
***BUILDING THE
CAPACITY FOR AN
ORAL HEALTH RESPONSE
TO THE GLOBAL
HIV PANDEMIC:***

**Principles for Developing
a Country-Specific Approach**



Oral Health Programme
World Health Organization
Geneva

54587

WHO/ORH/OMA/95.1

English Only

Distr.: GENERAL

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Principles for Developing a Country-Specific Approach

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1995

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EVOLUTION OF A GLOBAL ORAL HEALTH RESPONSE TO HIV/AIDS

It has been clear since the early 1980s when the human immunodeficiency virus (HIV) was first detected that the oral health professions need to play a critical role in controlling and, ultimately, preventing HIV infection. Studies of oral candidiasis and oral hairy leukoplakia demonstrate that these conditions are early signs of possible HIV infection and potential markers of the progression of Acquired Immunodeficiency Syndrome (AIDS).

Oral health professionals realized early that a global strategy had to be developed in order for the professions to contribute effectively toward curbing the HIV pandemic. In 1988, the World Health Organization's (WHO) Oral Health Programme sponsored an international conference in collaboration with the National Institute of Dental Research of the National Institutes of Health (Bethesda, Maryland, USA) to develop recommendations for a multifaceted strategy. Clinical research, health promotion and health education, infection control, and epidemiology and surveillance were specifically addressed.

Following this conference, the International Coordinating Group on Oral Manifestations and HIV Infection, comprised of members affiliated with WHO, was formed to serve as a forum for implementing the recommendations from the conference. Soon thereafter, the Federation Dentaire Internationale (FDI) and WHO established Joint Working Group #14 on AIDS, expanding the effort to include representatives of the national dental associations from all WHO member nations.

Joint Working Group #14 on AIDS has worked to develop specific guidance and general principles for international application. Building on the areas addressed at the 1988 conference, the working group has developed educational materials, guides, and documents on health promotion and health education, patient care, infection control, and epidemiology and surveillance.

In March 1992, Joint Working Group #14 on AIDS conducted an initial workshop in Jos, Nigeria, for representatives from Sub-Saharan Africa. The purpose of the conference was to catalyze the development of country-specific plans for a dental response to the HIV pandemic in coordination with the national AIDS committees, as recommended by WHO. This conference was viewed as the first in a series of similar workshops.

In 1992, the International Federation of Dental Hygienists formed the Committee on the Prevention and Control of HIV Infection. The purpose of the committee is to inform and catalyze dental hygienists worldwide to contribute to all facets of campaigns designed to prevent and control HIV infection.

International Themes

The evolution of the response of oral health professionals is based on the recognition that a *multifaceted* strategy is needed—a strategy that encompasses health promotion and health

education, patient care, infection control, and epidemiology and surveillance. Other areas may need to be considered as well.

Events in recent years also show that the response of oral health professionals needs to be *multinational*. Only in this way can oral health professionals reach the increasing number of populations infected or at risk of infection, through various modes of transmission, and tailor responses appropriately to cultural variation and different social, political, and economic environments.

It also is clear that the global response must be *multidisciplinary*. That is, dentistry and dental hygiene participate in the global effort against HIV infection and AIDS as one segment of many health professions, and the health professions cooperate as one of many interested parties, which include social service specialists, policy makers, and HIV-infected individuals. The integration of this multidisciplinary perspective into national efforts is essential.

Purpose of This Booklet

This booklet is designed for national leaders involved in building the capacity for an oral health response to the global HIV pandemic. It is one of several resource documents on HIV produced by WHO for the oral health community. It is intended to provide an overview of opportunities, issues, and actions.

The booklet highlights principles to be considered in each of four critical strategy areas: health promotion and health education, patient care, infection control, and epidemiology and surveillance. These are the areas emphasized by Joint Working Group #14 on AIDS. In recognition of the need for a multinational response, the principles to be considered are presented as generic, guiding principles that can withstand differences between locales, rather than as detailed guidance that would have limited application.

As a national leader, your role is to translate the guiding principles presented in this booklet into a national oral health HIV/AIDS plan that is appropriate for the needs and resources of your country. To assist in the development of your country-specific plan, the booklet includes an overview of strategic planning steps. These steps are based on WHO's general guide to strategic planning (1), which emphasizes the importance of coordinating all efforts with the national AIDS committees. The same steps to strategic planning also can be utilized in developing regional or local plans for an oral health response to the HIV pandemic.

A global response is the only way in which the HIV pandemic can be curbed. Your participation is critical and is valued.

THE TIME TO ACT IS NOW

In 1994, WHO estimated that there were 14 million HIV-infected individuals worldwide, a number that is expected to increase to 30 to 40 million by 2000. The curve of the HIV pandemic seems to be plateauing in the USA and Europe, but is increasing in Africa and Asia. By the mid-1990s, Asia is expected to surpass Africa in number of HIV-infected persons unless effective interventions are imposed immediately.

In 1994, there were an estimated 2.5 million cases of AIDS worldwide, and another 5,000 persons are estimated to be newly infected every day. Even so, it is acknowledged that there is gross underreporting of AIDS cases among the countries of the world.

Since 1988, World AIDS Day has been held on December 1 of each year. The 1993 World AIDS Day slogan was "Time to Act." Previous slogans were "Sharing the Challenge" (1991) and "Community Commitment" (1992). In 1993, WHO emphasized that it is...

Time to...reduce the vulnerability of women to HIV infection by improving their health, their education, their economic prospects, and their legal and social status.

Time to...provide the young people of this world with the knowledge and means to protect themselves from infection. Education in and out of school should be complemented by easy access to condoms.

Time to...set up strong prevention and education programmes in the workplace and for business leaders to support wider AIDS activities in the community.

Time to...ensure that human care for people with HIV and AIDS is available everywhere, and not just in the developed world."

What is the role of oral health professionals in addressing the HIV pandemic? What can, and should, oral health professionals do? Members of the dental and dental hygiene professions, like their medical and nursing colleagues, are powerfully placed to help in assuring that they and others understand the facts about AIDS. They also are in a position to care for patients and to design and direct appropriate communication programmes. It is time for oral health professionals to become part of the global response to the AIDS epidemic.

WHO/FDI POLICY ON HIV/AIDS

In 1990, WHO/FDI developed a policy statement and a preamble that clearly articulated issues related to ethical conduct; infection control; relationship of oral and general health care; surveillance, epidemiology, and research; and education and health promotion. These policy documents are directed not only toward dental and medical professionals, but also toward national professional organizations, AIDS programmes, the public, providers of care, and HIV-infected individuals. The documents have implications for dental and dental hygiene education, health care delivery and referral, development of health policy, and relationships among health professions and organizations. The preamble and policy statement (see Appendix A) continue to be relevant today, providing essential principles to consider and address in planning country-specific efforts.

The following points are emphasized in these two policy documents:

1. Oral health is an integral component of general health.
2. Many HIV-infected individuals present oral lesions as their first sign of HIV infection.
3. In all countries, an adequately funded oral health care programme is a prudent investment and is vital for preventing and treating AIDS and for conducting research on AIDS.

In 1992, the FDI passed a statement that expanded on its 1990 policy (2).

DEVELOPING A NATIONAL ORAL HEALTH HIV/AIDS PLAN

This booklet describes three stages in developing a country-specific national oral health HIV/AIDS plan. The stages are:

- ▶ Contact your national AIDS committee to obtain information on its policy and goals and its AIDS prevention and control programme.
- ▶ Study and follow the 10 steps to successful programme planning.
- ▶ Incorporate WHO's guiding principles for health promotion and health education, patient care, infection control, and epidemiology and surveillance.

National AIDS Committees

National AIDS committees (NACs) are focal points for launching an oral health HIV programme. Although there are country-specific oral health programmes independent of these committees, the programmes often have only a limited impact on national health policies.

In 1987, realizing the magnitude of the HIV pandemic and its potential ramifications over the next century, the Fortieth World Health Assembly of the WHO endorsed the establishment of a Special Programme on AIDS and urged member states to establish or strengthen programmes for preventing and controlling AIDS (1). Since then, formal national AIDS committees have been established globally under the guidance of WHO's Global Programme on AIDS.

The purpose of national AIDS committees is to prevent and control AIDS through:

- Prevention of HIV transmission
- Reduction of morbidity and mortality associated with HIV infection.

WHO's guidelines for developing a national AIDS prevention and control programme (1) state that AIDS will be controlled only through a combination of aggressive national programmes that maximize international cooperation and utilize all available scientific and educational tools.

The problems that HIV causes and the resources that are available differ so greatly between countries that no model programme can be offered at this time. Each country must develop a framework that meets its own unique situation. In most countries, the NAC is an advisory body to the ministry of health, handling all aspects of developing and implementing an AIDS programme, including legal, ethical, managerial, financial, international, and technical issues. Ideally, your NAC will have strong ties to both the decision-making and policy-making levels of the national government. In fact, some governments have created two

committees related to AIDS, one to address broad policy concerns and the other to oversee implementation of the HIV/AIDS programme.

As might be expected when addressing a problem as complex as the HIV pandemic, NACs include representation from a broad spectrum of entities, including research institutions; health education agencies; nongovernmental organizations (NGOs); and media, insurance, religious, social services, and political bodies. Subcommittees or ad hoc committees are established as needs arise.

Although the composition and activities of each NAC vary, there should be explicit policies on:

- Surveillance and reporting of AIDS cases and persons infected with HIV in the country
- Counseling of HIV-infected persons and AIDS patients and their families and other contacts, including policies regarding confidentiality
- The organization of an AIDS prevention and control programme.

It is critical during initial mobilization efforts that you have a clear understanding of your NAC's policies, past activities, and accomplishments and the areas in which oral health components need to be developed, particularly regarding AIDS prevention and control.

As you gather this information, you will have the opportunity to meet with key officials within the NAC and its prevention and control programme. You will thus begin to develop the communication network that is critical to building a successful oral health HIV programme.

You can approach and work with your NAC in many different ways. A slightly different approach will be needed in each country. In some countries, national oral health coordinators develop an oral health HIV/AIDS plan that is based on a thorough assessment of the disease patterns and resources available before they approach the NAC. In other countries, coordinators first approach the NAC chair and obtain guidance and support for proceeding with the development of a plan. Some coordinators have participated in their NAC since it was established, helping to tailor the country's AIDS control plan as it evolves. In all instances, coordinators will need to follow 10 basic steps in successful programme planning, as described below.

To build a successful country-specific capacity for an oral health response to the HIV pandemic, the oral health HIV/AIDS plan must be integrated and incorporated into the general HIV/AIDS health plan of your country.

TEN STEPS TO SUCCESSFUL PROGRAMME PLANNING.

The steps suggested in this booklet are explained further in the WHO manual entitled "Mobilizing the Oral Health Profession to Respond to the HIV Pandemic: An Educational Resource Package for Oral Health Professionals" (3). The steps are adapted from several sources (4-7) and have been applied in other public health programmes, such as immunization, diarrheal disease control, nutrition and breastfeeding, antismoking campaigns, and condom distribution. This strategic planning process also has been utilized in several international meetings attended by oral health personnel from developing and industrialized nations. It has proved to be a practical tool for developing and implementing action plans for a variety of oral health projects and programmes. The steps are appropriate for use in all parts of the world and all cultures.

The 10 steps to successful programme planning (shown in figure 1) are:

1. Conduct situation analysis.

Situation analysis is a process by which essential information is gathered that will guide planners and decision makers as they develop oral health programme goals, set realistic objectives, develop strategies, and implement and evaluate a programme. A situation analysis enables one to determine the magnitude of the disease and its oral sequelae and to investigate the resources needed to respond effectively.

2. Generate problem statements.

Problem statements are clear, concise descriptions of the major issues that emerge from a situation analysis.

3. Establish goals.

Goals are broad statements of programme intent which address the problem statements. Once defined, these goals should be ordered relative to their importance to your country's needs and resources.

4. Define target audiences.

Target audiences are individuals or groups toward which the goal statements are directed.

5. Set objectives and performance targets.

Objectives are established to translate goals into measurable statements of the aims of programme (that is, what you are striving to achieve in the programme). In establishing objectives, you define in specific and quantitative terms who and what will change, in what way, by how much, and over what period of time. Outcomes, or change, are usually expressed as a percent difference that is realistic to anticipate.

6. Develop strategies.

Strategies are activities that will be undertaken to meet the objectives. Strategies should be described in great detail and include identification of the person or groups responsible for each stage of the programme.

7. Establish schedule and budget.

The timetable (schedule) is an estimate of the time period required to accomplish each step in the strategic planning process. It should include a calendar for every element of the activities planned. The budget is an estimate of the resources needed to complete the activities planned. It should clearly show the discrepancies between the resources required and those available. Items targeted for outside funding are identified in the budget process.

8. Implement strategies.

Implementation of strategies often begins with a pilot test in which the activities planned are conducted on a small scale to ensure that all stages have been considered and will be accomplished as anticipated. If the previous steps in the strategic planning process have been sufficiently and carefully considered, implementation will proceed smoothly in accordance with the plan.

9. Evaluate.

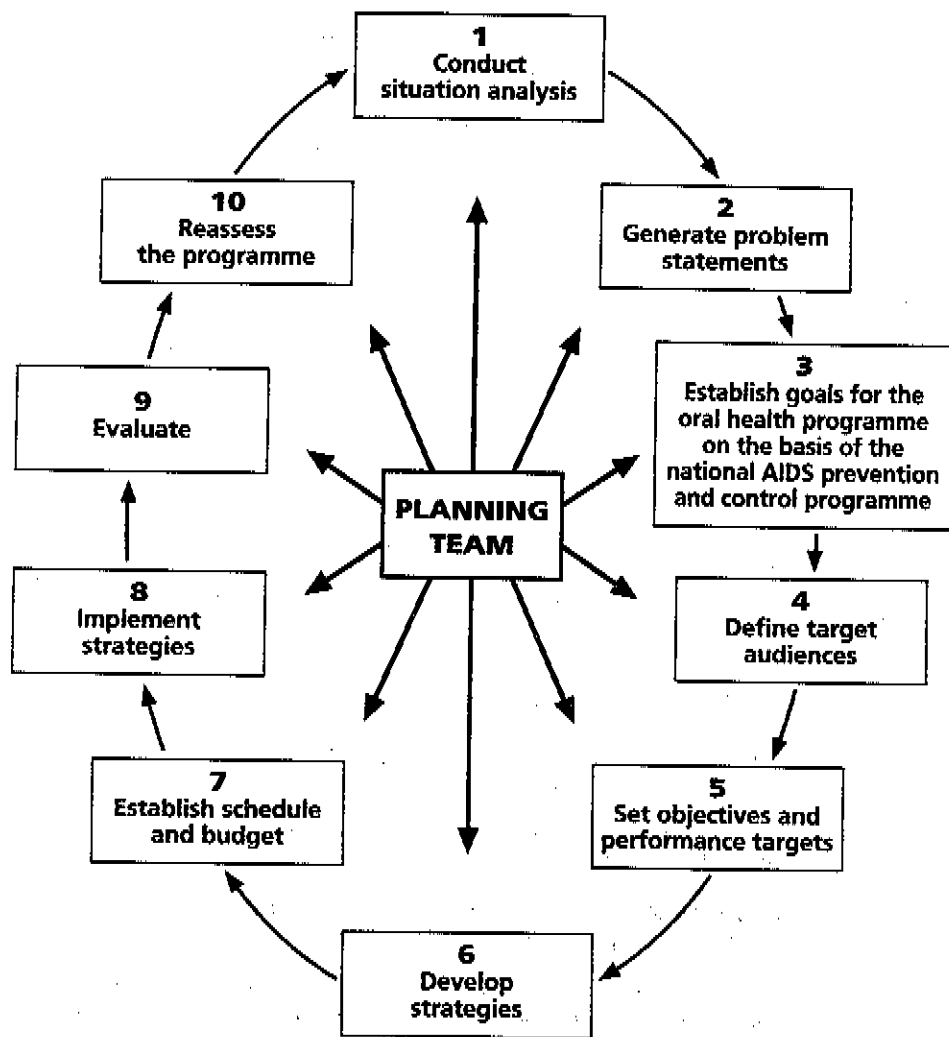
Evaluation is an ongoing process of monitoring programme activities to assure that the process developed is effective and efficient. Both the process and outcome of the programme and activities must be evaluated.

10. Reassess the programme.

Reassessment, based on the evaluation results, is a process of determining whether future activities need to be modified, the budget is sufficient, and the objectives have been met. Programmes will need to be altered and modified as more information is gained about the disease and new ways of addressing the disease are discovered. With reassessment, the cycle of planning begins again.

STEPS TO SUCCESSFUL PROGRAMME PLANNING

In partnership with national AIDS committee



WHO 85/52

PREPARING YOUR NATIONAL ORAL HEALTH HIV/AIDS PLAN

Once you understand the policy and goals of your NAC, the activities of the NAC's prevention and control programme, and the steps to successful programme planning, you are ready to initiate preparation of a national oral health HIV/AIDS plan. The oral health HIV/AIDS plan will be developed by a planning group convened by you and other oral health leaders. After the plan has been developed, the planning group will write a proposal to include an oral health component in your country's national HIV/AIDS plan. This proposal will be submitted to the NAC for consideration.

The WHO recommends that countries develop national HIV/AIDS plans that are "medium term." Accordingly, the oral health HIV/AIDS plan developed by the planning group also should be "medium term."

What is a Medium-Term Plan?

The WHO describes a medium-term plan as a tool for implementing a national programme. The plan sets forth the activities that will be conducted; the location, time and cost of the activities; and the individuals responsible (1). Besides serving as a planning tool, the plan also can be used to mobilize external funds.

The WHO further states that "medium term" equals 3 to 5 years. You should anticipate, however, that your oral health HIV/AIDS plan will change in accordance with new information about the disease and periodic evaluation of the programme's success.

As you consider development of a medium-term plan, refer to the "Suggested Format for a National AIDS Oral Health Prevention and Control Programme Proposal" provided in Appendix B. This model format was adapted from one suggested by WHO for use by NACs.

What Should Be Included in the Plan and Proposal?

The following items should be included in the national oral health HIV/AIDS plan and proposal:

1. Basic principles and policies of national importance which the programme is designed to support and respect
2. Organizational structure of the oral health prevention and control programme and its relationship to the national AIDS programme and the NAC
3. Description of the linkage of the oral health AIDS prevention and control programme with the national primary health care strategy and specific health and health-related programme activities

4. Elements of the proposed budget to be met by national funds and by international support.

What Is the Purpose of the Planning Group?

The planning group that will develop the medium-term oral health HIV/AIDS plan will represent the different disciplines and population groups involved in your nation's oral health. The purpose of the planning group is to translate the goals of the oral health prevention and control programme into objectives, develop an action plan to accomplish the objectives, identify resources, oversee implementation and evaluation of the plan, and, most importantly, accept ownership of the plan and be committed to its success.

Who Should Serve on the Planning Group?

Cohen (4) states that the criteria for selecting members of the planning group include:

- Expertise in the subject matter and relevant past experience
- Representation of potential collaborating constituencies
- Representation of organizations and groups that eventually may provide resources for the programme.

For prevention and control of HIV infection, a fourth criterion must be added:

- Representation of all target populations.

The size of the planning group will vary depending on the range of areas encompassed by the oral health programme. Subgroups may need to be created. Members of the planning group may include:

- All types of oral health workers, including dentists, dental hygienists, and primary health care workers; epidemiologists, health educators, community organizers, medical supply officers, clinic workers; and other health care workers such as physicians and nurses
- Public, professional, and community educators and researchers
- Individuals from philanthropic organizations, public funding agencies, corporations, NGOs, and professional organizations
- HIV-infected individuals and persons from groups at high risk of HIV infection
- Representatives from the national AIDS prevention and control programme

- Representatives from the national committee addressing health care ethics.

The chairperson of the planning group should have an expressed interest in oral health prevention and control of HIV, be committed to the goals of the national oral health HIV/AIDS plan, be skilled in managing group dynamics, have the time to devote to the programme, and be talented in organizing multiple tasks. Both the chairperson and members of the group should be selected in anticipation that they will assume ownership of the programme and complete the planned activities.

GUIDING PRINCIPLES FOR NATIONAL ORAL HEALTH HIV/AIDS PROGRAMMES

Four sets of guiding principles are presented in the following pages. These principles apply to four areas:

- Health promotion and health education
- Patient care
- Infection control
- Epidemiology and surveillance.

These guiding principles are intended to give you and your planning group the basic elements for initiating an HIV programme planning process. Additional detailed information on each of the four areas is contained in the WHO manual entitled "Mobilizing the Oral Health Profession to Respond to the HIV Pandemic: An Educational Resource Package for Oral Health Professionals" (3). This manual is a useful tool and guide for planning workshops for oral health and other personnel regarding the implications of HIV infection and oral health care.

Guiding Principles for Health Promotion and Health Education

Health promotion and health education are the logical principal strategies for controlling the spread of HIV infection in the world population.

The WHO states that effective prevention of HIV infection in developing countries alone could reduce by half the number of new HIV infections among adults during the rest of this decade (8). This reduction would yield substantially fewer infections around the world: more than 4 million fewer in Africa, more than 4 million fewer in Asia, and about 1 million fewer in Latin America (8). To accomplish these reductions, oral health professionals must take an active and bold role--as never before--in health education and health promotion campaigns.

Health promotion and health education are needed to limit the spread of HIV and AIDS. These efforts must be an integral part of all national AIDS prevention and control programmes.

Health education is defined as "any planned combination of learning experiences designed to predispose, enable, and reinforce voluntary behavior conducive to health in individuals, groups, or communities" (9).

While health education is necessary, it is not sufficient to prevent or control HIV infection and AIDS. That is, having accurate and even complete information does not necessarily mean that appropriate behaviors or activities will, or can, take place. Health promotion helps to ensure success in preventing and controlling HIV infection and AIDS.

Health promotion is defined as "any planned combination of educational, political, regulatory, and organizational supports for action and conditions of living conducive to the health of individuals, groups, or communities" (9).

To be effective, health promotion and health education efforts must be directed toward both health professionals and the public. The WHO Global Programme on AIDS states that to ignore either constituency is dangerous and foolish, for each group must know how to avoid activities that place themselves and others (patients and partners) at risk of HIV infection (6).

Now is the time for oral health professionals to act as leaders in HIV-related health promotion and health education activities.

Principles: Health Promotion and Health Education

1. Prevention of HIV infection through provision of clear information on the modes of transmission and through demonstration of preventive behaviors must be given priority by health care planners and policy makers.
2. Education on effective ways of preventing HIV infection must be incorporated into all public settings (e.g., schools, worksites, universities).

3. The public, particularly persons at greatest risk, and patients must be informed about HIV in the local language and in a culturally relevant manner.
4. Adequate social, political, and financial support must be given to accomplish the behavioral changes needed to prevent the spread of HIV infection.
5. Health care providers should have accurate information and be trained effectively to translate to their patients and the public accurate information and procedures for preventing transmission of HIV infection.
6. Access to health education and health promotion services, particularly by persons at greatest risk, must be facilitated.
7. Public support must be secured for the community and institutional responses needed to prevent and control HIV infection.
8. All workers in the health and education systems must be trained to address control of HIV infection.

In addition, the oral health community must:

- Sponsor workshops to assure that all oral health care workers are adequately informed and can take an active role in health education, health promotion, and infection control activities.
- Make use of "teachable moments" with patients and coworkers to address both the prevention of HIV infection and the oral manifestations of HIV infection.
- Inform colleagues in other health professions about the oral manifestations associated with HIV infection.
- Participate with other health providers in community activities to curb the HIV pandemic.

Guiding Principles for Patient Care

Patient care is the focal point of interaction between oral health care personnel and the general population. In their delivery of preventive, diagnostic, and treatment modalities, oral health care personnel are ethically bound to nurture and promote an individual's health status. For HIV-infected individuals, this responsibility is critical because oral health care providers often can identify individuals at early stages of infection and refer them promptly for followup treatment. By intervening against the oral manifestations of HIV infection, oral health care providers also can help ameliorate the sequelae of HIV infection in the oral cavity and systemically.

The principles for health promotion and health education and for infection control must be incorporated into the delivery of services to patients. Providers are in a unique position to document the oral manifestations of individuals infected with HIV. Opportunities for documenting these manifestations are available and encouraged through the WHO surveillance system (see the Leaflet and Recording Form for Oral Lesions Possibly Associated With HIV Infection, in Appendix C) (10).

The principles for patient care address diagnosis, treatment, patient referral, followup, and documentation. An overriding principle is the need for providers to stay current on both the diagnosis and treatment of conditions associated with HIV infection through available dental literature and continuing education courses.

Principles: Patient Care

1. Accurate diagnoses should be achieved.

The first step in diagnosis includes differential diagnosis based on information obtained from a patient's medical and dental history and clinical presentation of the lesion(s). In an ideal setting, the availability of adjunctive diagnostic aids, such as histopathology of biopsied tissues and virology of cultures, would enable definitive diagnosis.

Steps to be taken include:

- Questioning the patient
- Reviewing the patient's medical and dental records (if available)
- Examining oral soft tissue and head and neck regions to identify the presence of any lesions and conditions
- Utilizing available adjunctive diagnostic aids.

2. Treatment should be prompt and as specific as possible.

Treatments vary with lesions and stage of disease. A critical component of treatment is assessment of available medications for anticipated lesions and conditions. Prompt treatment is preferred; however, there are lesions for which controlled observation is the recommended first step of treatment.

Steps to be taken include:

- Assessing available medications. How do these compare with WHO's recommended levels of core medications? What is needed to update these medications?
- Coordinating treatment of oral lesions with treatment of systemic or other health problems. Interactions of medications should be considered, as well as possible oral tissue effects of medications used for treating nonoral conditions.

3. Treatments should be documented thoroughly in order to record possible changing patterns of care.

Thorough patient records are important references for determining future treatments and evaluating the success of previous or ongoing treatments.

4. Appropriate and timely referral of patients to other dental, medical, and social service professionals is a critical part of treatment.

Oral health professionals are members of multidisciplinary teams and should not expect to be the only providers of care.

5. During patient care and treatment, oral health professionals must take the opportunity to provide to the patient accurate information on HIV infection and ways in which to prevent transmission.

6. Providers of patient care must assure that all available resources for minimizing transmission of HIV infection and optimizing infection control have been applied in the environment.

7. An active system for patient followup should be maintained in order to assess the effectiveness of treatment and to make appropriate modifications.

8. Findings should be documented on the WHO surveillance form. This information can be used to contribute to a country's assessment of the oral health profile of the HIV pandemic and should be sent to the WHO Oral Health Programme.

Guiding Principles for Infection Control

The global HIV pandemic has increased awareness in the dental community of the importance of proper infection control practices. The goal of these practices should be to prevent blood-borne transmission of disease. Disease transmission can occur from (a) patient to care provider, (b) care provider to patient, and (c) patient to patient. While many factors affect the likelihood of disease transmission, adherence to effective infection control principles minimizes the risk of transmission.

Infection control practices are based on the application of four basic principles of infection control:

- ▶ Take action to stay healthy
- ▶ Avoid contact with blood
- ▶ Limit the spread of blood
- ▶ Make objects safe for use.

Understanding and use of these principles will provide a sound basis for decision making. All members of the oral health care team should be familiar with these principles and other written guidelines for local infection control practices.

Principles: Infection Control

1. Take action to stay healthy.

Behavior. It is important that all persons take positive steps to maintain their own health. This action is especially true for persons working in the health care environment. Exposure to blood and certain other bodily fluids of patients increases the risk of becoming infected with a blood-borne microorganism such as hepatitis B virus (HBV) or HIV. Exposure to other microorganisms may also occur; however, blood-borne pathogens pose the greatest potential risk.

Taking action to stay healthy applies as well to providers' behaviors outside of the oral health care environment. Make sure you or your partner uses a condom.

Immunization. Immunizations will reduce your risk of becoming infected with some diseases and can protect your patients and family. Immunization against HBV is essential. HBV infection is very serious and can lead to death or serious disability; regardless of where you practice, it is likely that some of your patients are infected with HBV. Even though HIV is not as prevalent in most areas as HBV, it is important that you protect yourself against both viruses.

Because you work with sharp instruments, you can receive cuts and puncture wounds. These injuries provide ideal conditions for the tetanus bacillus that causes tetanus or "lockjaw." You should be immunized against tetanus and receive boosters every 10 years to maintain protection. Immunization against measles, mumps, rubella, and polio is recommended for adults who are not already immune.

Wash your hands. Your hands can spread the microorganisms that cause diseases. Handwashing removes microorganisms that you may acquire from patients and contaminated instruments or surfaces. You should always wash your hands:

- Before treatment
- Between patients
- After removing your gloves.

During treatment, if you touch an object that might be contaminated by any patient's blood or saliva, wash your hands before leaving the operatory.

It is not necessary to use any "special" soap for handwashing. However, it is important that you lather your hands well with soap and rub them vigorously for at least 10 seconds before rinsing them under a stream of water. They should then be dried with a noncontaminated towel.

2. Avoid contact with blood.

Wear protective coverings. Coverings can serve as an effective barrier, protecting you from contact with blood and saliva contaminated with blood.

Wear gloves whenever you put your hands into any patient's mouth or when you touch instruments, equipment, or surfaces that may be contaminated with blood. Use a new pair of gloves for every patient. Never reuse gloves. Washing surgical or examination gloves may damage them and increase the flow of liquid through undetected holes in the gloves.

Wear a mask and glasses or a face shield. Many dental procedures involve extensive spatter of blood and saliva which may enter your eyes, mouth, or nose where mucous membranes provide easy entrance for microorganisms.

Avoid injuries. Many dental instruments are sharp and can easily pierce or cut your skin. If you are injured by a contaminated instrument, you may become infected. Use extreme care to avoid injuries. Take the following precautions:

- Point the sharp ends of instruments away from yourself

- Pass scalpels and syringes with the sharp ends pointing away from all persons
- Avoid picking up sharp instruments by the hand
- Keep fingers out of the way of rotating instruments
- Dispose of used needles and other sharp items promptly.

Do not recap needles using a two-handed technique or any other technique that involves moving the point of a used needle toward any part of your body.

3. Limit the spread of blood.

Prevent contamination. Use techniques that prevent unnecessary contamination of any area or object. Plan ahead and anticipate treatment needs for each patient. Minimize splashes and splatter during both patient treatment and cleanup.

Cover surfaces that cannot be decontaminated easily. Use a disposable, waterproof covering when possible. Change the covering after each patient it has touched during treatment or if it has been contaminated by spatter.

Handle waste properly. Items that are soaked with blood should be considered potentially infective medical waste. They should be disposed of in accordance with local regulations. All used, disposable, sharp instruments such as needles and scalpel blades should be placed into a puncture-resistant container.

4. Make objects safe for use.

Decontamination. Understand the concepts of decontamination. There are three decontamination processes:

- **Cleaning** Physical removal of debris to reduce the number of microorganisms present
- **Sterilization** A process that kills all microbial life
- **Disinfection** A process that kills disease-causing microorganisms, but not necessarily all microorganisms.

Disinfection is described in more detail below.

Disinfection. There are three levels of disinfection: low, intermediate, and high.

Low-level disinfection

Does not kill indicator bacterial spores or laboratory test organisms such as *Mycobacterium tuberculosis var. bovis*. This is the least effective disinfection process.

Intermediate-level disinfection

Kills *M. tuberculosis var. bovis*. This disinfection process is significant because it is almost as difficult to kill this microorganism as it is to kill spores. This process will also kill such microorganisms as HBV and HIV.

High-level disinfection

Kills some, but not all, bacterial spores. This is the most effective disinfection process.

Decontamination process. Choose the right way to decontaminate! Selecting a proper decontamination process depends on two factors: what is being decontaminated, and how it is to be decontaminated. Several "rules" have been developed to help you select the appropriate process. They differ for critical, semicritical, and noncritical items.

Critical items are instruments that will touch bone or penetrate tissue. Semicritical items are instruments that will touch mucous membranes but will not touch bone or penetrate tissue. Noncritical items are equipment and environmental surfaces that will come into contact only with intact skin. For the different items, the "rules" are:

Sterilize all *critical* instruments and those *semicritical* instruments that are not damaged by heat. Heat-sterilization methods are preferred.

Apply high-level disinfection to *semicritical* instruments that are damaged by heat.

Apply intermediate- or low-level disinfection to *noncritical* environmental surfaces.

Cleaning alone will be sufficient for most *noncritical* items that are not contaminated with blood.

When you decontaminate, do it right! All instruments requiring sterilization or disinfection must first be cleaned to remove gross debris. Follow the manufacturers' instructions for operating sterilization equipment and/or using disinfectant and sterilant chemicals. When possible, wrap or package sterilized items so that sterility can be maintained. Store packages where they will not become torn or wet.

Infection control is not difficult, but does require training in order to be successful. The time you take to learn and practice proper infection control techniques will be rewarded. You will have created an environment that protects you and your patients from the risk of infection.

Guiding Principles for Epidemiology and Surveillance

Epidemiology is the study of the distribution of diseases and conditions in populations and risk factors associated with diseases and conditions. It includes descriptive, analytical, and theoretical research. *Surveillance* is the systematic collection and analysis of essential data needed for planning, implementing, and evaluating public health programmes and practice.

Surveillance provides the monitoring needed to highlight major changes in populations. Surveillance data often stimulate hypotheses for testing in controlled studies. Through epidemiological research, associations are inferred between the suspected causes of diseases and conditions and their effects. Investigators also can explore reasons for differences in the rate of new cases of a disease occurring in a population within a specific time period (*incidence*) and in the rate of all cases (new and existing) occurring in a population (*prevalence*). Ultimately, the data generated through epidemiological research and surveillance activities are used to guide development and implementation of appropriate prevention, diagnosis, and treatment measures.

International Action

The international community has organized and developed materials to facilitate epidemiology and surveillance activities related to HIV infection and AIDS. In 1988, critical recommendations were made on methodological issues. Among other areas of need, these recommendations called for development of standard diagnostic criteria for data collection (11). Since 1988, teaching materials have been developed by the WHO Collaborating Centre on Oral Manifestations and HIV Infection, located in Copenhagen, Denmark (12). Posters, slides, and annotated bibliographies have been distributed globally (13) and provide the basis for current and future training of dental and medical personnel.

A detailed manual entitled "A Guide for Epidemiological Studies of Oral Manifestations of HIV Infection" also has been developed to assist in designing, implementing, analyzing, and reporting epidemiological studies (14). This guide offers practical advice to beginning researchers and offers a systematic approach for conducting descriptive epidemiological studies.

In addition, WHO has developed a surveillance form and system (10) for documenting oral lesions found in HIV-infected individuals (see Appendix C). This form and system has been pilot tested (15) and is now being used in several countries. The WHO Oral Health Programme encourages use of this form so that similar data can be collected for comparison across studies and countries. Diagnostic criteria have been developed for the more common oral lesions found in HIV-infected individuals (16,17), and an adaptation of these criteria is included in the guide mentioned above (14).

Several classification systems for HIV infection and AIDS have been developed by the Walter Reed Army Institute of Research (18) and the Centers for Disease Control and Prevention (CDC). The most recent CDC system was published in 1992 and is the one used

globally to monitor the HIV pandemic (19). Currently, WHO is considering adoption of a revised classification system.

The John E. Fogarty International Center for Advanced Study in the Health Sciences, at the National Institutes of Health, is supporting epidemiology trainees in several countries through its AIDS International Training and Research Program. This programme offers epidemiology training in the United States at the Masters in Science and Doctorate levels, short-term courses in epidemiology, and in-country courses.

Recommendations for Research

Specific research recommendations have been made for oral epidemiological research on HIV infection. In a recent report on international collaborative oral health research for the next decade (20), one of the highest priorities was given to the urgent need for longitudinal epidemiological studies of HIV infection in order to define the spectrum of oral lesions associated with HIV infection. This report emphasizes that these studies should include seropositive children as well as adults. The report also highlights the need for international monitoring of oral complications of HIV therapy; delineation of the extent of oral mucosal diseases and conditions in the general population to place in perspective the findings on oral lesions in HIV-infected individuals; and studies of herpes simplex virus and human papillomavirus infections.

The National Institute of Dental Research (NIDR) long-range plan for the nineties, Broadening the Scope, includes several recommendations for epidemiological research on HIV infection (21). This plan specifically calls for investigations of the nature and extent of oral manifestations in populations other than traditional high-risk groups, especially women, children, and oral health professionals. The plan also notes the need for investigations of risk factors associated with oral manifestations in HIV-positive patients who are asymptomatic and examinations of the relationship of oral and other manifestations of HIV infection. Numerous other recommendations concerning immune response, oral indicators of infection, and education and behavior also are cited.

Principles: Epidemiology and Surveillance

1. Ideally, epidemiological study and/or surveillance of oral health effects of HIV infection should be integrated into a study and/or surveillance programme of general health effects.

Due to the nature of the diseases associated with HIV infection, confirmation of infection, status, and documentation of general health effects and their treatment is essential to understanding the cause and pathogenesis of oral health effects associated with HIV infection. Without an ongoing assessment of general health effects, efforts directed toward studying oral health effects would need to be substantially augmented to place the findings into perspective.

2. Consultation is recommended for developing and designing an epidemiological study or a surveillance programme.

Existing epidemiological studies or surveillance programmes may serve as templates for developing a new study or programme. However, the design of a study or programme needs to be tailored to specific hypotheses and objectives under consideration. Designs will vary according to the objectives of the study and the population under consideration. If possible, appropriate consultation should be sought with an epidemiologist.

3. Use of common diagnostic criteria (epidemiological indices) is essential.

WHO diagnostic criteria are available for clinical diagnosis of lesions. These criteria have been modified by adaptations of the recommendations from the European Economic Community and the USA Oral AIDS Cooperative Group. For definitive diagnoses, additional adjunctive tests are proposed. Use of common diagnostic criteria facilitates comparisons among studies and between countries.

4. Examiners need to be standardized and calibrated. Recorders also must be trained.

A thorough understanding and standard application of diagnostic criteria are important for accurate reporting of the conditions under study. Calibration of examiners also is essential for establishing the extent to which examiners agree or disagree with each other. The goal of these efforts is to achieve collection of reliable and valid data. Training is needed for all aspects of data collection: examination of the mouth, head, and neck; diagnosis of lesions and disorders; patient interview techniques; review of medical records; interpretation of laboratory findings; and recording of data. Recorders are critical members of the research and/or surveillance team. They must fully understand, and be trained in the use and maintenance of, data collection forms.

5. The data collection system should be pretested, and forms should collect minimally essential data.

The WHO surveillance system and recording form collect internationally developed, minimally essential data. This form could provide the core elements for both epidemiological studies and surveillance programmes. Additions and modifications to this form should be tailored to meet the needs of each study or programme. Pretesting and pilot testing help to assure the development of systems and forms that are specific to, and accurately reflect, the objectives of the study.

6. Approaches to data analysis and reporting should be uniform to facilitate comparisons.

Comparisons between studies, within countries, and among countries are particularly useful for a disease such as HIV infection, which has several routes of transmission, and for which there are geographic differences in health effects and treatment of these effects. The representativeness of the findings from the study or of the surveillance programme should be assessed carefully.

7. Monitoring of quality control should be an integral part of epidemiological studies and surveillance activities.

Continuing, as well as initial, quality control is needed for monitoring activities, retraining personnel, and reevaluating data collection throughout the duration of the study or programme. Quality control is particularly critical when there are numerous examiners and recorders and multiple examination sites.

GETTING STARTED

The oral health community can play a critical role in curbing the HIV pandemic. By following the basic programme planning steps and guiding principles described in this booklet, you can maximize your own role in this global effort. The information in this booklet is designed to help you get started.

You can participate in responding to the global HIV pandemic in many ways. For example:

As a member of a team conducting a situation analysis, you could determine the capacity of your country's oral health care professionals for becoming active members of *health promotion and health education* efforts aimed at addressing the behaviors needed to prevent transmission of HIV.

You could assess current *infection control* practices in oral health care delivery settings to develop programmes to minimize transmission of HIV and other infectious agents from patient to provider, provider to patient, and patient to patient.

By evaluating *patient care* practices for conditions possibly associated with HIV infection, you could determine the minimum medications for patients and educational efforts needed for health care professionals. Through early diagnosis and prompt treatment, both quality and length of life may be extended.

Since oral health data on HIV-infected populations in your country may be limited, you may need to look for opportunities to participate in *surveillance* activities, which could lead to the development of hypotheses that could be tested in *epidemiological* research or other studies. Surveillance activities are a mandatory component of ongoing programme monitoring and evaluation, and the resources and trained personnel available for these activities need to be assessed.

For further information and queries on the WHO literature cited, contact:

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World Health Organization
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1211 Geneva 27, Switzerland

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DENTISTRY IN RELATION TO THE GLOBAL HIV/AIDS PANDEMIC

- Preamble to WHO/FDI Policy Statement on HIV/AIDS (1990)
- 1990 FDI Policy Statement

PREAMBLE TO WHO/FDI POLICY STATEMENT ON HIV/AIDS (1990)

Acquired Immunodeficiency Syndrome (AIDS), a viral-induced infection, is a major international health problem. In July 1991, the World Health Organization (WHO) estimated that, worldwide, over 8 million people may be infected with human immunodeficiency virus (HIV) and that the number of infected persons is growing so fast that the current estimate of more than 20 million infected individuals by the end of the decade will prove to be significantly underestimated. Most countries have now reported AIDS cases. To cope with this increasingly serious pandemic disease, WHO has established the Global Programme on AIDS (GPA). The current goals of GPA are to prevent new cases of HIV transmission and to unify AIDS control efforts at the national and international level.

The challenges of the HIV epidemic have brought to the forefront a number of issues for both the medical and dental professions, as well as society at large. The pandemic of HIV/AIDS is causing concern in the public and health professions regarding potential for cross-infection, that is, infection of patients by health personnel and infection of health personnel by patients. Infection control measures and guidelines in relation to treatment need to be adopted to minimize the spread of the disease and to constrain the extremely high costs of providing health care for infected persons. Infection control standards which are appropriate to the unique social, economic, and cultural variables need to be established in all countries.

Dentistry in Relation to the Global HIV/AIDS Pandemic

AIDS has numerous oral manifestations, with implications for dental care relevant to initial diagnosis and medical referral, patient education and counseling, treatment, and infection control.

Infection control in dental care is costly, but effective control will, in the long run, actually save health care expenditure.

In all countries and especially those with high HIV-infection rates, an adequately funded oral health care programme is a prudent investment and vital for research on the prevention and treatment of this disease.

Oral health is an integral component of general health. The inclusion of a professional oral examination is a vital component of an individual's overall health assessment. The majority of people who carry HIV are unaware of their infectious status. Many HIV-infected individuals present with oral lesions as their first sign of infection. Recognition of oral lesions by oral health personnel may lead to an early diagnosis and act as an index for the progress of the disease. Early diagnosis of asymptomatic, HIV-seropositive individuals and referral by a dentist to an oral surgeon or medical advice have the advantage of early treatment to improve the quality of life of the HIV-infected patient.

There is a widespread, but erroneous, perception that oral health care is only incidental to general well-being. In fact, dental health care workers have a responsibility to contribute to total health care.

Oral health personnel can provide information to the public on etiology, methods of transmission, and means to prevent the spread of HIV infection.

In 1988, Joint Working Group #14 on AIDS was formed between the WHO Oral Health Unit and Federation Dentaire Internationale (FDI). The mission of this joint working group is to foster cooperative effort on the part of all countries and professional dental organizations in developing an oral health component for national AIDS programmes.

Dentists can collect significant epidemiological data on the pattern and prevalence of HIV infection in a given country or region. This information can help countries plan public health objectives.

Both WHO and FDI support the following policy statement formulated by Joint Working Group #14 on AIDS.

1990 FDI POLICY STATEMENT

1. Ethics regarding persons with HIV infection
 - 1.1 Patients with HIV infection should not be denied oral health care because of their infection.
 - 1.2 Dentists or members of an oral health team should not refuse treatment to an HIV-infected person. It is, however, their duty to take thorough measures to protect themselves and their patients against infection.
 - 1.3 Patients with lesions potentially associated with HIV infection should be advised to undergo investigatory tests.
 - 1.4 Information regarding the disease status of patients should be kept confidential. If it is necessary to advise other providers of health care, the patient's consent should be obtained.
 - 1.5 Dentists and other oral health personnel who believe they are infected with HIV should obtain medical advice and, if found to be infected, should submit to regular medical supervision. It is the duty of such infected personnel to act upon the medical advice given, which may include the cessation of the practice of dentistry or its modification in some way.
2. Clinical infection control
 - 2.1 Infection control procedures should be based upon the assumption that any patient may have a transmissible disease.
 - 2.2 Adequate infection control procedures should be employed for all patients.
3. Relationship of oral and general health care
 - 3.1 Cooperative relationships between the medical and dental professions should be strengthened to achieve optimum health care for the HIV-infected patient.
 - 3.2 Dentists, dental hygienists, and clinical auxiliaries must be competent in the recognition of the oral manifestations associated with HIV infection, documentation of relevant medical histories, and arrangements needed for referral for the appropriate tests, counseling, and medical care.
4. Surveillance, epidemiology, and research
 - 4.1 The dental profession should be directly involved in the documentation of the HIV epidemic through participation in the WHO oral health surveillance system.

- 4.2 The WHO oral health surveillance activities should be coordinated through the WHO Global Programme on AIDS.
 - 4.3 National dental associations should encourage cooperation between national AIDS programmes and the FDI/WHO Joint Working Group #14 on AIDS.
 - 4.4 An oral health component should be included in clinical, epidemiological, and health services research studies of HIV infection.
5. Education and health promotion
- 5.1 National dental associations should be active in disseminating information to the profession regarding HIV, infection control, and the significance of oral manifestations of HIV infection.
 - 5.2 Undergraduate and graduate dental curricula should include training in the recognition, diagnosis, and treatment of oral manifestations of HIV infection control procedures.
 - 5.3 Continuing education programmes on all aspects of HIV infection should be available to all oral health personnel.
 - 5.4 Training of research personnel in methods appropriate for clinical epidemiological and health services investigations relevant to the HIV epidemic should be encouraged worldwide.
 - 5.5 The public should be informed on infection control measures and procedures that must be taken to ensure that oral care does not place patients at risk.
 - 5.6 The public should be informed of the types of oral lesions which may be associated with HIV infection.
 - 5.7 The public should be encouraged to maintain up-to-date medical histories.

SUGGESTED FORMAT FOR A NATIONAL AIDS ORAL HEALTH
PREVENTION AND CONTROL PROGRAMME PROPOSAL

SUGGESTED FORMAT FOR A NATIONAL AIDS ORAL HEALTH PREVENTION AND CONTROL PROGRAMME PROPOSAL

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, including the oral health policy, related strategies, the overall plan of action for oral health development, the oral health system design, and an assessment of the systems' capacity to absorb certain programme activities
- The national health budget, including an oral health budget, for a specified period
- An overview of the AIDS problem in the country, highlighting any findings regarding known oral manifestations in the country
- A list of strategies for the oral health communities for AIDS prevention and control
- The programme's organizational setup; the composition, role, and responsibilities of the national AIDS committee, including the oral health community's role; and intersectoral collaboration
- Constraints (manpower, logistic, financial, and other) on programme implementation, as envisaged, and the proposed solutions
- The financial resources required for the oral health prevention and control 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 of the oral health prevention and control programme

- Medium-term, defined as 3 to 5 years.

5. Strategies

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

An outline presentation of individual strategies for the oral health community would include the four focus areas of health promotion and health education, patient care, infection control, and epidemiology and surveillance.

5.1 Title (for instance, "Prevention of transmission in a dental setting")

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 approach toward implementing the strategy
- Activities (what should be done, when, and by whom)
- Milestones for implementation.

5.5 Participating institutions

National

Government
Para-government
Nongovernmental

International

United Nations system
Other

5.6 Evaluation

Should be based on the framework agreed upon jointly by the oral health community in partnership with the national AIDS committee and the ministry of health. Evaluation will provide the information required by all parties concerned.

5.7 Supplies and equipment

List of required supplies and equipment, including medicaments and educational materials.

5.8 Budgetary resource requirements (in US \$)

The part of the total programme budget that can be met from national resources should be made explicit. This, in turn, will indicate what external resources are needed. As accurate an estimate as possible should be made for the programme's first operational year, and fair estimates should be given for subsequent years.

SAMPLE BUDGET TABLE *

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

Notes:

1. The final programme document should have the appropriate cover page, table of contents, and 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 are required since detailed budget formulation will depend on evaluation of the first year.

* Adapted from World Health Organization. Guidelines for the development of a national AIDS prevention and control programme. WHO AIDS Series 1. Geneva: World Health Organization, 1988.

WHO LEAFLET AND RECORDING FORM FOR
ORAL LESIONS POSSIBLY ASSOCIATED WITH HIV INFECTION
(WHO/ORH/OMA.91)

This recording form is intended to be used by the examiner of individuals infected with or suspected to be infected with the Human Immunodeficiency Virus (HIV). The information requested for the form will be derived by a combination of questioning the individual and examination of the mouth and surrounding tissues. In addition, information from the medical/dental record may also be of use. This leaflet, together with a description of the diagnostic criteria to be applied for the clinical lesions provides the essential guidance for the completion of this form. Please read the instructions carefully.

The information on this form will be kept strictly confidential. The forms you provide will be summarized, along with those of others, by the WHO Oral Health Unit in order to monitor the changing profile of the oral manifestations possibly associated with HIV infection. Only this summary data, not individual patient data, will be presented or published.

COUNTRY

Use WHO country code, as per attached list

1. SOURCE OF DATA

- Date of Examination Day/Month/Year (Ex: 20 May 1991 = 200591)
- Name of Facility To be written in full; code will be assigned at time of data entry
- Discipline of Examiner
Health auxiliary Also includes dental auxiliary
Other Includes any person not listed
- Examiner's Training
Self-trained By reading available documentation
Special course Accredited continuing education
- Standardized Examiner has participated in a series of diagnosis exercises with an acknowledged expert
- Institution Address Private practice, clinic, health centre, research centre, or university with which examiner is affiliated
- Contact person Person to whom it will be possible to refer if any question arises or for further information

2. PATIENT IDENTIFICATION

- Registration Number This is a record number for computer storage purposes, and will not be used to identify an individual patient. The number should be defined by the originator. If the same person has a repeat examination at a later date, the same number *must* be used for each examination. The records will be differentiated using the examination date. Space is provided for up to 10 characters. This number should appear also on the tops of all subsequent pages.

<u>Birth Date</u>	Month/Year (Ex: June 1958 = 0658)
<u>Sex</u>	Gender
<u>Current Residence</u>	Use WHO country code, as per attached list.
<u>Ethnic Group/Race</u>	Use codes determined by individual country; code sheet must be provided to WHO.
<u>Country at Birth</u>	Use WHO country code

3. REASON FOR EXAMINATION

<u>Routine care</u>	Includes any non-emergency visit to the dentist, with or without the intention of receiving treatment, <u>without any suspicion</u> that oral lesions, if any, could be related to HIV infection.
<u>Emergency care</u>	Any emergency visit to the dentist, <u>without any suspicion</u> that oral lesions, if any, could be related to HIV infection.
<u>Follow-up</u>	Either the patient, or the person by whom he/she has been referred, suspects or knows about the risk of an HIV infection.
<u>Other</u>	Write code "4" and reason for referral
<u>Exam for research</u>	Code "1" (yes) if the examination is conducted as part of a research protocol involving HIV-infected persons

4. HIV STATUS

<u>Confirmed positive</u>	Code "1" and enter date of confirmation and type of test below
<u>Presumed positive</u>	Patient states that he/she is infected, but details of confirmation are not available
<u>Not positive</u>	Patient tests negative for HIV infection
<u>HIV status unknown</u>	HIV testing not conducted (If code 4, skip Section 5 and proceed to Section 6 - History.)

5. SUSPECTED MODE(S) OF TRANSMISSION

Ask the patient the question exactly as it is worded on the form. List all responses that apply.

6. HISTORY

Ask the patient the questions which are listed on the form.

7. TREATMENT/MEDICATIONS

The examiner should complete the section, indicating any medications taken within the last 30 days, by using the medical/dental record or by questioning the patient.

8. CLINICAL ORAL EXAMINATION

Each of the conditions diagnosed during the clinical examination should be coded in the appropriate box. Two additional boxes have been provided in which to record lesions or conditions not listed. The diagnostic criteria^{1,2} which are provided should be used. If an unidentifiable lesion is present, please record the color and topography of the lesion.

¹ EEC - Clearinghouse on Oral Problems Related to HIV Infection and WHO Collaborating Centre on Oral Manifestations of the Human Immunodeficiency Virus. An update of the classification and diagnostic criteria of oral lesions in HIV infection. *J Oral Pathol Med* 1991;20:97-100.

² Greenspan JS, Barr CE, Scuibba JJ, Winkler JR and the USA Oral AIDS Collaborative Group, Oral Manifestations of HIV-Infection: Definitions, Diagnosis Criteria and Principles of Therapy; *Journal of Oral Surg, Oral Med, Oral Path*; 1991.

DIAGNOSTIC CRITERIA FOR ORAL LESIONS POSSIBLY ASSOCIATED WITH HIV INFECTION

Diagnosis of the lesions listed on the WHO Recording Form for Oral Lesions Possibly Associated with HIV Infection may be based on the following clinical diagnostic criteria^{3,4}. These criteria provide guidance for the establishment of a presumptive diagnosis solely based on clinical manifestations. Clinicians wishing to obtain a definitive diagnosis will need to use additional means to substantiate the etiology or characteristic histological features. These additional procedures are included below as "notes" where appropriate.

FUNGAL DISEASE

Pseudomembranous candidiasis	Yellow-white, loosely adherent (wipeable) plaque located anywhere in the mouth. Removal leaves erythematous mucosa with or without bleeding.
Erythematous (atrophic) candidiasis	Erythematous (atrophic) macular patches on mucosal surfaces. Areas such as dorsum of the tongue which normally have papillae are often depapillated. Palatal mucosa is usually affected at the same time. Colour ranges from light pink to scarlet.
Angular cheilitis	Fissures or linear ulcers at corner of mouth. Varying degrees of inflammatory erythema. Hyperkeratosis may be present peripheral to the fissure.

NOTE: Definitive diagnosis for the above lesions includes the positive morphologic verification of candidal hyphae in smear of the lesion, including KOH, PAS-stained or Gram-stained preparations.

³ EEC - Clearinghouse on Oral Problems Related to HIV Infection and WHO Collaborating Centre on Oral Manifestations of the Human Immunodeficiency Virus. An update of the classification and diagnostic criteria of oral lesions in HIV infection. *J Oral Pathol Med* 1991;20:97-100.

⁴ Greenspan JS, Barr CE, Scuibba JJ, Winkler JR and the USA Oral AIDS Collaborative Group. Oral Manifestations of HIV-Infection: Definitions, Diagnosis Criteria and Principles of Therapy; *Journal of Oral Surg, Oral Med, Oral Path*; 1991.

BACTERIAL DISEASE

- Erythematous gingival banding A continuous band of erythema at the gingival margin at least 1 mm in width which extends across the entire tooth surface. Adjacent teeth are also often affected.
- Necrotizing gingivitis Ulcerative or necrotic destruction of the gingival tissues, often with blunting or cratering of the interdental papilla. Pseudomembrane formation may also be present. Tissue destruction is limited to gingival tissues and does not involve the alveolar bone.
- Necrotizing periodontitis Advanced necrotic destruction of the periodontium with rapid loss of periodontal attachment and alveolar bone. Necrotic bone fragments may be visibly exposed.
- NOTE: For necrotizing periodontitis, the definitive diagnosis includes documented progression of rapid tissue loss, within four weeks, and exclusion of other causes of periodontal soft and hard tissue destruction. Radiographs are required.
- Chronic periodontitis Any destructive periodontal disease with bone loss, pocket formation or tooth mobility, but not displaying signs of ulceration, necrosis or pseudomembrane formation. The condition may or may not be HIV-related.

VIRAL DISEASE

- Herpes simplex infection
- Recurrent herpes labialis Single or multiple vesicles or ulcers with crusting on the vermillion portion of the lips and adjacent facial skin. (The recurrent form may be more severe, extensive and persistent in the HIV-infected patient.)
- Herpetic stomatitis Solitary, multiple, or confluent lesions that may be noted along with vesicles on keratinized mucosa, including hard palate, attached gingiva and dorsum of the tongue. Occasionally, nonkeratinized mucosa may be involved. Round to slightly irregular margins with minimal to no erythematous halos are present.

NOTE: Definitive diagnosis of the Herpes simplex virus infections includes the demonstration of the virus by the use of tests such as immunohistochemical analysis and culture.

Epstein-Barr virus infection

Hairy leukoplakia

A vertically corrugated, slightly elevated white surface alteration of the lateral or ventral tongue margin that does not rub off. May also be seen at other oral sites, usually in conjunction with tongue lesions.

NOTE: Confirmation of the presence of herpes-type viral particles by electron microscopy or demonstration of EBV by *in situ* hybridization techniques is required for the definitive diagnosis of this lesion. Treatment by antifungal drugs may differentiate this lesion from chronic hyperplastic candidiasis.

IDIOPATHIC CONDITIONS

Recurrent aphthous ulceration

Single or multiple recurrent, well-circumscribed oral mucosa ulcers with a whitish fibrinous pseudomembrane surrounded by an erythematous "halo". Usually limited to non-attached mucosa but may extend to tissue overlying periosteum in infected patients.

Atypical ulcerations

These lesions may appear in any location of the oral mucosa. Usually they are deep, crateriform and covered by fibrin.

NEOPLASMS

Oral Kaposi's Sarcoma

One or more erythematous slightly bluish or violaceous macules or swellings with or without ulceration. Predominantly seen on the palate or the gingiva.

Non-Hodgkin's Lymphoma

A firm elastic, often somewhat reddish or purplish swelling, with or without ulceration. The gingiva and the palatal mucosa are the sites of preference.

NOTE: Examination of biopsied tissue is the only manner to obtain a definitive diagnosis for these lesions.