



PAN AMERICAN HEALTH ORGANIZATION  
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### **ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS) IN THE AMERICAS**

The document provides a summary of the HIV/AIDS situation in the Americas as well as a brief progress report on activities. It also updates the Executive Committee on several issues raised at its previous session. Of particular interest are the areas of second generation surveillance, the “building blocks” approach to care, and the prevention of mother-to-child transmission of HIV.

The Committee is requested to review the document and provide comments to assist the Organization in terms of policy definition and implementation, in particular on the following two issues: (a) strengthening of primary prevention including social communication and marketing strategies, and (b) improved responses to increasing demands for HIV/AIDS care.

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Annex

## 1. Current Situation of the HIV/AIDS Epidemic

The HIV/AIDS epidemic in the Americas has entered its third decade and continues to grow steadily. Currently, there are about 2.6 million people living with HIV in the Region: 1.3 million in Latin America, 360,000 in the Caribbean, and close to 1 million in North America. These figures continue to increase and it is estimated that between 600 and 700 people are newly infected with HIV every day in this Region. The death toll at the end of 1999 had reached more than half a million. On the other hand, the HIV epidemic in the Americas is still contained in the sense that it has not widely impacted the general population. However, there are some areas where the epidemic has reached worrisome proportions. A brief summary of the epidemic in the Region follows.

*The Caribbean.* The vast majority of HIV-positive people in the Caribbean were infected during unprotected heterosexual sex. Haiti is the most affected country in the subregion. In some studies 13% of pregnant women tested positive for HIV in 1996. The country estimates that around 10% of adults in urban areas and 4% in rural areas are infected with HIV. Guyana, Bahamas and the Dominican Republic have also been hit hard by the epidemic. Guyana found close to 7.1% of pregnant women and 46% of female commercial sex workers in the capital city of Georgetown to be HIV-positive. Bahamas showed a prevalence of 3.6% among pregnant women in 1995, and double that percentage (7.2%) in high-risk groups (patients with sexually transmitted infections [STI] nationwide). HIV prevalence among commercial sex workers averaged 5.5% in 1998 across the Dominican Republic, representing an increase from 3.3% observed only 2 to 3 years earlier.

In Puerto Rico, 24,387 cases of AIDS have been reported and 15,190 people have died from the disease. The main exposure categories are related to intravenous drug use in men (55% of cases) and heterosexual contact in women (59% of the cases).

*Central America.* Some of the countries of Central America are among the most affected by the epidemic in Latin America. In Honduras there are signs of the epidemic spreading to the general population (1.4% among pregnant women nationwide in 1998). Epidemiological studies of HIV infection among other groups, such as female sex workers in San Pedro Sula, showed that one in five was infected with HIV. In five other cities (1998) prevalence averaged 10% among sex workers. In Belize, El Salvador, and Guatemala, the epidemic is already a cause for concern (1.4% HIV prevalence among pregnant women in Belize). Other populations registered figures considerably higher, for instance, in Puerto Barrios (Guatemala) 11% of sex workers tested HIV positive compared with 4.7% in Guatemala City. In El Salvador, 6% of STI patients tested HIV positive in 1995-1996. In Costa Rica and Panama, the epidemic is greatest in men who have unprotected sex with men.

*Mexico.* The National AIDS Program estimates that there were about 174,000 people living with HIV in Mexico at the end of 1999. The epidemic continues to be driven by men that have unprotected sex with men. In some studies 14.2% of this group were found to be infected with HIV, and probably act as a bridge to the general population. The epidemic is especially severe in the 25 to 44-year age group. At present, AIDS is the third most common cause of death in men and the sixth most common cause of death in women in Mexico.

*Brazil.* The country has reported 66,636 AIDS cases and estimates that around 540,000 people were living with HIV and AIDS by the end of 1999. Most of the infections are concentrated in major urban areas and among men who have sex with men. Although the latter group continues to be important in transmitting HIV, in recent years injecting drug use has contributed significantly to the rising numbers of HIV infected people. Among pregnant women aged 13 to 24 years, HIV prevalence rates varied between 1.7% in the southeast in early 1997 to 0.2% in the north a year later. In the country as a whole, HIV prevalence among 6,290 pregnant women aged 13 to 24 tested anonymously in March 1998 was 0.4%. In sexually transmitted diseases (STD) clinics, 3.7% of male and 1.7% of female clients tested HIV positive in the same month. Among patients in hospital emergency rooms, 1.7% of men and 1.2% of women tested HIV positive.

In the *Southern Cone*, men who have sex with men and injecting drug users (IDU) continue to be the main groups affected by the epidemic. It is believed that between 5% and 10% of adults are HIV infected as a result of sharing of syringes or needles and other paraphernalia used by IDU. Injecting drug use is responsible for the shifting of the epidemic toward a younger age group (from 30-49 to 20-34 years), and for the growing numbers of women being infected, which increased from no cases in 1985 to more than 20% of cases in 1996. Particularly in Argentina, IDU has played a substantial role in the spread of the epidemic almost from its start, and since 1990 it is the most prevalent risk category. In the latest figures IDU accounted for more than 40% of the reported AIDS cases. Chile has found only limited HIV infection in the general population in several areas of the country, including Santiago, the capital city, where risk behavior is thought to be highest. Among pregnant women between 1992 and 1997, HIV prevalence rates have remained below 1 per 1000. In Uruguay, similarly low rates were recorded among over 8,000 workers tested in 1997. Just 0.26% of samples tested were HIV positive.

The *Andean Area* seems to be relatively little affected by HIV to date, although there is no room for complacency since risk behavior is well established in several countries. Colombia estimated that 67,000 people were living with HIV in 1998. The overall seroprevalence rate was 0.24% in a large national campaign (130,000 people tested) to promote counseling and voluntary HIV testing in the mid 1990s. Since the

beginning, the epidemic has affected mainly men. However, the male to female ratio decreased from 37:1 in 1987 to 5:1 in 1998. In the highlands, HIV is spread principally through unprotected sex between men, while in coastal areas the epidemic is largely driven by unprotected heterosexual sex. In 1996, Bogotá had a prevalence of 0.1% among pregnant women compared to 0.4% in Cali. In Peru, HIV prevalence among pregnant women was 0.23% and 0.07% among blood donors in 1998. Among high-risk groups, an ongoing study of sex workers found 1.6% HIV positive in Lima and 0.6% in the provinces. In all groups prevalences were higher in cities than in rural areas. In Bolivia, regular sentinel surveillance among pregnant women found little HIV infection. In 1997, just 0.5% of 980 pregnant women tested positive for HIV. Among female sex workers tested in Santa Cruz, only 0.3% were found to be HIV positive in 1998.

In *North America* the wide use of combination antirretroviral therapies has had a positive impact on mortality and in delaying the progression of HIV infection to AIDS. Of the more than 700,000 AIDS cases reported in the United States up to June 1999, almost 90% of cases were in men who had sex with men (MSM) and/or injecting drug users. Only 10% were attributed to heterosexual transmission. Recent trends of HIV infection have disclosed that both groups (MSM and IDU) continue to be the most affected groups, although heterosexual transmission among women has continued to increase. These trends are particularly noticeable in inner cities and among marginalized groups. In Canada, HIV prevalence is very low, but HIV transmission is increasingly related to heterosexual contact and injecting drug users as the principal sources of transmission. At the beginning of the epidemic (1985), sex between men used to account for most of the HIV cases (75%); 10 years later only 36.5% of cases continue to be related to this category. In contrast, injecting drug use, which in 1994 accounted for only 9% of the cases, is at present between 29% and 33.5% of all HIV infections. The sex ratio of newly reported HIV cases went from 9.4 infected men for every infected woman in 1985 to 1.5 by 1998.

In general the HIV/AIDS epidemic in the Americas continues to be a mosaic of smaller and still discrete epidemics that need to be addressed more forcefully to prevent them from becoming generalized in the Region.

## **2. Strategies and Benefits of Primary Prevention**

The need to provide quality care to people living with HIV/AIDS is unquestioned, but the emphasis on simplistic approaches that neglect the more basic and affordable interventions has created dilemmas of resource allocation to face the AIDS epidemic. There is a widespread belief that health care equals curative interventions. In addition,

many people believe that AIDS has already become a chronic, manageable condition and that there is no longer a need to avoid high-risk sex and drug use. However, behavioral interventions continue to be the cornerstone for controlling the HIV/AIDS epidemic.

In recent years a special emphasis has been placed on educational interventions for the promotion of sexual and reproductive health in which, rather than focusing on disease and dysfunction, the value and advantages of healthy lifestyles are stressed. As examples, Colombia launched an initiative for the incorporation of sex education in school curricula which puts the accent on the positive aspects of human sexuality and promotes the development of healthy sexual attitudes and behaviors. The Regional Program on AIDS has developed, in collaboration with a United States university, a model for promoting healthy sexual behaviors among men who have sex with men. This model ("Face to Face") has already been piloted among Latino men in the United States and participants from Latin American and Caribbean countries.

Behavioral interventions, which combine formal education strategies with social communication initiatives and face-to-face interactions such as counseling and peer education have proven to be most effective in preventing HIV/AIDS. A well-informed public has a greater probability of adopting preventive practices if the intervention is appropriate for that particular target group. Costa Rica, Jamaica, Mexico, Venezuela, and Peru have developed interventions in which the provision of factual information and face-to-face education are effectively combined to stimulate positive behavioral changes among groups of commercial sexual workers, men who have sex with men, armed forces personnel, and youth on the streets. Awareness raising campaigns developed in Brazil are also good examples of how core messages can be tailored to specific situations (e.g. Carnival, World AIDS Day, etc.) as well as target populations (e.g. youth, tourists, men who have sex with men).

In summary, prevention and comprehensive care should not be seen as competing areas but as vital parts of a health continuum that should serve to curb the further spread of HIV infection while meeting the needs of those already infected. Better integration of care and treatment services, including those for STD and substance abuse, would allow Member States to take advantage of multiple opportunities for prevention: first, to help the uninfected stay that way; second, to help infected people stay healthier; and third, to help those who are infected to initiate and sustain behaviors that will prevent further HIV transmission.

Finally, and as part of primary prevention, it is becoming increasingly evident that a vaccine would offer hope to control the pandemic in the future. Thus far, most HIV candidate vaccines have been based on the gp 120 or gp 160 proteins of subtype B HIV-1 strains, which are prevalent in the Americas and Western Europe. Candidate vaccines

have also been developed based on subtype E strains, and these are being tested in Thailand, where this subtype affects most population groups. Other candidate vaccines are being designed to induce cell-mediated immunity (as opposed to producing antibodies); using live recombinant vectors (chiefly poxvirus-based vectors, such as complex multi-gene canary poxvectors) and, more recently, naked DNA immunization. In the future, collaborative vaccine trials will have to be conducted in both industrialized and developing countries to assess the protective efficacy of different candidate vaccines. However, a future vaccine will not be the single solution to the HIV/AIDS pandemic. Even if effective and inexpensive HIV vaccines become widely available, these vaccines would have to be delivered as part of comprehensive HIV prevention packages, including other social/behavioral interventions.

### **3. Prevention of Mother-to-Child Transmission**

Mother-to-child transmission (MTCT) is the most significant source of HIV infection in children below the age of 10 years. At the end of 1999, the ratio of HIV transmission between males and females in the Region was 2.2 males to every female. This is significant as it illustrates the increasing rate of heterosexual transmission of HIV and its subsequent impact on the number of pediatric AIDS cases through the concomitant increase in the transmission of HIV from mother to child. As of February 2000, 26,809 pediatric cases had been reported in the Region. This figure represents 2.7% of all reported AIDS cases. The situation is particularly worrisome in the Caribbean, where the magnitude of the epidemic is second only to sub-Saharan Africa. Data indicate that young mothers age 15 to 24 years (Belize, Guyana, Jamaica, Trinidad and Tobago) are particularly vulnerable to HIV infection compared to older age groups. These women are also most likely to have multiple births.

Many studies conducted worldwide show the rate of MTCT of HIV, in the absence of preventive interventions, to be between 25% and 45% in developing regions (most estimates are between 30% to 35%). Two thirds of infants who contract HIV are infected in the prenatal or intra-partum period, and one third are infected post-partum due to breastfeeding. From experiences worldwide, we have learned that there are several interventions that are effective in reducing the rate of MTCT. These include the provision of voluntary and confidential counseling and testing, antiretroviral (ARV) therapy (Zidovudine [AZT] or Nevirapine), proper nutrition, alternatives to breast feeding, intrapartum management, management of sexually transmitted infections, elective cesarean section and vaginal lavage. The opportune provision of these interventions has resulted in a dramatic reduction of perinatal transmission from 25% to 8% or less.

The major challenge in containing HIV transmission from mother-to-child is not only providing a comprehensive package of interventions to all pregnant women, but also ensuring that those women present themselves for care prior to 36 weeks gestation in order to be offered a full range of preventive options (voluntary and confidential counseling and HIV testing, nutritional interventions, antiretroviral therapy). All pregnant women must be ensured of early access, preferably in the first trimester of pregnancy, to good quality antenatal care and receive good intrapartum and postnatal care, as well as follow-up and support services for themselves and their children. At the present time, Argentina, Bahamas, Barbados, Belize, Bermuda, Brazil, Chile, Cuba, Dominican Republic, Jamaica, Mexico, and Uruguay, among other countries are committing significant resources to successfully prevent MTCT of HIV. In many of these countries, AZT is provided to pregnant women free of charge, but is sometimes not provided after birth. Increased efforts are still needed to ensure the comprehensive and long-term care of women and children, especially in countries that have yet to implement this cost-effective and successful strategy.

#### **4. Responding to the Challenge of Increasing Demands for Care**

One of the goals of HIV/AIDS comprehensive care programs is to achieve equity in the provision of care. For this purpose the design of HIV/AIDS care programs and their monitoring and evaluation should be based on minimum standards.

The Pan American Health Organization has convened a series of expert consultations to define what types of interventions and responses can be provided in relation to resource availability. Three different scenarios were envisaged and the minimum standard of care that countries should strive to achieve was delineated within a scenario defined as *resource-limited setting*. In this setting, testing and basic medications are available in a limited amount, at all health care levels. If more resources (physical infrastructure, financial and technical resources, support services) and skills (trained health providers and caregivers) become available, two improved scenarios are presented, namely *resource-competent settings* and *resource-optimal settings*. Within these three scenarios, the wide range of activities necessary to meet the medical, social, and emotional needs of persons living with HIV/AIDS are incorporated as "building blocks" into the complex structure of comprehensive care programs. The "building blocks" approach intends to achieve equity, effectiveness, efficiency, and quality care for persons living with HIV/AIDS in the community and household and in the primary, secondary, and tertiary care levels of the health system. Also contemplated is provision of necessary pharmaceuticals, including antiretroviral (ARV) drugs (Annex).

To facilitate access by Member States to state-of-the-art pharmaceutical products, a Regional Fund for Strategic Health Supplies will be established which includes



antiretroviral drugs and reagents for monitoring antiretroviral treatments. The Regional Program on HIV/AIDS and STD has been responsible for preparing a detailed preliminary list of antiretroviral drugs, based on existing national lists and updated information about pharmaceutical products that should be incorporated into combined schemes of therapy. The Fund will first be launched as a pilot in one country. If this is successful, the Fund will operate for a larger number of countries until it will ultimately respond to the requests from all the countries in the Region that wish to participate.

## **5. Progress Report and Future Prospects**

PAHO has continued to develop strategic alliances and work with key partners in the fight against HIV/AIDS/STI in the Region. Thus, in 1999 PAHO undertook a leading role in coordinating the United Nations Systems (UNAIDS) integrated planning in support of national responses to HIV/AIDS. PAHO worked closely with governments (ministries of health) and key partners (international and bilateral agencies, universities, nongovernmental organizations and community-based organizations) to promote consensus, active participation, and commitment to integrated planning. During 1999, integrated interagency planning took place in Central America, Chile, Colombia, Jamaica, and Mexico. Meetings of the Caribbean Task Force on HIV/AIDS were held in June 1999 (Antigua) and March 2000 (Trinidad) to develop the Pan-Caribbean Regional Strategic Plan for HIV/AIDS/STI (1999 to 2004).

In the area of epidemiology, efforts were concentrated in implementing second generation HIV/AIDS surveillance, which integrates a behavioral component as well as STI's and molecular surveillance to the already functioning AIDS case reporting and HIV sentinel surveillance. To disseminate the principles of second-generation surveillance, PAHO helped establish and actively strengthened epidemiological networks, including a Regional surveillance network (EpiNetwork). During 1999, subregional HIV/AIDS networks became functional in the Southern Cone, the Andean Area, and Central America and efforts were initiated to develop a Caribbean network.

As mentioned before, in 1999 the *Building Block Framework* (Annex) for HIV/AIDS comprehensive care was finalized. This framework serves as another example of a successful joint planning effort and was developed in collaboration with WHO, UNAIDS, and the International Association of Physicians in AIDS Care (IAPAC).

By the end of 1999 regional training in the syndromic management of STIs had been completed, with all countries participating. Country specific requests have also been addressed for training to be conducted at the primary health care level in Argentina, El Salvador, Haiti, and Paraguay. In addition, second generation STI surveillance guidelines were reviewed and endorsed at a Regional workshop in April 1999 and will

serve as a practical tool to improve STI surveillance in the Americas. The PAHO/WHO Secretariat has also developed various documents based on WHO's STI-PAC strategy to ensure that prevention messages and practices are incorporated into comprehensive prevention and care initiatives.

During 1999, several countries began developing or were already implementing programs to reduce the transmission of HIV from mother to infant. These include Belize, Dominican Republic, and Jamaica. Belize has developed a national strategy for MTCT and will pilot test interventions, including the provision of ARVs, before wider country implementation. Jamaica has initiated a pilot project to assess the feasibility of prevention of MTCT of HIV. Several countries in Central and South America are requesting technical guidance from PAHO in the planning, development, implementation, and evaluation of MTCT interventions.

In 1999, the Director made a special commitment to renew the regional efforts to promote social communication and marketing strategies to elicit behavioral changes conducive to the adoption of safer sex practices, especially among young people. The recruitment of a full time professional is in process and PAHO is seeking the involvement and collaboration of UNAIDS, other institutions and governments in supporting this renewed Regional effort.

Despite progress made by the countries, other institutions and the PAHO Secretariat, more effort is needed to reduce the spread and impact of the HIV/AIDS epidemic in the Americas. Overall, there is a major need to strengthen the national and local capacity to better assess the HIV/AIDS/STI situation, the risk behaviors associated with their transmission, and the factors that hamper their prevention and control. Most importantly, the presence and further development of a strong national leadership, the ability to mobilize resources and establish multiple partnerships and alliances, and the broad-scale application of technically, ethically and scientifically sound interventions remain as the most vital components of a successful fight against HIV/AIDS/STI in the Americas.

Annex

## BUILDING BLOCK FRAMEWORK

To determine the standards of care in any particular setting, three different dimensions that influence the choice of standards must be considered.

- The *first dimension* deals with the technical aspects of the intervention to be provided and is determined by the efficacy and effectiveness of the specific interventions.
- The *second dimension* is determined by the social and contextual factors that make efficacious interventions functional under operational conditions.
- The *third dimension* involves the setting of standards and is determined by the level of the health care system providing such interventions (e.g., home care, communities, health clinics, hospitals, tertiary referral centers).

The standards and norms of care should be defined in each country, for each level of services, and for each population affected. Although there may be universal standards, it is important to emphasize that local standards should reflect the best care obtainable in current local circumstances.

APPROPRIATE HIV/AIDS CARE
<ul style="list-style-type: none"><li><input type="checkbox"/> Screening and Diagnostic Services</li><li><input type="checkbox"/> Counseling and Psychosocial Support</li><li><input type="checkbox"/> Community Education and Participation</li><li><input type="checkbox"/> Prophylaxis and Treatment of Opportunistic Infections and other Infections</li><li><input type="checkbox"/> Nutritional Interventions</li><li><input type="checkbox"/> Management of Sexually Transmitted Infections</li><li><input type="checkbox"/> Management of HIV in Obstetrical/Gynecological (Obs/Gyn) Practice</li><li><input type="checkbox"/> Management of Pain and Palliative Care</li><li><input type="checkbox"/> Antiretroviral Therapy</li><li><input type="checkbox"/> Antitumor Therapy</li><li><input type="checkbox"/> Neurological and Psychiatric Care</li><li><input type="checkbox"/> Management of Addictions</li><li><input type="checkbox"/> Surgical Procedures</li><li><input type="checkbox"/> Management of Sexual Complaints and Dysfunctions</li></ul>

The proposed scenarios are:

**Scenario I:** In this setting, testing and basic medications (e.g., tuberculosis (TB) prophylaxis, palliative care) are available in a limited amount at all levels of the health system (primary, secondary, tertiary). Interventions are focused on *secondary prevention* activities (i.e., prophylaxis of opportunistic infections, and avoidance of potentially harmful behaviors) to avoid further physical deterioration and provide symptomatic relief. Antiretroviral (ARV) therapy is available for the prevention of mother to child transmission (MTCT) at the secondary level of the health system.

**Scenario II:** In this setting, testing and drugs are available at all levels, including some ARVs at the secondary level of the health system. All Scenario I services are provided plus the etiologic treatment of opportunistic infections. Some excessively expensive drugs, such as antitumor medications, are not available at the primary and secondary levels of the health system.

**Scenario III:** In this setting, all of the above services are provided plus ARV therapies and specialized services.