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PROGRESS REPORT ON ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS)

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In between the Thirty-second and Thirty-third Regional Committee meetings, many Member States had already established national committees and some had prepared national plans which were mainly based on screening of certain groups of their populations. Some authorities also started to plan and implement national health education programmes for the public, addressing the essential elements of symptoms and modes of transmission of AIDS and how to avoid infection.

The global response of WHO to this worldwide epidemic has come rather late. It was only in May 1986 that the World Health Assembly passed its first resolution, WHA39.29, on the subject. This resolution was followed by very rapid developments and top priority was accorded to the problem of AIDS.

The last year has witnessed considerable developments on the international scale. The WHO special programme on AIDS was established early in 1987 with the objective of preventing HIV transmission and reducing morbidity and mortality associated with HIV-infections. WHO has adopted a global strategy to stop the spread of the disease world-wide by attacking every mode of transmission in every country, using all scientific and educational tools available. This strategy is a combination of aggressive national programmes and very close international cooperation. The highest priority is given to implementation of national AIDS control programmes, especially as each national programme not only attacks AIDS in the country but contributes to control in other countries. International cooperation and collaboration is of the highest priority, since AIDS cannot be arrested in any single country until it is stopped in all countries.

The previous tendency in some countries of the Region, especially those which are not in immediate need of financial support from WHO, to withhold available information on AIDS in their countries or share it with WHO, has started to ease and they are beginning to seek WHO technical support for their national control programmes.

2. THE GLOBAL AIDS SITUATION

Available information on the number of cases reported to WHO up to the end of June 1987 shows nearly 55 000 cases from 122 countries. The number of cases will probably be over 60 000 by the time the Regional Committee meets in early October 1987. In addition to the continued increase in the number of reported cases since last year, the most significant development is the fact that a greater number of countries are reporting, is an evidence of more international openness in dealing with the disease.

Table 1 presents the number of reported cases of AIDS by continent and year of occurrence as at end June 1987. While certain areas (notably North America, Western Europe and some parts of central and east Africa) are reporting the majority of cases, infection with HIV is continuing to be recognized world-wide and it is considered likely that all countries of the world are already, or will soon be, affected by the pandemic.

TABLE 1. REPORTED CASES OF AIDS BY CONTINENT AND YEAR OF OCCURRENCE
(Situation as at 30 June 1987)

Continent	Number of cases by date of occurrence						
	Up to end 1982	1983	1984	1985	1986	Up to end June 1987	TOTAL
Africa	3	14	82	185	3 111	1 319	4 714
America	1564	3184	6214	10 839	15 188	6 161	43 150
Asia	2	8	4	29	53	65	161
Europe	84	211	561	1 360	2 403	1 448	6 067
Oceania	2	6	45	123	237	156	569
TOTAL	1655	3423	6906	12 536	20 992	9 149	54 661

The table shows that more than half the reported cases were reported during the last 18 months and that 79% are from America, 11% from Europe, 9% from Africa and 1% from Oceania.

It must, however, be remembered that:

- Available reports reflect cases reported voluntarily by countries and do not accurately reflect the incidence of the disease on a world-wide basis. Some countries are reporting regularly, others reporting periodically and no reports at all are received from another group of countries. The current estimate is that there have been more than 100 000 cases of AIDS since the beginning of the epidemic.

- The reported cases, however, are only the tip of the iceberg. The human immunodeficiency virus causing AIDS appears to be spreading rapidly but symptoms are slow to appear. The presently reported AIDS cases are an indication of what has happened to those infected with HIV 3-5 years ago.

- Many of those who are now infected but have no symptoms are expected to develop symptoms in the future. Within five years from infection, 25% of infected persons (only 5% or less per year) will develop AIDS and another 40% will develop a condition known as AIDS-Related Complex (ARC). The risk of the remaining 35% getting the disease is not known. As well, little is known as to why some infected people develop symptoms while others do not. It is believed that certain factors may trigger off progression of infection to AIDS. These include repeated exposure to infection, infection with diseases such as tuberculosis or malaria, which compromise the immune functions, pregnancy and possibly genetic factors.

- Infection once acquired is believed to be life-long. As infection does not result quickly in illness followed by death or cure, there is an accumulation of infected people. Current estimates suggest that there are approximately 5-10 million persons in the world who are thought to

be infected and therefore susceptible to HIV-associated health problem. This means 50-100 or more HIV-infected persons for each of the estimated frank cases of AIDS.

- During the next five years it is estimated that from 500 000 to two million new AIDS cases will emerge from already infected persons. This would represent more than a ten-fold increase of what has been reported so far.

2.1. Aetiology

The human immunodeficieny virus (HIV), the causative agent of AIDS, may be the first of a series of retroviruses capable of infecting humans and producing immunosuppression. Recently other human retroviruses were identified in certain parts of Africa and South America to cause "AIDS-like" illness. This may be the beginning of an even large problem than the present pandemic.

2.2. Modes of transmission

Recent epidemiological studies have reaffirmed repeatedly that transmission is through three main routes:

(1) Sexual intercourse (heterosexual and homosexual): This is the main mode of transmission, being responsible for more than 90% of cases of infection. It must, however, be remembered that there is no risk of sexual transmission if neither party is infected, such as for example among husbands and wives who have mutually restricted their sexual relations to themselves, provided of course that neither was infected before marriage, or has become infected through another mode of transmission e.g. blood transfusion.

(2) Contact with blood, blood products and donated organs: Blood transfusion is responsible for a small proportion of cases. Its importance as a mode of transmission is decreasing with the introduction of screening methods in most countries of the world. The use of unsterilized syringes and needles by intravenous (IV) drug abusers or in other settings, is a potentially important mode of transmission.

(3) Mother to Child: Infected mothers can transmit infection to their babies mostly during pregnancy and possibly during and immediately following delivery. There is a 50% possibility that the offspring of infected mothers will acquire infection. The possibility of transmission through breast-feeding is supported by a report that HIV can be cultured from breast-milk of infected mothers. However, the relative contribution of this route is probably small and cannot compare with the immunological, nutritional and psychological benefits of breast-feeding.

(4) There is still no evidence to suggest that the virus can be transmitted by the respiratory or enteric routes, or by casual person-to-person contact, or to suggest that HIV transmission involves insects, food, water, toilets, swimming pools or items such as second-hand clothing.

2.3. Laboratory diagnosis

Several tests are available or being developed and improved for:

(1) measurement of antibodies against viral antigens
(2) detection of viral antigens or components
(3) isolation and characterization of HIV

It must be remembered that no single test or sequence of tests is appropriate for all situations. The choice of the test method is determined by several factors, some of them related to the test itself, others related to available resources and characteristics of the tested population, and some related to the setting where testing is to be made.

Most of the commercially available assay kits are very sensitive but they produce false positives. This latter outcome is critical particularly when screening is being done on individuals rather than on blood or blood products.

2.4. Treatment and vaccines

There is no known treatment regimen to restore the immune status of AIDS patients. Patient care is now limited to the treatment of opportunistic infections. Since the patient's own immune defence is deficient, treatment with chemotherapeutics and antibiotics is often less effective than in otherwise healthy patients.

Major efforts are under way to develop therapeutic modalities for patients with AIDS and AIDS-Related Complex, but none has so far been effective. Research is being carried out in several fields, notably:

(a) Antiviral agents

A recent double blind, placebo-controlled clinical study showed that patients receiving azidothymidine (AZT) had gained weight and had a sense of well-being. They regained then skin reactivity and increase in circulation of the helper leucocytes. This meant that AZT appeared to prolong the life of these selected AIDS patients. There are, however, side effects including toxicity involving bone marrow; a number of cases had severe anaemia and leucopenia and needed blood transfusion to keep their haemoglobin at the needed level. Another problem with AZT is the difficulty in obtaining adequate amounts of Thymidine to synthetize the drug, (each patient need 125 grams) and hence the very high cost. AZT is now available in the market, but is extremely expensive. The cost of treatment per year for one patient is nearly US$10 000.

Another clinical trial was carried out on persons with HIV-associated Lymphodenopathy Syndrome using Ribavirin. During a six-month follow-up, there was a significant reduction in mortality among treated persons. Ribavirin was apparently well tolerated and without side effects.

Several other drugs also may hold some promise. They include rifamycins, cyclosporine A, and interferon. The latter has thus far shown to be effective in Kaposi's sarcoma. Among the more promising new antiviral compounds are

2'3' - dideoxycytidine (DDC), 2'3' - dideoxyadenosine and 2'3' - dideoxythymidine. A clinical trial is underway with DDC and the other two antivirals may also show some promise.

In general antiviral agents were reported to inhibit virus replication in patients. However, it was found that the virus reappeared when medication was stopped. Maintenance treatment for extended periods may be required after viral replication ceases.

(b) Reconstruction of the immune system

Efforts to reconstitute the immune system of AIDS patients include replacement of the immune system through bone marrow transplants and the use of immune enhancers, such as interleukin-2, gamma interferon, thymic hormones and other substances.

Successful treatment may require a combination of both antiviral agents and immune enhancing substances. Future studies on this combination are anticipated.

(c) Passive protection

Efforts are now being made to develop monoclonal antibodies and hyperimmune gamma globulins. However, before these substances can be utilized, research is needed to identify their role in prevention and treatment.

(d) Drugs for the treatment of opportunistic infections

Some success has been achieved with 9-(1,3 dihydroxy-2-propoxymethyl guanine) (DHPG) in the treatment of cryptococcal meningitis virus infections. However, relapse occurs as soon as patients are taken off the drug.

2.5. Vaccine development

For a disease like AIDS, with no treatment and a fatal outcome, prevention is extremely important. The search for an effective vaccine is receiving special attention. Modern techniques in molecular biology have enabled scientists to discover very precisely the chemistry of the virus, but understanding its biological reactions with the host - the key to effective intervention in the process - presents special difficulties because of the type of antibodies it produces. Antibodies produced in response to infection with HIV are of the non-neutralizing variety which means that they have no demonstrable effect on the virus but exist quite happily side by side. This does not necessarily mean that vaccine-induced antibodies will not destroy the virus since they may be different from those induced by the natural virus.

The genetic structure of the virus varies from one strain to the other especially in the envelope, which is anticipated to be another obstacle in vaccine preparations. Researchers have recently discovered that a portion of the envelope remains unchanged in all strains and a vaccine inducing antibodies that recognize this portion is a possibility. The use of live or inactivated whole virus vaccines is not encouraged in view of the potential dangers of integration of the nucleic acid into the host cell DNA.

Recently some scientists came to believe that they had detected an inkling of an immune response and vaccine research is largely concentrated on discovering which part of the virus may be responsible and whether it can be isolated and amplified.

Even if the development of a vaccine becomes possible, its testing will be a big problem. For testing in laboratory animals, chimpanzees seem to be the only non-human primates easily infected, but apparently they do not develop AIDS although some may develop lymphodenopathy. The second problem will be who will be the first humans to receive the vaccine and how can they be monitored with respect to exposure to infection. Also, recent legal penalties are making many drug and vaccine companies cautious about producing and selling new vaccines.

Even if all the above problems are solved, national authorities will have to address other problems, namely the cost of the vaccine, its delivery, etc., taking into consideration that it is already too late as infection is spreading rapidly in the World.

2.6. Prevention and control

With the absence of vaccines or effective treatment, other methods of prevention become a necessity. There is sufficient information on the modes of transmission to permit national authorities to initiate preventive and risk-reduction measures to limit the danger of infection.

(1) Prevention of sexual transmission

The AIDS epidemic has resulted largely from sexual spread of HIV. This mode of transmission is not easy to control since it is very difficult to discuss openly due to the complex social and religious factors. However, prevention will be essentially dependent on education aimed at positively influencing health behaviour in order to reduce the risk of exposure and to lead to sustained changes in sexual behaviour.

At the national level, proper epidemiological assessment of the problem will facilitate identification of risk factors related to sexual transmission and help define behavioural issues that need to be addressed. Adaptation of communication technology to the local situation and needs is the essential phase in developing a successful public health education approach.

(2) Prevention of blood-borne transmission

To date less than 5% of cases of AIDS detected in Western Europe and North America have been caused by blood transfusion. In this Region, particularly in developing countries, blood and blood products could be of a relatively higher importance in the transmission of AIDS than in Western Europe or America and, therefore, more attention should be given to this potential mode of transmission through:

(i) Avoiding blood transfusion if not seriously needed. It should not be considered for trivial reasons.

(ii) Screening of blood and blood donors. The general rule would be to screen all blood units and also blood donors for HIV. This is now the practice in only a few countries of the Region in view of the cost involved.

Screening of blood for transfusion should be considered in the context of the overall national health programme and the availability of human and material resources and also taking into consideration the epidemiological situation.

Testing of donated blood and plasma for antibodies to HIV should be considered when the risk of transmitting the virus through blood and blood products is significant and when the benefits of such testing out-weigh other important factors in providing adequate and safe blood supply, e.g. in a poor country where no cases of infection with HIV were reported or identified despite active surveillance and if all blood is obtained nationally, there may be no real justification to screen all blood units as this is an expensive procedure.

If blood cannot be screened, ways to exclude potential donors with risks factors for AIDS have to be considered, such as for e.g. through:

- voluntary self-exclusion systems in which persons with risk factors for AIDS refrain from giving blood. This should be done through the education of donors,
- obtaining the history of possible exposure to a known risk, as well as enquiring about symptoms such as severe chronic diarrhoea, night sweats, fever and weight loss. This is easy when blood donation is free, but where donors are paid this may not be an easy job as such donors will hide symptoms,
- physical examination of the donor, although not feasible in all blood collection settings, should be encouraged because it can identify unusual mucosal or skin lesions, lymphadenopathy, and wasting, depending on the expression of the disease,
- physical examination and medical history are especially important in areas where laboratory screening is not available.

(iii) Ensuring production of blood products in a manner which eliminates the risk of HIV transmission. This is only practical for products free from cellular components.

(3) Prevention of transmission through injections and skin-piercing instruments

HIV transmission can occur through injections and the use of skin-piercing instruments that are contaminated. HIV can be readily inactivated by chemicals or heat. Efforts are needed to ensure that instruments used for injections and other skin-piercing instruments are sterile.

Intravenous drug abuse can cause transmission of HIV through the use of shared needles and syringes. This is difficult to avoid and every effort should be made to put across the message to avoid sharing needles and syringes, particularly as infection can spread from those infected in this way to other members of the community through sexual contact.

(4) Prevention of perinatal transmission

Women of childbearing age are usually infected heterosexually. Pregnancy may accelerate the development of clinical illness. Prevention and control of

this mode of transmission must consider sensitive issues such as contraception. Infected mothers should be advised against pregnancy both for their own health and for fear of transmitting infection to the baby. Prevention may also require repeated campaigns to recruit men and women who are considering becoming parents into voluntary testing and counselling.

(5) Public health education

In addition to the above-mentioned specific measures, general public health education is needed. The public should be informed of the nature of the disease, its main mode of transmission and particularly the dangers of promiscuous sexual relations. They should be informed that there is no evidence that the disease is spread through casual social contact, by food or by the airborne route. The health authorities must alleviate any unjustified exaggerated fears that may have been aroused.

Those in contact with cases in the home should be advised to observe good standards of hygiene and cleanliness and avoid contact that may involve exchange of any body fluid, particularly blood.

Educational messages should be directed towards high risk groups and individuals known to be infected.

- High risk groups

Groups from whom infection spreads to other members of the community are generally difficult to reach and to educate. Nevertheless every effort should be made to pass the following messages to those at high risk of infection from those already infected:

- Avoid sexual contact with infected people
- Avoid multiple sex partnership
- Use of condoms reduces the risk of infection
- Refrain from donating blood

- Infected people

They should be counselled and advised to recognize the risk of infecting others and therefore:

- refrain from blood donation
- take precautions against exchange of body fluid during sexual intercourse e.g. through the use of condoms
- Infected mothers should be offered means of contraception.

It is satisfying to note that studies in the United States of America have shown that people in high risk categories are prepared to change their life styles and behaviour voluntarily to avoid the more obvious risks of infection by HIV.

2.7. Case management

Patients should be informed about the nature of the disease and its modes of transmission. They should be told how to prevent the spread of

infection to others and how to protect themselves from opportunistic infections. They should refrain from donating blood. Although spread by saliva is unlikely, infected persons should be advised against intimate kissing and oral-genital contact. Toothbrushes, razors and other articles that could become contaminated with blood should not be shared. In the event of an accident causing bleeding, the contaminated surfaces and articles should be cleaned up and then disinfected using a 200 ppm sodium hypochlorite solution, namely a 1 part in 10 dilution with water of 5% sodium hypochlorite (common household bleach).

Health care staff who are assigned to care for AIDS patients may have an ambivalent and sometimes hostile attitude to patients. They should be informed that the risk of infection, with good medical practice, is very remote.

3. ROLE OF NATIONAL AUTHORITIES IN AIDS CONTROL

It is now beyond doubt that the adverse effects of HIV-infection are of profound importance not only to the individual and his family but to the community at large. In most countries, it is the young adult age group which is affected. This group is the most critical group for the social and economic development of the country and disease that affects it, particularly a serious disease such as AIDS, will seriously affect the social, economic and demographic stability of the society. This is the main reason that the global strategy requires the development of a strong and comprehensive national AIDS prevention and control programme in every country of the world.

Education resulting in a widespread change in behaviour is the key to preventing further spread of the disease. The first role of national authorities is to make available to the public appropriate and balanced information on AIDS, particularly on the modes of transmission and methods of prevention. Efficient, persistent public health communication programmes reaching every citizen must be planned and implemented. All the channels of communication, traditional and modern, private and public, through the media and interpersonal, have to be involved.

Regardless of its current estimates of HIV activity, every country in the world needs a national AIDS programme. The components of a national AIDS programme include the following:

(1) National willingness to engage in a national AIDS programme,
(2) Creation of a broadly representative national AIDS committee,
(3) An initial epidemiological assessment to determine the extent of the HIV problem. It is also essential to undertake a resource assessment to determine the ability of the existing health system to support the national AIDS programme,
(4) Establishment of AIDS surveillance and HIV sero-surveillance,
(5) Development of national laboratory capabilities to support surveillance and clinical diagnostic work,
(6) Strengthening of the national health system's capacity to recognize, diagnose and manage HIV infections and associated clinical manifestations,
(7) Organizing educational programmes for health workers at all levels,

(8) Development of prevention programmes directed towards the prevention of:
- Sexual transmission of HIV
- Transmission through blood transfusion and use of blood products
- Transmission through injections and by other skin-piercing instruments
- Perinatal transmission

(9) Organizing treatment, counselling and educational programmes for HIV-infected persons and the community.

The Regional Office has started two years ago to strengthen national capabilities for surveillance through training of nationals and support to the development of national laboratory services capable of diagnosing HIV-infection. The WHO programme on AIDS is now supporting national authorities in the development of national AIDS plans. Visits by experts are being made partly to assess the epidemiological situation and immediate needs and partly to work with national AIDS committees for the development of national AIDS plans.

One of the elements in the development of a national AIDS programme is an initial epidemiological assessment, which is in part screening for indicators of HIV-infection in the community, but it is not only restricted to screening. It is a well-designed screening aimed at identifying the pattern of infection in the community and its important epidemiological parameters as a prerequisite for drafting a national plan. It has a specific objective and a rationale. In addition, due consideration is given to the population to be screened and how to reach them, the tests to be made on collected specimens, how to interpret the results and how to dispose of them and, above all, what is to be done for those who may appear to be HIV-infected.

Unfortunately, sometimes when pressed to take quick action, health officials respond by undertaking screening of certain groups of people for HIV infection. In general, screening for indicators of infection or disease is a useful public health tool, particularly in treatable diseases where, in addition to giving guidance to public health officials, it has a clear beneficial impact for the infected person and the community at large. Screening for AIDS, which is an untreatable disease, has a place but has to be approached with great caution as inadequately designed screening programmes are expensive and could be ineffective and sometimes harmful.

In order to help ensure that the wide variety of issues in HIV-screening are addressed, WHO convened a group of experts from 17 countries who developed criteria for HIV-screening programmes. These criteria are intended to provide the best potential for a successful and effective public health result from the implementation of any screening programme for AIDS. They take into consideration both public health needs and human rights. The criteria include over 50 issues to be considered. The experts also concluded that:

- Screening of donors of blood/blood products is entirely warranted,
- Identification of infection among prostitutes and intravenous drug abusers may be desirable but it cannot easily be done comprehensively. For example, in countries where prostitution is legal only a small proportion of prostitutes are licenced and can be reached but in countries where prostitution is illegal they cannot be reached at all. Again, if prostitutes are reached, it may not be possible to oblige them to comply with the need for testing especially when it is difficult to take punitive action.

- For effective prevention, it is those actions that will result in behaviour changes rather than mere screening which are useful. Education and counselling are more likely to contribute to control more than mandatory or vaguely conceived and ill-formed screening initiatives.

4. SCREENING OF INTERNATIONAL TRAVELLERS

The question of screening of international travellers and expatriate workers has been a subject of discussion in a number of countries of the Region. The primary objective of such a practice is to reduce their role in the spread of HIV to and within the country.

Before taking a national decision on such an important matter, it is essential to consider several elements and address many questions:

(1) Is this approach an effective tool to achieve the objective?
(2) Can it be applied effectively?
(3) What will it cost and would it be cost effective?
(4) What are the consequences of such a policy?
(5) Who to screen, where to screen and when to screen?

In order to assist responsible authorities in making a decision, it is necessary to remember that:

- The mode of transmission is an important element to consider in planning effective action to control an infectious disease among travellers. AIDS is mainly sexually transmitted. It is not transmitted by ordinary day-to-day contact and so success in preventing its transmission will depend upon the success of efforts to change the sexual behaviour of both visitors to a country and nationals of this country while travelling abroad. This should be the priority action and not screening.

- Although there are sensitive screening tests, we have to remember that antibodies to HIV do not usually appear until six weeks after infection and sometimes even after more than three months. This "window period", during which available screening tests will not identify a newly infected person even through he/she is capable of transmitting the virus, reduces the value of screening and means that several introductions can happen without being detected, such as for example with nationals returning from short visits abroad during which they have been infected.

- The costs of screening programmes for AIDS are significant. The direct cost is likely to be in the order of US$ 5-10 per traveller screened. In this respect consideration has to be given to who will bear the cost. It is unjustified to charge it to the traveller. At the same time, it means an unnecessarily large burden on the recipient country. The indirect costs are more important and not easy to evaluate. Among these indirect costs the effect on tourism with consequent economic losses can be included. Also, political consequences may include deterioration of bilateral or Regional relations.

- It is very difficult to apply screening effectively to all international travellers. Considering the modes of transmission, it is impossible to justify screening of children, or elderly people, or members of religious groups, such as pilgrims. As well, while it may be possible to apply such measures to people who are coming to work in a country, it is not at all easy to apply them to nationals returning from short or long visits abroad.

- The question of where and when to screen is also to be considered. Should it be prior to travel, at the airport or other port of entry, or after entry? Prior to travel means that travellers will have to have a certificate of freedom from HIV-infection. This practice will lead to a market in false certificates. As well, those who will resort to false certificates may well be those who have reasons to believe that they may be HIV-positive. Again, for how long will such a certificate be valid?

  Screening at the port of entry is practically impossible as it is very complex and valid results cannot be obtained except after several hours. There are also several logistic problems which makes this impractical.

  Screening after entry will partly defeat the objectives of the whole exercise, since any positive person could have already spread the infection by the time he/she is expected to report for screening for which there may be a long waiting list.

  Again considering the "window period" previously referred to, one test may not be enough and further testing after 6-12 weeks may be needed, thus adding to the many logistical problems.

- Consideration has to be given also to the action that health authorities plan for those identified as sero-positives. Since in most cases screening is done by one ELISA test only, many of the positive results can really be false. Unfortunately, many countries treat those shown to be postive in the first screening test as true positives and deport them with no further confirmation. Informing a person that he is sero-positive is perceived by him as highly threatening and considering that such information may be false it becomes very unfair to the tested person. Such people on return home are either taken as positive by their national health authorities and treated accordingly, or they tend to keep away from the health services for fear of social segregation, particularly if confidentiality is not maintained, which is the case in many countries.

From the above, it can be understood why the consultation convened by the WHO in March 1987 on international travel and HIV-infection has concluded that: "It is difficult to justify screening of international travellers in view of the epidemiological, legal, economic, political, cultural and ethical factors involved". The consultation reaffirmed that no screening programme for international travellers can prevent the introduction and spread of HIV infection. It would at best and at great cost retard only briefly the dissemination of HIV both globally and with respect to any particular country.

A question will arise from the above: Is there any other alternative strategy to prevent international travel being a cause of spread of the disease? The answer is that the strategy for control of HIV-infection and its spread through international travellers is the same as for the general community. It is education and more education. Educational material should be made available to travellers to increase their awareness of how HIV is transmitted and how it can be prevented. Such material should be clear and easily understood. However, since transmission of HIV is primarily by sexual means, caution should be exercised so that any such information does not offend social and cultural sensitivities.