1/HIV-2 (Abbott Laboratories, Tokyo, Japan),* 53 using *Uni-Gold^{TM} HIV-1/HIV-2 (Trinity Biotech plc, Ireland),* and 17 using other types such as *Haemastrip HIV-1/HIV-2, Hexagon HIV-1/HIV-2 (Biochemica nrd Diagnostica mbH, Germany) or Capillus.* Three hospitals were using ELISA.

The testing methodology varied from health facility to health facility, as is shown in **Table 7.** If there was discordance between tests, 18 hospitals would use a tie-breaker utilising on site a different type of test, 30 would send the specimen away to a referral hospital for usually an ELISA test, 4 would repeat the tests at a later time and 3 would do nothing. Only 10 hospitals had HIV testing protocols visible in the laboratory. Only one of the 55 hospitals, using RWBT, had external quality control.

Table 7: Testing methodology in the 55 health facilities using RWBT kits

Type of client tested	Type of HIV testing methodology	Number
Patients / clients	One test	1
	Two tests: Parallel (done at the same time) Serial (one test followed by another)	54 34 20
	Serial two tests: HIV+ve, then confirm: HIV-ve, no second test HIV-ve, then confirm: HIV+ve, no second test	 20 0
Blood donors *	One test	27
	Two tests: Parallel (done at the same time) Serial (one test followed by another)	25 8 17

* There were 52 out of 55 health facilities, which tested blood donors.

6.3. HIV test kits:

There were 6 (11%) hospitals with stock-outs in 2003. The number of Determine and Unigold test kits were counted in the pharmacy, the laboratory and the VCT rooms. In 3 facilities there were no kits of Determine. In the other 52 facilities there was a median of 500 Determine tests (range 6 – 3,268). In 11 facilities there were no kits of Unigold. In the other 44 facilities, there was a median of 97 tests (range 2 – 989).

All Determine and Unigold test kits were inspected for the date of expiry. In 8 (15%) hospitals, some of test kits for Determine and some for Unigold had expired.

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

Similar types of information were collected for the country-wide analysis done for the year 2002, enabling a comparison between the two years to be made.

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

The comparison of the two years is shown in **Table 8.** In 2003, there were another 47 sites providing VCT services and another 65,729 persons HIV tested compared with 2002. The number of blood donors tested and the number of persons visiting MACRO sites remained similar between the two years. The largest differences were in the increased number of women being HIV tested for PMTCT services and the increased numbers of clients and patients, including TB patients, being tested at integrated health facilities. The proportions of those tested who were HIV-positive were fairly similar in each year. The number of patients receiving HAART increased three-fold.

Table 8: Comparison of HIV testing and HIV results in Malawi: 2003 and 2002

	2003	**2002**
Number counselling and HIV testing sites	117	70
Total number of HIV tests done: Number (%) tested who were HIV-positive	215,269 50,115 (23%)	149,540 33,303 (22%)
Number of Blood Donors HIV-tested Number (%) tested who were HIV-positive	60,561 9,180 (15%)	57,850 8,474 (15%)
Number of facilities providing PMTCT Number of ANC women HIV tested Number (%) tested who were HIV-positive	17 26,791 3,383 (13%)	7 5,059 840 (17%)
Number of persons at MACRO HIV tested Number (%) tested who were HIV-positive	48,333 6,794 (14%)	51,224 7,684 (15%)
Number of patients/clients at health facilities who were HIV tested Number (%) tested who were HIV-positive	79,584 30,758 (39%)	35,407 16,305 (46%)
Number of TB patients registered in the year Number (%) who were HIV tested Number (%) who were HIV-positive Number (%) who were given cotrimoxazole	26,742 3,983 (15%) 2,734 (69%) 2,349 (87%)	25,899 2,130 (8%) 1630 (77%) Not known
Number of facilities providing HAART Number of AIDS patients started on HAART	9 3,703	3 1,202

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

In the same 44 hospitals where an in-depth analysis was carried out last year, the status of VCT services, HIV testing procedures and HIV test kits for 2003 was performed. Results are shown in **Table 9**. Although there were less counselors in 2003 compared with 2002, there was a higher proportion of full-time counselors. In 2003, there was a definite improvement in VCT services with more hospitals having dedicated VCT rooms and using some form of VCT register. External quality assurance was still weak. In the laboratories just over a quarter of hospitals had standardised blood donor registers, making the collation of HIV test data much easier. Rapid whole blood testing was the norm in both years, and all clients and patients in 2003 were being tested using serial or parallel testing. External quality control was virtually absent. In 2003, virtually all hospitals had Determine or Unigold test kits in stock, although in a small proportion of hospitals some of these kits had expired.

Table 9: Comparison of VCT services, HIV test procedures and HIV kits in the 44 major government and CHAM hospitals: 2003 and 2002

	2003	2002
Number of VCT counselors Number (%) who were full-time	371 44 (12%)	456 38 (8%)
Number (%) of hospitals having counselors trained in rapid whole blood testing	17 (39%)	8 (18%)
Number (%) of hospitals with external quality assurance of VCT	11 (25%)	7 (16%)
Number (%) of hospitals having one or more dedicated VCT counseling rooms	32 (73%)	22 (50%)
Number (%) of hospitals with some form of VCT register	36 (82%)	31 (70%)
Number (%) of hospitals with a standardised blood donor register	14 (32%)	0
Number (%) of hospitals with laboratory staff trained in use of rapid whole blood testing	36 (82%)	37 (84%)
Number (%) of hospitals using rapid testing	44 (100%)	44 (100%)
Number (%) of hospitals with the following HIV testing protocols: For clients and patients:- 1 test only 2 tests For blood donors:- 1 test only 2 tests	 0 44 (100%) 23 (52%) 21 (48%)	 8 (18%) 36 (82%) 34 (77%) 10 (23%)
Number (%) of hospitals with External quality control of HIV testing	1 (2%)	1 (2%)
Number (%) of hospitals with test kits currently in stock (pharmacy, laboratory, VCT room): Determine kits in stock Some Determine kits expired Unigold kits in stock Some Unigold kits expired	 43 (98%) 7 44 (100%) 7	 38 (86%) 0 33 (75%) 0

Hospitals selected for support in expanding joint HIV-TB activities in 2004

At the end of each hospital visit, an assessment was made of the strength of VCT and HIV services and TB control services in order to make a decision about whether the hospital could be selected for support for expansion of joint HIV-TB activities.

This assessment was based on the same criteria as last year. For VCT this included:- a) number of clients and patients tested in 2003 in relation to estimated disease burden, b) presence of a VCT room or a clear indication from the district health management team (DHMT) or medical officer in charge about the imminent creation of a VCT room, c) presence of full-time counselors or an already established system of rotating part-time counselors to provide a regular full-time service, d) a good VCT register and/or laboratory register of clients and patients HIV tested, and e) an enthusiastic and supportive DHMT or medical officer in charge. For TB Control this included:- a) the presence of a well motivated TB officer, b) a well organized TB office, and c) a well kept and up to date TB register.

Based on these characteristics there were 16 hospitals in 13 districts, which were selected for expansion of HIV-TB activities, the main activity being routine VCT and adjunctive CTX to patients found to be HIV-positive. The hospital staff will be trained between April and June, with implementation starting in July 2004. The list of the 16 hospitals is shown in **Table 10.**

Table 10: Hospitals selected for expansion of joint HIV-TB activities in 2004 and those already implementing from 2003:

Region	Hospitals selected for expanded HIV-TB activities in 2004	Hospitals already implementing expanded HIV-TB activities from 2003
North	Mzuzu Central Hospital St Johns Mission Hospital (Mzuzu) Katate Mission Hospital (Mzimba) Karonga District Hospital	Chitipa District Hospital Mzimba District Hospital Ekwendeni Mission Hospital Embangweni Mission Hospital
Central	Dowa District Hospital Ntchisi District Hospital Nkhoma Mission Hospital, (LLW) Mua Mission Hospital (Dedza)	Kasungu District Hospital Ntcheu District Hospital St. Gabriel’s Mission Hospital Lilongwe Central Hospital
South	Nsanje District Hospital Chikwawa District Hospital Montfort Mission Hospital (CKW) St Josephs Hospital, Nguludi (CZD) Mlambe Mission Hospital (BLT) Mwanza District Hospital Balaka District Hospital Zomba Central Hospital	Thyolo District Hospital Malamulo Mission Hospital Chiradzulu District Hospital Mulanje Mission Hospital St. Lukes Mission Hospital, Malosa Machinga District Hospital Trinity Hospital, Muona

9. ARV scale up, human resources and infrastructure.

The health facilities assessed included:- i) all the major central, district and mission hospitals in the country; ii) the three main hospitals of the Malawi Defence Force; iii) the Zomba and Lilongwe Police Hospitals; iv) St Anne's Mission hospital in Nkotakota and Mlale Rural Mission Hospital in Lilongwe; v) SOS Clinic in Lilongwe, Dwangwa Matiti Clinic in Nkotakota, and Sucoma Clinic in Chikwawa.

In all the health facilities visited, the assessment team explored with the DHMT or hospital officers in charge about the ART scale up. In those hospitals where ART was not being delivered, the staff were asked whether:- a) a dedicated room could be made available for ARV therapy and b) one clinical officer/ clinician, one nurse, one counselor and one clerk could be made available for ART delivery.

All health facilities not delivering ART stated that they could make a room available for ARV therapy. There was one hospital (Nkhotakhota district hospital) which stated it would have difficulty releasing a clinical officer for ARV duties because of staff shortages in the hospital. All health facilities stated they could release a nurse, a counselor and a clerk for ART delivery.

The following health facilities have been invited to attend briefing sessions on ART scale up. Lilongwe Police health facility was not invited as at present it has not capacity for VCT.

North Region	Central Region	Southern Region
Chitipa DH	Mchinji DH	Nsanje DH
Karonga DH	Ntcheu DH	Trinity MH
Nkhata Bay DH	Dedza DH	Chikwawa DH
Rumphi DH	Mua MH	Montfort MH
Livingstonia MH	Kasungu DH	Sucoma Clinic
Mzuzu CH	Dowa DH	Mangochi DH
Mzuzu Moyale Barracks H	Madisi MH	Machinga DH
Mzimba DH	Mtengawatenga MH	Balaka DH
St Johns MH	Ntchisi DH	Thyolo DH
Ekwendeni MH	Salima DH	Malamulo MH
Embangweni MH	Nkhotakhota DH	Mulanje DH
	St Anne's MH	Mulanje MH
	Dwangwa Matiti Clinic	Phalombe MH
	Lilongwe CH + Bottom H	Mwanza DH
	Mlale Rural MH	Chiradzulu DH
	ABC MH	St Josephs MH
	Nkhoma MH	Zomba CH
	Likuni MH	Zomba Cobbe Barracks H
	St Gabriels MH	Zomba Police H
	Lilongwe Kamuzu Barracks	QECH
		Mlambe MH
		Ndirande HC

CONCLUSION AND RECOMMENDATIONS

This country-wide survey, which involved actual visits to all sites offering VCT 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 2003, there were 117 sites in the public sector performing HIV testing. In that 12 month period, there were almost just over 215,000 documented HIV tests carried out in the country, with 28% of these being performed on blood donors, 12 % on antenatal women and 60% on clients and patients.

In 2002 the government and CHAM health facilities performed about 35,000 HIV tests on clients and patients in the country, a small number given the size of the epidemic. In contrast, in 2003 the government and CHAM health facilities (major hospitals, rural hospitals, clinics and health centres) carried out about 80,000 HIV tests in clients and patients, a large improvement compared with one year previously. As a result of expanded HIV-TB activities which were implemented from July 2003 onwards, nearly double the number of registered TB patients received counseling and HIV testing in 2003 compared with 2002, and the majority of these received cotrimoxazole adjunctive treatment which is know to reduce mortality. Just over 2,000 mother and infant pairs received nevirapine to prevent mother to child transmission of HIV. There were over 3,700 AIDS patients started on HAART in 2003, three times the number started on ARV therapy in 2002.

The 2002 situational analysis had made recommendations about improving counseling and testing services. With respect to counseling, there were recommendations about increasing the number of full-time counselors, creating dedicated VCT rooms in hospital facilities, having VCT registers in each facility and improving quality assurance. In each of these areas, there was an improvement in 2003 compared with 2002, although VCT registers still need to be standardised and external quality assurance is still not being done in 75% of health facilities. With respect to HIV testing, there were recommendations about having no interrupted supplies of HIV test kits, standardising procedures, having standardised laboratory registers and external quality control. Again in most of these areas there was an improvement in 2003 compared with 2002. However, there is still some variation in HIV testing protocols between health facilities, and external quality control is minimal.

The analysis informed the NTP and MOH about which hospitals can be prepared for expanded HIV-TB activities in the coming few months. It allowed the implementing team to brief the hospitals about the ART scale up plan and informed the MOH about the general enthusiasm for starting ARV therapy.

Strengths and limitations of the survey.

One of the strengths of this survey was that all VCT sites in the country were visited, and data collected at site often by counting numbers in registers. It was possible to observe how laboratory work regarding HIV testing was being carried out, discuss issues with counselors and review HIV-AIDS services. 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 2003 were missing, and the results of numbers of persons tested were therefore an underestimate. The rapid analysis, carried out over a period of about 6 weeks, also precluded an in-depth analysis of the situation on the ground, for example why do more men attend MACRO sites than women!

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.

With regard to VCT, more health facilities need to create dedicated VCT rooms. There is an urgent need for the MOH to develop a standardised VCT register, and all hospital laboratories should be using standardised blood donor registers. More full-time counselors need to be employed and more counselors need to be trained in rapid whole blood testing. External quality assurance of counseling and external quality control of HIV testing is currently minimal, and must be developed. These should all be part of the National VCT Scale Up Plan, which is currently being developed.

The first year of the ART Scale Up Plan (Jan – Dec 2004) now moves into the second quarter of 2004. All health facilities will be briefed at the end of the first quarter on the ARV Guidelines, the ART Scale Up Plan and the mode of applying for training and help with ART scale up. The second quarter will see the finalisation of the training modules and the start of the intensive period of training of staff from all 50 sites identified in the first round of the ART Phase 1 Scale Up.

Acknowledgements

We thank all the staff of the hospitals for their assistance with this survey. We thank the STOP-TB Department, World Health Organization (WHO) 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: 2003

HOSPITAL________________________ DATE___________________

HOSPITAL VCT SERVICE:

Number of VCT counselors____

Number Full-time____

Number Part-Time:____

How many counselors do HIV testing_____________________________________

Does anyone provide quality assurance in hospital___________________________

If so, provide details____

Does anyone provide quality assurance from outside_________________________

If so, provide details____

Is the VCT service provided daily: if not specify____________________________

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

The main VCT site:

Opening hours of main VCT site____

Is there a convenient waiting area for patients and clients_____________________

Are condoms freely available in the room_________________________________

Is the demonstration penis present in the room_____________________________

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

Are national VCT guidelines visible in the counseling room__________________

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

VCT REGISTER FOR CLIENTS/ PATIENTS (in VCT room)

Is there a VCT register (s) in the counselling room(s)________________________

Assess for the year 2003:

Number sent for VCT____

Number tested HIV-positive____

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

(Men sent for VCT/ HIV+ve__________ Women sent for VCT/HIV+ve_________

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

Number clients for VCT__________ Number clients HIV+ve_______________

Number patients for VCT_________ Number patients HIV+ve______________

BLOOD DONOR REGISTER (in Laboratory)

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

Assess for year 2003:

Number sent for HIV testing____

Number tested HIV-positive____

TB-VCT REGISTER (kept in TB Office)

Is there a TB-VCT register (Yes/No)___________________________________

Assess for the year 2003:

Number TB patients registered in year (ask DTO)__________________________

Number TB patients entered to TB-VCT Register__________________________

Number TB patients accepted HIV testing________________________________

Number TB patients who are HIV-positive________________________________

Number TB patients started on Cotrimoxazole (CTX)_______________________

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 any Internal quality control (ie testing of known specimens)___________

Is there any External quality control_____________________________________

If external QC, then how often and where to______________________________

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

Were there any stock outs in 2003_______________________________________

HIV TEST KITS:

	Determine	Unigold	Other Types of Kits
Number test kits in lab			
Expiry date of tests in lab			
Number of tests in pharmacy			
Expiry date of tests in pharmacy			
Number of tests in VCT room			
Expiry date of tests in VCT room			
TOTAL NUMBER TEST KITS			

PREPAREDNESS FOR VCT AND COTRIMOXAZOLE FOR TB PATIENTS:

Yes / No: (Provide reasons):____

ANTIRETROVIRAL THERAPY:

Did the hospital/ facility provide ART in 2003 (Yes/ No)_____________________

If Yes, then answer the following questions:-

When did you start providing ART (year/ month)___________________________

What is the first line regimen____

How many staff are trained in providing ART______________________________

Are ARV drugs free for the patients (Yes/No)______________________________

What is the total number of patients ever started on ARV therapy______________

How many patients were on ARV therapy at the end of 2003_________________

How many patients started ARV therapy in 2003___________________________

If No, then answer the following questions:

Can you provide a room dedicated for ARV delivery at least 2 x per week_______

Can you release the following staff to run the ARV clinic full-time when it is operating 2 or more times per week:-

One clinical officer / clinician_________ One nurse_______________________

One counselor_____________________ One clerk_______________________

PMTCT SERVICE:

Do you have a PMTCT service____

If yes, how many women were given VCT in 2003_________________________

How many women were HIV-positive___________________________________

How many women were given Nevirapine________________________________

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

The site:____________________________integrated (I) or stand-alone (S)____

For the year 2003:

Number blood donors tested___________ Number HIV-positive__________

Number clients/patients tested__________ Number HIV-positive__________

Number on ARV therapy____

ANNEX 2: SITES IN MALAWI PERFORMING HIV TESTING IN 2003: 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 District Hospital	Kaseye Mission Hosp	Nthalire HC	
	Karonga	Karonga District Hospital		Karonga Prevention Study Clinic	
	Nkhata Bay	Nkhata Bay District Hospital	Chinteche Rural Hospital	Mpamba HC	
	Rumphi	Rumphi District Hospital Livingstonia Mission Hospital			
	Mzimba	Mzuzu Central Hospital Mzimba District Hospital St.Johns Mission Hospital Ekwendeni Mission Hospital Embangweni Mission Hospital Katete Mission Hospital	Moyale Barracks Hospital	Mzambazi HC Tovwirane VCT centre	Mzuzu Macro Site

ANNEX 2: SITES IN MALAWI PERFORMING HIV TESTING IN 2003: Government and CHAM

The Central Region

Region	District	Main hospitals (also act as TB Registration Units)	Other Hospitals	Health centres (HC) / Clinics	Stand-alone sites
Central	Mchinji	Mchinji District Hospital	Kapiri Rural Mission Hosp	Mkanda HC	
	Ntcheu	Ntcheu District Hospital	Mikoke Rural Hospital		
	Dedza	Dedza District Hospital Mua Mission Hospital			
	Kasungu	Kasungu District Hospital	Nkhamenya Mission Hosp	Estate 81 Clinic	
	Dowa	Dowa District Hospital Madisi Mission Hospital	Mtengawatenga Mission Hosp Mponela Rural Hospital (MAICC)	Dowa Youth Centre Clinic	
	Ntchisi	Ntchisi District Hospital		Malomo HC * Chinguluwe HC* Mkhuzi HC* Mundinda HC* Kangolwa HC* Mzandu HC*	
	Salima	Salima District Hospital		MAFCO Army Clinic SASO Clinic* Khombedza HC* Chitala HC* Maganga HC* Mchoka HC* Thavite HC* Lilongwe Diocese HBC Clinic*	
	Nkhotakhota	Nkhotakhota District Hospital	St. Anne's Mission Hosp Alinafe Hospital	Dwangwa Matiki Clinic	
	Lilongwe	LCH (Lighthouse Clinic) Hospital Lilongwe Bottom Hospital Nkhoma Mission Hospital Likuni Mission Hospital St Gabriels Mission Hospital (Namitete)	African Bible College (ABC) Hospital Mlale Mission Hospital Kamuzu Barracks Hospital	Lilongwe SOS Clinic	Lilongwe Macro Site

* = counseling done at centre and blood tests at the hospital with results back to centre

ANNEX 2: SITES IN MALAWI PERFORMING HIV TESTING IN 2003: Government and CHAM
The Southern Region

Region	District	TB Registration Units	Other Hospitals	Health centres (HC) / Clinics	Stand-alone sites
South	Nsanje	Nsanje District Hospital Trinity Mission Hospital		Kalemba HC	
	Chikwawa	Chikwawa District Hospital Montfort Mission Hospital		Sucoma Estate Clinic Mapelela HC	
	Mangochi	Mangochi District Hospital	St Martins Mission Hosp		
	Machinga	Machinga District Hospital		Ntaja HC Liwonde HIC	
	Balaka	Balaka District Hospital			
	Thyolo	Thyolo District Hospital Malamulo Mission Hosp (Makwasa)		Khonjeni HC Thekerani HC Changata HC Mikolongwe HC Chimaliro HC Makungwa HC Bvumbwe HC Amalika HC	
	Mulanje	Mulanje District Hospital Mulanje Mission Hospital		Namasima HC	
	Phalombe	Phalombe Mission Hospital			
	Mwanza	Mwanza District Hospital		Matope HC	
	Chiradzulu	Chiradzulu District Hospital St.Joseph's Mission Hospital (Nguludi)		Bilawo HC Chitela HC Mauwa HC Mbulumbuzi HC Milepa HC Namadzi HC Namitambo HC Ntunde HC Nkalo HC PIM HC	
	Zomba	Zomba Central Hospital St. Lukes Mission Hospital	Zomba Police Hospital Army Barracks (Cobbe) Hosp Domasi Rural Hospital	Nkasala HC Matawale HC Nasawa HC	
	Blantyre	Queen Elizabeth Central Hospital Mlambe Mission Hospital		Ndirande HC	Blantyre Macro Site

ANNEX 3: NUMBER OF PERSONS HIV TESTED AND HIV-SEROSTATUS RESULTS IN 2003
The Northern region:

Site	Blood donors	Blood donors: HIV+ve	Ante-Natal	Ante-natal: HIV+ve	VCT / Patients (*)	VCT / Patients: HIV+ve	Total	Total: HIV+ve
North Region								
Chitipa DH	715	34	37	3	1106	225	1858	262
Kaseye MH	60	6	0	0	57	8	117	14
Nthalire HC	0	0	0	0	286	22	286	22
Karonga DH	1548	163	0	0	1154	472	2702	635
KPS Clinic	0	0	867	83	1203	212	2070	295
Nkhata Bay DH	575	56	0	0	121	59	696	115
Chinteche RH	87	1	0	0	34	30	121	31
Mpamba HC	Data included in Nkhata Bay Hospital data set							
Rumphi DH	1090	120	0	0	250	128	1340	248
Livingstonia MH	544	25	894	76	1030	126	2468	227
Mzuzu CH	1929	199	0	0	1308	693	3237	892
Mzuzu Macro	0	0	0	0	13335	1489	13335	1489
Moyale Barracks	Data included in Mzuzu Central Hospital or Mzuzu Macro data set							
Mzimba DH	1000	100	0	0	594	201	1594	301
Mzambazi HC	0	0	0	0	318	29	318	29
Tovwirane VCT	0	0	0	0	519	195	519	195
St Johns MH	491	186	0	0	476	251	967	437
Ekwendeni MH	902	65	328	42	1389	484	2619	591
EmbangweniMH	631	16	3396	123	1140	197	5167	336
Katete MH	310	9	0	0	281	60	591	69

ANNEX 3: NUMBER OF PERSONS HIV TESTED AND HIV-SEROSTATUS RESULTS IN 2003
The Central region:

Site	Blood donors	Blood donors: HIV+ve	Ante-Natal	Ante-natal: HIV+ve	VCT / Patients (*)	VCT / Patients: HIV+ve	Total	Total: HIV+ve
Central region								
Mchinji DH	1473	135	0	0	196	57	1669	192
Kapiri MH	964	59	0	0	1750	256	2714	315
Mkanda HC	0	0	0	0	50	14	50	14
Ntcheu DH	1075	343	0	0	1265	437	2340	780
Mikoke Hospital	0	0	0	0	115	48	115	48
Dedza DH	952	109	0	0	226	70	1178	179
Mua MH	480	93	0	0	299	128	779	221
Kasungu DH	2218	387	131	29	1786	524	4135	940
Nkhamenya MH	No data	No data	0	0	97	36	97	36
Estate 81 Clinic	0	0	0	0	191	47	191	47
Dowa DH	569	26	0	0	1401	192	1970	218
Dowa Youth C	0	0	0	0	345	8	345	8
Mponela MAICC	16	3	0	0	738	68	754	71
Madisi MH	1183	175	0	0	22	15	1205	190
Mtengawatenga MH	966	118	0	0	276	118	1084	236
Ntchisi DH	1001	29	0	0	1120	222	2121	251
Ntchisi HCs	Data from the 6 health centres doing VCT included in Ntchisi Hospital data set							
Salima DH	1206	150	0	0	312	124	1518	274
MAFCO Clinic	No data	No data	0	0	15	9	15	9
SASO Clinic	0	0	0	0	521	101	521	101
Khombedza HC	0	0	0	0	6	2	6	2
Chitala HC	0	0	0	0	11	0	11	0
Maganga HC	0	0	0	0	6	6	6	6
Mchoka HC	0	0	0	0	0	0	0	0
Thavite HC	0	0	0	0	0	0	18	2
LLW D. HBC	0	0	0	0	27	25	27	25
Nkhotakhota DH	158	7	0	0	340	121	498	128
St Anne's MH	580	119	12	12	1026	395	1618	526
Dwangwa Clinic	173	35	0	0	387	114	560	149
Alanafe Hospital	263	15	0	0	41	11	304	26
LLW (CH+LH)	5306	849	11823	1916	5714	3203	22843	5968
LLBottom Hosp	208	96	0	0	2256	1287	2464	1383
Lilongwe Macro	0	0	0	0	16860	2031	16860	2031
Lilongwe SOS	0	0	0	0	302	137	302	137
Nkhoma MH	No data	No data	0	0	587	285	587	285
Likuni MH	1390	217	297	52	118	91	1805	360
St Gabriels MH	1650	128	3828	158	1003	333	6481	619
ABC MH	0	0	0	0	242	141	242	141
Mlale RH	797	125	111	6	183	36	1091	167
LLW Barracks H	No data	No data	0	0	21	13	21	13

* includes TB patients

ANNEX 3: NUMBER OF PERSONS HIV TESTED AND HIV-SEROSTATUS RESULTS IN 2003
The Southern region:

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								
Nsanje DH	667	68	0	0	273	162	940	230
Trinity MH	329	86	0	0	454	299	783	385
Chikwawa DH	1062	131	0	0	587	196	1649	327
Montfort MH	414	92	0	0	415	102	829	194
Sucoma Clinic	0	0	0	0	269	84	269	84
Mapalela HC	0	0	0	0	76	16	76	16
Mangochi DH	1824	255	1	0	566	200	2390	456
St Martins MH	269	60	0	0	344	85	613	145
Machinga DH	1402	245	0	0	1552	1029	2954	1274
Ntaja HC	0	0	0	0	337	39	337	39
Liwonde HIC	0	0	0	0	447	61	447	61
Balaka DH	984	161	0	0	494	175	1478	336
Thyolo DH	1130	183	2650	513	6575	3283	10355	3979
Malamulo MH	734	107	19	2	1250	411	2003	520
Thyolo HCs	0	0	0	0	6399	1626	6399	1626
Mulanje DH	1212	278	0	0	464	205	1676	483
Mulanje MH	415	76	0	0	1241	794	1656	870
Namisima HC	0	0	0	0	531	73	531	73
Phalombe MH	582	139	0	0	386	218	968	357
Mwanza DH	1375	235	1565	205	1446	330	4386	770
Matope HC	0	0	0	0	1185	145	1185	145
Chiradzulu DH	831	116	731	144	6556	3908	8118	4168
Bilawo HC	0	0	0	0	144	82	144	82
Chitela HC	0	0	0	0	115	37	115	37
Mauwa HC	0	0	0	0	252	108	252	108
Mbulumbuzi HC	0	0	0	0	263	130	263	160
Milepa HC	0	0	0	0	462	213	462	213
Namadzi HC	0	0	0	0	331	148	331	148
Namitambo HC	0	0	0	0	609	297	609	297
Ndunde HC	0	0	0	0	206	109	206	109
Nkalo HC	0	0	0	0	237	133	237	133
PIM HC	0	0	0	0	275	109	275	109
St Joseph's MH	907	110	101	21	686	327	1694	458
Zomba CH	2358	433	0	0	1077	440	3435	873
St Lukes MH	939	260	0	0	653	293	1592	553
Zomba Police H	0	0	0	0	61	20	61	20
Zomba Army H	74	41	0	0	209	95	283	136
Nkasala HC	0	0	0	0	44	13	44	13
Domasi Rural H	0	0	0	0	334	46	334	46
Matawale HC	164	27	0	0	544	103	708	130
Nasawa HC	0	0	0	0	No data	No data	No data	No data
QECH Blantyre	7931	1493	0	0	3428	1414	11359	2907
Ndirande HC	0	0	0	0	3162	828	3162	828
Mlambe MH	2448	386	0	0	338	284	2786	670
Blantyre Macro	0	0	0	0	18138	3274	18138	3274

* includes TB patients

ANNEX 4: TB CASES, HIV TESTING AND ADJUNCTIVE COTRIMOXAZOLE OFFERED AT ALL GOVERNMENT AND CHAM HOSPITALS WHICH REGISTERED TB PATIENTS IN 2003

Site	TB cases registered in 2003	TB cases HIV-tested	TB Cases HIV-positive	Offered Cotrimoxazole
North Region				
Chitipa DH	87	41	23	21
Karonga DH	297	227	178	163
Nkhata Bay DH	389	0	0	0
Rumphi DH	229	0	0	0
Livingstonia MH	69	0	0	0
Mzuzu CH	540	0	0	0
Mzimba DH	290	107	59	56
St Johns MH	146	0	0	0
Ekwendeni MH	147	65	53	53
EmbangweniMH	112	49	25	25
Katete MH	19	8	4	0
Central region				
Mchinji DH	439	0	0	0
Ntcheu DH	686	164	76	72
Dedza DH	443	0	0	0
Mua MH	81	38	18	0
Kasungu DH	530	216	132	129
Dowa DH	247	38	18	0
Madisi MH	134	0	0	0
Ntchisi DH	196	21	15	0
Salima DH	492	0	0	0
Nkhotakhota DH	542	0	0	0
Lilongwe CH	2978	688	406	396
Nkhoma MH	318	0	0	0
Likuni MH	254	0	0	0
St Gabriels MH	261	83	50	49
South Region				
Nsanje DH	701	114	82	0
Trinity MH	229	82	48	44
Chikwawa DH	961	0	0	0
Montfort MH	113	0	0	0
Mangochi DH	1257	0	0	0
Machinga DH	719	192	121	118
Balaka DH	456	0	0	0
Thyolo DH	844	771	597	563
Malamulo MH	298	222	182	181
Mulanje DH	724	0	0	0
Mulanje MH	456	161	129	125
Phalombe MH	187	0	0	0
Mwanza DH	622	0	0	0
Chiradzulu DH	1007	386	311	311
St Joseph's MH	440	0	0	0
Zomba CH	2720	172	109	0
St Lukes MH	207	60	43	43
QECH	4208	78	55	0
Mlambe MH	667	0	0	0

ANNEX 5: VCT FACILITIES, COUNSELORS AND SUPERVISION AT GOVERNMENT AND CHAM HOSPITALS LISTED FOR POSSIBLE ART SCALE UP

Site	No. VCT Counselors	No. full-time VCT Counselors	Dedicated VCT Room	VCT Registers being used	External VCT Supervision
North Region					
Chitipa DH	3	2	1	Yes	Yes
Karonga DH	14	1	1	Yes	No
Nkhata Bay DH	4	1	1	Yes	No
Rumphi DH	15	0	0	Yes	No
Livingstonia MH	11	0	0	No	No
Mzuzu CH	28	1	1	Yes	No
Moyale Barracks	4	0	0	No	No
Mzimba DH	4	0	0	Yes	No
St Johns MH	7	0	1	Yes	No
Ekwendeni MH	2	1	1	Yes	Yes
Embangweni MH	44	0	1	Yes	Yes
Katete MH	10	0	0	Yes	Yes
Central region					
Mchinji DH	7	0	0	Yes	No
Ntcheu DH	5	0	0	No	No
Dedza DH	3	0	0	No	No
Mua MH	4	1	1	Yes	No
Kasungu DH	10	1	3	Yes	Yes
Dowa DH	22	0	2	Yes	No
Madisi MH	2	0	1	No	No
Mtengawathenga MH	2	0	0	Yes	No
Ntchisi DH	7	0	0	No	No
Salima DH	7	0	0	No	No
Nkhotakhota DH	7	0	0	No	No
St Anne's MH	5	0	0	No	No
Dwangwa Clinic	6	1	0	No	Yes
Lilongwe LH	8	8	4	Yes	No
LLW Bottom H	4	2	2	Yes	No
Mlale MH	3	0	0	No	No
Nkhoma MH	4	0	1	Yes	No
Likuni MH	14	0	2	No	No
St Gabriels MH	11	0	3	Yes	No
LLW SOS Clinic	3	2	1	Yes	No
ABC MH	2	1	2	Yes	No
LLW Barracks H	2	0	0	No	No

ANNEX 5: VCT FACILITIES, COUNSELORS AND SUPERVISION AT GOVERNMENT AND CHAM HOSPITALS LISTED FOR POSSIBLE ART SCALE UP (Continued)

Site	No. VCT Counselors	No. full-time VCT Counselors	Dedicated VCT Room	VCT Registers being used	External VCT Supervision
South Region					
Nsanje DH	1	0	1	Yes	No
Trinity MH	14	0	0	Yes	Yes
Chikwawa DH	4	0	0	Yes	Yes
Montfort MH	3	1	2	Yes	No
Sucoma Clinic	12	0	0	No	No
Mangochi DH	6	1	1	Yes	No
Machinga DH	4	0	1	Yes	No
Balaka DH	8	0	1	Yes	No
Thyolo DH	6	5	5	Yes	Yes
Malamulo MH	10	1	1	Yes	Yes
Mulanje DH	7	0	1	Yes	Yes
Mulanje MH	7	2	2	Yes	No
Phalombe MH	8	0	2	Yes	No
Mwanza DH	4	1	1	Yes	Yes
Chiradzulu DH	8	7	3	Yes	No
St Joseph's MH	5	1	2	Yes	No
Zomba CH	6	3	1	Yes	No
Zomba Police H	1	0	1	No	No
Zomba Army H	6	0	1	Yes	Yes
St Lukes MH	7	2	2	Yes	No
QECH Blantyre	4	1	1	Yes	Yes
Mlambe MH	2	1	2	Yes	No