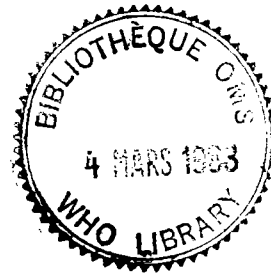


WHO AIDS Series 1

Guidelines for the development of a national AIDS prevention and control programme

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Introduction

The epidemic of AIDS (the acquired immunodeficiency syndrome) is a world health problem of extraordinary scale and extreme urgency. It represents an unprecedented challenge to the public health services of the world.

AIDS is caused by a newly recognized retrovirus called human immunodeficiency virus (HIV). The primary targets of HIV are T4 helper cells, a subpopulation of lymphocytes that are essential to the body's defence against disease. HIV infects and kills T4 helper cells, thus disrupting communication within the cellular immune system and progressively disabling the body's defence against disease.

At the present stage of the HIV pandemic, asymptomatic infection with HIV is far more common than is the disease AIDS. But HIV infection can progress and result in a wide range of adverse immunological and clinical conditions. Clinical classification of disease associated with HIV infection includes AIDS-related complex (ARC), AIDS itself, and HIV neurological disease (including dementia).

HIV has been isolated from blood, semen, vaginal secretions, saliva, tears, breast milk, and urine and is likely to be present in other body fluids, secretions, and excretions. However, despite this wide distribution, extensive laboratory and epidemiological studies indicate that only blood, semen, and vaginal/cervical secretions are important in the transmission of HIV. These studies have repeatedly documented only three routes of HIV transmission: sexual, by heterosexual and homosexual intercourse; parenteral, by blood or blood products (including transfusion of unscreened blood and the use of unsterilized syringes and needles); and perinatal, from mother to child before, during, or shortly after birth. There is no evidence of other routes of transmission. After infection most persons develop demonstrable antibodies against HIV within a few months.

The incubation period from infection to the development of clinical disease is long (up to six years and more), and as HIV infection is presumably lifelong the risk of illness may continue throughout the infected person's life. While infected persons may be asymptomatic for long periods, they are nevertheless capable of transmitting HIV. Owing to the long incubation period, the number of reported AIDS cases provides at best an inaccurate and at worst a misleadingly optimistic view of the real extent and intensity of HIV infection. Therefore, even if transmission were to cease immediately, clinical cases of AIDS would constitute a major and increasing public health problem for years to come.

The World Health Organization (WHO) estimates that between 5 and 10 million persons are currently infected with HIV. The cumulative number of cases of AIDS globally may exceed one million by 1991. At present these cases cannot be prevented from occurring because most will occur

among persons already infected with HIV. In addition, reticence in reporting cases from some areas and under-recognition and under-reporting to national authorities have meant that the number of reported AIDS cases represents only a fraction of the total number of cases. WHO considers the number of countries officially reporting cases (129 as of December 1987) to be more indicative than the number of reported cases of the geographical extent of the HIV pandemic, and more relevant to an assessment of its scope.

There is now a widespread realization of the enormous implications of AIDS in terms of human suffering, social effects, and costs for health services. WHO recognizes the extraordinary dimensions of this threat to global health and is committed to global AIDS prevention and control. Its Special Programme on AIDS (SPA) was formally established on 1 February 1987. SPA has responsibility for the urgent mobilization of national and international efforts and resources for global AIDS prevention and control.

The Fortieth World Health Assembly in 1987 reaffirmed that every country in the world needs to develop a national AIDS prevention and control programme. The present guidelines are intended to assist national authorities in this endeavour.

WHO's Special Programme on AIDS has technical and financial resources to assist Member States in the development of a national AIDS programme. The criteria used by WHO to define countries with national AIDS prevention and control programmes are listed in Annex 1.

I. General considerations

Definitions

The term *human immunodeficiency virus* (HIV) is used for the virus that causes AIDS. HIV has replaced earlier names for the virus, which include lymphadenopathy-associated virus (LAV-1) and human T-lymphotropic virus type III (HTLV-III). Related retroviruses include LAV-2, HTLV-IV, SBL 6669, and other recently recognized retroviruses infecting humans. In this document HIV stands for all those viruses. The term AIDS refers either to the specific clinical entity, the acquired immunodeficiency syndrome, or to the entire spectrum of health problems associated with HIV infection.

HIV-infected persons include all individuals, regardless of their clinical status, who are infected with the virus, as shown by positive serological tests, usually enzyme-linked immunosorbent assay (ELISA), confirmed by immunoblot (Western blot) immunofluorescence or radioimmunoassay, and/or isolation of the virus.

National programme development

Initially the magnitude of the HIV pandemic and its impact were seriously underestimated and underappreciated. The pandemic affects both developed and developing countries, the disease crossing all socioeconomic and ethnic barriers. In addition, the evolution of the pandemic cannot be accurately predicted. However, further global spread of HIV infection is certain to occur for a number of reasons.

- (i) Persons with HIV infection are presumed to be infected for life. Most will not develop any symptoms or evidence of illness for at least several years and will therefore be unaware of their infection. During that time they may transmit infection to other persons.
- (ii) HIV infection is transmitted sexually (from an infected person to his or her sexual partner), parenterally (by transfusions, injections, or skin-piercing instruments), and from mother to child. This combination of modes of transmission means that, in the absence of prevention and control programmes, global spread will continue, and substantial segments of national populations may be at risk of exposure to the infection.
- (iii) Those persons at risk of exposure to HIV may have to change deep-seated practices that are resistant to change. Entire populations must learn what does and what does not spread HIV infection. The process

of learning and of changing long-established practices throughout the world will require time.

- (iv) HIV has been disseminated throughout the world, even though regional differences in the degree of infection are evident and considerable.
- (v) HIV may be the first identified of a series of retroviruses capable of infecting humans and producing immunosuppression. Recent recognition of pathogenic immunosuppressive human retroviruses in West Africa may herald the beginning of an even larger problem than the present HIV pandemic.

AIDS will be controlled only through a combination of aggressive national programmes and a maximum of international cooperation. In control every mode of virus transmission must be attacked in every country, using every available scientific and educational tool. Implementation of national AIDS programmes is of the highest priority, for each individual national programme not only attacks AIDS in that country but also contributes to global control. Global collaboration is also of the highest priority.

The adverse health effects of HIV infection are of profound importance to the individual, the family, and society. HIV infection threatens health gains in developing countries. The personal, social, economic, cultural, and political cost of the HIV pandemic is enormous. Economic development may be seriously compromised through the impact of HIV infection on persons in the productive age group 20–40 years, the group most affected, and on infant and child mortality. In most populations the 20–40 year age group is the group most engaged in social, economic, and political activities; any epidemic that threatens its depletion necessarily undermines the social, economic, and demographic stability of the population. While the long-term implications are still not clear, there is no doubt that where large numbers of people are stricken with AIDS considerable changes in social, economic, and demographic circumstances are likely.

The political implications of what is known about AIDS and what the future holds are not fully understood, but already there are examples of defensive reactions by society and particular social groups. Fear of infection has led to ostracism of people with AIDS and to discrimination against HIV-seropositive persons in employment, housing, and education. Moreover, calls for mandatory screening have become more numerous, despite the questionable effectiveness of screening. International relations have already been affected by the pandemic, especially with regard to restrictions on the travel of AIDS patients and persons suspected of HIV infection.

In the space of five years:

- more than 90% of HIV-infected persons will develop laboratory evidence of immunosuppression
- 10–30% can be expected to develop AIDS
- 20–50% will develop AIDS-related illnesses.

The proportion of infected persons who will develop HIV neurological disease (particularly dementia) is unknown. However, an epidemic of progressive neurological disease among HIV-infected persons must be considered a possibility.

Despite impressive technical and scientific advances, it is unlikely that either a vaccine or treatment will become available in the next five years to combat the pandemic of HIV infection. The progression of the infection therefore calls for preventive action in the interim. At least during the initial period prevention and control will depend primarily on educational programmes designed to promote sustained behavioural change.

Education leading to a widespread change in behaviour is the key to preventing further spread of HIV infection. Public health educational programmes of unprecedented scope, duration, and efficacy must be planned and implemented. All channels of communication, traditional and modern, private and public, interpersonal and other, will have to be pressed into service. Formal organizations representing primary health care and education systems must take the lead in such programmes and be joined and supported by organizations, both large and small, across the entire spectrum of society.

Global strategy requires the development of a strong and comprehensive national AIDS prevention and control programme in every country in the world. The highest priority must be given to national programme development.

Programme objectives and strategies

Objectives

The objectives of an AIDS prevention and control programme are:

- (a) to prevent HIV transmission
- (b) to reduce the morbidity and mortality associated with HIV infection.

Strategies

Any problem as complex as AIDS can be approached in many different ways. Experience to date is insufficient to determine which way is most suitable for programming and implementation; each country must develop the framework that best suits its needs. The one outlined here follows the framework of the global AIDS programme, as described in chapter 3.

Prevention of sexual transmission

Sexual transmission accounts for most HIV infection. Infection can be transmitted from any infected person to his or her sexual partner. Prevention of sexual transmission requires education leading to changes in

sexual behaviour that reduce as much as possible the rate of transmission. Educational approaches seek to influence the number and choice of sexual partners (e.g., through abstinence, monogamy, decreasing the number of partners, avoiding sex with prostitutes) and promote the use of condoms.

Prevention of transmission through blood

(a) **Blood transfusion.** In many parts of the developed world blood for transfusion is now screened for HIV antibodies. In many HIV-endemic areas, however, it is not yet screened. Available techniques need to be applied and new, simple, more effective techniques developed.

(b) **Blood products.** Most blood products and plasma derivatives are not associated with risk of HIV transmission. Those that have been related to HIV transmission (e.g., factor 8, factor 9) can be treated to make them safe. Their preparation should be monitored to ensure that recommendations are correctly followed. In addition, donors should be screened.

(c) **Injections and skin-piercing instruments.** HIV transmission can occur within and outside the formal health services through injections or the use of skin-piercing instruments that are contaminated. HIV can be readily inactivated by specific chemicals or heat. Major efforts are needed to ensure that instruments used for injections and other skin-piercing instruments are sterile.

In some areas intravenous drug abuse is an important factor in the transmission of HIV through the sharing of needles and syringes. Explosive HIV epidemics have occurred in communities of intravenous drug abusers. These communities may also provide a bridge for sexual transmission of the infection to the general population.

Health workers who care for the sick or who may be exposed to possibly infected blood must take routine precautions. Practices and precautions recommended for other infectious diseases such as hepatitis B are entirely adequate for prevention of HIV infection.

(d) **Organ and semen donation.** Transmission of HIV through body organ or semen donation can be prevented by screening donors for HIV infection.

All of the preventive measures listed above have a public information and health education component, the aim of which is:

- to inform the public accurately of the risk
- to create a demand among health practitioners and the public for appropriate preventive measures
- to change the high-risk behaviour of individuals
- to provide health professionals with in-service training, continuing training, and information support.

Prevention of perinatal transmission

Women of childbearing age are usually infected heterosexually. Pregnancy may accelerate the progression to AIDS in HIV-infected women. Approximately half of the infants born to HIV-infected women will be infected before, during, or shortly after birth. Prevention and control of this mode of transmission must deal with potentially sensitive issues such as contraception.

Prevention of perinatal transmission needs intensive and widespread public health education informing the population at large of the nature of the risk. Prevention also requires repeated campaigns to persuade potential parents to undergo voluntary testing and counselling.

Prevention of transmission from HIV-infected persons through the use of therapeutic agents

Drugs may be developed that eliminate or at least reduce the amount of HIV in the body. If such drugs become available, the ability of HIV-infected persons to transmit the virus may be reduced or eliminated.

Prevention of HIV transmission through vaccination

A vaccine capable of protecting against HIV infection would be the ideal method to prevent transmission. None as yet is available for public health use.

Reduction of the impact of HIV infection on individuals, groups, and societies

Because of the psychological and other effects of HIV, those most directly affected (persons already infected, with or without clinical illness), along with their sexual partners, household members, and others in their environment, must be helped with their problems through counselling, education, and other ways.



2. Strategic actions

Formation of a national AIDS committee

The formation of a national AIDS committee (NAC) is a crucial step in the development of an AIDS prevention and control programme. It is a concrete expression of the national will to confront the complex problems associated with HIV infection. Furthermore, it provides a mechanism for development of a national programme covering all the activities required to prevent and control AIDS. The decision to form such a committee implies that a country has acknowledged the problem and made a commitment to AIDS prevention and control.

The NAC should be constituted as an advisory body to the ministry of health. It should deal with all aspects of programme development and implementation, including legal, ethical, managerial, financial, and international as well as technical issues.

How the NAC will accomplish its mandate needs to be thought out carefully from the beginning. Considerable flexibility must be maintained to ensure that, through its participants, resources, and mechanisms, the NAC is able to adjust to the changing picture of AIDS.

A number of factors need to be taken into account in setting up an NAC and any associated committees:

- (a) the broad scope of the AIDS problem and its potential impact on social and economic development;
- (b) the extent to which existing resources and programmes can be used to support AIDS-related activities; and
- (c) the financial resources that can be mobilized for specific AIDS activities.

These factors are directly related to the composition, organization, working approach, and location of the NAC.

- (a) The NAC should be located within or at least have strong links with the decision- and policy-making levels of the government. This is particularly important where AIDS seriously threatens social and economic development. The broader the scale of the threat posed by AIDS, the broader will be the scope of work of the NAC. Some governments have created two committees, one at a high level to deal with broader policy concerns and a second to deal with programme implementation.

- (b) Ongoing programmes should whenever possible be given operational responsibility for AIDS. For example, where a well-functioning health promotion and education programme already exists, it should be responsible for the intensive educational activities required.
- (c) Where the existing infrastructure for action is weak, *ad hoc* mechanisms will be needed to ensure that the necessary technical planning is carried out and adequate resources and arrangements provided for the implementation of any planned activities. For example, ensuring a safe blood transfusion system may call for the establishment of a special subcommittee specifically responsible for its planning and coordination, which should include the establishment of new programme units responsible for training, supervising, and supporting the laboratory, hospital, and health service staff concerned with the collection, testing, storage, etc., of blood.
- (d) The composition of the NAC should be broad enough to ensure the representation of all important sectors and organizations, including health, education, social and counselling services, religious, insurance, legal, and political bodies, the media, communications, nongovernmental organizations (NGOs), international organizations, and research institutions.
- (e) The NAC will need to decide quickly on the basic principles and on a plan of action that will guide the future development of strategies and activities. Clearly the approach will differ from country to country. Nevertheless, there are certain issues that arise in nearly all countries which will need to be considered by the NAC and which may warrant explicit policies. These include:
 - (i) surveillance and reporting of AIDS cases and persons infected with HIV in the country
 - (ii) counselling of HIV-infected persons and AIDS patients and their families and other contacts, including determination of who will be informed of test results (this raising the question of confidentiality)
 - (iii) organization of the AIDS prevention and control programme, particularly the allotment of programme responsibilities through intersectoral cooperation, decentralization, involvement of nongovernmental organizations (NGOs), and use of the existing health infrastructure and resources.

Initial assessment

Prior to the preparation of a medium-term plan and the development of a national AIDS programme, an epidemiological assessment is needed to determine the extent of the problem and a resource assessment to

determine what existing resources can be utilized to support the programme. The field component of the initial assessment can be conducted within a relatively brief period, usually one to six weeks, the time required depending on the amount and quality of data available for the planning.

Initial epidemiological assessment

This assessment involves a review and critical analysis of existing country data on HIV infection and AIDS and, where necessary, the collection and analysis of new information. It also includes an initial assessment of behaviour.

- (a) In some countries information about AIDS cases and HIV seroprevalence sufficient for the preparation of a medium-term plan has already been collected. However, this information may derive from studies conducted by a variety of national and extra-national institutions. A systematic review of the available data is required to summarize the results. It should:
 - use clear definitions to classify HIV infection, AIDS-related complex, and AIDS
 - specify the laboratory techniques used for initial screening and for confirmation
 - summarize and critically analyse the information available.
- (b) In many countries there may be insufficient existing information to determine the prevalence and epidemiology of HIV infection and AIDS. In these a rapid epidemiological assessment is recommended which is designed to:
 - confirm the presence and extent of HIV infection and transmission in the population
 - determine if clinical AIDS cases are occurring
 - identify population groups at high risk of HIV infection
 - determine the nature and prevalence of high-risk practices in their social and cultural context.
- (c) A standard methodology for performing the initial epidemiological assessment is being developed by the World Health Organization to enable results collected at different times and in different places to be compared.

Initial resource assessment

The purpose of initial resource assessment is to determine the ability of the existing health services to support the epidemiological, educational, laboratory, clinical, and preventive components of a national AIDS programme. It is NOT intended to provide detailed plans for strengthening the health system or developing support. It involves assessment of both infrastructure and resources.

Resource assessment should consider the availability of resources from the private sector, NGOs, volunteer organizations, and international organizations as well as those of the government. Areas to be considered include:

- epidemiological surveillance
- laboratory diagnosis, equipment, and supply
- patient diagnosis, care, treatment, and management
- education and training of health workers at all levels of the health services
- blood bank and transfusion system
- the counselling of patients
- organizations that can participate in public health communication and education programmes
- policies and practices for the use and re-use of needles, syringes, and other surgical and dental instruments, lancets to diagnose malaria, and other skin-piercing instruments wherever used
- communication, information, and education systems
- legislation.

Preparation of a national medium-term programme for AIDS prevention and control

A medium-term programme (MTP) serves two very important purposes. It is a tool for the implementation of the national control programme, i.e., it identifies *what* activities will be carried out, *where* and *when*, at *what cost*, and *who* is responsible; and it can be used for the mobilization of external funds.

The medium term is assumed to be 3–5 years. However, given the uncertainty surrounding the future evolution of AIDS, it is highly unlikely that any country will be able to prepare an MTP that will not need to be revised

considerably during such a period. It is therefore essential to foresee an early revision of the initial programme and periodic revision and updating of subsequent programmes on the basis of national and international experience.

Countries relying on considerable external contributions will use the MTP to pinpoint what financial and technical assistance is needed and how it will be managed. In this regard, there are three aspects that are particularly important and for which WHO assistance may be sought:

- (a) the organization of a donors' meeting to obtain initial support for the programme;
- (b) the development of a common evaluation framework for *all* donor-supported activities;
- (c) the establishment of a mechanism for coordinating technical and financial cooperation during the life of the medium-term programme.

The preparation of the programme should be one of the priority activities of the NAC. Ideally the basic strategies and activities covered by the programme will be those that the NAC, through its various members and subcommittees, has already initiated on a short-term basis; the MTP document itself should be written by a national health planner. WHO consultant support can be used to facilitate this process and help ensure that the MTP is complete and that the relevant experience of other countries is considered by the NAC.

The actual structure and content of the programme (see Annex 2) should clearly reflect the national situation, especially as regards:

- (a) the basic principles and policies of national importance that the programme is designed to support and respect;
- (b) the organizational structure of the national AIDS programme and its relationship to the NAC;
- (c) linkage of AIDS prevention and control with the national primary health care strategy and with specific health and health-related programme activities;
- (d) elements of the proposed budget to be met by national funds and those requiring international support.

The MTP should consider overall programme objectives and strategies (chapter 1) as well as the result of the initial assessment (chapter 2). The following chapter provides further details on what should be taken into account in preparing the MTP.



3. Programme activities and evaluation

Programme activities

The activities described in this section have been classified according to the strategies outlined in chapter 1. However, programmes may find it more convenient operationally to link similar activities, such as all public health information and education activities. More experience will be needed before the specific advantages of each approach can be assessed.

Given the considerable differences between countries, it is not intended in this section to provide an exhaustive list of all the activities that should be carried out as part of an AIDS programme.

Prevention of sexual transmission

General considerations

The prevention of sexual transmission requires important changes in attitudes and sexual behaviour and will require a major long-term commitment to informing and motivating the public. Factual, consistent, and understandable information about AIDS must be presented by persons and organizations that inspire confidence. Many people and organizations must be used, including people at all levels of government, medical and health personnel, teachers, parents, religious leaders, voluntary organizations, employee organizations, business and commercial organizations, and public figures held in high esteem.

The epidemiological situation of AIDS in the country will influence the thrust of any educational campaign. Those countries less affected by AIDS may have a greater problem in achieving the necessary behavioural changes in the population or in reinforcing positive behaviour. However, they have much to gain from an early adoption of preventive measures. Programmes may unfortunately be handicapped by already prevailing beliefs inculcated either by erroneous reporting or by misunderstanding of what has been reported. For example, many sexually active persons believe that AIDS is a problem only for homosexuals and drug addicts and are not aware that heterosexuals too may be at risk. Many persons believe that AIDS can be cured, whereas in fact no curative treatment has yet been developed. Thus programmes may need to overcome erroneous beliefs as well as inform and educate about the threat posed to society at large.

Those responsible for education aimed at changing sexual behaviour must overcome many obstacles. Data on existing sexual behaviour and practices are scarce; the subject may be considered too personal or too controversial on cultural or religious grounds to be approached openly; there may be pressure for legal action that may compromise efforts to effect behavioural changes among the population groups at high risk; and there may be

reluctance to give high priority to AIDS when so many other important public health problems exist.

The use of condoms is recognized to be one of the ways of reducing the risk of sexual transmission of HIV. Condoms, however, are not acceptable to all people. In some populations it has been shown that, even when condoms are provided free of charge, they are not used. Obstacles to their use include cultural attitudes, ignorance about their purpose and function, and misunderstanding about their impact on sexuality. In promoting condoms, therefore, attention must be given to the cultural context.

Initial steps

The initial steps in launching a programme are as follows.

- (a) Political commitment should be obtained for a public health information and education strategy. AIDS is often politically controversial and therefore commitment needs to be negotiated through the NAC in conjunction with high-level decision-makers.
- (b) An education action group should be formed as part of the NAC. This group should consist of representatives of the various organizations that will be used for the education and information purposes outlined above.
- (c) What is known about sexual behaviour and sexual transmission of HIV, both internationally and nationally, should be reviewed. Local and national authorities on sexually transmitted diseases should be asked to examine their information and coordinate their efforts (WHO can assist in obtaining information from other countries).
- (d) Informational strategies and educational materials from other countries designed to promote changes in sexual behaviour should be reviewed. An essential aspect of change to be promoted is the use of condoms; it will always be useful to consult family planning or maternal and child health workers in the country to determine the acceptability of condoms. Care should be taken that the promotion of condoms should not outrun the capacity of the health care system to provide them; condoms should not be promoted and expectations raised unless there is a system for supplying them and appropriate education and information about their purpose and use. Furthermore, the education action group should review the informational strategies to be adopted to ensure that culturally acceptable approaches are found.
- (e) The epidemiological characteristics of HIV infection within the country should be examined to identify groups at low, average, and high risk of exposure through sexual contact. Such a review should include determination of the nature of specific high-risk behaviour in the country, including the social and cultural factors associated with each behaviour pattern.

- (f) The extent to which testing for HIV infection represents an important motivating factor in altering behaviour should be determined. This is an aspect of educational strategy that needs very careful handling. For most developing countries it may not be feasible to embark upon more testing than would be carried out for other purposes, in particular to ensure an HIV-free blood supply for transfusion. On the other hand, if the transfusion system implicitly or explicitly informs individuals about their status, people seeking to know it will use the system to obtain the information. Accordingly, other systems for HIV testing may need to be developed.
- (g) A short-term plan should be devised to begin public information and education activities as soon as possible. This will entail the rapid development of a country-specific strategy, including a description of target audiences, priority messages, and short-term objectives. Institutional roles should be defined, and the links between channels of communication specified. A quick start to public health information and education activities may be achieved through *ad hoc* collaboration of health, education, marketing, and media professionals with a high level of interest in AIDS.

Longer-term comprehensive strategy

A comprehensive long-term approach to the educational campaign should be developed as soon as possible. This strategy should include programme goals and objectives, target audiences, specific behaviour to be influenced, public health education and information strategies, and a plan for evaluating results.

- (a) **Programme goals and objectives.** For countries with very little indication of HIV infection, it may be useful to complement a strategy that aims at reducing risk to the individual with whatever benefits can be associated with maintaining the society free of HIV infection. Where infection is more in evidence, the concern of individuals for their own health and that of their immediate family, including sexual partners, is likely to prove the basic motivating force for change.
- (b) **Target audiences.** They should be distinguished according to relevant variables such as sex, age, religion, location, and literacy.
- (c) **Specific behaviour to be influenced.** This applies to each target audience. Educational objectives should be defined based on intended changes in behaviour.
- (d) **The development and implementation of public health information and education strategies.** This involves consideration of which combination of organizations, channels, messages, and materials would be effective over a specific period of time in achieving programme goals. It is not realistic to expect that a single educational strategy will stop AIDS. It is more likely that national and regional health, education, and other strategies will have to be combined with

numerous local and nongovernmental strategies. Such a combination of public and private, formal and informal strategies may provide the requisite weight to reduce the spread of HIV infection.

- (e) **A plan for evaluating results.** Evaluation is necessary for replanning and for determining the effectiveness of selected activities.

Prevention of transmission through blood

General considerations

Prevention of transmission through blood requires strengthening of the blood transfusion system, monitoring of the preparation of blood products, and implementation of policies for the use and re-use of needles, syringes, lancets, and surgical, dental, and other skin-piercing instruments.

Activities

The prevention of HIV transmission through blood transfusion requires the following steps.

- (a) The blood transfusion system should be strengthened to ensure appropriate collection, screening, and use of blood:
 - (i) The need for screening of blood units for HIV should be evaluated on the basis of epidemiological information. One way in which such information can be obtained is by preliminary screening of a population of blood donors to determine the prevalence of HIV infection.
 - (ii) To determine how to prevent transmission by blood, the existing blood transfusion system should be reviewed, including the recruitment of donors, the collection, testing, and storage of blood, and the criteria employed for blood transfusion.
 - (iii) National guidelines should be developed on medical indications for blood transfusion in order to reduce the incidence of inappropriate transfusions and, in particular, the practice of transfusing patients with only one unit (patients often respond just as well without a transfusion).
 - (iv) The need for and feasibility of integrating HIV screening into the transfusion system should be assessed.
 - (v) Sites for HIV screening, equipment and supply requirements, and training needs should be established.
 - (vi) A laboratory testing protocol should be drawn up, stating where and how confirmatory tests (Western blot, immunofluorescence, radioimmunoprecipitation assay) and quality control will be carried out.

- (vii) The question of the need for screening blood for other HIV-related retroviruses (e.g., HIV-2) should be considered. If necessary, tests for those viruses should be included in the screening and confirmatory test procedures.
- (b) The counselling and medical evaluation services (before and after the donation of blood) should be developed and strengthened.
 - (i) Guidelines for medical evaluation and the counselling of seropositive donors should be prepared.
 - (ii) A decision should be reached on who will be entitled to know the identity of seropositive individuals and how confidentiality will be maintained. A national policy will need to be developed on how infected persons will be managed. The continued ability to identify and change the behaviour of infected persons may depend on how such persons are managed in the health services.
- (c) The safety of the health care environment should be ensured, to prevent accidental exposure of people involved in the care of AIDS patients. It needs to be emphasized that routine precautions for the prevention of blood-borne agents such as hepatitis B are more than sufficient to prevent HIV transmission. Health workers will need to be supplied with appropriate equipment and protective clothing to prevent transmission of blood-borne agents.

HIV transmission through blood products should be prevented, as follows:

- (a) Steps should be taken to ensure that blood products imported or made within the country have been prepared according to WHO standards for heat inactivation and chemical treatment and that the blood donors have undergone serological testing for HIV infection.
- (b) Blood used for the preparation of plasma derivatives should be tested for HIV infection. WHO standards should be adhered to in the preparation of plasma derivatives.

HIV transmission through injections and use of other skin-piercing instruments should be prevented, as follows:

- (a) Transmission of HIV can occur if needles, syringes, lancets, and other skin-piercing instruments are re-used without being properly cleaned and disinfected after each use. Skin-piercing equipment is used both within and outside the health services. Practice within the health services regarding the use, re-use, and sterilization of needles, syringes, lancets, and other skin-piercing equipment (e.g., surgical and dental instruments) should be reviewed to detect potential routes of HIV transmission. A similar review of practice outside the formal medical system should be undertaken; potential sources of transmission might be found among itinerant injectors, traditional midwives, and practitioners of traditional medicine. Intravenous drug abuse has become a

major problem in some countries and among certain groups. Intravenous drug abuse is currently one of the main sources of HIV transmission where needles and syringes are shared. Attention should be paid to the possibility of such drug abuse. Inquiries should be made of health care staff, the law enforcement department, legal departments, and social welfare departments to determine the presence and magnitude of the problem. As intravenous drug abuse is usually illegal, it is likely to be covert and difficult to identify.

- (b) The recommendations of WHO and UNICEF in relation to immunization^a and the guidelines on sterilization to inactivate HIV^b should be followed. Global recommendations for immunization programmes emphasize the need to use sterile needles and syringes only. Immunization practices in countries should be reviewed to detect those that might lead to transmission of AIDS.
- (c) National policy on and practice in the use of injectable drugs should be reviewed to determine how unnecessary injections can be avoided. In some countries, for example, antimalarial drugs are frequently given by injection although oral treatment may be appropriate.
- (d) The re-use of lancets without proper sterilization for the diagnosis of malaria could contribute to the spread of AIDS in areas where malaria and AIDS coexist. This practice should be reviewed.

Prevention of perinatal transmission

General considerations

Perinatal transmission is a significant public health problem. It is estimated that about half of the babies born to HIV-infected women will be infected.

Activities

- (a) Programmes should be drawn up to identify HIV-infected women of childbearing age and/or infected pregnant women. Such programmes can be targeted at groups of women at high risk of HIV exposure.
- (b) Guidelines and materials should be developed or adapted for information, education, and counselling of HIV-infected women of childbearing age.
- (c) International recommendations for reducing perinatal transmission should be adapted to national policies.

^a *Weekly epidemiological record*, 62(9): 53-54 (1987).

^b For more information on sterilization, write to: Special Programme on AIDS, World Health Organization, 1211 Geneva 27, Switzerland.

Reduction of the impact of HIV infection on individuals, groups, and societies

General considerations

Personal and public reaction to AIDS throughout the world has been of considerable depth and extent. Fear of AIDS and stigmatization of different groups (homosexual men, haemophiliacs, female prostitutes) have become common. Wherever those free from HIV feel threatened by those infected with HIV, especially where the latter form a defined group such as homosexuals and drug addicts, there may be calls for marking out and isolating those infected.

Reduction of the impact of HIV infection requires a wide-ranging strategy involving caring for those suffering from AIDS and reducing the stigma associated with HIV infection and AIDS. As the toll of clinical disease rises, there will be increasing pressure on the authorities to take further action and adopt approaches that may or may not be effective or have any rational justification. It may be necessary to complement educational strategies more actively by participatory approaches involving all groups of society in order to minimize the possibility of irrational action and time and resources being wasted in a search for solutions to non-existent problems (e.g., a programme designed to prevent transmission by blood-sucking insects such as mosquitos, a mode of transmission that has never been demonstrated).

To combat the disruptive social features associated with AIDS, effective education and information campaigns will be needed. It is important that the situation be described as openly and honestly as possible. The public must be made fully aware of the scale that will be reached by disease and death from AIDS over the next decade if it is to respond to government proposals for the prevention of further spread.

Initial steps

- (a) Where there are no, or only a few, recognized cases of AIDS, the first step is to designate a clinical facility that will be officially responsible for the initial diagnosis and care of all suspected cases.
- (b) Health workers should be given training in the care of AIDS patients. Many groups of health workers need to be trained, including traditional health workers. Initial attention should be paid to those in the health services most likely to be used by high-risk persons.
- (c) A case-reporting system should be established. AIDS should be designated a notifiable disease and immediate reporting instituted within the national surveillance system. For surveillance purposes, a relatively precise case definition is required that includes the most characteristic manifestations of HIV infection. Initially, the clinical definition developed by WHO or by the Centers for Disease Control and WHO^a may

^a *Weekly epidemiological record*, 63 (1/2): 1-7 (1988).

be adopted until sufficient data have been collected from clinical observations to permit the necessary adaptations. A standard reporting form has been developed for transmission of national AIDS data to WHO on a regular basis. In reporting on HIV test results and AIDS patient care, the strictest confidentiality must be maintained; only summary statistical information should be given, without identification of individuals.

- (d) The basic clinical services for AIDS should be set up and should cover:
- (i) the diagnosis of AIDS and AIDS-related diseases
 - (ii) the clinical management of patients with AIDS and AIDS-related diseases
 - (iii) the prevention of iatrogenic HIV infections
 - (iv) the counselling of patients with AIDS, AIDS-related diseases, and asymptomatic or minimally symptomatic HIV infection, their spouses (or sexual partners), members of their household, and others in close contact with them.

For the above purpose appropriate national guidelines need to be prepared that define what should be done at the various levels of the health services by the different categories of health staff involved in AIDS-related clinical work. The guidelines should form the basis of training materials used for health worker training. WHO's general guidelines should be consulted.

- (e) Consideration needs to be given at the outset to the financial burden of caring for AIDS patients. While it may be relatively easy to obtain financial support for the care of the first cases that appear in the country, resources will become scarcer as the number of cases increases.

Longer-term considerations

At this stage in the AIDS pandemic certain features of AIDS require consideration in terms of the future. In addition, there are hypothetical circumstances that may require serious attention. An example of the former is the growing cost of care for AIDS patients. An example of the latter is the social disruption that AIDS may cause in certain settings (e.g., prisons).

Consideration of longer-term issues will obviously depend greatly on the human resources that countries have at their disposal. But the area is one where countries have much to learn from each other. Countries experiencing the impact of AIDS earlier than others may be able to show how to identify potential problems and solutions. For example, a problem in the United States is that of health worker 'burn-out' (i.e., psychological exhaustion). Once this problem was perceived, steps were taken to rotate staff more frequently in and out of AIDS treatment facilities.

A major consideration in any long-term perspective is the role of legislation in support of programme objectives. Countries under political and economic pressures may adopt legislation that undermines rather than strengthens AIDS control. For example, where statutory protection of confidentiality is not provided, the cooperation of groups at risk will not be obtained.

Evaluation

Every national AIDS control and prevention programme needs a strategy for evaluation, for the following reasons.

- (a) Evaluation provides information enabling ineffective programmes to be identified and strengthened or discontinued.
- (b) Evaluation is necessary for replanning. In most countries the AIDS situation is changing rapidly. The national programme must be flexible enough to respond to new problems as they arise and to pinpoint the programme's shortcomings.
- (c) Evaluation is required for a learning-by-doing approach. In many situations the information needed for planning may not be available. Often the national programme cannot await the collection of such information before beginning control and prevention. It will therefore be necessary to try out selected strategies, evaluate them carefully, and change them as required. In such a situation evaluation is utilized as a form of operational research.
- (d) Where baseline data are available, evaluation can be useful in assessing epidemiological trends so as to determine to what degree control measures are successful. Even where assessment cannot be carried out, evaluation can be useful in determining whether population groups are using specific control measures and in identifying the problems arising in the implementation of specific strategies.
- (e) In countries where a significant proportion of funds comes from outside donors, a common framework for evaluation is necessary to avoid over-frequent evaluations carried out independently by the health service and the donor agency. Evaluation of the programme should be well organized and performed periodically. Pressure from different donors to repeat an evaluation or carry one out for only the part of the programme they are funding should be resisted. One important function of donors' meetings is to provide a forum for agreement on a coordinated evaluation framework so as to avoid separate overlapping evaluations. WHO can support countries in the development of a rational approach to evaluation at the donors' meeting.

Selection of specific evaluation indicators for a particular programme depends on the epidemiology of AIDS and HIV infection in the country, the strategies of the national programme, and the resources available.

Criteria defining countries with national AIDS prevention and control programmes

1. Appointment of a national advisory committee on AIDS.
2. Nomination of a focal point/programme manager for the national AIDS programme.
3. Formulation of a written national AIDS programme which is:
 - (a) consistent with the global strategy approved by the World Health Assembly;^a
 - (b) comprehensive, including the essential approaches to prevention and control;
 - (c) complete, clearly describing programme objectives, targets, management structure, activities, monitoring, evaluation, and costing.
4. Allocation of a budget for the national AIDS committee and national AIDS programme.

^a Resolution WHA40.26.

Suggested format for a national AIDS prevention and control programme document

1. Executive summary

An executive summary, an introductory section of 2–3 pages, should normally contain succinct information on the following points relevant to the programme :

- the national health policy, related strategies, the overall plan of action for health development, health system design, and an assessment of the system's capacity to absorb certain programme activities
- the national health budget for a specified period
- an overview of the AIDS problem in the country
- a list of strategies for AIDS prevention and control
- the programme's organizational set-up, the composition, role, and responsibilities of the national AIDS committee, and intersectoral collaboration
- constraints (manpower, logistic, financial, and other) on programme implementation as envisaged and the proposed solutions
- the financial resources required for the programme (in US\$), giving the total and the national and external funds needed.

2. Country profile at a glance (country information sheet)

The information should be in tabular form.

3. List of abbreviations

A list of the abbreviations used in the text should be included.

4. Overall programme objectives

- long-term
- intermediate/medium-term.

5. Strategies

Individual strategies have different specific objectives and targets, different types and timings of activities, and differences in other aspects. Therefore each strategy should be presented separately. Activities common to all or to several strategies, such as orientation and training or information and education, could be combined in a separate chapter with the title "Common Support Activities" following the description of individual strategies.

An outline presentation of an individual strategy might be as follows.

5.1 Title (for instance, "Prevention of sexual transmission")

5.2 Background and justification

- the specific problem and its impact
- present shortfalls in prevention and control
- outstanding concerns

5.3 Specific objectives and targets

- strengthening of the related infrastructure
- orientation and training at all levels
- operational targets
- problem reduction targets
- other

5.4 Plan of action

- main approaches towards implementing the strategy
- activities (what should be done, when, and by whom)
- milestones for implementation

5.5 Participating institutions

National

government
para-governmental
nongovernmental

International

United Nations system
other

5.6 Evaluation

(Should be based on the framework agreed upon jointly by the ministry of health, other ministries, and the bilateral and multilateral agencies involved. Evaluation will then provide the information required by all parties concerned.)

5.7 Supplies and equipment

— list of required supplies and equipment

Serial no.	Item (specification)	Unit cost (US\$)	Quantity

5.8 Budgetary resource requirements (in US\$)

(It should be made explicit what part of the total programme budget can be met from national resources ; that, in turn, will indicate what external resources are needed. Normally, the government could be expected to absorb the annual recurrent budget (salaries, routine operational costs, maintenance, etc.). As accurate an estimate as possible should be made for the programme's first operational year, and fair estimates for subsequent years.)

	Year					Total
	1	2	3	4	5	
(a) Investment						
(b) Recurrent						
(c) Total						
(d) Of the above, external resources required						

NOTE

- (1) The final programme document should have an appropriate cover page, a table of contents, and a map of the country.
- (2) The budget for the first year should be broken down by strategy and activity. In subsequent years, only subtotals for each strategy would be required, as detailed budget formulation would be dependent upon evaluation of the first year.

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