Recruiters nevertheless face difficult questions when they ask people to give blood. Perhaps the most difficult issue to emerge since the start of the AIOS pandemic has been whether or not to tell a donor that his or her blood has tested positive for HIV. The arguments are ethical as well as practical, explained on pages 6-7.

Know that their blood will be tested for HIV, and fear the result.

Discussions with potential donors in anglophone Africa have shown that many are worried about the blood donation process itself; AIDS only adds to their fear and confusion.

However, a well planned donor education campaign can substantially increase the number of voluntary donors.

AIDS is most commonly transmitted through sexual contact. But the risk of being infected with HIV through a single, HIV-infected blood transfusion is over 90 per cent — far higher than the risk of infection through a single act of sexual intercourse with an HIV-infected partner.

Medical and social scientists alike agree that AIDS often makes a bad situation a whole lot worse. The question of blood safety is no exception. If blood was always donated for purely humanitarian reasons, and in adequate amounts, maintaining safety and quality control would be far simpler. But unfortunately, much of the world's blood is bought and sold like any other commodity.

The examples of blood trading described on pages 4-5 illustrate the danger of relying on commercial donors to meet the demand for blood. Often the people who have to sell their blood to survive are those most at risk from serious communicable disease.

The need for all countries to establish a reliable pool of regular, voluntary and safe blood donors has never been more urgent.

Searching for safer donors

Since the start of the AIDS pandemic, voluntary blood donations have actually dropped in many countries. Health education campaigns and media stories linking AIDS to blood transfusions have frightened many donors, who mistakenly believe that it is possible to get HIV from giving blood. (This is impossible where equipment used to collect blood is properly sterilised.) Others have stopped giving because they know that their blood will be tested for HIV, and fear the result.

A successful donor recruitment campaign should:

- identify a target group with low HIV seroprevalence (for example young people in school);
- find out about relevant attitudes, traditions and beliefs (e.g. through small discussion groups);
- develop educational programmes demonstrating what the gift of blood can offer and reassuring people about their concerns;
- treat all donors courteously.

Donor recruiters have found that strategies that work for other types of community education — involvement of community leaders, peer support and encouragement, appreciation and public recognition — are equally helpful in attracting blood donors.

Recruiters nevertheless face difficult questions when they ask people to give blood. Perhaps the most difficult issue to emerge since the start of the AIDS pandemic has been whether or not to tell a donor that his or her blood has tested positive for HIV. The arguments are ethical as well as practical, as explained on pages 6-7.

Use and abuse

Just as important as the collection of blood is its rational use. Blood transfusions are often given unnecessarily — particularly for anaemia. Training of doctors and health workers on the rational use of blood is an essential part of any blood safety programme.

Good primary health care can reduce the need for transfusions: health workers should routinely check for anaemia, and treat early. Nutritional advice should also be given. At the national and international level, health and development programmes that tackle some of the causes of severe anaemia (such as malaria, bilharzia and hookworm) should be strengthened.

Clearly, global blood safety in the era of AIDS has moved beyond the limited technical solution of screening, although this is obviously important. The humanitarian motives of voluntary unpaid donors are in sharp contrast to the continued buying and selling of blood, and the reluctance of some governments to challenge the economic interests of the blood trade.

Brave lobbying and co-operative efforts in every country are needed to take blood out of the market place. Otherwise, we are merely sucking the blood of the poor to develop unsafe products for all.

Barbara Wallace, formerly AIDS Coordinator, League of Red Cross and Red Crescent Societies.
The National Blood Transfusion Service of Zimbabwe (NBTS) is a non-profit organisation, with a National Committee consisting of senior members of the Ministry of Health, Zimbabwe Red Cross Society and representatives of blood donors. The committee, with the government, is responsible for formulating and implementing policy. All blood donations are voluntary and non-remunerated. The Red Cross Society assists in blood donor recruitment and collection; since this is part of the Service’s overall activity, standards of operation apply equally.

Despite increasingly high levels of sexually acquired HIV infection in the adult population, Zimbabwe’s experience in developing a national safe blood supply is an extraordinary success story; one which illustrates not only the need for effective management at national level, but also for government support and political commitment.

Zimbabwe was the third country in the world to begin routine HIV antibody testing of blood. The National Blood Transfusion Service (NBTS) began screening in July/August 1985, and was the only centre testing clinical AIDS cases until 1989. The following summarises key observations made:

- When donors were automatically informed of their HIV status, there was a general increase in the number of new first time donors, suggesting some people used the Service as a testing centre. However, the number of general donations decreased due to the fact that regular or potential donors were afraid of finding out if they were HIV positive.
- First time donors generally have a higher rate of HIV seropositivity compared to regular blood donors (a common finding in nearly all BTSs).
- New donors, in particular, who have clinical symptoms indicative of AIDS, believe the only way of confirming their suspicions of AIDS is to have an HIV blood test. In the absence of alternative, free HIV testing sites, they use the BTS to discover their HIV status.
- Regular donors who have lapsed for more than one year also tend to be less safe and reliable and may be using the BTS as an HIV screening service. New and lapsed donors telephone the BTS to enquire about their results.
- Regular donors are exposed to pre-donation education each time they attend and are more likely to exclude themselves from donating if they feel their sexual behaviour and/or health status indicates their blood may not be suitable.
- Confidential, pre-donation counseling encourages the donor to self exclude and be more willing to do so. However, crowded rooms with lack of confidentiality mean that self exclusion is almost impossible; any reluctance to give blood would single out the person not willing to donate.
- A low rate of seropositivity is associated with students and school children (17-19 years of age).

Based on the above, the Service has adapted its programme in two main areas:

**Blood collection** Since school donations show a low HIV seropositivity rate, resources have been diverted into collecting blood during term-time from students in the 17-19 age group. This has resulted in an increased proportion of safe blood, and because each year sees new students eligible for donation, ensures a continuous source. The younger the blood donor, the safer the donation. During school holidays, however, there is a general shortage of blood; efforts to collect blood in workplaces among regular adult donors are stepped up.

The Service has developed health awareness materials and a routine health questionnaire which help the donor to decide if their blood is free from blood-borne diseases, including HIV. It was found that the material was not sufficient by itself and it is now reinforced by the following:

- pre-donation talks given during mobile collection sessions by experts
explaining who should give blood and why. Talks focus on the tests done and why these are necessary. Pre-test HIV counselling procedures are discussed.

- a comprehensive medical history is taken of each donor. A nurse discusses the routine health questionnaire with the donor, and completes it on the donor’s behalf, ensuring a more accurate risk assessment.

To increase blood donation countrywide, five new collection branches have now been opened (one in each province). Samples from all blood collected are tested in one of two main centres (Harare and Bulawayo).

Informing seropositive donors Initially, when donors were automatically informed of their HIV status, they were told by their respective doctors. This policy was in operation for two years when the prevalence of HIV in blood donors was low. As the prevalence of HIV rose, doctors as well as primary health care staff could not deal with the large numbers of people seeking counselling. It also became evident that not all blood donors wished to know their results and that the donor should have the right to choose. Accordingly, the Service developed a system where, if the donor wishes to know, s/he is informed through a chosen doctor (consented donor).

If they do not wish to know, it is explained that BTS will not bleed them again if any of the serology tests that are carried out by the BTS are positive — but it is not specified which result is positive (non-consented donor). Tests carried out include syphilis, hepatitis B and C, and HIV. One major disadvantage is that non-consented donors, when subsequently rejected by the BTS, tend to assume that they are HIV positive. To counter this, pre-donation talks emphasise the fact that HIV is not the only test done. Donors are given the opportunity to change their decision.

This practice has been in operation for one year and, to date, the only serious problem is the national shortage of doctors and trained counsellors to provide support for the blood donors who test positive for any of the tests done.


Blood Programme of the League of Red Cross and Red Crescent Societies

Of the total amount of whole blood collected worldwide every year, over one third is collected by National Red Cross and Red Crescent Societies. Professor Robert Beal, Head of the League's Blood Programme (LBP) in Geneva, describes current international action on blood safety.

Blood is a priceless gift — or should be. Without a doubt, the quality of blood in voluntary non-profit blood banks is higher than in any commercial operation. The League’s Programme is based on one fundamental principle: the recruitment of volunteer blood donors who receive no financial or material incentive whatsoever for their gift, i.e. non-remunerated donation. This principle is promoted in the following ways:

■ Support to National Society blood programmes (e.g. through technical advice). Red Cross/Red Crescent Societies accept total responsibility for the national blood programmes in 22 countries; in a further 37 countries, they run collection programmes which contribute to the national resources and, in most of the remaining 88 countries, are involved in donor recruitment and retention.

Assistance is provided at the request of the National Society and may involve in-country visits by a member of the League’s technical staff or workshops at which representatives of National Societies and governmental transfusion services are present. A regional workshop held in Harare in 1990, for example, focused on management and leadership, and recommended (in particular) the need for professional skills development and career plans for those involved in the recruitment of regular, low-risk blood donors.

■ Collaboration with relevant international bodies. A particularly important collaboration exists with the World Health Organization. In 1988, the Global Blood Safety Initiative (GBSI) was formed, in which the LBP works closely with staff within the WHO Global Programme on AIDS and the Unit of Laboratory and Blood Safety. This initiative also involves the International Society of Blood Transfusion, the United Nations Development Programme (UNDP) and some governments. Its primary objective is to support the development of integrated blood transfusion services in all countries. Collaborating partners employ consultants who, through site visits and regional consultations, develop guidelines, manuals, and other publications. Recent informal consultations have dealt with autologous donation (where an individual 'donates' blood for his/her own future use), recruitment and retention of voluntary non-remunerated donors and training needs — all with a third world emphasis.

■ Publication of relevant information. GBSI consultations result in documents published under the joint logos of LRCRS and WHO, which can be accepted as the best current expertise/advice on the topic concerned. A range of guidelines includes counselling of HIV positive donors (back page). Publications available from: The Blood Programme, LRCRC, PO Box 372, CH-1211 Geneva 19, Switzerland.
The blood trade is a shocking example of how profit rarely benefits those who work to produce the original product. People who sell their blood are precisely those who are unable to buy it. Most commercial donors live in poor conditions, and in poor health. They are a sector of the population whose health can least afford regular blood loss, and who are most at risk from communicable disease. This is not just a third world problem. This is a global, multi-million dollar industry. The following reports reveal how the blood trade, while attracting higher risk donors, does little to invest in quality control or essential research into the extent of blood-borne diseases.

Out of 2,921 intravenous (IV) drug users in Baltimore, USA, 793 had donated blood at some time in their lives. 652 continued to donate after they had started to use IV drugs. Of these, 88.1 per cent gave through the commercial sector, and only 11.9 per cent to voluntary blood banks. Of the total 2,921 addicts in the study, 24.1 per cent were found to be HIV positive. [JAMA, vol. 263, 1990, pp. 2194-7].

Breaking the blood mafia

Blood supply management in Brazil has always been appalling, but when the first AIDS statistics were published the situation caused a public outcry. One fifth of the registered cases of AIDS in Rio de Janeiro were the result of blood transfusions or blood products contaminated with HIV. It was immediately clear that infected blood was responsible for a range of other communicable diseases. A study carried out in 1987 revealed that 70 per cent of beggars in Rio de Janeiro were regular commercial blood donors. Of this 70 per cent, seven per cent showed positive when tested for Chagas' disease, 22.8 per cent for hepatitis, 12.9 per cent for syphilis and seven per cent for HIV. Around 85 per cent of haemophiliacs in the country have been infected by contaminated blood, and/or blood products.

Brazil's blood trade relies on a complex and secret network of blood product suppliers, blood donors and users. In 1988, the new Constitution prohibited the sale of blood in Brazil, but this law only exists on paper. At the end of 1990, the Director of the Blood Transfusion Service/AIDS division announced that blood supply management in Brazil was still not under control. Although the Brazilian authorities recognise the seriousness of the problem, they still have done nothing to deal with it. Six months on, the situation remains unchanged.

The truth is that nobody in the country has an accurate picture of who donates blood or how many blood donors there are. Nobody knows how many are voluntary and how many are professional. This ignorance is beneficial as far as the blood trade is concerned. Such a profitable industry has no interest in centralising data or supporting research into the spread of disease. Unless Brazil's 'blood mafia' is controlled, today's quick profit will always be more important than tomorrow's painful death.

Herbert Daniel, Brazilian Interdisciplinary AIDS Association (ABIA), Rio de Janeiro, Brazil.
The blood trade

INDIA

The art of buying blood in Ahmedabad

Dr Radium Bhattacharya, co-ordinator of an AIDS training and awareness programme in the commercial blood sector, explains the background to the buying and selling of blood.

Commercial blood donors (CBDs) are mainly young males who are pavement dwellers (some migratory) with no fixed address. Most are illiterate and have no other skill to earn a livelihood, having been in the blood trade for ten or more years. Separated from their families, they are likely to have more than one sexual partner. Many of them are addicted to tobacco and alcohol, although in Ahmedabad none are IV drug users, as far as we know. Our project involves around 100 CBDs in Ahmedabad city. These donors operate through middlemen or agents in contact with the hospital, clinic or pathology laboratory.

There are two types of agents: institutional agents, who act for the hospitals attached to medical colleges, and agents who operate for private clinics, pathology laboratories or blood collecting centres. Each agent has his own group of CBDs. The agents do not own any offices but they do have contact telephone numbers in shops where they pay a monthly service charge. After receiving a call from the hospital or private clinic, the agent will contact a blood donor in the blood group required.

Each CBD is bled more than five times in a month, and some are donating a number of times a week. The donors are aware that their blood should meet certain specifications like haemoglobin content, failing which they may not be able to give blood or they will be paid less. ‘We take iron tablets to keep the colour,’ one donor told us.

Dr Radium Bhattacharya, SIRMCE, B/02 Siddha Chakra Apartments, Ellisbridge, Ahmedabad-380 006, India

Money earned by a commercial donor is distributed among agent, hospital wardboys and personnel at the blood collection centres.

'AIDS has reached India'

In January 1989, daily newspapers carried headlines announcing that HIV antibodies had been discovered in blood products manufactured in India. The truth had finally hit home: ‘AIDS has reached India, and no one is safe from it’ [Indian Express].

By the end of February 1991, 820,400 people had been screened throughout the country for the presence of HIV antibodies. Of these, 4,778 were found to be positive (confirmed by Western Blot) giving a rate of 5.82 per thousand.

Heterosexual transmission accounted for just over half of these. Blood donors accounted for 17 per cent of the total number, only slightly lower than intravenous drug users at 23.2 per cent. In Maharashtra alone, the percentage of infected blood donors (27.3 per cent) was higher than that of infected sex workers (27.1 per cent).

India’s most immediate problem is that it cannot afford to eliminate commercial blood donation overnight, since this provides up to 50 per cent of all transfused blood in the large cities.

Ashok’s story

The lives of a great majority of India’s 830 million inhabitants are dominated by poverty, unemployment and disease. Many are forced to sell their blood, or even a kidney, just to survive. Journalist and AIDS control activist Shyamala Nataraj talked to Ashok, a professional blood donor from Madras.

Ashok was a regular paid donor at a Bombay blood bank. Two years ago, he was told he was HIV positive. ‘I started giving at other blood banks. If they made a fuss, there was always some pathology laboratory willing to buy, no questions asked. Why should I go out of my way to tell them? It’s their job to test the blood.’

When Ashok heard of the trade in organs, he decided to sell one of his kidneys. This would fetch him Rs25,000 (750 pounds sterling). A friend took him to an agent and the deal was fixed. ‘They did many tests on me to see if my kidney matched but obviously didn’t do the HIV one. I got caught only because another donor told the doctor.’

Ashok’s story clearly illustrates the need not only for adequate HIV counselling, but also for alternative income-generating opportunities for commercial donors found to be carrying any dangerous blood-borne disease.
The quality of a test is determined by its sensitivity and specificity. Sensitivity describes the probability (expressed as a percentage) that the test result will be positive when antibodies to HIV are present. Specificity describes the probability (as a percentage) that the test result will be negative if antibodies to HIV are not present. An ideal test would be 100 per cent sensitive (always positive if HIV antibodies are present) and 100 per cent specific (never positive if they are not present). But no test is ideal.

HIV antibody tests are divided into two groups:

- screening (ELISA, membrane capture assays, agglutination tests).
- confirmatory (Western Blot, Immunofluorescence, Radioimmuno-precipitation assay). These should have an especially high specificity. They are used to find out which of the samples ‘caught’ by the screening test should really be considered as infected. Even these tests do not give 100 per cent assurance of a person’s sero-status (whether they are HIV positive or negative).

Prevention or persecution?
 Depending on the reason for carrying out the test in the first place, a tested individual may or may not be told if their HIV antibody test is positive (see next page). However, the following principle should ideally apply: at least one positive screening and one positive confirmatory test are needed before a result is made known to the individual concerned.

It is a commonly held view that if a person is told their HIV antibody positive result, s/he will ensure that the spread of the virus to others is prevented. This principally means changing their sexual behaviour. However, little is known about how and why people are motivated to change their most intimate behaviour, but knowledge, emotional well-being and respect for others are surely fundamental. All too often, however, infected individuals must endure all the negative consequences of knowing their positive result, and none of the benefits, such as psychosocial assistance, early diagnosis, prevention and treatment of opportunistic infections, and (although experimental) anti-viral regimes. First they may be told this devastating news in a seemingly insensitive way by an overworked health professional. Once labelled ‘HIV positive’, these people then face social isolation and discrimination.

Even where the test is negative, testing for HIV without proper counselling can actually promote the spread of the virus. People with a negative test result may well develop a false sense of
security which can tempt them into continuing with risk behaviour ... until the test turns out positive.

When, why and whom to test
In all test situations confidentiality is of the highest priority.

Testing of individuals This should only be done with proper informed consent, where the individual has fully considered the implications of receiving both a negative and a positive result (voluntary testing).

The reason for testing, and being told the result, should be carefully considered. Many people may be in personal and/or economic situations in which they cannot change their risky behaviour, regardless of the result.

Testing on the request of a third party (governments, religious institutions, schools, employers) is both ethically and practically very questionable. Stated reasons such as 'We don't want to invest in a scholarship for someone who is going to die' reflect a prejudice and lack of understanding about the test and the nature of the infection. A negative test does not necessarily mean that the individual won't become infected some time in the future. Even if the individual is infected, they may remain healthy for many years — plenty of time to have a productive input into a company! If the individual, after pre-test counselling, still wants to be tested, the result should never be given to the third party without written consent (given after the results) of the tested individual.

Where HIV testing is carried out to support a clinical diagnosis of HIV disease/AIDS, individuals should only be asked to undergo a test if the result will help in deciding on the best course of medical care.

Testing population sectors for epidemiological surveys This can only be done with the approval of qualified authorities. Surveys conducted without the informed consent of the individuals tested must ensure that the results are not given to the person whose blood was screened and that their name is not linked to the results (known as anonymous testing).

Screening of donated blood
Donors should ideally be screened before actually testing for HIV antibodies by identifying any past high-risk behaviour, taking a medical history and conducting a medical examination (i.e. blood from donors with a history or signs of a sexually transmitted disease should be excluded).

All units of blood which test HIV antibody positive must be destroyed. Where informed consent has not been given, and/or proper counselling cannot be provided, and/or confirmatory testing cannot be done (since this is expensive) the screening results should not be disclosed to the donor concerned (see Zimbabwe experience, pages 2-3).

The principal aim of testing blood samples is to render blood transfusions safer, not to find seropositive individuals.

Which screening test to use?
For rural hospitals in poor countries, where blood cannot be stored but is often needed in emergency situations, a test is needed which does not require additional equipment, is highly sensitive and specific, easy to perform in a short time and can be used economically on small numbers of blood samples. Under these conditions we recommend HIV Chek (see AIDS action issue 5), which is now distributed by Ortho Diagnostics. However, the price of HIV Chek is still far too high for most developing countries and serious delays have been experienced in supply and delivery.

In summary, testing kits should not be supplied to anyone without sufficient written guidelines on ethical as well as practical indications for their use. A personal introduction to the benefits and limits of testing by a trained professional is crucial.

Dr Nikola von Hassell, Dr Barbara Krumme, Dr Klaus Fleischer, AIDS and International Health Working Group, Medical Mission Institute, Salvatorstrasse 7, Postfach, D-8700 Würzburg, Germany.

1. For further information on HIV testing and tests see AIDS action issue 3.
2. Another low-cost screening test, PATH HIV Dipstick, has been developed for manufacture and use in developing countries, by the Program for Appropriate Technology in Health (PATH), with support from the International Development Research Centre of Canada, and the Rockefeller Foundation. Contact: PATH, 4 Nickerson St., Seattle, Washington State 98109-1699, USA. — Ed.
No support in Tanzania?

In Tanzania people with AIDS (PWAs) have no support. They are cared for by parents and relatives who are often very poor and live in rural areas. Why has Tanzania not formed an AIDS related non-government organisation? Such an organisation could provide support — especially in remote areas or where PWAs have no support.

A Nsyenga, Ileje, Mbeya, Tanzania.

Ed: There are some local projects that could offer support for people with HIV infection and AIDS. Both the Catholic Church (c/o Catholic Secretariat, P O Box 2133, Dar es Salaam) and the Evangelical Lutheran Church (c/o ELCT Medical Board, P O Box 3033, Arusha) have AIDS control programmes with activities at the diocesan level. AMREF (P O Box 2772, Dar es Salaam) runs an AIDS Health Services Support Project. There is also a regional AIDS information centre based at the Centre for Educational Development in Health (P O Box 1162, Arusha).

Screening blood donors

A reader writes from Africa: screening of donated blood has recently been introduced here in a small town hospital. Technicians from all parts of the country including ours were given a one day training course at the main hospital in the capital city, given supplies of Dupont test kits and have now gone back to their hospitals. I am concerned that the social aspects of testing were not covered in the training. For example, in small towns like ours, those carrying out the tests to screen donated blood or who have access to the results may well know the donors and there may be a danger that those who are HIV positive will be identified. I would be grateful if AIDS Action could give advice about setting up procedures for screening blood, including ensuring confidentiality and how to deal with those who are positive.

Ed: We hope this special issue provides some of the information you need.

Never too young...

I am a 16 year old who reads the copies of AIDS Action which you send to my mother. I was astonished to read in issue 11 about children living on the streets and some starting prostitution as young as eight years old, and particularly about the fifteen year old boy who had been imprisoned four times and hospitalised twice.

Veronica, Bo, Sierra Leone.

Resources

AIDS Orphans in Tanzania;
Care and Prevention in Ghana

Strategies for Hope

This series of booklets describes pioneering experiences in AIDS care and prevention in several African countries. The latest editions, 4 and 5, look at AIDS care and prevention in Ghana, and AIDS orphans in Tanzania. Each contains practical examples of activities carried out by all sectors of society. Published by ActionAid, AMREF, and World in Need. 300 pages, price £1.50. Available from: TALC, P O Box 49, St Albans, Herts AL1 4AX, UK.

Guidelines for the
Appropriate Use of Blood


‘The life you save’

Sixteen minute video developed for African populations. Designed for use by blood donor programme officers to aid discussion in educational campaigns aimed at encouraging recruitment of regular, committed blood donors who are well informed about HIV and the risks of transmission to patients via infected donations. Developed by the Zimbabwean Red Cross in consultation with the Blood Programme of the League of Red Cross and Red Crescent Societies (LRCRCS) in Geneva. Funded by WHO. Available in English from: The Blood Programme, LRCRCS, PO Box 372, CH-1211, Geneva, Switzerland.

Seropositive donors

Informing a donor who has tested HIV positive requires special skills and must be done in a sensitive way. LRCRCS and the WHO Global Programme on AIDS are examining ways of increasing counselling and support services for HIV positive donors, and the role of blood transfusion services in post-test counselling. Guidelines available by the end of 1991. Other useful publications, including the regular newsletter Transfusion International available from the address above.

Managing Editor: Kathy Attawell

Executive Editor: Hilary Hughes

Production: Celia Till

Editorial advisory group: Calle Almedal (Norway), Dr W Almeida (Brazil), Professor E M Essien (Nigeria), Professor K Fleischer (Germany), Dr U Küpper (Germany), Professor K McAdam (UK), Dr P Nunn (Kenya), Dr A Pinching (UK), Dr P Poore (UK), Barbara Wallace (UK), Dr M Wolff (Tanzania).


Produced and distributed (free of charge to developing countries) by AHRTAG, 1 London Bridge St., London SE1 9SG, UK. Registered charity no. 274260. With support from HIVOS (Netherlands), ICCO, Memisa Medicus Mundi, Misereor, Oak Foundation, ODA, Oxfam, Save the Children Fund, Sida and WHO/GPA.

Printed by Bourne Offset Ltd, UK.

ISSN 0953 10096