Part Two:

Voluntary Counseling and Testing Services

1 Introduction

A major deliverable of the study on blood transfusion system was to document data that will be used to strengthen VCT services in Kenya. The design of this study therefore aimed at establishing the current situation in respect of the VTC services that are available in the country and their providers. Information was collected covering organization and management, types of services provided, facilities, equipment, supplies, staff and training, and management information systems.

1.1 Role of VCTSs

It is estimated that between 5%-10% of all HIV infections in developing countries are acquired through blood transfusion. Knowledge of one's HIV status is therefore important in enabling people to decide about whether to donate blood. A major source of obtaining one's sero-status is at the VCT centers which have been found to provide the services cost effectively and have assisted people to change their behaviour in several countries.

According to the UNAIDS report of December 1997, out of the 30 million people living with HIV only 10 percent know that they are infected. In Kenya, it is estimated that 1.4 million Kenyan have been infected with HIV of whom 230,000 are living with AIDS. The prevalence of HIV ranges from 20% to 30% in urban areas and 5% to 10% in rural areas. The most recent Demographic and Health Survey in Kenya (1998) noted that 15% of the people have had an HIV test and more than 60% of Men and Women wanted to be tested for HIV. The number of people who want to know their status will undoubtedly increase with the recent national recognition of the AIDS disaster.

Knowledge of one's HIV status is becoming more and more important to enable people to effectively respond to the HIV epidemic through appropriate prevention and care interventions. Knowledge of one's HIV status may lead to the following interventions:

- Decide about whether to donate blood or not.
- Change in sexual behaviour by use of condoms and reduction in number of sexual partners.
- Decide about becoming pregnant, abortion, marriages.
- Preventing HIV transmission among discordant couples.
- Seeking and receiving HIV care and support.
- Avoiding breastfeeding to prevent mother-to-child transmission.

Voluntary Counselling and Testing Centers have been shown to have a role in both HIV prevention and for people with HIV infections, "an entry point" to care. VCT provides people with an opportunity to accept their HIV status in a confidential environment with counseling and referral for on-going emotional support and care. People who have tested positive can benefit from early appropriate medical care and intervention to treat and or prevent HIV associated illness. Pregnant women who are aware of their positive status can prevent transmission to their infants. Lastly, and perhaps most relevant to this study,

people with knowledge of the HIV transmission modes will abstain from donating blood for transfusion during the window period.

The Government of Kenya is fully committed to encouraging the provision of VCT Services throughout the country so that all Kenyans who wish to know their HIV sero-status have access to these services.

1.2 VCT Development in Kenya

The first counseling services for HIV infected persons in Kenya were set up in May 1989 by the Kenya Red Cross Society (KRCS). The same year, KRCS organized its first workshop to train HIV counsellors. Until the mid 1990's the Red Cross Centre in Hurligham, Nairobi had an active counseling programme staffed by 10 volunteer counselors who provided individual and group counseling for HIV-infected people, referred people for testing and continued to train counselors. At this stage of the epidemic, most people who came for counseling were those with HIV/AIDS. Tests for Syphilis and the HIV were not routinely offered as a service. Many of the service centers were located in the middle or high-income areas and tended to attract a middle class clientele. HIV testing was at first carried out as a confirmatory diagnosis for patients presenting with symptoms of advanced HIV infection or AIDS at hospital.

Over time and as the epidemic grew, those seeking HIV testing expanded to include those at high risk and therefore worried, those considering marriage, employers and health insurance providers. At this point NGOs and community based organizations responded and started to provide VCT Services in the low income areas. In the early 1990's the Ministry of Health also responded by setting up health delivery points as patient support centers and by training a national network of counselors. The main objective of the centers was to train counselors and set up a network of counselors and referrals. VCT centers were first established in Nakuru, Kitale, Nyeri, Kitui and KNH. Today the number of VCT centers has increased tremendously and are run by the ministry of health, NGOs, mission hospitals and private hospitals

Perhaps it is important to point out at this stage that the VCT service concept has not been understood by all those involved and those seeking the services. There are those facilities providing different types of HIV testing e.g. mandatory, diagnostic and routine HIV testing but still believe that they provide VCT services. VCT services constitute HIV counseling and testing as a result of a client request, usually for social services. The client requires it for making better social decisions. There are therefore some provincial and district hospitals than responded as providing VCTS services but in the strict sense do not.

During the study it was established that of the 252 facilities visited, 73 (28.9%) provide VCT services. Table 1.1 shows the breakdown of the VCT centers by province and provider. Government hospitals had 43 (58.9%) VCTSs followed by private hospitals with 16 (21.9%) and mission hospitals with 14 (19.2%). Annex 8 shows the list of all VCTSs visited during the study.

Fifty five (55) or 75.3% of VCTSs provide counseling and testing services while 18 (24.7%) provided counseling services only. There were 7 (9.6%) which provide testing services only.

The regional distribution of the VCTs show a variation ranging from 0% to 19 %. Rift Valley province was leading with 14 (19.2%) of the VCTSs followed by Eastern 13 (17.8%). Nyanza had 12 (16.4%), Nairobi 12 (16.4%), Western 9 (12.3%), Central 7 (9.6%) ad Coast 6 (8.2%). North Eastern did not have any VCT in the province.

Table 1.1: Distribution of VCTSs by province and provider

Province	GOK	Mission	Private	Total
Nairobi	4	9	8	12
Central	3	4	-	7
Eastern	8	3	2	13
North Eastern	-	-	-	-
Coast	5	-	1	6
Rift Valley	9	2	3	14
Nyanza	9	2	1	12
Western	5	3	1	9
Total	43	14	16	73

Nine (12.3%) of the VCTs serve clients from the provinces while 24 (32.9%) serve clients from several districts. The remaining 40 (54.7%) served clients from the districts in which they were located.

Sixty seven (91.8%) of the VCTSs were hospitals based, 3 (4.1%) were health center-based while 3 (4.1%) were nursing/maternity based.

There were significant variations between the study team field findings and information at NASCOP in respect of the number of VCTSs in the country. NASCOP figures (see annex 9) show a total of 61 VCTSs comprised of 48 integrated and 13 stand alone VCTSs. Thirteen VCTSs are located in provincial and district hospitals, 9 in mission hospitals while the rest are either in health centres, clinics, dispensaries and "stand alone. This therefore varies significantly with the field findings in which 43, 14 and 16 VCTSs were found in Government, (provincial and district hospitals), mission and private hospitals respectively. The major reason for this discrepancy is in the approval and registration of facilities providing VCT service. NASCOP is aware that there are VCTSs facilities that may be operating but that have not registered. The criteria for registration of VCTSs centres is being finalized which will be followed by a country wide registration and re-registration to update the records at NASCOP.

Another important development in provision of VCTSs services in Kenya is the establishment of guidelines. For a number of years, there were no guidelines for VCT services and this tended to affect the quality of services. In May 29, 2001 the National AIDS Control Council published the National Guidelines for Voluntary Counselling and Testing in Kenya which are intended to assist all facilities providing VCT services including Government, private, mission hospitals and health centers.

2 Organisation and Management

2.1 National

The Ministry of Health is responsible for VCT activities. At the national level there are five organizations that play key roles in the management and operations of the VCT services in the country. These are; ACU, the NACC , NASCOP, NPHLS and KEMSA. The roles played by each of these organizations are discussed in the following paragraphs.

The National AIDS and STD Control Programme (NASCOP)/AIDS Control Unit (ACU), a department in the Ministry of Health is responsible for the following VCT activities.

- Making recommendations for HIV test kits based on evaluation of the advisory technical committee for approval by the DMS and issue of certificates.
- Carrying out national monitoring of quality assurance and quality control.
- Providing technical expertise and guidance to the VCTSs on HIV testing and resolve any technical issues.
- Designing a feedback mechanism to ensure that each level of VCT services and management is informed on a quarterly basis regarding the services.
- Organising training courses in data recording, data entry, data tabulation and analysis for counselors, medical records officers, and laboratory technicians in collaboration with PHMT and DHMTS.
- Developing a national monitoring and evaluation plan for VCT services at each site, district, province, and at national level.
- Clearing articles of publications based on VCT data.

The National AIDS Control Council (NACC) is also involved in the following VCT activities and play the following roles:

- Distributing VCT reports based on the data to relevant AIDS control units in various Ministries and Provinces.
- Developing a national Monitoring and evaluation plan for VCT services at each site, each district, in each province and at national level.
- Clearing articles of publications based on VCT data.

The National Public Health Laboratory Services (NPHLS) is the other government department that is an important player in VCT activities. Its responsibilities in management of the VCTSs include:

- Making recommendations for HIV test kits based on evaluation of the advisory technical committee for approval by the DMS and issue of certificates.
- Carrying out national monitoring of quality assurance and quality control.
- Recommending procurement and distribution of HIV test kits and maintaining an emergency stock of rapid test kits to distribute when needed.

The Kenya Medical Supplies Agency (KEMSA) is responsible for the procurement,

storage and distribution of HIV test kits to all Government hospitals on recommendation of NPHLS.

The Director of Medical Services (DMS) is responsible for issuing of certificates of approval of HIV test kits to be used by VCTSs on recommendation of NASCOP and ACU. In order to ensure that the HIV kits used at the VCTSs are of the highest quality, a committee, The Advisory Technical Committee has been formed to carry out technical evaluation of all potential HIV testing kits and recommend those that can be used at the VCTSs.

There are a number of private organizations playing significant roles in the development and running of VCT services in the country.

i) The Liverppol VCT project based in Nairobi is involved in development and training. It has been involved in the development of 21 VCT sites; 8 in Coast, 11 in Central and 2 in Nairobi. A total of 50 counsellors who are supporting those sites or are deployed elsewhere have been trained.

ii) The Centre for Disease Control and prevention (CDC) in Nairobi is also participating in the development, management and training of VCTS services. It has developed 11 sites, 6 in Nairobi and 5 in Nyanza provinces. A total of 160 counsellors have been trained by the organization.

iii) Family Health International (FHI) is the other organization involved in development and management of VCT services in the country. FHI works with other partners involved in the actual developments and management of VCT services but is not involved in actual implementation.

iv) The other major players are the Kenya Association of Professional Counsellors (KAPC), the Kenya Institute of Professional Counsellors and Amani Counselling Centre all of which provide counseling training.

2.2 Provinces

At the provincial level, the Provincial Health Management Team (PHMT) oversees the running of the VCTSs. The PHMT appoints a Provincial Coordinator of VCT Services whose responsibility is to ensure that the national guidelines are followed and that all VCT standards are met at the Province. The Provincial General hospital provides quality assurance and quality control services. District hospitals submit between 3 and 5% of their samples for retesting at the Provincial Hospital's laboratory which is mandated to conduct quality assurance testing. The other role played by the province is that of training. The Provincial Medical Office in collaboration with the Districts, is required to organize training sessions in data processing for counselors, medical records officers and laboratory technicians.

2.3 Districts

At the district level, the District Health Management Team (DHMT), District Coordinator, District VCT Supervisors, District AIDS Control Committee (DACC), and the District Health Information Office, play vital roles in the running of the VCTSs.

The DHMT is responsible for appointing the district coordinators as well as approving charges levied on VCT services both at Government facilities and those on a "stand alone" basis. The DACC is responsible for approving levies for VCT services both at the Government facilities and at the "stand alone" facilities.

The Districts VCT coordinator oversees the provision of VCT services in the district which include administration and management of VCT centers. The District coordinator organizes monthly meetings attended by district VCT supervisors and representatives from all VCT centers in the district to discuss issues relating to the provision of VCT services. Each district is expected to appoint at least two support supervisory counselors to give regular emotional support and professional guidance and feedback to the VCT counselors every two to four weeks.

Data collection forms from all VCT facilities are required to be submitted to the District Health Information Offices for data processing and production of monthly summary reports. The reports are distributed to NASCOP/ACU Ministry of Health, VCT records office and to the provincial health records and information office.

2.4 Hospitals

The VCT services are headed by a trained Counselor usually a Kenya Registered Nurse who is assisted by Enrolled Community nurses. Over sixty percent of the VCTSs involve Counsellors in promotion of awareness. The other staff involved include Registered Nurses in 47.9% of the VCTSs and Enrolled and Community Nurses in 39.7%. To a limited level Clinical Officers, Doctors and Laboratory Technologists also participate in creating awareness about VCT services.

The study confirmed that pre-test counseling services are predominantly carried out by counselors in 44 (60.3%) of the VCTSs. The proportion of centres where Registered Nurses, Community Nurses and Enrolled Nurses provide counseling services were 14.9%, 47.9% and 39.7% respectively. This was the same in the case of post-test counselling services. Other professionals involved in pre-test and post-test services are Clinical Officers, Doctors and Laboratory Technologists.

In more than seventy five percent of the VCTSs Counsellors release results. Medical Officers were mentioned in slightly above thirty percent of the VCTSs while Enrolled Nurses were quoted by about 25% of the VCTSs.

Laboratory tests are provided by the general Laboratory Services Department of the hospital. One or two Technologists/Technicians have been appointed to carry out testing. In 59 (80.8%) VCTSs laboratory technologists do the testing. Laboratory technicians, Registered Nurses, Enrolled nurses and clinical officers also carried out testing in 47 (64.4%), 2 (2.7%), 3 (4.1%) and in 1 (1.4%) of VCTSs respectively. There are no separate

laboratory for VCT clients. This compromises confidentiality and both the counselors and clients were against the arrangement.

Information was obtained about planning and management of programmes and activities at the VCTSs. In 25 (34.2%) VCTs, individual departments are responsible for preparing the annual activity programmes, while in 19 (26.0%) the programmes are prepared by the head of the VCT services. Steering Committees are responsible for planning in 15 (20.5%) of the VCTSs.

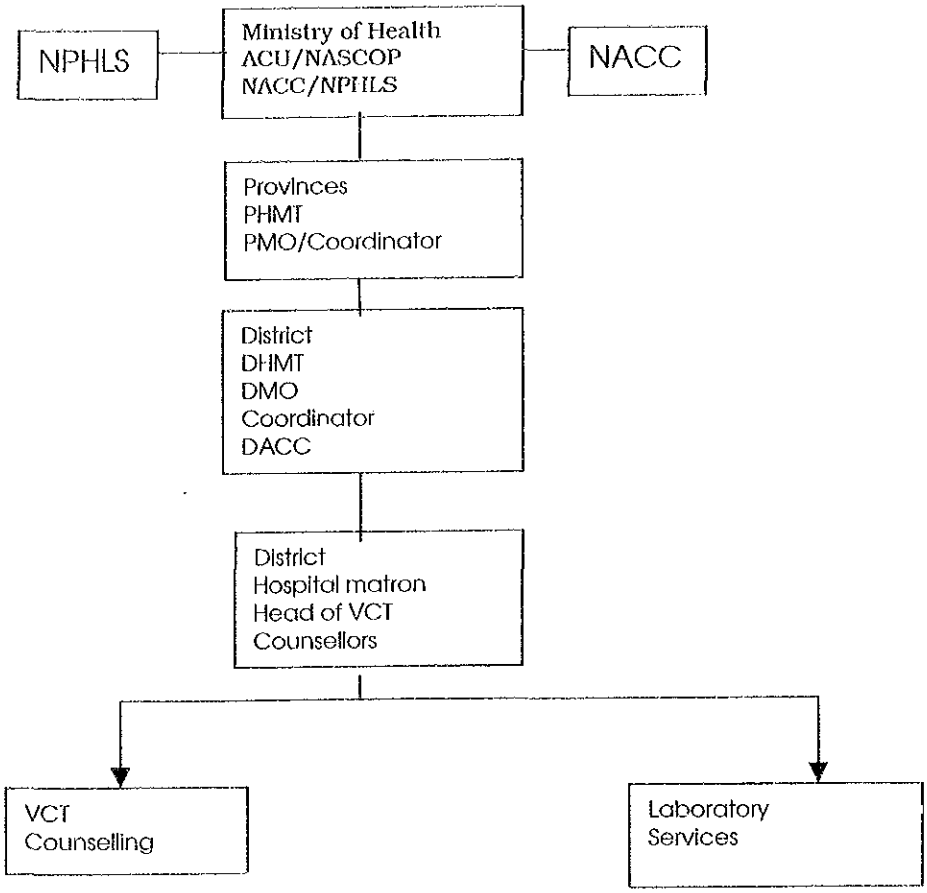
2.5 Role of Management

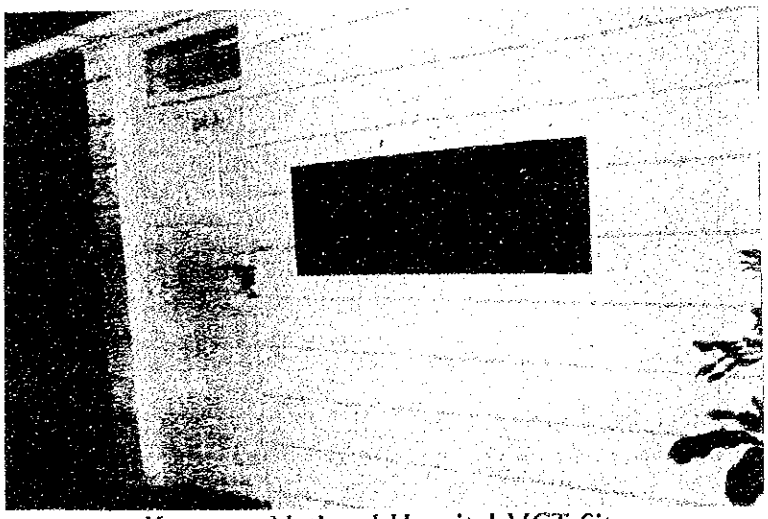
The management of the VCTSs should participate in the selection of those to be trained on VCT counseling and allow those selected to devote most of their time in providing the services. The VCTS management, DHMT and all those involved in the provision of VCT services should recognize the value and importance of counseling work.

Another requirement is to draw up clear statements of the roles of VCT staff. It should be clear whether the VCT staff are full time or part time. If staff are part time, then the timing dedicated for provision of VCT services should be clearly understood by the Counselors, Laboratory Technicians, VCT Manager and other professional staff and they should not be withdrawn from providing the services at those times.

Management is required to provide a minimum of two Counselors at each site one of whom should be a full time employee. Those selected must be seriously interested in providing VCT services and should be patient, understanding and respectful to Clients. Those selected may be Health Workers, Social Workers, Community Workers and Voluntary AIDS workers who are then trained as Counsellors. Each VCT site should have a designated staff member responsible for ensuring that test kits are stored properly and used prior to expiration.

Figure 1.1 VCT Organisational Structure





Kenyatta National Hospital VCT Site

3 Policy Guidelines

In order to standardize the services provided by the VCTSs in the country the National Aids Control Council issued national guidelines for voluntary counseling and testing services in Kenya in May 2001. The guidelines are intended to assist all Government and private sector facilities providing VCT services. The guidelines stipulate general operational procedures for VCT services, HIV test related counseling, HIV testing and record keeping, data management, monitoring and evaluation.

On operational procedures, the VCT guidelines have detailed the responsibilities for national and local oversight of VCT services, general procedures for provision of VCT services and staffing and management of VCT sites.

The other areas covered concerns HIV related counseling. Aspects including pretest counseling, post-test counseling, premarital counselling, adolescent counseling, couple counseling discordant, couple counseling, testing during pregnancy and the prevention of mother-to-child transfusion for HIV and quality assurance guidelines are all detailed. Most of these are discussed in the relevant sections of this report.

Also included in the guidelines are procedures on HIV testing relating to types of tests, recommended test kits, blood sampling, approval of new test kits, testing algorithms, window period, test performance, supervision quality assurance and quality control. Procedures for handling logistics, safety, distribution of test kits, storage of test kits and disposal of blood kits are all discussed in the policy guidelines. The other set of procedures covered are those relating to VCT record keeping, data management, monitoring and evaluation.

3.1 Policy Guidelines and Compliance

Existence of Policy Guidelines in itself is not sufficient unless such guidelines are followed in the day-to-day operations of the VCTS. The study sought the extent to which the VCT staff are aware and comply to policy guidelines

Registration and Client flow

Clients requesting VCT services are required to be directed to a reception desk where they are briefed on the VCT procedures. Educational materials about VCT and HIV e.g. posters, brochures and video shows should be made available while the client waits to see the Counselor. These guidelines have not been fully complied with. Twenty-two VCTSs (38.6%) did not have a reception area where the clients would be directed to. Besides most VCTSs would not afford brochures and video shows for this purpose. Our observation was that this requirement would need more support in terms of training and funding

Waiting Period

Same day or even same hour results to clients is recommended except where the client requests for longer periods. Because tests are carried out in the General laboratory, waiting period is usually longer than expected.

Informed Consent

Clients should be made to understand that an HIV test will be performed. Those who agree to a test should give informed consent to the test procedure. A VCT should endeavour to document that all persons being tested have voluntarily and freely consented to being tested. Where possible a form can be used to document that the client has given informed consent to the procedure. Consent guidelines were available and followed in 38 (57.6%) of VCTSs. Generally, clients are given the opportunity to decide on taking a HIV test. During the pretest counseling the clients are explained about the HIV test, the procedures and the implications. However, there was no evidence of documents signed by the clients where they authorized the HIV test

Confidentiality and anonymity

Privacy and confidentiality are important for effective delivery of VCT services. It has been established that more clients ask for VCT services when they are sure that confidentiality and anonymity is practised. Confidentiality at VCT involves maintaining very strict control over access to client record names and test results. Client records are required to be stored securely and only those with direct responsibility for the clinic medical condition should have access to such records. Use of code numbers instead of names (anonymity) is also an option. Managing waiting room and client flow to assure confidentiality is also important. Guidelines on confidentiality were available and always followed in 43 (65.2%) VCTSs. Counselors, Medical Officers, Laboratory Technologists, Registered Nurses release the results and these cannot guarantee confidentiality. Moreover, 44 of the 73 VCTSs did not have written guidelines on how to release results. Most VCTSs lacked private reception areas, counseling rooms, testing rooms, record rooms and cabinets. Eighteen (18) 48.6% of the VCTSs did not have adequate reception areas, while 25 (50%), 9 (36%) and 29 (55.8%) did not have adequate counseling rooms, testing rooms and record rooms. All these factors made it difficult to realize confidentiality objectives.

VCT Results

As a general rule VCT results should be disclosed to the client unless he/she authorizes for the result to be disclosed to other person e.g. sexual partner. Written results should not be provided. Fifty Nine (80.87%) of the VCTSs did not have written guidelines on the procedures for release of results to the clients. Together with this, Counselors, Medical Officers, Laboratory Technologists, Laboratory Technicians, Registered Nurses and Enrolled Nurses released results in 55 (75%), 24 (32.9%), 6 (8.2%), 5(6.8%), 17 (23.3%) and 19 (26.0%) of the VCTSs respectively. VCT staff indicated that results are given only to the clients except where they (clients) authorised others to receive the them.

Awareness

Awareness of the VCT services should be carried out through various activities for example:

Passing relevant messages to groups in the course of general health talks such as those held at health centers, ANC clinics etc. Secondly, contacts can be made with schools community centres and outreach to sites with youth are present.

It was established that awareness at the VCTSs was carried out by counselors in 44 (60.3%), community nurses in 35 (47.9%), registered nurses in 35 (47.9%) and enrolled nurses in 29 (39.7%) of the VCTSs. There were guidelines on awareness in 27 (42.2%) of the VCTSs.

Confirmatory Results

It is recommended that all positive samples should be confirmed with a different rapid test kit. The study results indicated that 22 (30.1%) of the VCTSs use their own facilities for confirmation test while 37 (50.7%) use the District hospitals. The other facilities used are KEMRI, KNH, and Nairobi hospital.

Quality Assurance and Quality Control

The guidelines require that 3 to 5% samples of the tests carried out at the VCTSs or at the districts should be retested at a laboratory certified to conduct quality control testing; which are the provincial general hospitals. Thirty eight (52.1%) of the VCTSs had the guidelines available and complied with them.

Testing Kits

It is recommended that rapid whole blood tests be used as much as possible and that those rapid simple tests that give results within 30 minutes be used. Secondly test kits that have been approved by the government, are simple to use, do not require electricity and use whole blood are recommended. Over 50% of the VCTSs confirmed that they complied with this guideline.

Test performance should be carried out by Laboratory Technologists/Technicians and in some cases Counselors and Nurses who have been trained in performing simple rapid tests under the supervision of the Technologists. Thirty seven (55.2%) of the VCTSs confirmed that they are aware of the guidelines and comply with them always. It was however, noted that the guidelines were applied at all the VCTSs including those without them.

4 VCT Services

Counseling and HIV testing are the main services provided in the VCTSs. In 55 (75,3%) of the VCTSs, both counseling and testing services were provided.

Eighteen (24.7%) of the VCTSs provide counseling services only while 7 (9.6%) provide testing services only. Pre-test, post-test, pre-marital, adolescent, couple counseling services were available. Clients also receive treatment of STDs, screening for syphilis and tuberculosis, testing for HIV during pregnancy, family planning services and supply of condoms.

Pre-test Counselling

Pretest counseling was available in the VCTSs. It is expected to assist those requesting VCT services to make an informed decision on the HIV test. Individual pretest or group pretest decision counseling should be provided to those seeking VCT services and should include issues like facts about HIV/AIDS, meaning of the test, reasons for the test, test procedures and prevention and generally prepare the patient to receive results whether positive or negative. Thirty nine (59.1%) VCTSs had the guidelines on pretesting counseling and always followed them. Interviews with the Counselors confirmed they are following guidelines.

Post-test Counselling

Post-test counseling was available in the VCTSs. The guidelines require that the client is counseled about positive issues such as living with HIV, risk reduction planning, window period and follow-up counseling and partner notification. The client is encouraged to come for additional counseling and prevention sessions and seek additional services such as medical, social, legal and psychological support. Thirty-nine (59.1%) VCTSs had the guidelines on post counseling and always follow them.

Premarital Counselling

The guidelines require that premarital VCT counseling be encouraged but remain voluntary. It is expected that couple receive results together if possible, and that thorough discussion were held in the pre-test counseling sessions about potential application of test results in the marriage. Pre-marital counseling was cited as one of the main reasons for seeking VCTS services in 48 (65.8%) of the VCTSs.

Adolescent and VCT Counselling

VCT sites and staff should be adolescent friendly, understanding and non-judgmental to the youth who are considered to be a special group. VCT sites should make contact with schools, community centres and have outreach programmes to sites where youth are present to explain the youth the role and value of VCTSs. The VCT centres should compile a register of the local youth networks so that adolescents may be referred to those

other activities. They should be supplied with condoms. In 58 (79.5%) of the VCTSs the youth were the main users of their services.

Couple Counseling

Couple counseling should be encouraged not only for those planning to get married but also for those already in a relationship who wish to make informed decision about having children and selection of family planning methods. Couples should not be coerced to be counseled and share test results together but left to make individual decisions.

Detection and treatment of other STIs

VCT services should take an active role in the detection and treatment of other sexually transmitted infections and diseases. VCT services should therefore provide STI screening to its clients and if possible provide on site treatment to any VCT client testing positive. Syphilis testing and treatment is emphasised. TB screening should b provided to the VCT clients. All VCT centers should maintain a close link with the local TB control office and should provide counseling and health education to those visiting TB control offices. Fifty six (76.7 %) of the VCTSs received clients who were sick and required treatment.

Family Planning

Basic family planning information should be incorporated into all VCT counseling sessions. Risk of mother-to-child transmission and benefits of family planning should be explained. Dual protection in the use of condoms for HIV/STI prevention and hormonal contraceptives for family planning should be emphasized and where possible FP services should be provided by the VCTSs. Of the 73 VCTSs, 51 (69.9%) supply condoms for dual protection for HIV/AIDS and family planning.

Testing during Pregnancy and for the prevention of Mother-to-child transmission of HIV

VCT sites especially those in health facilities may serve as the entry point for antenatal mothers to be screened for HIV and then enrolled in programme to prevent mother to child transmission. Women are main users in 67 (91.8%) of the VCTSs.

HIV Testing Services

HIV testing services were provided by the VCTSs. The tests were carried out in the general laboratories and were on whole blood. Approved rapid simple tests were used.

4.1 Reasons for Seeking VCT Services

VCTSs management was asked to indicate reasons why clients sought their services. A total of 13 reasons were given and are summarized in table 4.1.

Table 4.1: Ranked reasons for seeking VCT services

Reason	No. of VCTCs	%
Prolonged Illness	56	76.7
Marriage	48	65.8
Past behaviour	38	52.1
Partner Suspicion	36	49.3
Known status +ve	23	31.5
Antenatal	1	1.4
Counselling	1	1.4
Immigration	1	1.4
Infertility	1	1.4
Premarital	1	1.4
Rape	1	1.4
Replacement	1	1.4
Sick Children	1	1.4
Treatment	1	1.4

The study sought to find out the main users of the VCT services and the findings were that women, men, youth and children were the main users. Sixty seven (91.8%), 62 (84.9%), 58 (79.5%) and 29 (39.7%) of the VCTSs indicated that their clients comprised women, men, youth and children clients respectively.

4.2 Types of VCT Centers

The VCTSs were categorized into the type of services they provide. These are:

- Counselling and testing services
- Counselling services only
- Testing services only
- Youth
- Women
- Mobile

Counseling and Testing Services

These are those VCT facilities which offer pre-test and post-test counseling and have blood drawn for the test at the same facility. There were 55 such VCTSs in the country.

Counseling Services Only

These sites offer pre-test counseling but refer clients to other facilities for testing. There were 18 such facilities in the country

Testing without Counseling Services

This refers to laboratory sites and some hospitals where there are no counseling facilities. There were 7 such VCTSs in the country.

Youth Services

There was one VCTS in Nakuru district that provides the following services for the youth.

- Family life education
- Youth seminars and training in health issues
- Peer education and counseling
- Adolescent high risk clinic
- Family planning services

Services for Women

These services are women friendly and they eliminate the stigma associated with the ordinary VCT. They target women because of the realization that women have special biological and social vulnerability to HIV and some tend to avoid attending the normal clinics.

Mobile Outreach VCT

For special populations, such as pastoralists, or in remote rural areas with limited health facilities, mobile VCT should be considered. None of the existing VCTSs has this in place.

4.3 Number of Clients

Attempts to obtain the number of clients seen by the VCTSs visited was not successful because of the state of the records maintained. However, the major VCT private organizations, Liverpool VCT project and the CDC provided figure seen by those sites they are managing.

i) The facilities managed by CDC together were accessed by 28,289 clients during the period between March-December 2001.
ii) Those facilities managed by the Liverpool project were patronized by 7861 clients in the year 2001.

5 Facilities, Equipment and Supplies

The guidelines require that each VCTSs should have adequate facilities, equipment test kits and other supplies to effectively provide the services and facilitate client confidentiality.

Availability of Facilities

Seven facilities listed on Table 5.1 were identified as essential for the purpose of VCTS operations. During the study, availability, condition and utilization of these facilities were assessed at each VCTS. Table 5.1 shows that 91.1% of the VCTSs had counseling rooms. The availability of the other items in descending order was as follows; reception area 61.4%, laboratory unit 52.8%, testing room 48.1%, records and data room 44.2%, stores 48.1% and office for staff 35.2%.

Adequacy of Facilities

The VCTSs with adequate facilities ranged between 34.1% to 64.0%. Table 5.1 column 3 shows that laboratory unit and testing rooms were adequate in 64% of the VCTs followed by reception rooms 51.4%. The corresponding figures were as follows; counseling room 50.0%, stores 45.8%, record and data room 43.5% and staff office 34.8%.

Condition of Facilities

Condition of facilities was classified as good or bad and generally this was satisfactory at between 70.8% and 84.0% of the VCTSs. Table 5.1 column 4 shows the proportion of VCTSs with good items.

Table 5.1: Percentage distribution of VCTSs with selected facilities.

Item description	Available	Adequate	Condition	Utility
Reception area	61.4	51.4	78.9	87.5
Counselling room	91.1	50.0	70.8	83.7
Testing Rooms	48.1	64.0	84.0	88.5
Laboratory unit	52.8	64,0	80.8	92.3
Office for Staff	35.2	34.8	75.0	82.6
Stores	41.2	45.8	79.2	87.5
Records and Data Room	44.2	43.5	73.9	87.0

Source: BTS Survey 2001

Utilization of facilities

Utility rating was scored on a scale of between 1 and 5. Those which were used always were given a score of 1 while those that were frequently used were given a score of 2. Table 5.1 column 5 shows those that were used always and frequently. Between 82.6% and 92.3% of the VCTSs utilized facilities frequently. This is satisfactory utilization.

Regional Analysis

Table 5.2 shows the regional distribution of VCTSs with the selected facilities among the 8 provinces. Nairobi province faired the best with between 63.6% to 90.9 % of the VCTSs having the facilities. It was followed closely by Eastern where between 60.6 % and 90% of the VCTSs had the facilities and Nyanza with between 20% to 70% of the VCTSs. The other provinces appeared to have problems with some items missing in the whole province.

Table 5.2: Percentage distribution of VCTSs with selected facilities by province

	Nairobi	Central	Eastern	Coast	Rift Valley	Nyanza	Western	North Eastern	Total
Reception area	100.0	28.6	63.6	33.3	16.7	60.0	100.0	-	61.4
Counseling Room	90.9	100.0	90.0	100.0	100.0	70.0	100.0	-	91.1
Testing room	81.8	12.5	66,7	50.0	20.0	50.0	-	-	48.1
Laborator y Unit	100.0	25.0	70.0	16.7	40.0	50.0	-	-	52.8
Office for staff	63.6	37.5	63.6	0	0	20.0	0	-	35.2
Stores	90.0	14.3	60.0	0	25.0	30.0	0	-	41.2
Records and data room	81.8	14.3	66.7	0	25.0	50.0	20.0	-	44.2

Source: BTS Survey 2001

Table 5.3 shows the distribution of VCTSs with adequate facilities by province. Only Nairobi, Eastern, Nyanza and Coast provinces gave a complete assessment of all items. Over 50% of VCTSs in Nairobi and Eastern provinces had adequate facilities. 20% to 57.1% of the VCTSs in Nyanza had adequate facilities. For unknown reasons, Central province, Rift Valley and Western did not give their assessment in 4,3 and 5 items respectively.

Table 5.3: Percentage distribution of VCTSs with adequate facilities by province

	Nairobi	Central	Eastern	Coast	Rift Valley	Nyanza	Western	North Eastern	Total
Reception area	54.5	-	50.0	33.3	50.0	42.9	66.7	-	51.4
Counseling Room	50.0	42.9	85.7	50.0	16.7	50.0	50.0	-	50.0
Testing room	66.7	-	100.0	25.0	-	57.1	-	-	64.0
Laborator y Unit	72.7	-	80.0	50.0	0	50.0	-	-	64.0
Office for staff	50.0	0	37.5	0	0	20.0	-	-	34.8
Stores	50.0	-	60.0	0	-	40.0	-	-	45.5
Records and data room	44.4	-	60.0	0	-	50.0	-	-	43.5

Source: BTS survey 2001

Table 5.4 shows those VCTSs with facilities in good condition. The conditions of facilities in Nairobi, Central province and Eastern is satisfactory. In Nyanza province, good condition was reported in between 33.3% and 62.5% of the VCTSs. In Rift Valley province, 3 items were in bad condition in all the VCTSs.

Table 5.4: Percentage distribution of VCTSs with working facilities by province

	Nairobi	Central	Eastern	Coast	Rift Valley	Nyanza	Western	North Eastern	Total
Reception area	90.9	100.0	75.0	66.7	-	62.5	83.3	-	78.9
Counseling Room	77.8	75.0	71.4	100.0	40.0	55.6	83.3	-	70.8
Testing room	88.9	100.0	80.0	100.0	100.0	71.4	-	-	84.0
Laboratory Unit	90.9	100.0	80.0	100.0	100.0	57.1	-	-	80.8
Office for staff	100.0	100.0	83.3	0	100.0	33.3	-	-	75.0
Stores	90.0	100.0	100.0	0	100.0	50.0	-	-	79.2
Records and data room	75.0	100.0	100.0	0	100.0	57.1	100.0	-	73.9

Source: BTS Survey 2001

As shown on table 5.5, utility rating in Nairobi, Central, Eastern and Nyanza Provinces is satisfactory with between 66.6% and 100% of the VCTSs utilizing the facilities frequently. Coast province, Rift Valley and Western provinces had a few items which were not utilized at all.

Table 5.5: Percentage distribution of VCTSs with utilized facilities by province

	Nairobi	Central	Eastern	Coast	Rift Valley	Nyanza	Western	North Eastern	Total
Reception area	90.9	100.0	87.5	50	100.0	87.5	100.0	-	87.5
Counseling Room	89.9	75.0	75.0	100.0	80.0	77.8	100.0	-	83.4
Testing room	100.0	100.0	66.3	100.0	100.0	87.7	-	-	89.5
Laboratory Unit	100.0	100.0	80.0	100.0	100.0	87.7	-	-	92.3
Office for staff	100.0	100.0	66.6	-	-	83.3	-	-	82.6
Stores	100.0	100.0	80.0	0	100.0	83.4	-	-	87.5
Records and data room	100.0	100.0	75.0	0	100.0	87.5	100.0	-	89.9

Source: BTS Survey 2001

Provider Analysis

Table 5.6 shows availability of facilities in VCTSs by providers. Private owned VCTSs rated best with more than 50% of the hospitals having all the facilities. In government and Mission hospitals, availability of the facilities ranged between 30% to 100%. All mission hospitals had counseling rooms were most available.

Table 5.6: Percentage distribution of VCTSs with selected facilities by provider

	Government	Mission	Private	Total
Reception Area	51.4	80.0	75.0	61.4
Counselling Room	90.9	100.0	83.3	91.0
Testing room	43.3	40.0	66.7	48.1
Laboratory Unit	48.4	30.0	83.3	52.8
Office of staff	31.3	30.0	50.0	35.2
Stores	34.4	40.0	58.3	41.2
Records and data room	40.0	36.4	63.3	44.2

Source: BTS Survey 2001

Table 5.7 shows the adequacy of facilities in VCTSs by providers. Between 57.1% and 91.7% of the government VCTSs did not have adequate facilities. In mission hospitals 50% to 100% VCTSs had adequate facilities.

Table 5.7: Percentage distribution of VCTSs with adequate facilities by provider

	Government	Mission	Private	Total
Reception Area	30.0	100.0	60.0	51.4
Counselling Room	32.3	80.0	77.8	50.0
Testing room	42.9	75.0	100.0	64.0
Laboratory Unit	41.7	50.0	100.0	64.0
Office of staff	8.3	50.0	71.4	34.8
Stores	10.0	75.0	75.0	45.5
Records and data room	16.7	75.0	71.4	43.5

Source: BTS Survey 2001

Table 5.8 shows condition of facilities in VCTSs by providers. The condition of equipment was satisfactory at all provider VCTSs though those owned by the government did not compare as well as those owned by the mission or private sector.

Table 5.8: Percentage distribution of VCTSs with good facilities by provider

	Government	Mission	Private	Total
Reception Area	66.7	100.0	90.0	78.9
Counselling Room	53.3	100.0	100.0	70.8
Testing room	69.2	100.0	100.0	84.0
Laboratory Unit	66.7	80.0	100.0	80.3
Office of staff	66.7	83.	83.3	75.0
Stores	63.6	100.0	87.5	79.2
Records and data room	63.6	80.0	85.7	73.9

Source: BTS Survey 2001

Table 5.9 gives a comparison of utilization of facilities by provider. Generally VCTSs utilize their facilities adequately irrespective of the provider.

Table 5.9: Percentage distribution of VCTSs with utilized facilities by provider

	Government	Mission	Private	Total
Reception Area	91.3	100.0	70.0	87.5
Counselling Room	87.1	80.0	75.0	91.1
Testing room	92.8	80.0	87.5	88.3
Laboratory Unit	91.6	100.0	88.9	92.3
Office of staff	91.7	80.0	66.7	82.6
Stores	90.9	100.0	75.0	87.5
Records and data room	90.9	100.0	71.4	86.7

Source: BTS Survey 2001

Availability of Equipment

Refrigerators, Elisa machines, calorimeter, spectrometer, Kahn shakers, blood pressure machines and autoclaves were considered essential for VCT activities. Table 5.10 shows availability of various types of equipment at the VCTSs.

Table 5.10: Percentage distribution of VCTSs with available working and utilized equipment.

	Available	Condition	Utilisation
Refrigerator	50.0	82.4	100.0
Elisa machine	35.3	80.0	100.0
Calorimeter	40.0	72.7	100.0
Spectrometer	31.0	83.3	100.0
Kahn Shakers	35.5	50.0	100.0
Blood Pressure machine	44.1	72.7	100.0

Source: BTS Survey 2001

Between 31.0% and 50% of the VCTSs had the equipment required. Spectrometer was available in only 31.0 % of the VCTSs while refrigerators were in 50% of the VCTSs.

Condition

All the equipment were in good condition in 50% to 83.3% of the VCTSs. As shown on table 5.10. Generally the conditions were satisfactory.

Utilization

All VCTSs reported 100% utilization of available equipment.

Adequacy

The VCTSs were asked to provide their requirements and the results are summarized on table 5.11. The greatest shortage was in Elisa machines.

Table 5.11: Equipment requirements

	Required	Available	Surplus/(deficit)
Refrigerator	39	23	(16)
Elisa machine	1216	208	(1008)
Calorimeter	22	11	(11)
Spectrometer	17	6	(11)
Kahn Shakers	21	6	(15)
Blood Pressure machine	43	17	(26)

Source: BTS Survey 2001

Regional Analysis

Table 5.12 shows the availability of the equipment by province, Nairobi province seemed to be in a class of its own with between 77.8% to 100% of the VCTSs having all the equipment. Central province and Western provinces faired worst with none of the VCTSs having any of the equipment.

Table 5.12 Percentage distribution of VCTSs with selected items by province

	Nairobi	Central	Eastern	Coast	Rift Valley	Nyanza	Western	Total
Refrigerator	100.0	0	57.1	33.3	20.0	40.0	-	50.1
Elisa machine	100.0	0	28.6	40.0	0	0	0	35.3
Calorimeter	90.0	0	33.3	20.0	20.0	25.0	0	40.0
Spectrometer	100.0	0	33.3	0	0	0	0	31.0
Kahn Shakers	85.7	0	42.9	25.0	0	25.0	0	35.5
BP Machine	77.8	0	50.0	25.0	0	75.0	0	44.1

Source: BTS Survey 2001

Regional comparisons as shown on table 5.13 was difficult because other than Nairobi province which gave the conditions in all the items, other provinces did not provide data. In Nairobi province all equipment were well maintained in 50.0% to 87.5% of the hospitals.

Table 5.13:Percentage distributions of VCTSs with working equipment by province

	Nairobi	Central	Eastern	Coast	Rift Valley	Nyanza	Western	Total
Refrigerator	75.0	-	100.0	100.0	100.0	75.0	-	82.4
Elisa machine	85.7	-	-	-	50.0	100.0	-	80.0
Calorimeter	87.5	-	-	0	0	100.0	-	72.8
Spectrometer	83.3	-	-	-	-	-	-	83.3
Kahn Shakers	50.0	-	-	0	-	100.0	-	50.0
BP Machine	66.7	-	0	-	-	100.0	-	72.5

Source: BTS Survey 2001

Table 5.14 is a comparison of regional utilization of the equipment. Regional Comparison of the equipment was not successful because only Nairobi provided data on equipment utilization. Nairobi indicated that all equipment were used always.

Table 5.14: Percentage distribution of VCTSs utilization of equipment

	Nairobi	Central	Eastern	Coast	Rift Valley	Nyanza	Western	Total
Refrigerator	100	-	100	100	100	100	-	100
Elisa machine	100	-	-	100	-	100	-	100
Calorimeter	100	-	-	100	100	100	-	100
Spectrometer	100	-	-	-	-	-	-	100
Kahn Shakers	100	-	-	100	-	100	-	100
BP Machine	100	-	100	100	-	100	-	100

Source:BTS Survey 2001

Adequacy

Central Province and Rift Valley did not indicate their requirements as shown on table 5.15. Nairobi province indicated their requirements on all items but in varying quantities.

Table 5.15: Summary of equipment requirements

	Nairobi	Central	Eastern	Coast	Rift Valley	Nyanza	Western	Total
Refrigerator	4	-	2	8	-	1	1	16
Elisa machine	1002	-	1	3	-	1	1	1008
Calorimeter	4	-	1	3	-	2	1	11
Spectrometer	4	-	1	4	-	1	1	11
Kahn Shakers	5	-	1	5	-	2	2	15
BP Machine	1	-	5	6	-	12	2	26

Source: BTS Survey 2001

Provider Analysis

Table 5.16 shows the availability of the equipment by provider. Private VCTSs seemed to be leading with all equipment available in between 62.5% and 77.8%. Government facilities did not fair well with less than 50% of the hospitals having the equipment.

Table 5.16: Percentage distribution of VCTSs with selected equipment by provider

	Government	Mission	Private	Total
Refrigerator	39.1	60.0	70.0	50.0
Elisa Machine	27.3	20.0	71.4	35.3
Calorimeter	19.0	60.0.	77.8	40.0
Spectrometer	5.9	50.0	75.0	31.0
Kahn Shakers	21.1	50.0	62.5	35.5
BP machine	28.6	50.0	77.8	44.1

Source: BTS Survey 2001

A comparison of the condition of equipment among the providers is shown on table 5.17. In all Private VCTSs all equipment was reported to be in good condition. At the Government and mission VCTSs the performance was mixed. Three items were not working in any mission VCTS while only 33.3 to 71.3% of government VCTSs had working equipment

Table 5.17; Percentage distribution of VCTSs with working equipment by provider

	Government	Mission	Private	Total
Refrigerator	71.4	75.0	100.0	82.4
Elisa Machine	50.0	100.0	100.0	80.0
Calorimeter	66.7	0	100.0	72.7
Spectrometer	-	0	100.0	83.3
Kahn Shakers	33.3	0	100.0	50.0
BP machine	60.0	50.0	100.0	72.7

Source: BTS Survey 2001

Utilization of equipment at the VCTSs on the basis of provider in compared on table 5.18. Utilization was good in all VCTS facilities irrespective of ownership

Table 5.18: Percentage distribution of VCTSs with utilized equipment by provider

	Government	Mission	Private	Total
Refrigerator	100	100	100	100
Elisa Machine	100	100	100	100
Calorimeter	100	100	100	100
Spectrometer	-	100	100	100
Kahn Shakers	100	100	100	100
BP machine	100	100	100	100

Supplies

Testing Kits, needles and syringes and condoms were considered essential in a VCTS. The study team checked whether these items were regularly available in stock for use.

Test Kits

Test kits were always in stock in 47.4% of the VCTSs while 21.1% did not have them. About 32% of the VCTSs indicated that they were sometimes available and or rationed.

Needles and syringes

Needles and syringes were always available in 43.6% of the VCTSs while 39.7% had them sometimes and or rationed. The balance of 20.5% did not have them.

Condoms

Condoms were always available in 70% of the hospitals and another 16.2% has them sometimes. The balance of 13.5% VCTSs did not have them.

6 Human Resources

6.1 Staff Levels

The guidelines emphasise that all VCT centers build a strong, multidisciplinary, multi sectoral team for VCT services. The team should include a Manager, Counselors, Laboratory Technicians, Receptionists, Volunteers and if possible someone living with HIV/AIDS. There should be a minimum of two staff to serve as VCT Counsellors at each center.

6.2 Staff Training

Specific courses for all cadres of staff at the VCTS is stipulated by the guidelines. In addition there should be continuous training.

It is recommended that the receptionists at the VCTS be trained on handling clients. In particular they should be trained on how to explain to the client the VCTS procedures and the duration the services take.

Health workers and others selected to provide VCT counseling must receive the VCT counseling course of three weeks or 124 hours. All staff selected to serve as VCT counselors should receive adequate training so that they are qualified to perform the work. All VCT counselors should be trained to use the National VCT training guidelines and curriculum prepared and approved by NACC, NASCOP/ACU so that they can also train others. Ministry of Health plans should be in place for on-going training so that VCT counselors know that they are expected to receive continuous on-going training to improve their skills.

Two persons one of whom should be a technician should be trained in taking blood and conducting the simple rapid tests recommended for VCT purposes.

All staff and volunteers involved in VCT services i.e. receptionists, drivers, medical record officers, secretarial etc. should receive basic introductory training in the roles and purpose of VCT, how services are delivered, basic communication skills, and the need to observe strict standards of confidentiality not only for results but also regarding who has requested VCT services.

VCT providers should be trained in measures they can take to reduce their exposure to communicate diseases.

Counselors , medical records officers and laboratory technicians and all other staff involved in data recording, data entry, data tabulation and analysis should be trained to operate the compilation system.

6.3 Compliance

Staffing Levels

The number of various categories of staff working in VCTSs under Government, Mission and Private management is shown in Table 6.1. The Private facilities employ most of the Medical Officers (73%) and Laboratory Technologists (55%), while the Government has the majority of Clinical Officers (56%), Laboratory Technicians (67%) and Counselors (46%). The Mission facilities seem to have more Community Nurses (51%). There is a fair distribution of Registered and Enrolled Nurses among the three Providers.

Table 6.1: Staff Distribution by Facility Administration

CADRE	Facility Administration			Total
	Government	Mission	Private	
Medical Officers	5(10%)	8(17%)	35(73%)	48(100%)
Clinical Officers	13(56%)	5(22%)	5(22%)	23(100%)
Community Nurses	18(25%)	37(51%)	17(24%)	72(100%)
Registered Nurses	22(37%)	13(22%)	24(41%)	59(100%)
Enrolled Nurses	25(33%)	21(28%)	29(39%)	75(100%)
Laboratory Technologists	17(35%)	5(10%)	26(55%)	48(100%)
Laboratory Technicians	12(67%)	2(11%)	4(22%)	18(100%)
Counsellors	35(46%)	21(28%)	20(26%)	76(100%)

The regional distribution is given in Table 6.2. Three provinces have missing data (Central, North Eastern and Coast provinces). Nairobi has most of the Medical Officers (71%) and Laboratory Technologists (67%).

Nyanza and Western account for 66% of the Laboratory Technicians with the rest being evenly shared between Nairobi and Eastern. The same two provinces also account for 70 and 74% of the Community Nurses and Clinical Officers respectively. Also slightly more than one half of the Registered Nurses are based at the same two provinces.

Table 6.2: Distribution of Staff at VCTSs by Province

Cadre	Nairobi	Centrall	Eastern	N.East	Coast	R.Valley	Nyanza	Western	Total
Medical Officers	34(71%)	-	7(15%)	-	0	0	4(8%)	3(6%)	48
Clinical Officers	2(9%)	-	3(13%)	-	-	1(4%)	8(35%)	9(39%)	23
Community Nurses	10(14%)	-	4(6%)	-	-	7(10%)	32(44%)	19(26%)	72
Registered Nurses	15(25%)	-	2(3%)	-	1(2%)	11(19)	24(41%)	6(10%)	59
Enrolled Nurses	26(35%)	-	22(29%)	-	-	2(3%)	22(29%)	3(4%)	75
Laboratory Technologists	32(67%)	-	6(13%)	-	-	0	9(19%)	1(2%)	48
Laboratory Technicians	3(17%)	-	3(17%)	-	-	0	8(44%)	4(22%)	18
Counsellors	14(18%)	-	14(18)	-	-	20(27%)	18(24%)	10(13%)	76

6.4 Training

There are about 5 major institutions providing training for VCT services. These are:

- Liverpool VCT Project
- Centre for Disease Control and Preventition
- Kenya Association of Professional Counsellors
- Kenya Institute of Professional Counsellors
- Amani Counselling Centre

The curriculum for training has not been finalized but has been developed and is being pretested.

Training has been a continuous exercise and the following categories of VCT staff have been trained.

- Over 50 Counsellors have been trained in the 3-week course by Liverpool
- Over 100 Counsellors have been trained in the one week couple by CDC
- 60 Counsellors and Lab Technicians have been trained in performing whole blood, rapid tests.

7 Information System

7.1 Guidelines

The National guidelines on voluntary counseling and testing in Kenya stipulate requirements for VCT data collection, processing and reporting. Some of the more important areas that should be complied with include the following:

- A standard data collection instrument should be used by all VCTSs and must be completed in duplicate by the Counselor before a client leaves the counseling room.
- A standardized system available from NASCOP for assigning codes to clients for identification purposes should be used. This is for purposes of confidentiality and anonymity.
- For proper record keeping, the original data collection form should be sent to the DHIO while the duplicate is retained at the VCT. A standard filing system should be established.
- VCTC records and files should be stored in a secure room with lockable cabinets to enhance confidentiality.
- Each VCTC is required to submit the data collection form to the DHIO monthly for processing and the actual data entry should be completed within the month.
- Monthly summaries in triplicate should be produced at the end of every month by the DHR & IO and the original sent to NASCOP/ACU, VCTC records officer, the duplicate filed at the District VCT office, while the triplicate is sent to the provincial Health records and information office.
- Data from the district should be sent electronically and where this is not possible by diskettes to various destinations.
- A software package should be developed and installed at all district VCT Health records and information offices and also at the provincial and national levels.
- Data analysis should be completed and submitted back to each VCTC, the district, the province, NASCOP/ACU and NACC as a feedback mechanism.

- The Counselors, Medical Records Officers and Laboratory Technicians should be trained in data recording, data entry, data tabulation and analysis.

7.2 Compliance

During the study, attempts were made to establish whether these requirements are being complied with in the area of information management. The findings are outlined in the following paragraphs:

- The VCTSs management was asked whether it was aware of the information management guidelines and to what extent they operated within them. Thirty four (50.7%) of the VCTSs had the guidelines and they follow them always.

- Only 10 (13.7%) VCTSs had a computer information system while 63 (86.3%) operated a manual system. Of those VCTSs that applied a manual system, 67.1% of them did not have up-to-date records.

- With regard to distribution of reports, only 33 (45.2%) of VCTSs submitted reports to higher authorities. In 42 (54.8%) of the VCTSs, the reports were prepared by the head of the VCTS. Others who prepare reports include counselors (8VCTCs), the head of records (2 VCTSs), and the DASCO (1 VCTS).

- In regard to the destination of the reports, 58% of the VCTSs sent them to the ministry of health headquarters and 8% to NACC. Forty three percent keep records on HIV/AIDS deaths and 39 submit their reports to MOH while 6 send them to NACC.

- The quality of the information system was rated satisfactory by 63% of the VCTSs. Asked whether the system met the requirements of the stakeholders, 80.8% of the VCTSs felt that it was unsatisfactory.

- On number of clients seen 12 months preceding the study, only 20 VCTSs were able to provide information. The fact that over 70% of the VCTSs could not provide this data partly shows that the records were not maintained as stipulated by the guideline.

- The role of the DHIO in data processing and reporting as stipulated by the guidelines had not been achieved. VCTSs maintain their own records, prepare reports and submit them to the users without forwarding the same to the districts.

8 Funding and Sustainability

VCTSs require adequate funding in order to provide adequate services as stipulated in the guidelines. The basic facilities necessary for satisfactory operations include reception room, counseling room, laboratory unit, data and records room, desks, chairs and cabinets. Testing equipment, test kits, blood sample extraction equipment, refrigerators, computers, incinerators, communication equipment, protective materials constitute the other essential items which were also not available in the desired quantities.

Training of counselors, technologists, support supervisors, and support staff is recommended in the guidelines. Counselors are expected to undertake a 3 week course as a prerequisite to providing counseling. They should also be trained in conducting simple rapid tests, record keeping and processing and participate in continuous in-service professional education. Technologists and technicians are required to be trained in record keeping and processing and counseling. On their part the district supervisors are expected to undergo regular support counseling courses while medical record staff should be trained in VCTS record keeping. Finally support staff should be trained in confidentiality and client handling.

VCTS programmes which include mobile outreach, adolescent outreach, monthly district meetings and awareness promotion require adequate budgetary provisions.

VCTSs are expected to provide FP services, supply condoms and screen and treat clients for STI, syphilis and tuberculosis.

The guidelines require that clients who are unable to pay for the VCT services be attended to and the charges be waived. The VCTSs guidelines recommend that VCTSs may charge an affordable fee to enhance sustainability of their services. In order to ensure that the levies charged do not act as a barrier to accessing VCT services, the DHMB and DACC should approve all charges levied by service providers.

Currently, fees received from clients is not adequate to sustain their operations. The Government, NGOs and donors are playing an important role in funding VCT activities. Findings show that government is the dominant funding provider followed by the NGOs and donors. Thirty nine (53.4%) of the VCTSs were funded by the government while the corresponding figures were 12 (16.4%) and 5 (6.8%) by NGOs and donors respectively. The other source of finance are cost sharing and self-funding.

9 Constraints, Conclusions and Recommendation

9.1 Constraints

1. VCTSs lack adequate reception areas to facilitate easy and free flow of clients as required by the guidelines. The guidelines require that every VCT provide a reception area where clients receive information about the services and procedures as they wait for the counselors. The is important for confidentiality.

2. Counseling rooms are not adequate. Most VCTSs have one room which serves as a reception area, counseling room and a records office. This translates to a situation where one client is seen at a time. It tends to create unnecessary waiting time and redundancy on the part of counselors.

3. Education and information materials are not available for distribution to the general public. Posters, brochures and video shows on HIV/AIDS pandemic are expected to be available in the reception area and for distribution to the general public to create awareness.

4. Awareness programmes were lacking owing to inadequate transport. It is not possible to disseminate information to public gatherings, health clinics, dispensaries, schools and other institutions. Counselors depend on the hospitals for transport which is available only when it coincides with other hospital progarammes.

5. Those in charge of the VCTSs complained about inadequate counseling, testing and other support staff. The two counselors available in most facilities are not adequate. The counselors double up as receptionists. Technologists/technicians were not allocated to VCTS duties. This tends to cause delays and compromise confidentiality.

6. The training requirements stipulated in the guidelines for counselors, technologists/technicians, receptionists and support staff has not been implemented owing to lack of funds. There is need for more counselors and health workers to be trained in VCT Counselling especially in risk reduction counseling. Trained Laboratory Technologist to supervise counselors performing rapid, whole blood tests are also required.

7. In all the VCTSs HIV testing services were provided by the general hospital laboratories. This was cited as a constraint because clients thought it exposed them.

8. The information system for collecting, processing , analyzing and disseminating data and information has not been implemented as required by the guidelines. Generally there is no feedback system to the counselors.

9. The distribution system for test kits is inadequate.

10. Many Kenyans including AIDS educators and counselors are I still fearful of learning test results and at times have no confidence in the results themselves.

11. There are uncertainities regarding the institutions that provide the VCT service in the country.

9.2. Conclusions

1. Many Kenyans are eager to learn their sero-status; A total of more than 36,150 persons accessed VCT sites in the country in 2001.

2. There is significant development in VCT services in the country. The VCT services policy guidelines have been developed. There are 113 currently providing VCTS services while over 310 VCTS staff have been trained.

3. VCTS facilities complement BTS in ensuring supply of adequate safe blood. Control and prevention of HIV/AIDS ensures more people will be available to donate blood. An informed population will not fear to donate blood as is the case today. Those in the window period will abstain from donating blood.

4. knowledge about VCTSs and the services they provide need to be in the domain of the general public. There are people out there who need information on HIV/AIDS but they do not know where to access it.

5. VCTSs operate with minimum facilities, equipment, education materials, supplies and staffing. This makes it difficult to meet the VCT guidelines on the quality of service.

6. There are cases where those not adequately trained are providing counseling and other VCT services. This compromises quality of service.

7. Reporting systems for VCTSs has not been implemented. Those involved in VCT services require feedback as a means of improving the quality of services they provide.

9.3 Recommendations

1. The government needs to ensure that people who need HIV/AIDs services access them. A strategy for establishing a VCTS in every provincial, district and sub-district hospital is necessary.

2. The VCT centres need adequate reception areas, counseling rooms, educational materials, supplies and trained staff in order to provide quality

services. Hospital management should ensure the VCT guidelines are followed.

3. Annual programmes with adequate budgets for awareness creation should be developed and implemented

4. Hospitals should ensure that all staff proving VCT services receive continuous training so as to be current on all aspects of providing VCT services.

SUMMARY OF ANNUAL DONATION, SCREENING AND USE BY FACILITY OCTOBER 2000-SEPTEMBER 2002

Province	Facility Name	Units donated	Units screened	Units used
Nairobi	Avenue Nursing Home	0	0	0
	BTS Nairobi	11954	0	8754
	Getrudes Children Hospital	284	284	193
	Guru Nanak Hospital	186	186	128
	Masaba Hospital	95	95	40
	Mater Misercordie Hospital	0	0	0
	Mathare Mental Extension	5	5	5
	Mbagathi Hospital	26	26	20
	Metropolitan Hospital	0	0	0
	MP Shah Hospital	1533	1533	1532
	Nairobi Equater Nursing Home	1526	1580	1294
	Nairobi Hospital	2112	2112	0
	Nairobi West Hospital	328	329	20
	Pumwani Maternity Hospital	522	522	206
	Kenyatta National Hospital	7000	7000	7000
	St. Lukes Kaloleni	87	0	0
	Total	25688	13702	19800
Central	Consolata Hospital	379	379	409
	Gaichanjiru Mission Hospital	183	183	176
	Gatundu Sub district Hospital	59	59	2
	Immaculate Heart of Mary Hospital	84	84	84
	Jamii Hospital	50	50	48
	Karatina Hospital	75	73	71
	Kerugoya District Hospital	352	352	339
	Kiambu District Hospital	250	249	224
	Kijabe Mission Hospital	1065	1065	836
	Kikuyu Nursing Home	0	9	0
	Kiriani Mission Hospital	93	93	81
	Limuru Nursing Home	6	4	4
	Mary Help of the Sick	50	50	40
	Muranga District Hospital	715	715	679
	Muriranjas Sub district Hospital	0	0	0
	Mwea Mission Hospital	537	807	564
	Nazareth Hospital	849	814	340
	North Kinangop Catholic Hospital	419	419	340

	Nyahururu District Hospital	399	399	295
	Nyeri Provincial General Hospital	971	918	782
	PCEA Tumutumu	779	779	712
	PCEA Kikuyu	401	362	297
	St Mulumba Hospital	92	91	85
	Thika District Hospital	1237	1237	1191
	Tigoni District Hospital	0	0	0
	Total	**9045**	**9191**	**7605**
Eastern	Bethany Hospital	258	250	216
	Chuka District Hospital	212	212	179
	Consolata Chuka	0	0	0
	Embu Provincial General Hospital	828	828	768
	Ishiara District Hospital	274	0	0
	Isiolo District Hospital	374	229	229
	Kangundo District Hospital	257	257	257
	Kathiani Hospital	71	71	66
	Kikoko Cottage Mission Hospital	93	93	83
	Kitui District Hospital	0	662	506
	Kyeni Hospital	97	97	81
	Machakos General Hospital	1601	1603	1554
	Machakos Health Centre C	0	0	0
	Makindu Sub district Hospital	423	413	413
	Makueni	215	215	180
	Marsabit District Hospital	86	86	77
	Maua Methodist	0	0	0
	Meru General Hospital	675	675	555
	Milimani Nursing & Maternity	0	0	0
	Moyale District Hospital	186	186	175
	Muthale Mission Hospital	113	113	74
	Mwingi District Hospital	462	426	38
	Nyambene District Hospital	0	0	0
	PCEA Chogoria	618	618	542
	Shallom Nursing Home	9	36	32
	St. Anne Maternity	13	13	8
	Tigania Hospital Kianja	262	262	210
	Total	**7127**	**7381**	**6146**
North Eastern	Garissa Provincial General Hospital	373	373	39
	Mandera District Hospital	264	264	264
	Wair District Hospital	244	244	241
	Total	**881**	**881**	**505**
Coast	Agha Khan	696	696	659
	Coast Provincial General Hospital	1715	0	1588

	Galana Hospital	10	10	10
	Hola Hospital	250	250	332
	Kilifi District Hospital	1427	1427	86
	Kinango Hospital	231	231	231
	Kwale Hospital	228	228	200
	Lamu District Hospital	180	180	175
	Malindi District Hospital	1587	0	1457
	Mombasa Hospital	622	0	0
	Msambweni	888	888	804
	Ngao Sub district Hospital	268	268	268
	Pandya	472	634	479
	Port Reitz	8	20	10
	Taveta Hospital	259	259	234
	Voi Hospital	312	312	274
	Total	9153	5403	6773
Rift Valley	Baringo District Hospital	806	806	720
	Central Hospital - AHP	152	152	133
	Chemugundai Hospital	143	143	132
	Egerton	3	3	3
	Eldama Ravine Hospital	410	410	321
	Eldoret Nursing Home	55	55	55
	Elgon Hospital	0	0	0
	Pine Breeze	38	38	35
	Iten District Hospital	253	226	212
	Kajiado District Hospital	94	94	94
	Kapenguria District Hospital	765	765	1234
	Kapkatet Hospital	117	117	71
	Kaplong Hospital	320	320	26
	Kapsabet District Hospital	674	674	674
	Kapsowar Mission Hospital	102	102	102
	Kericho District Hospital	1250	1172	1137
	Kericho Nursing Home	59	59	59
	Kitale District Hospital	1368	1368	1325
	Kitale Nursing Home	37	37	37
	Lodwar District Hospital	228	228	226
	Loitoktok Hospital	175	175	175
	Lolgorian Sub district Hospital	208	208	180
	Londiani Sub district Hospital	0	0	0
	Longisa Hospital	0	0	0
	Magadi Hospital	486	486	486
	Maralal District Hospital	160	160	135
	Menengai Nursing Home	0	0	0
	Mercy Mission Hospital	110	110	110
	Moi Hospital	4774	4774	4534

	Molo Hospital	75	75	75
	Naivasha District Hospital	283	283	240
	Nakuru Provincial General Hospital	1683	1683	1481
	Nandi Hills Sub district Hospital	659	659	546
	Nanyuki District Hospital	133	133	119
	Narok District Hospital	233	233	133
	OlKalau District Hospital	180	170	99
	Ortum Mission Hospital	625	625	625
	Plateau Mission Hospital	37	37	37
	St. Lenards Hospital	94	94	94
	St. Joseph Mission Kilgoris	810	810	749
	Tambach Sub district Hospital	0	0	0
	Tenwek Hospital	1625	1625	1543
	Transmara District Hospital	40	40	38
	Valley Hospital	66	66	64
	Total	**19330**	**19215**	**18026**
Nyanza	Agha Khan	750	750	672
	Akemo Maternity/Nursing Home	15	15	15
	Bosongo Maternity	45	45	45
	Boya Rural Maternity	0	0	0
	Buffalo Nursing Home	248	248	182
	Christa Marianne Hospital	124	125	115
	Fairview Maternity/Nursing Home	81	81	48
	Getembe Private Hospital	144	144	126
	Hema Hospital	109	109	84
	Homabay District Hospital	1744	1734	1351
	Jalaram Nursing Home	51	46	37
	Kehancha District Hospital	243	243	208
	Kendu Mission Hospital	227	227	141
	Keroka Maternity/Nursing Home	0	0	0
	Kisii District Hospital	2811	2811	2540
	Kisumu District Hospital	506	506	52
	Koru Nursing Home	0	0	0
	Lady Margaret Hospital	0	0	0
	Lake Side Home	0	0	0
	Maseno Hospital	217	0	199
	Masogo Nursing Home	331	331	228
	Matata Nursing Home	745	239	486
	Migori District Hospital	281	281	325
	Nightgales Nursing Home	0	0	0
	Nyamira District Hospital	754	377	0
	Nyamira Maternity/Nursing Home	94	94	75
	Ogembo District Hospital	19	20	18
	Oruba Nursing Home	175	175	103

	Provincial General Hospital Kisumu	6494	5856	5380
	Pastor Machage Nursing Home	179	179	184
	Rachuonyo District Hospital	486	486	16
	Siaya District Hospital	0	0	0
	St. J. Nyabondo	323	0	0
	St. Joseph Maternity Hospital	1076	1076	1040
	St. Paul Catholic Health Centre	5	5	2
	Tabaka Mission Hospital	691	615	511
	Whitestone Hospital	0	0	0
	Yala Sub district Hospital	16	16	15
	Total	**18984**	**16834**	**14058**
Western	Alupe Sub district Hospital	166	252	183
	Bungoma District Hospital	1775	1785	1683
	Busia District Hospital	1428	1428	1644
	Butere Mumias Hospital	0	0	0
	Friends Kaimosi Hospital	123	123	115
	Glory Nursing Home	0	0	0
	Highway Nursing Home	44	0	18
	Holy Family Nangina Hospital	427	427	418
	Kapsokwony District Hospital	33	42	41
	Kimilili Medical Centre	0	0	0
	Lady Tharau Nursing Home	0	0	0
	Lugulu Friends Hospital	1272	1272	1178
	Lumboka Hospital	127	127	127
	Maraba Pharmacy Clinic	0	0	0
	MRHTC (Vihiga)	0	0	0
	Msikhu C. Mission Hospital	377	377	377
	Mwahila Mission Hospital	0	0	0
	Nambale Nursing Home	0	0	0
	New Busia Nursing Home	0	0	0
	PGH Kakamega	1359	1359	74
	St. Mary Hospital Mumias	2108	2108	1791
	St. Elizabeth Mukumu	214	88	83
	Webuye Nursing Home	8	8	8
	Webuye Sub district Home	1091	1091	1018
	Total	**10552**	**10487**	**8704**
	Grand Total	**100760**	**83094**	**81817**

SUMMARY OF BLOOD DONATED, SCREENED & USED BY PROVINCE OCTOBER 2000-SEPTEMBER 2001

	Province	Qty Donated	Qty Screened	Qty Used
1	Nairobi	25,688	13,702	19,800
2	Central	9,045	9,191	7,605
3	Eastern	7,127	7,381	6,146
4	North Eastern	881	881	505
5	Coast	9,153	5,403	6,773
6	Rift Valley	19,330	19,215	18,026
7	Nyanza	18,984	16,834	14,058
8	Western	10,552	10,487	8,704
	Total	100,760	83,094	81,817

Note

1. Explanations for the discrepancies between donated and screened blood in some of the provinces are contained in the respective schedules.

SUMMARY OF DONATED BLOOD BY PROVINCE IN UNITS
OCTOBER 2000 - SEPTEMBER 2001

Province	October 2000	November 2000	December 2000	January 2001	February 2001	March 2001	April 2001	May 2001	June 2001	July 2001	August 2001	September 2001	Total
1. Nairobi	2950	1628	1780	1400	2176	2038	1195	3514	2275	2351	1902	2474	25688
2. Central	763	724	600	651	700	852	708	1024	706	891	631	795	9045
3. Eastern	437	492	576	734	758	666	507	616	649	801	391	500	7127
4. North Eastern	68	90	83	71	74	88	53	53	37	71	103	90	881
5. Coast	874	627	584	761	748	658	640	836	804	900	919	802	9153
6. Rift Valley	1289	1287	1075	1800	1705	1872	1384	1927	1726	1909	1659	1697	19330
7. Nyanza	1155	975	1070	1354	1543	1564	1337	1893	2100	2555	1537	1901	18984
8. Western	748	577	743	1100	934	843	727	942	1167	1090	904	777	10552
Total	8284	6400	6511	7871	8638	8581	6551	10805	9464	10568	8046	9036	100760

QUANTITIES OF DONATED BLOOD IN NAIROBI PROVINCE IN UNITS
OCTOBER 2000 - SEPTEMBER 2001

District	October 2000	November 2000	December 2000	January 2001	February 2001	March 2001	April 2001	May 2001	June 2001	July 2001	August 2001	September 2001	Total
KNH	596	432	672	292	580	584	458	561	714	716	694	696	7000
Others	2354	1196	1108	1108	1596	1454	737	2953	1561	1635	1208	1778	18688
	2950	1628	1780	1400	2176	2038	1195	3514	2275	2351	1902	2474	25688

Note
Descrepancies between donated and screened blood

Hospital	QTY donated	QTY screened	Difference
BTS Nairobi	11945	-	11945
Nairobi Equator	1526	1580	(54)
Nairobi West	328	329	(1)
Total	13799	1909	11890

QUANTITIES OF DONATED BLOOD IN CENTRAL PROVINCE IN UNITS
OCTOBER 2000 - SEPTEMBER 2001

District	October 2000	November 2000	December 2000	January 2001	February 2001	March 2001	April 2001	May 2001	June 2001	July 2001	August 2001	September 2001	Total
Kerugoya	57	59	77	83	99	72	93	75	54	79	85	56	889
Kiambu	199	167	186	201	180	258	227	249	246	233	233	251	2630
Muranga	36	56	101	74	106	84	124	103	77	78	78	74	991
Nyandarua	41	86	67	50	93	88	74	47	65	129	28	50	818
Nyeri	245	172	122	154	151	150	171	338	153	206	181	211	2254
Thika	185	184	47	89	71	200	19	212	111	166	26	153	1463
	763	724	600	651	700	852	708	1024	706	891	631	795	9045

Note

Descrepancies between donated and screened blood

Hospital	Qty donated	Qty screened	Difference
Karatina Hospital	75	73	2
Limuru Nursing Home	6	4	2
Mwea Mission Hospital	537	807	(270)
Nazareth Hospital	842	814	28
Nyahururu District Hospital	399	388	11
Nyeri Provincial General Hospital	971	924	47
PCEA Kikuyu	401	362	39
Total	3231	3372	(141)

QUANTITIES OF DONATED BLOOD IN EASTERN PROVINCE IN UNITS
OCTOBER 2000 - SEPTEMBER 2001

District	October 2000	November 2000	December 2000	January 2001	February 2001	March 2001	April 2001	May 2001	June 2001	July 2001	August 2001	September 2001	Total
Embu	142	189	173	144	162	130	160	183	158	164	115	97	1817
Isiolo	21	15	6	26	12	34	18	22	28	161	16	15	374
Kitui	9	12	15	10	8	16	8	10	14	5	4	2	113
Machakos	76	110	194	298	374	260	85	169	230	228	59	206	2289
Makueni	47	33	29	57	50	69	57	73	53	51	67	52	638
Marsabit	16	9	6	2	2	11	5	5	8	5	14	3	86
Meru Central	60	43	36	72	57	62	66	69	53	83	45	42	688
Moyale	21	11	4	16	16	10	14	22	19	22	13	18	186
Mwingi	40	38	58	60	39	40	39	30	40	38	20	20	462
Nyambene	5	11	25	29	26	24	40	23	21	20	13	25	262
Tharaka Nithi	0	21	30	20	12	10	15	10	25	24	25	20	212
	437	**492**	**576**	**734**	**758**	**666**	**507**	**616**	**649**	**801**	**391**	**500**	**7127**

Note

Descrepancies between donated and screened blood

Hospital	Qty donated	Qty screened	Difference
Bethany Hospital	258	250	8
Ishiara District hospital	274	-	274
Kikoko Cottage	93	83	10
Kitui District	-	662	(662)
Makueni	215	210	5
Shallom	9	36	[27]
Total	**849**	**1241**	**(392)**

QUANTITIES OF DONATED BLOOD IN NORTH EASTERN PROVINCE IN UNITS
OCTOBER 2000 - SEPTEMBER 2001

District	October 2000	November 2000	December 2000	January 2001	February 2001	March 2001	April 2001	May 2001	June 2001	July 2001	August 2001	September 2001	Total
Garisa	18	39	25	28	45	43	24	8	11	25	58	49	373
Mandera	22	27	33	21	16	23	17	31	13	26	18	17	264
Wajir	28	24	25	22	13	22	12	14	13	20	27	24	244
	68	90	83	71	74	88	53	53	37	71	103	90	881

QUANTITIES OF DONATED BLOOD IN COAST PROVINCE IN UNITS
OCTOBER 2000 - SEPTEMBER 2001

District	October 2000	November 2000	December 2000	January 2001	February 2001	March 2001	April 2001	May 2001	June 2001	July 2001	August 2001	September 2001	Total
Kilifi	124	86	66	97	120	78	113	122	140	194	154	133	1427
Kwale	132	18	22	31	30	19	25	30	28	40	39	45	459
Lamu	19	20	21	17	18	7	5	19	10	18	9	17	180
Malindi	109	130	104	137	140	102	124	118	130	163	168	162	1587
Mombasa	332	280	277	391	358	392	309	455	394	416	467	340	4411
Taita Taveta	89	33	57	45	55	35	37	49	56	32	22	61	571
Tana River	69	60	37	43	27	25	27	43	46	37	60	44	518
	874	**627**	**584**	**761**	**748**	**658**	**640**	**836**	**804**	**900**	**919**	**802**	**9153**

Note

Descrepancies between donated and screened blood

Hospital	Qty donated	Qty screened	Difference
Coast Provincial General Hospital	1715	-	1715
Malindi District Hospital	1587	-	1587
Mombasa Hospital	622	-	622
Pandya	472	634	(162)
St. Lukes Kaloleni	86	-	86
Total	4482	(634)	3848

QUANTITIES OF DONATED BLOOD IN RIFT VALLEY PROVINCE IN UNITS

OCTOBER 2000 - SEPTEMBER 2001

District	October 2000	November 2000	December 2000	January 2001	February 2001	March 2001	April 2001	May 2001	June 2001	July 2001	August 2001	September 2001	Total
Kajiado	43	40	49	42	54	86	87	59	99	77	56	63	755
Keiyo	13	21	10	24	16	18	12	12	44	41	26	16	253
Kericho	76	61	51	248	247	179	177	161	126	145	122	105	1698
Koibatek	45	43	5	19	84	56	44	53	56	45	42	28	520
Laikipia	18	14	31	24	44	16	42	54	20	11	17	22	313
Marakwet	14	-	1	2	9	11	4	19	9	16	12	5	102
Nandi	107	127	113	201	112	226	135	285	211	217	176	238	2148
Nakuru	67	85	78	164	113	129	130	119	137	110	126	75	1333
Narok	5	11	13	16	8	23	25	46	15	37	8	26	233
Samburu	8	15	10	19	13	12	11	12	12	9	13	26	160
Trans Nzoia	226	143	144	210	253	267	205	145	158	204	180	120	2255
Transmara	30	16	19	26	28	7	11	22	6	8	14	21	208
Turkana	30	24	37	41	4	4	10	8	20	18	20	12	228
Uasin Gishu	214	331	160	461	304	515	193	534	337	590	627	600	4866
West Pokot	121	118	117	120	170	104	63	109	185	134	43	106	1390
Baringo	77	60	67	50	95	64	29	79	64	81	46	94	806
Bomet	161	152	137	88	126	124	128	152	191	146	117	103	1625
Buret	34	26	33	45	25	31	78	58	36	20	14	37	437
	1289	**1287**	**1075**	**1800**	**1705**	**1872**	**1384**	**1927**	**1726**	**1909**	**1659**	**1697**	**19330**

Note

Descrepancies between donated and screened blood

Hospital	Qty donated	Qty screened	Difference
Iten District Hospital	253	-	253
Kericho District Hospital	1250	1172	78
Total	1503	1172	331

QUANTITIES OF DONATED BLOOD IN NYANZA PROVINCE IN UNITS

OCTOBER 2000 - SEPTEMBER 2001

District	October 2000	November 2000	December 2000	January 2001	February 2001	March 2001	April 2001	May 2001	June 2001	July 2001	August 2001	September 2001	Total
Gucha	55	78	92	37	88	43	86	66	37	51	32	60	725
Homabay	169	89	108	119	172	233	97	196	150	217	103	96	1749
Kisii	223	193	231	303	321	307	287	264	324	300	261	219	3233
Kisumu	473	319	253	326	418	386	330	988	1037	1502	822	1164	8018
Kuria	21	16	3	27	12	28	43	13	27	21	20	12	243
Migori	86	143	120	151	192	317	222	176	176	151	84	141	1959
Myamira	11	27	45	144	97	37	77	45	97	139	102	108	929
Nyando	19	9	35	52	34	44	34	21	35	33	7		323
Rachuonyo	98	101	179	193	207	168	156	123	217	140	106	101	1789
Siaya	0	0	4	2	2	1	5	1	0	1	0	0	16
	1155	975	1070	1354	1543	1564	1337	1893	2100	2555	1537	1901	18984

Note

Hospital	Qty donated	Qty screened	Difference
Christa Mariane	124	125	(1)
Homabay	1744	1734	10
Maseno	218	-	218
Matala	745	239	506
Nyamira	754	377	377
Kisumu Provincial General Hospital	6246	5856	390
St Nyabondo	323	-	323
Tabaka	691	615	76
Total	10845	8946	1899

QUANTITIES OF DONATED IN WESTERN PROVINCE IN UNITS
OCTOBER 2000 - SEPTEMBER 2001

District	October 2000	November 2000	December 2000	January 2001	February 2001	March 2001	April 2001	May 2001	June 2001	July 2001	August 2001	September 2001	Total
Bungoma	338	267	322	485	329	356	317	441	533	573	377	312	4650
Busia	121	131	153	224	206	147	125	167	187	176	189	195	2021
Butere Mumias	89	94	146	140	240	247	119	204	314	166	206	143	2108
Kakamega	183	74	112	238	142	80	158	116	116	159	123	116	1617
Mt. Elgon	1	1	1	1	10	1	4	5	5	3	-	1	33
Vihiga	16	10	9	12	7	12	4	9	12	13	9	10	123
	748	577	743	1100	934	843	727	942	1167	1090	904	777	10552

Note
Descrepancies between donated and screened blood

Hospital	Qty donated	Qty screened	Difference
Alupe	172	252	(80)
Highway Nursing Home	44	-	44
St. Elizabeth Mukmu	214	88	126
Total	430	340	90

SUMMARY OF SCREENED BLOOD BY PROVINCE IN UNITS
OCTOBER 2000 - SEPTEMBER 2001

Province	October 2000	November 2000	December 2000	January 2001	February 2001	March 2001	April 2001	May 2001	June 2001	July 2001	August 2001	September 2001	Total
1. Nairobi	930	862	1046	981	1210	1188	1044	1196	1356	1260	1313	1311	13702
2. Central	759	746	572	666	706	891	733	1063	715	906	645	789	9191
3. Eastern	448	507	546	805	783	717	545	652	718	690	434	536	7381
4. North Eastern	68	90	83	71	74	88	53	53	37	71	103	90	881
5. Coast	595	333	338	410	457	374	382	495	471	552	542	454	5403
6. Rift Valley	1254	1257	1061	1795	1705	1872	1384	1927	1726	1909	1631	1694	19215
7. Nyanza	1061	899	916	1151	1379	1426	1181	1539	1554	2418	1463	1847	16834
8. Western	755	588	758	969	935	843	726	951	1174	1091	910	787	10487
Total	**5870**	**5282**	**5320**	**6848**	**7249**	**7399**	**6048**	**7819**	**7751**	**8897**	**7041**	**7508**	**83094**

QUANTITIES OF SCREENED BLOOD IN NAIROBI PROVINCE IN UNITS
OCTOBER 2000 - SEPTEMBER 2001

District	October 2000	November 2000	December 2000	January 2001	February 2001	March 2001	April 2001	May 2001	June 2001	July 2001	August 2001	September 2001	Total
KNH	596	432	672	292	580	584	458	561	714	716	694	696	7000
Others	334	430	374	689	630	604	586	635	642	544	619	615	6702
	930	862	1046	981	1210	1188	1044	1196	1356	1260	1313	1311	13702

Note
Descrepancies between donated and screened blood

Hospital	Qty donated	Qty screened	Difference
BTS Nairobi	11945	-	11945
Nairobi Equator	1526	1580	(54)
Nairobi West	326	329	(1)
Total			11890

QUANTITIES OF SCREENED BLOOD IN CENTRAL PROVINCE IN UNITS
OCTOBER 2000 - SEPTEMBER 2001

District	October 2000	November 2000	December 2000	January 2001	February 2001	March 2001	April 2001	May 2001	June 2001	July 2001	August 2001	September 2001	Total
Kerugoya	66	86	105	102	108	115	121	121	67	95	109	64	1159
Kiambu	192	162	177	197	177	254	225	244	242	232	223	237	2562
Muranga	36	56	101	74	106	84	124	103	77	78	78	74	991
Nyandarua	41	86	67	50	93	88	74	47	65	129	28	50	818
Nyeri	239	172	75	154	151	150	171	336	153	206	181	211	2199
Thika	185	184	47	89	71	200	18	212	111	166	26	153	1462
	759	746	572	666	706	891	733	1063	715	906	645	789	9191

Note
Descrepancies between donated blood and screened blood

Hospital	Qty donated	Qty screened	Difference
Karatina District Hospital	75	73	2
Limuru Nursing home	6	4	2
Mwea Mission Hospital	537	807	(270)
Nazareth Hospital	842	814	28
Nyahururu District Hospital	399	388	11
Nyeri Provincial General Hospital	971	924	47
PCEA	401	362	39
Total	3231	3372	(141)

QUANTITIES OF SCREENED BLOOD IN EASTERN PROVINCE IN UNIS
OCTOBER 2000 - SEPTEMBER 2001

District	October 2000	November 2000	December 2000	January 2001	February 2001	March 2001	April 2001	May 2001	June 2001	July 2001	August 2001	September 2001	Total
Embu	102	159	129	136	120	86	150	173	146	144	106	92	1543
Isiolo	21	15	6	26	12	34	18	22	28	16	16	15	229
Kitui	76	54	27	85	75	109	56	54	93	58	45	43	775
Machakos	70	113	196	302	374	262	85	171	232	229	70	206	2310
Makueni	37	33	29	57	50	69	57	73	53	51	67	52	628
Marsabit	16	9	6	2	2	11	5	5	8	5	14	3	86
Meru Central	60	43	36	72	57	62	66	69	53	83	45	42	688
Moyale	21	11	4	16	16	10	14	22	19	22	13	18	186
Mwingi	40	38	58	60	39	40	39	30	40	38	20	20	462
Nyambene	5	11	25	29	26	24	40	23	21	20	13	25	262
Tharaka Nithi	0	21	30	20	12	10	15	10	25	24	25	20	212
	448	**507**	**546**	**805**	**783**	**717**	**545**	**652**	**718**	**690**	**434**	**536**	**7381**

Note
Descrepancies between donated and screened blood

Hospital	Qty donated	Qty screened	Difference
Bethany	258	250	8
Ishiara District Hospital	274	-	274
Kikoko	93	83	10
Kitui	-	662	(622)
Makueni	215	210	5
Shallom	9	36	(27)
Total	**849**	**1241**	**(392)**

QUANTITIES OF SCREENED BLOOD IN NORTH EASTERN PROVINCE IN UNITS
OCTOBER 2000 - SEPTEMBER 2001

District	October 2000	November 2000	December 2000	January 2001	February 2001	March 2001	April 2001	May 2001	June 2001	July 2001	August 2001	September 2001	Total
Garissa	18	39	25	28	45	43	24	8	11	25	58	49	373
Mandera	22	27	33	21	16	23	17	31	13	26	18	17	264
Wajir	28	24	25	22	13	22	12	14	13	20	27	24	244
	68	90	83	71	74	88	53	53	37	71	103	90	881

QUANTITIES OF SCREENED BLOOD IN COAST PROVINCE IN UNITS
OCTOBER 2000 - SEPTEMBER 2001

District	October 2000	November 2000	December 2000	January 2001	February 2001	March 2001	April 2001	May 2001	June 2001	July 2001	August 2001	September 2001	Total
Kilifi	124	86	66	97	120	78	113	122	140	194	154	133	1427
Kwale	132	18	22	31	30	19	25	30	28	40	39	45	459
Lamu	19	20	21	17	18	7	5	19	10	18	9	17	180
Malindi	-	-	-	-	-	-	-	-	-	-	-	-	-
Mombasa	162	116	135	177	207	210	175	232	191	231	258	154	2248
Taita Taveta	89	33	57	45	55	35	37	49	56	32	22	61	571
Tana River	69	60	37	43	27	25	27	43	46	37	60	44	518
	595	333	338	410	457	374	382	495	471	552	542	454	5403

Note
Descrepancies between donated and screened blood

Hospital	Qty donated	Qty screened	Difference
Coast Provicnial General Hospital	1715	-	1715
Malindi District Hospital	1587	-	1587
Mombasa Hospital	622	-	662
Pandya	472	634	162
St. Lukes Kaloleni	86	-	86
Total	4482	634	(3848)

QUANTITIES OF SCREENED BLOOD IN RIFT VALLEY PROVINCE IN UNITS
OCTOBER 2000 - SEPTEMBER 2001

District	October 2000	November 2000	December 2000	January 2001	February 2001	March 2001	April 2001	May 2001	June 2001	July 2001	August 2001	September 2001	Total
Kajiado	43	40	49	42	54	86	87	59	99	77	56	63	755
Keiyo	13	20	10	24	16	18	12	12	44	41	3	13	226
Kericho	41	32	37	248	247	179	177	161	126	145	122	105	1620
Koibatek	45	43	5	19	84	56	44	53	56	45	42	28	520
Laikipia	18	14	31	19	44	16	42	54	20	11	12	22	303
Marakwet	14	-	1	2	9	11	4	19	9	16	12	5	102
Nandi	107	127	113	201	112	226	135	285	211	217	176	238	2148
Nakuru	67	85	78	164	113	129	130	119	137	110	126	75	1333
Narok	5	11	13	16	8	23	25	46	15	37	8	26	233
Samburu	8	15	10	19	13	12	11	12	12	9	13	26	160
Trans Nzoia	226	143	144	210	253	267	205	145	158	204	180	120	2255
Transmara	30	16	19	26	28	7	11	22	6	8	14	21	208
Turkana	30	24	37	41	4	4	10	8	20	18	20	12	228
Uasin Gishu	214	331	160	461	304	515	193	534	337	590	627	600	4866
West Pokot	121	118	117	120	170	104	63	109	185	134	43	106	1390
Baringo	77	60	67	50	95	64	29	79	64	81	46	94	806
Bomet	161	152	137	88	126	124	128	152	191	146	117	103	1625
Buret	34	26	33	45	25	31	78	58	36	20	14	37	437
	1254	**1257**	**1061**	**1795**	**1705**	**1872**	**1384**	**1927**	**1726**	**1909**	**1631**	**1694**	**19215**

Note

Descrepancies between donated and screened blood

Hospital	Qty donated	Qty screened	Difference
Iten District Hospital	253	-	253
Kericho District Hospital	1250	1172	78
Total	1503	1172	331

QUANTITIES OF SCREENED BLOOD IN NYANZA PROVINCE IN UNITS

OCTOBER 2000 - SEPTEMBER 2001

District	October 2000	November 2000	December 2000	January 2001	February 2001	March 2001	April 2001	May 2001	June 2001	July 2001	August 2001	September 2001	Total
Gucha	40	66	74	31	77	43	83	56	37	51	32	60	650
Homabay	169	89	108	119	172	223	97	196	150	217	103	96	1739
Kisii	223	192	234	302	324	304	286	264	324	301	261	219	3234
Kisumu	442	296	220	306	396	353	318	724	635	1482	822	1164	7158
Kuria	21	16	3	27	12	28	43	13	27	21	20	12	243
Migori	86	143	120	151	192	317	222	176	176	151	84	141	1959
Myamira	11	27	14	64	47	37	18	25	55	99	72	83	552
Nyando	-	-	-	-	-	-	-	-	-	-	-	-	-
Rachuonyo	69	70	139	149	157	120	109	84	150	95	69	72	1283
Siaya	0	0	4	2	2	1	5	1		1			16
	1061	**899**	**916**	**1151**	**1379**	**1426**	**1181**	**1539**	**1554**	**2418**	**1463**	**1847**	**16834**

Note

Descrepancies between donated and screened blood

Hospital	Qty donated	Qty screened	Difference
Christa Marriane	124	125	(1)
Homa Bay	1744	1734	10
Maseno	218	-	218
Matata	745	239	506
Nyamira	754	377	377
Kisumu Provincial General Hospital	6246	5856	390
St. J. Nyabondo	323	-	323
Tabaka	691	615	76
Total	10845	8946	1899

QUANTITIES OF SCREENED BLOOD IN WESTERN PROVINCE IN UNITS
OCTOBER 2000 - SEPTEMBER 2001

District	October 2000	November 2000	December 2000	January 2001	February 2001	March 2001	April 2001	May 2001	June 2001	July 2001	August 2001	September 2001	Total
Bungoma	338	267	332	485	329	356	317	441	533	573	377	312	4660
Busia	128	142	158	231	211	153	129	177	195	183	193	207	2107
Butere Mumias	89	94	146	140	240	247	119	204	314	166	206	143	2108
Kakamega	183	74	112	100	138	74	153	115	115	153	116	114	1447
Mt. Elgon	1	1	1	1	10	1	4	5	5	3	9	1	42
Vihiga	16	10	9	12	7	12	4	9	12	13	9	10	123
	755	**588**	**758**	**969**	**935**	**843**	**726**	**951**	**1174**	**1091**	**910**	**787**	**10487**

Note

Descrepancies between donated and screened blood

Hospital	Qty donated	Qty screened	Difference
Alupe	172	252	(80)
Highway Nursing Home	44	-	44
St. Elizabeth Mukumu	214	88	126
Total	430	340	90

SUMMARY OF USED BLOOD BY PROVINCE IN UNITS
OCTOBER 2000 - SEPTEMBER 2001

Province	October 2000	November 2000	December 2000	January 2001	February 2001	March 2001	April 2001	May 2001	June 2001	July 2001	August 2001	September 2001	Total
1. Nairobi	808	1470	1679	926	1941	1689	873	3093	1696	1980	1558	2082	19800
2. Central	612	613	538	595	632	713	574	755	674	716	491	692	7605
3. Eastern	342	410	419	625	557	590	544	523	549	597	501	489	6146
4. North Eastern	50	51	58	43	29	44	29	45	26	46	43	41	505
5. Coast	677	499	444	600	559	527	485	658	593	637	693	601	6973
6. Rift Valley	1252	1224	1033	1674	1555	1738	1217	1815	1542	1831	1547	1598	18026
7. Nyanza	911	759	774	915	1120	1138	969	1286	1249	2017	1300	1620	14058
8. Western	632	576	596	838	784	736	541	778	998	890	750	585	8704
Total	5284	5602	5541	6216	7177	7175	5232	8953	7327	8714	6883	7708	81817

QUANTITIES OF USED BLOOD IN NAIROBI PROVINCE IN UNITS
OCTOBER 2000 - SEPTEMBER 2001

District	October 2000	November 2000	December 2000	January 2001	February 2001	March 2001	April 2001	May 2001	June 2001	July 2001	August 2001	September 2001	Total
KNH	596	432	672	292	580	584	458	561	714	716	694	696	7000
Others	212	1038	1007	634	1361	1105	415	2532	982	1264	864	1386	12800
	808	1470	1679	926	1941	1689	873	3093	1696	1980	1558	2082	19800

QUANTITIES OF USED BLOOD IN CENTRAL PROVINCE IN UNITS
OCTOBER 2000 - SEPTEMBER 2001

District	October 2000	November 2000	December 2000	January 2001	February 2001	March 2001	April 2001	May 2001	June 2001	July 2001	August 2001	September 2001	Total
Kerugoya	53	57	75	82	96	71	93	75	53	79	84	56	874
Kiambu	136	113	123	163	110	188	140	165	199	152	161	143	1793
Muranga	36	53	96	70	102	76	117	96	69	72	74	72	933
Nyandarua	25	63	56	36	86	45	66	30	52	78	32	43	612
Nyeri	187	155	148	158	173	143	141	194	191	172	118	225	2005
Thika	175	172	40	86	65	190	17	195	110	163	22	153	1388
	612	613	538	595	632	713	574	755	674	716	491	692	7605

QUANTITIES OF USED BLOOD IN EASTERN PROVINCE IN UNITS
OCTOBER 2000 - SEPTEMBER 2001

District	October 2000	November 2000	December 2000	January 2001	February 2001	March 2001	April 2001	May 2001	June 2001	July 2001	August 2001	September 2001	Total
Embu	94	152	109	131	103	85	137	130	121	131	107	84	1384
Isiolo	21	15	6	26	12	34	18	22	28	16	16	15	229
Kitui	56	31	24	63	51	79	38	32	76	45	29	33	557
Machakos	62	107	166	238	250	225	192	164	167	220	195	216	2202
Makueni	35	32	28	51	49	65	52	69	49	49	64	49	592
Marsabit	9	4	6	2	2	10	4	5	8	5	14	3	72
Meru Central	40	31	28	57	43	53	49	56	45	76	37	36	551
Moyale	20	11	4	16	15	10	12	22	18	20	10	17	175
Mwingi	-	-	-	-	-	-	-	-	-	-	-	-	-
Nyambene	5	9	20	24	23	21	32	15	17	15	9	18	208
Tharaka Nithi	0	18	28	17	9	8	10	8	20	20	20	18	176
	342	**410**	**419**	**625**	**557**	**590**	**544**	**523**	**549**	**597**	**501**	**489**	**6146**

QUANTITIES OF USED BLOOD IN NORTH EASTERN PROVINCE IN UNITS
OCTOBER 2000 - SEPTEMBER 2001

District	October 2000	November 2000	December 2000	January 2001	February 2001	March 2001	April 2001	May 2001	June 2001	July 2001	August 2001	September 2001	Total
Garisa													0
Mandera	22	27	33	21	16	23	17	31	13	26	18	17	264
Wajir	28	24	25	22	13	21	12	14	13	20	25	24	241
	50	51	58	43	29	44	29	45	26	46	43	41	505

QUANTITIES OF USED BLOOD IN COAST PROVINCE IN UNITS

OCTOBER 2000 - SEPTEMBER 2001

District	October 2000	November 2000	December 2000	January 2001	February 2001	March 2001	April 2001	May 2001	June 2001	July 2001	August 2001	September 2001	Total
Kilifi	-	-	-	-	-	-	-	-	-	-	-	-	-
Kwale	104	18	22	31	30	19	25	30	28	40	39	45	431
Lamu	18	20	21	15	18	7	4	19	10	18	9	16	175
Malindi	109	130	104	137	140	102	124	118	130	163	168	162	1587
Mombasa	283	233	212	327	290	336	269	401	327	334	390	265	3667
Taita Taveta	76	28	45	38	49	32	36	44	49	30	20	56	503
Tana River	87	70	40	52	32	31	27	46	49	52	67	57	610
	677	**499**	**444**	**600**	**559**	**527**	**485**	**658**	**593**	**637**	**693**	**601**	**6973**

QUANTITIES OF USED BLOOD IN RIFT VALLEY PROVINCE IN UNITS
OCTOBER 2000 - SEPTEMBER 2001

District	October 2000	November 2000	December 2000	January 2001	February 2001	March 2001	April 2001	May 2001	June 2001	July 2001	August 2001	September 2001	Total
Kajiado	43	40	49	42	54	86	87	59	99	77	56	63	755
Kelyo	6	20	18	24	23	24	11	21	17	25	7	16	212
Kericho	33	30	36	243	241	170	167	159	118	142	119	95	1553
Koibatek	38	40	5	16	43	49	40	49	39	43	40	26	428
Laikipia	18	14	29	24	10	16	15	34	17	7	14	20	218
Marakwet	14		1	2	9	11	4	19	9	16	12	5	102
Nandi	96	110	96	184	105	196	116	270	189	184	144	191	1881
Nakuru	65	81	76	139	111	113	120	109	117	95	117	73	1216
Narok	2	9	12	14	6	6	13	21	15	17	7	9	131
Samburu	8	13	4	11	12	10	9	10	11	7	12	26	133
Trans Nzoia	217	136	138	203	242	260	192	136	139	197	169	113	2142
Transmara	26	12	17	21	24	6	8	17	6	8	13	18	176
Turkana	30	22	30	23	14	11	9	15	16	27	11	16	224
Uasin Gishu	205	314	143	429	284	491	189	520	299	574	585	576	4609
West Pokot	226	191	195	178	179	106	78	137	207	194	81	160	1932
Baringo	68	47	54	40	78	59	27	74	55	75	42	88	707
Bomet	157	145	130	81	120	120	121	149	182	131	108	92	1536
Buret	0	0	0	0	0	4	11	16	7	12	10	11	71
	1252	**1224**	**1033**	**1674**	**1555**	**1738**	**1217**	**1815**	**1542**	**1831**	**1547**	**1598**	**18026**

QUANTITIES OF USED BLOOD IN NYANZA PROVINCE IN UNITS
OCTOBER 2000 - SEPTEMBER 2001

District	October 2000	November 2000	December 2000	January 2001	February 2001	March 2001	April 2001	May 2001	June 2001	July 2001	August 2001	September 2001	Total
Gucha	32	50	56	24	66	36	63	45	34	46	32	44	528
Homabay	154	71	80	92	144	166	41	150	118	162	71	86	1335
Kisii	196	175	202	273	279	265	262	242	293	269	232	205	2893
Kisumu	395	257	212	252	341	305	288	615	548	1286	756	1046	6301
Kuria	20	15	3	25	10	23	36	10	19	17	18	11	207
Migori	78	109	114	139	177	250	199	155	144	163	118	154	1800
Myamira	6	15	8	13	8	11	4	10	3	5	11	17	111
Nyando	-	-	-	-	-	-	-	-	-	-	-	-	-
Rachuonyo	30	67	95	95	93	81	71	58	90	69	62	57	868
Siaya	0	0	4	2	2	1	5	1		0			15
	911	**759**	**774**	**915**	**1120**	**1138**	**969**	**1286**	**1249**	**2017**	**1300**	**1620**	**14058**

QUANTITIES OF USED BLOOD IN WESTERN PROVINCE IN UNITS
OCTOBER 2000 - SEPTEMBER 2001

District	October 2000	November 2000	December 2000	January 2001	February 2001	March 2001	April 2001	May 2001	June 2001	July 2001	August 2001	September 2001	Total
Bungoma	325	255	297	451	310	331	288	406	498	530	362	284	4337
Busia	127	145	169	252	241	170	138	196	208	222	195	185	2248
Butere Mumias	80	73	120	117	215	220	105	163	274	120	175	108	1770
Kakamega	83	93	-	5	2	3	2		1	2	3	-	194
Mt. Elgon	1	1	1	1	10	1	4	4	5	3	9	1	41
Vihiga	16	9	9	12	6	11	4	9	12	13	6	7	114
	632	**576**	**596**	**838**	**784**	**736**	**541**	**778**	**998**	**890**	**750**	**585**	**8704**

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SUMMARY OF BTS PERSONNEL BY PROVINCE

Province	Pathologist		Medical Officers		Clinical Officers		Registered Nurses		Enrolled Nurses		Lab Technology		Laboratory Technician		Counsellors	
	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied
Nairobi	9	8	12	11	2	1	9	9	15	23	45	32	14	2	7	1
Central	0	0	1	0	1	1	4	4	0	0	1	33	2	34	2	-
Eastern	2	1	2	1	0	0	2	0	1	1	11	36	8	45	1	-
North Eastern	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	(
Coast	2	2	0	0	0	0	0	0	0	1	2	6	2	6	5	1
Rift Valley	2	1	15	14	34	44	17	28	41	83	47	63	52	74	27	1
Nyanza	3	1	8	4	12	7	25	14	3	2	15	13	19	21	27	2
Western	0	0	0	0	1	1	2	0	1	1	26	23	25	28	15	1
Total	18	13	38	30	50	54	59	55	61	111	147	210	122	211	84	8

SUMMARY OF BTS PERSONNEL IN NAIROBI PROVINCE

District	Pathologist		Medical Officers		Clinical Officers		Registered Nurses		Enrolled Nurses		Lab Technologists		Laboratory Technician		Counsellors	
	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupi
Nairobi	9	8	12	11	2	1	9	9	15	23	45	32	14	2	7	
	9	8	12	11	2	1	9	9	15	23	45	32	14	2	7	

SUMMARY OF BTS PERSONNEL IN CENTRAL PROVINCE

District	Pathologist		Medical Officers		Clinical Officers		Registered Nurses		Enrolled Nurses		Lab Technologists		Laboratory Technician		Counsellors	
	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupi
Kerugoya												1		3		
Kiambu	0	0	0	0	0	0	0	0	0	0	0	6	0	8	0	
Muranga												1				
Nyandarua	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	
Nyeri												8		10		
Thika			1		1	1	4	4			1	16	2	10	2	
	0	0	1	0	1	1	4	4	0	0	1	33	2	34	2	

SUMMARY OF BTS PERSONNEL IN EASTERN PROVINCE

District	Pathologist		Medical Officers		Clinical Officers		Registered Nurses		Enrolled Nurses		Lab Technologists		Laboratory Technician		Counsellors	
	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupi
Embu	2	0	1	0	0	0	0	0	0	0	5	6	3	8	1	
Isiolo											1					
Kitui											3	8	4	15		
Machakos	0	0	0	0								6		7		
Makueni												8		7		
Marsabit												1				
Meru Central			1	1					1	1	1	1				
Moyale												1				
Mwingi												5		8		
Nyambene				0			2				1		1			
Tharaka Nithi	1	1														
	2	1	2	1	0	0	2	0	1	1	11	36	8	45	1	

SUMMARY OF BTS PERSONNEL IN NORHT EASTERN PROVINCE

District	Pathologist		Medical Officers		Clinical Officers		Registered Nurses		Enrolled Nurses		Lab Technologists		Laboratory Technician		Counsellors	
	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupi
Garissa												2		1		
Mandera												1				
Wajir												1				
	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	

SUMMARY OF BTS PERSONNEL IN COAST PROVINCE

District	Pathologist		Medical Officers		Clinical Officers		Registered Nurses		Enrolled Nurses		Lab Technologists		Laboratory Technician		Counsellors	
	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupi
Kilifi												1				
Kwale															5	
Lamu																
Malindi																
Mombasa	2	2									2	3	2	3	5	
Taita Taveta												1		1		
Tana River											1	2		2		
	2	2	0	0	0	0	0	0	0	0	1	6	2	6	5	

SUMMARY OF BTS PERSONNEL IN RIFT VALLEY PROVINCE

District	Pathologist		Medical Officers		Clinical Officers		Registered Nurses		Enrolled Nurses		Lab Technologists		Laboratory Technician		Counsellors	
	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied
Baringo											7	7	6	6	2	
Bomet	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	
Buret	0	0	7	7	27	27	14	14	38	38	4	4	8	8	1	
Kajiado				3		13		13		42	6	11	4	7	3	
Keiyo												2				
Kericho	1		4	2	6	4	2	1	1		10	6	6	2	9	
Kolbatek														1		
Laikipia												3		7		
Marakwet												2				
Nakuru	0	0	1	0	1	0	1	0	2	0	9	12	15	18	4	
Nandi																
Narok	0	0	0	0	0	0	0	0	0	0	5	5	5	5	2	
Samburu	1	0	3	1							1					
Trans Nzoia										3	1	1	6	7	2	
Transmara	0	0	0	0	0	0	0	0	0	0	2	1	2	0	4	
Turkana											1					
Uasin Gishu		1		1								7		9		
West Pokot												1		4		
	2	1	15	14	34	44	17	28	41	83	47	63	52	74	27	

SUMMARY OF BTS PERSONNEL IN NYANZA PROVINCE

District	Pathologist		Medical Officers		Clinical Officers		Registered Nurses		Enrolled Nurses		Lab Technologists		Laboratory Technician		Counsellors	
	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied
Gucha									0	0	1	1	2	2		
Homa bay	1		2	1	3	1	3	1					1	1	2	
Kisii			2	1	2	2	3	2			1	1	5	5	3	
Kisumu	1	1	3	1	2	1	6	1			7	5	2	2	7	
Kuria					3	2	4	2							2	
Migori	1		1	1	2	1	2	1	2	1	4	1	5	1	4	
Nyamira	0										2	1	3	3	7	
Nyando	0	0	0	0	0	0	7	7	1	1	0	0	1	1	0	
Rachuonyo												2		3	2	
Siaya												2		3		
	3	1	8	4	12	7	25	14	3	2	15	13	19	21	27	

SUMMARY OF BTS PERSONNEL IN WESTERN PROVINCE

District	Pathologist		Medical Officers		Clinical Officers		Registered Nurses		Enrolled Nurses		Lab Technologists		Laboratory Technician		Counsellors	
	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied	Established	Occupied
Bungoma	0	0	0	0	1	1	0	0	1	1	3	5	5	9	10	
Busia							2				12	6	7	7	4	
Butere/Mumias											9	6	10	5		
Kakamega	0	0	0	0					0	0	1	1	2	5	1	
Mt. Elgon	0	0	0	0	0	0	0	0	0	0	1	4	1	1	0	
Vihiga												1		1		
	0	0	0	0	1	1	2	0	1	1	26	23	25	28	15	

Appendix III