

**Monitoring and Evaluation of  
HIV/AIDS/STD - Ethiopia**

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**Introduction**

HIV probably began to spread in Ethiopia in the early 1980s. The first evidence of HIV infection was found from stored serum drawn in 1984. The first 2 AIDS cases were reported in 1986 from Addis - Ababa Hospitals. Since then the virus has continued to spread at a rapid pace. It is assumed that no part of the country is unaffected by the virus, though the magnitude of the epidemic differs from region to region and from urban to rural. There were 61,784 cumulative AIDS cases reported from different health institutions of the country as of June 30, 1998. However, this figure does not represent the actual cumulative AIDS cases in the country which was estimated to be over 400,000 by the end of 1997. The national prevalence rate for adults (15-19 age group) is estimated to be 7.4 % (6-9) as of the end of 1997. The rate varies with urban and rural which are 21% (19-23) and 4.5% (3-6) respectively. The number of people infected with the virus was estimated to be 2.5 million in Ethiopia as of the end of 1997. The prevalence rate was greater than 12% among antenatal attendees and 7.4% among blood donors in urban centers.

The AIDS Control program was established at a central level and became a department within the Ministry of Health in 1987.

The objectives of the formation of the control program were to

- Reduce frequency of infection and associated morbidity
- Establish and ensure efficient and effective preventive program strategies
- Minimize social consequences on infected individuals and the community
- Mobilize internal and external resources
- Collaborate with international agencies

These objectives were guided by the short-term and medium-term plan of five years (1987-1991). It was financially supported by WHO/GPA and other bilateral donors. The AIDS Control program was very strong and had a good surveillance and monitoring system until 1994.

To be more effective the program was decentralized to regions during 1993/94. With decentralization the size of the central staff was drastically reduced. At present the national AIDS Control program is organized as a team of five professionals under the Department of Epidemiology and AIDS. The main task of the team is to produce guidelines, give support and Training of Trainers (TOT) to the regional health bureau. Regions are the implementors of the different activities. Because of personnel shortage, some regions lack a local person for HIV/AIDS/STD or the region is too vast to coordinate all the activities.

UNAIDS Country office was established in 1996. The HIV/AIDS/STD Team in the Epidemiology and AIDS Department works closely with UNAIDS. Currently, with the help of the UNAIDS and effort of the team, the multisectoral five-year (1998-2002) strategic plan was formulated and is at its final stage.

Until recently the HIV/AIDS/STD control program was without policy guidance. HIV/AIDS policy was ratified by the council of Ministers on July 14, 1998 and currently is in the process of implementation. The presence of AIDS policy is believed to create a conducive environment for the control and prevention of HIV/AIDS/STDs. The HIV/AIDS/STD control program does not have a well established monitoring and evaluation system or methodology.

The monitoring and evaluation system is very weak at central and regional level and there is no sustainable and reliable system in place for measuring the impact of the epidemic and the outcome of the intervention efforts. Surveillance system is weak in general and reports that are sent from the regions are either incomplete or take a long time to arrive in Addis Ababa. Some regions do not provide the central office with reports. Due to shortage of manpower at the central level, supervision at the regional level has been minimal although this has recently improved.

There is an urgent need for the establishment of a strong surveillance network to monitor the trend of the epidemic and impact of intervention efforts. Monitoring and evaluation of HIV/AIDS/STD is planned as part of the Five-Year National Strategic Plan. The development and implementation of improved monitoring and evaluation methods is crucial. This paper focuses on the rapid assessment of the STD Program, condom promotion, HIV/AIDS/STD surveillance and blood safety in Ethiopia.

### **STD Control Programme**

The main center for the treatment of STD cases in Ethiopia was the Kazenchi Veneral Diseases Clinic in Addis Ababa which provided free service. The clinic was located in the current Karanchis Health Centre. When the essence of integration raised, this special clinic became a health center to provide integrated health care services. The clinical management service of STD cases was carried as a vertical program until very recently. There was also an STD prevention and control division in MOH under the Department of Epidemiology. The Department of AIDS Control was separate from the Department of Epidemiology.

STDs and AIDS are closely interrelated in that they arise from similar sexual behavior. STD prevention and control is considered to hold appropriate strategies for the control and prevention of HIV/AIDS. In 1991 the STD prevention and control division was merged with AIDS Control Program and granted the status of a division.

The STD division was responsible for

- Coordination and monitoring program implementation
- Planning and organizing expansion of the STD control program
- Integrating the STD control program into the existing health service system
- Planning the procurement, proper storage and distribution of supplies and drugs
- Organizing seminars and workshops on pertinent subjects for health care providers
- Creating a system for collection, compilation and analysis of pertinent epidemiological data
- Preparing a report on the program development and submitting to the appropriate body

Sexually transmitted diseases (STDs) rank among the ten top causes for consultation of medical services in Ethiopia (MOH Health Service Directory, 1988). Although STDs are among the most frequent health problems in Ethiopia very few studies were conducted in this area. The few studies carried out thus far show that the prevalence of STDs is increasing in the country and suggest that this is due to urbanization, migration and the behavior youth. The magnitude of the problem is aggravated with the emergence of HIV/AIDS. The spread of HIV is also enhanced by other sexually transmitted diseases.

At present there is insufficient data available to give a report on the current STDs situation. However, the National AIDS programme review report of 1994 showed that from 1982 and 1994, about one million cases of gonorrhoea, 100,000 cases of syphilis, 75,000 cases of chancroid and 60,000 cases of LGV had been treated at hospitals and health centers throughout the country. A syphilis prevalence study among ANC attendees showed a sero prevalence of 13.9% in the urban and 4% in semi-urban areas.

The prevalence of STDs in Ethiopia in general is high, but very few exact data are available due to poor reporting, weakness in notification systems and inadequacies in diagnostic laboratory facilities. Available data in most cases are service-based.

In 1997, chemosensitivity studies were carried out in the two regions of Awases (south) and Gonder (north). Results of the Awases study showed that 89% were penicillinase producing *Neisseria Gonorrhoea* (PPNG), showing high in vitro resistance to penicillin, 68% were Tetracycline resistance *Neisseria gonorrhoea* (TRNG), showing resistance to Tetracycline, 27% were fully susceptible to trimethoprim sulfamethazole, while 30 showed intermediate susceptibility and 2 were resistant. No resistance was detected against chloramphenicol, kanamycin, spectinomycin, ciprofloxacin or ceftriaxone, and the study in Gondor showed that 86% were TRNG, showing high in vitro resistance to Tetracycline.

## **Absence of IEC materials for STDs**

At present, a health professional is assigned at the central level as a local STD person to coordinate the existing STD control activities. In addition the government of the Netherlands through WHO has started to strengthen STD control activities by providing funds for the purchase of STD drugs and for training on comprehensive STD case management as well as the AFRO which supports the training for STD programs.

The AIDS/STDs Control team planned to rehabilitate and strengthen the existing STD activities in order to curb the programs of HIV/AIDS by

- Planning and organizing expansion of STD prevention and control activities
- Conducting TOT on comprehensive STD case management, establishing an action plan and providing technical assistance for the successive regional trainings
- Providing adequate supply of STD drugs and laboratory reagents
- Improving the reporting and recording system collecting data on the prevalence of STDs
- Preparing national STD treatment guidelines
- Integrating comprehensive STD case management in training curricula for health professionals and reproductive health care services professionals
- Provision of training for health professionals
- Production and distribution of IEC materials on STDs
- Conducting multi-centre chemosensitivity study and promotion of research activities in all areas of STDs

## **Condom Promotion**

Over 80% of HIV transmission in Ethiopia is heterosexual. This mode of transmission necessitates the use of condoms for the prevention of the epidemic. There should be adequate awareness among the general public of the effectiveness of condoms in the prevention of HIV/STD transmission. Knowledge alone is not enough. The proper use of condom must be practiced whenever the need arises.

The NACP in the MOH had recognized the importance of condom use in preventing HIV/STD early in the epidemic. The MOH launched free distribution of condoms from the beginning and has tried to promote it accordingly.

### **Distribution of condom by NACP by years**

<b><u>Year</u></b>	<b><u>No Distributed</u></b>
1987	20,000
1989	346,140
1990	289,000
1991	481,403
1992	72,231
1993	1,200,000
1994	1,000,000

The plan was to distribute 6 million condoms by 1991, 9 million in 1994 and 12 million in 1996 through uninterrupted supply of condoms (second medium-term plan 1992-1996). However this plan was completely disrupted in 1995 and there was no record of condom distribution by the National AIDS/STD Control Programme apart from what is noted in the above table. The distribution of condoms by NACP was far below what was planned. The NACP has been less successful in its distribution of condoms because of limited number of outlets and lack of clear policy on how and who should distribute condoms. There were 4.8 million condoms available in stock in 1993 of which just over a million were distributed. The NACP discontinued all condom distribution in the past few years.

A limited number of condoms were distributed freely by the health institutions through the Family Health Department of the MOH as a means of contraceptive. Other NGO's like the Family Guidance Association of Ethiopia (FGAE) supply free condoms to clients seeking family planning services (presumably for contraception).

The only organization in Ethiopia engaged in social marketing of condom with the objective of preventing HIV/AIDS/STD is the PSI/DKT (HIWOT) in Ethiopia. This NGO has successfully used all the available outlets for social marketing of condoms. PSI/DKT started selling condoms with reasonable and affordable price since 1990 through the following outlets:

- Government and private health institutions
- Pharmacies and drug vender shops
- Kiosks (small shops)
- Hotels, bars and liquor groceries
- Factories, defense and other organizations

DKT/PSI has managed to distribute quite a reasonable amount of condoms, mainly in accessible urban areas throughout the country.

### **Yearly, distribution of condoms by DKT/PSI**

<b><u>Year</u></b>	<b><u>Imported</u></b>	<b><u>Distributed</u></b>
1990	?	699,506
1991	?	3,782,454
1992	?	7,075,902
1993	1,816,068	11,787,562
1994	18,973,000	17,293,221
1995	30,028,800	19,832,829
1996	13,008,000	20,662,455
1997	41,304,000	28,087,779
1998	26,838,000	16,765,984

The organization is urged to expand its outlet to the accessible rural areas since the virus has already widely spread into the rural areas as well. Recently the organization conducted a pilot study on the knowledge, attitude and practice of condom use and HIV/AIDS/STD. The result shows that 83% of the study population use condoms to prevent AIDS/STD and 32% of all condom users say they are unlikely to contract HIV/AIDS/STD (DKT/PSI/KAP study, 1998). In the same study over 90% of condom users and non-users have correctly defined AIDS. However, condom non-users mentioned monogamy as a principal reason for not using condoms.

### **Epidemiological Surveillance**

The AIDS epidemic needs close monitoring and public health planning. Obtaining data on the prevalence of HIV/AIDS infection is critical in taking measures to slow the spread of the virus. To plan effective control programmes, there is the need for proper collection, analyses and interpretation of data. At present, there are insufficient data available to indicate whether the programme has had any impact on the reduction of transmission of HIV/AIDS/STDs. Without a proper surveillance system an effort to slow the spread of HIV is waste of available scarce resources.

There were systematic HIV/AIDS surveillance activities in Ethiopia until 1994. AIDS cases were reported on monthly basis from all hospitals in the country to the Department of AIDS Control programme. The reporting pattern gradually declined and obtaining data at national level has also dropped markedly. Today there are no updated data available except those that were produced using modeling approach or projected over years.

Sero-surveillance was well established in Ethiopia during the years 1988-1994 and a series of surveys had been conducted among the following groups of population.

- a) A series of interval HIV sero-surveys among commercial sex workers showed the following prevalence result.
  - 1988: A mean value of 17 % HIV positive in 23 urban sites
  - 1989: Between 30%-49% HIV positive when repeated in seven urban sites
  - 1990: Two urban sites 54% (Nazareth) and 66% (Bahir-Dar) positive rate
  - 1991: Repeated sero-surveys in these two urban sites showed 55% and 69% HIV positive rate for Nazareth and Bahir-Dar respectively
- b) Interval sero-surveys among long distance (Addis-Assah Highway) truck drivers result were:
  - 1988 - 13% HIV positive
  - 1989 - 17.4% HIV positive
  - 1990 - 20.4% HIV positive
- c) Sentinel surveillance result in antenatal care clinic (pregnant women)
  - 1991 - 2.8% and 6.9% (2 sites)
  - 1992 - 10.6% and 13% (2 sites)
  - 1993 - 15.5% (15-24 age group in PI Survey)
- d) A sero-survey in 1992 at two STD clinic sites in Addis Ababa showed 32.2% and 42.7% HIV positive.

- e) 1993 rural population survey results were 0% to 6% (6 sites) indicating the spread of HIV into the rural population.
- f) Among scholarship winners (those who go abroad to pursue further education) the HIV test results showed that in 1993 there were 3.5% HIV positive and in 1994, 5.7% HIV positive.
- g) These sero-survey results showed that the virus has widely spread in the country with a rising trends over years. During the last six years no HIV sero-survey was conducted.

Outside Addis Ababa, except in one very remote town on ANC in 1997 with a sero-positivity if 12%. This result signals that HIV infection is widely spread and the trend is progressively on the rise including the extremely rural areas of the country.

Another sentinel surveillance survey was carried out by Ethio-Netherlands AIDS research Project (ENARP) among ANC attendees in Addis Ababa. In the ENARP study, 4 different antenatal clinics in the Capital were selected as sentinel surveillance sites. In each site, 300 pregnant women attending the clinic were tested for HIV.

The result of the ENARP surveillance study clearly showed that the epidemic is steadily rising among pregnant women in Addis Ababa. In the last survey conducted in 1997, HIV prevalence was close to 18% in all 4 sites. This rise of the HIV epidemic in the few sites where surveys were carried out displays the need for a countrywide sentinel surveillance system (at least one per region) to get a better picture of the trend of HIV infection in the country. Data from surveillance activities of ANC will give us better picture of the status of the infection among the sexually active general population and to design a programme towards prevention of the epidemic.

The HIV/AIDS/STD Control Team has no updated information on the magnitude of the epidemic to enhance the commitment of the decision makers. It has become quite customary to only cite outdated information. Since surveillance is an important component of public health programme it should reflect the current situation and be as complete as possible.

### **Blood Safety**

The first and foremost concern of every blood bank is to ensure the blood that is transfused to patients in hospital be free from HIV infection. For this reason, blood collectors tend to target individuals with low risk for HIV infection. The prevalence of HIV among blood donors will depend on the proportion of donors who are voluntary (low risk). In 1987, three out of every 100 donors were HIV infected. The rate for subsequent years have been 5%, 7%, 8% and 9% for 1990, 1991, 1992, 1993 and 1994 respectively for the nation. For Addis Ababa, the rates were 7.8% and 7.4% for 1996 and 1997 respectively.

In Ethiopia, HIV transmission through blood and blood products is mainly related to

- a) Donation of blood unscreened for HIV
- b) Use of non -sterile medical equipment
- c) Various traditional practices such as tonsilectomy, uvulectomy, ear piercing, tattooing, scarification etc.

Blood screening for transfusion is compulsory in Ethiopia. Blood safety has greatly improved due to the expansion of testing facilities in the country.

There are about 65 laboratories in Addis Ababa and the regional states which are established to screen blood before transfusion. There is periodic quality control and supervision of these laboratories. Among these laboratories 34 are equipped with ELISA machines and the remaining 31 laboratories perform rapid tests

using HIV spot tests. In most cases especially in Addis Ababa and few regions the Ethiopia, the Red Cross Society is the main organization to screen blood donated for transfusion. It is believed that > 95% of blood donated in the country is screened for HIV. Therefore, it is assumed that quite a small proportion of AIDS is transmitted through transfused blood (<5%). Voluntary blood donation exists in Addis Ababa and other towns. In peripheral areas family members are the main donors. There are insignificant numbers of paid donors.

The table below shows the number of blood units tested for HIV by the Ethiopia Red Cross Society National Blood Transfusion Service in Addis Ababa from 1994 - 1998.

Year	Number Tested	Number HIV Positive	Percent Positive
1994	13,588	946	6.96
1995	15,730	1425	9.09
1996	15,414	1208	7.84
1997	15,096	1124	7.45
1998	10,564	769	7.28

The prevalence rate of HIV among donors has increased from 6.9% in 1994 to 7.4% in 1997.

Blood is life saving for obstetric emergencies, malaria victims and other surgical emergencies resulting from road accidents and gunshots. The proportion of blood units given to recipients for different reasons is not known. In most cases whole blood is transfused. There is no way of identifying and excluding donors or high-risk groups and there is no strict deferral system. Self-exclusion of persons with high-risk behavior is uncommon.

#### **THE CAPACITY OF NATIONAL HIV /AIDS/STD CONTROL TEAM FOR MONITORING AND EVALUATION**

The national HIV/AIDS/STD Team is a small unit within the Ministry of Health under the Department of Epidemiology and AIDS. The AIDS / STD Team has no monitoring and evaluating system in place. There is a loose linkage between Federal Ministry of Health and the regional state health bureau. Administratively the regional state health bureaus are responsible to the regional state council, which is in turn responsible to the office of the Prime Minister. The regional bureaus are often reluctant to send reports.

The HIV/AIDS/STD Control Team has no adequate capacity to monitor and evaluate HIV/AIDS/STD Control Programme. The team has no adequate human power ( at present there are five professionals only) to carry out monitoring and evaluation activities. There is no mechanism to facilitate supervisory activities and other duties. Very few supervisory visits were made to the regions in recent years by the team.

It is believed that frequent and continuous monitoring and evaluation is an essential part of the HIV/AIDS/STD Control Programme. The planning of programs should allow assessment at specified intervals and give an opportunity to plan according to changes indicated by evaluation. Monitoring and evaluation of HIV/AIDS/STD should be concerned with the progress of the programme and its outcome. It should give a view whether the purpose or goals of the intervention are met. Monitoring and evaluation of HIV/AIDS/STD is not a one-time job but should be a continuous process and needs to be an integral component of the control programme. It should give relevant information on the efficiency and effectiveness of the planned activities.

### **Some Major Constraints of the M&E System of the HIV/AIDS/STD Control Programme**

- Lack of adequate skilled personnel in AIDS/STD programme both at the central and regional levels
- Frequent turnover of trained and experienced staff
- Inadequate and irregular supervision of regional HIV/AIDS/STD offices
- Absence of uniform STD case management approach making reporting difficult
- Absence of training opportunities on M&E as well as AIDS/STD surveillance systems
- Lack of case reporting system from private and other public clinics
- Lack of clear goals and measurable outcome indicators and programme objectives
- Poor recording and reporting system
- Weak / Absent surveillance system

### **Strategies to improve M & E of HIV/AIDS/STDs Control Programme**

- Formulating clear, specific and measurable indicators of goals and programme objectives
- Establish and strengthen surveillance systems both at central and regional level and establish standardized HIV/AIDS/ STD reporting format
- Strengthen the HIV/AIDS/STD control programme with adequate and qualified staff both at central and regional levels
- Institute monitoring and evaluation system in the entire programme and conduct evaluation studies on intervention outcomes
- Improve reporting and recording of HIV/AIDS/STDs prevention programme
- Initiate research activities on HIV/AIDS/STDs