ited areas where AIDS is more prevalent.

In Europe, Australia, and New Zealand, as in the Americas, most AIDS cases have occurred among homosexual and bisexual men and intravenous drug users between the ages of 20 and 49. The proportion of cases acquired through heterosexual contact in these areas is estimated at about 5%. In Africa, however, heterosexual transmission is a major factor in the spread of HIV, along with transfusion of unscreened blood and use of unsterilized needles or syringes. Perinatal transmission is also a significant problem in Africa. In some urban areas, HIV infection has been found in up to 20% of pregnant women.

**Outlook for the Future**

In the coming years, the situation will get worse. The number of people infected with HIV is increasing, since transmission is still taking place. The vast majority of infected people will progress to disease. Thus, given the long period between infection and disease, the number of cases of AIDS will continue to increase for some time in spite of prevention efforts already under way.

This disease will have repercussions for the basic legal, moral, and religious principles of society. Its impact on health care services and the burden that caring for affected people will place on society will be enormous. In economic terms alone, the cost would be very high even if an effective preventive measure were found tomorrow. AIDS cannot be approached with a traditional vertical disease-control mentality. Community participation, full commitment on the part of the health sector and other sectors such as education and finance, and planning for the future will be essential to minimize the impact of AIDS on all societies.

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**The World Health Organization’s Global Program on AIDS**

As many as 100 million persons may be infected with HIV by 1991. As many as three million new AIDS cases may occur between 1987 and 1991 among persons already infected by HIV in 1986. No vaccine will be available for widespread use. For each AIDS case, there may be up to 100 HIV-infected persons.

Even accepting that these projections are tentative and issued with great caution pending the collection and analysis of more worldwide epidemiological data, the numbers are still staggering. Without question, the epidemic of infection by HIV and related retroviruses is an international health problem of extraordinary scope that demands unprecedented and urgent global responses. The World Health Organization (WHO), fulfilling its constitutional mandate to direct and coordinate international health, has responded by establishing its Global Program on AIDS (GPA).

In late 1983, as soon as it became clear that AIDS was a worldwide health problem, WHO began to consider how it could best confront this epidemic. By early 1986, having determined that an AIDS program would be useful, a small unit was set up at the Organization’s headquarters in Geneva. In May of that year, the World Health Assembly, in res-
olution WHA39.29, requested that the Director-General search for ways to increase the scope of the Organization's cooperation with its Member States and mobilize extrabudgetary resources for this purpose. In January 1987, the WHO Executive Board supported the priority granted by WHO to this global health problem by endorsing the strategy adopted for the then Special Program on AIDS. The Program was formally established on 1 February 1987, and during its short existence, it has amassed an impressive list of accomplishments: It has designed a global AIDS strategy, has raised funds to implement it, and has garnered the support of all nations.

The Program's goals, strategy, and activities, as well as its operational organization, reflect current knowledge of the HIV pandemic and are designed to reduce, and ultimately stop, the spread of the disease and to foster, gather, and exchange new information in order to better understand the epidemic, to accurately predict its course in the future, and to help develop new and better ways to fight it.

GPA has three goals—preventing new HIV infection; caring for those already infected, both medically and in terms of support and counseling; and harnessing all national and international efforts toward the struggle against AIDS. These goals are guided by two major thrusts: first, to support national AIDS prevention and control programs, and second, to provide global leadership and foster international cooperation and collaboration.

Since AIDS will not be stopped in any single country unless it is stopped in all countries, the Global Program's direct support to countries for establishing or strengthening national programs is critical to its global AIDS fight. WHO has designed a blueprint for such programs and provides both technical and financial support to countries throughout the world. To date, national AIDS committees have been established in more than 150 countries. Out of 136 countries that have requested collaboration, Global Program staff have visited 115, and the remaining 21 visits were scheduled for the third quarter of 1988. The Program also has completed more than 300 consultant missions which have resulted in 80 short-term (6-12 months) and 22 medium-term (3-5 years) national program plans; 31 additional countries are currently working toward medium-term plans. Throughout the world, national AIDS programs are being rapidly established with the Global Program's technical and financial support.

Support for national programs must be coupled with strong international leadership. So that the best information on AIDS can be shared worldwide, GPA collects and exchanges information on cases, on studies of virus infection, and on issues of social and behavioral practice. In collaboration with world-renowned scientists, the Program has generated guidelines and consensus statements on issues such as HIV and international travel and on screening criteria for HIV infection. A global AIDS data bank has been organized to allow for the vital exchange of information as the disease is tracked. In addition, the Program also has pursued joint efforts with other WHO units and programs, with United Nations agencies, with international finance agencies, and with nongovernmental organizations. Some of these efforts will investigate the economic and demographic impacts of AIDS, as well as modeling the epidemic to help predict its future course.

The Program's conceptual framework is embodied in six strategies: prevention of sexual transmission, prevention of transmission through blood, prevention of perinatal transmission, prevention of transmission from HIV-infected persons...
through use of therapeutic agents, prevention of HIV transmission through the development and delivery of vaccines, and reduction of the impact of HIV infection on individuals, groups, and societies. Epidemiological studies throughout the world have identified only three ways in which the HIV virus spreads from person to person—by sexual contact, whether heterosexual or homosexual; by parenteral contact with contaminated blood, blood products, or donated semen and organs; and from mother to child before, during, or shortly after birth. This information is invaluable because it shows how new HIV infections can be prevented; the first three strategies address this. Efforts to develop therapeutic agents to reduce or eliminate HIV in infected persons and, ideally, to develop a vaccine capable of protecting persons against HIV infection should be emphasized; the fourth and fifth strategies deal with this. Even though no vaccine seems possible for the near future, the first candidate AIDS vaccines have been prepared with unprecedented speed, and initial human studies are already under way. In addition, remarkable progress has been achieved toward treating AIDS with drugs such as zidovudine (AZT). Finally, the sixth strategy addresses what has been called by some “the third AIDS epidemic,” the epidemic of economic, social, political, and cultural reaction to HIV infection and to its subsequent and inevitable progression to AIDS.

The national program support component is charged with providing technical and financial support to Member States, in collaboration with Regional Offices, in the planning, design, implementation, strengthening, monitoring, and evaluation of all components of national AIDS prevention and control programs. The surveillance, forecasting, and assessment unit is responsible for collecting, analyzing, and disseminating data that will subsequently be used to assess the future impact of AIDS on health care systems, national economies, and demographic patterns.

The health promotion component develops, promotes, and helps design, implement, and evaluate health promotion efforts that use behavioral change strategies and communication techniques. This component has pursued joint educational efforts with other United Nations agencies as well as other governmental and nongovernmental organizations, has organized an exhibit, and has developed a brochure and poster with the message “AIDS: A worldwide effort will stop it.” Other activities include the publication of a quarterly newsletter, AIDS Health Promotion Exchange, intended for health education professionals working in national AIDS prevention and control programs. This newsletter emphasizes the exchange of innovative ideas and reports on the results of health promotion programs. The Royal Tropical Institute in the Netherlands is collaborating with the Program to produce this publication.

Three organizational components—social and behavioral research, biomedical research, and epidemiological support and research—are charged with coordinating, promoting, and supporting research and development in their respective fields. Social and behavioral issues have been given special prominence, including questions such as perceptions of AIDS and responses to it,
educational strategies to prevent AIDS transmission, and the disease’s impact on demography and on social structures, especially families. A consultation convened in May 1987, which gathered 20 participants, including epidemiologists, psychologists, anthropologists, social demographers, and economists from 12 countries, identified four major research areas: high-risk behavior and situations, perception and knowledge in relation to behavior and risk, responses to epidemics—traditional and anticipated, and the effect on family life and social structures. The social and behavioral research unit of GPA has established multidisciplinary technical working groups to further develop a wide spectrum of research or training areas. Several institutions are also being assessed for designation as WHO collaborating centers in this area. The unit also has addressed such issues as sexual behavior and HIV transmission, prostitution and HIV transmission, and intravenous drug use and HIV infection. The Global Program has a unique potential to provide a global forum for the exchange and validation of technical information and expertise, and it can facilitate the development and improvement of diagnostic reagents and antiviral agents and vaccines, as well as their safe and ethical transfer to all countries in the world. Among other efforts, the biomedical research component has worked to coordinate vaccine development, to help assess and exchange reagents needed for biomedical research, to evaluate diagnostic assays for HIV infection, and to help develop new techniques for laboratory diagnosis of HIV infection.

In addition to these operational components, the Program counts on two important additional sources of support. A Global Commission on AIDS has been constituted, bringing together experts in health, social, economic, legal, ethical, and biomedical fields to review and interpret global trends and developments related to HIV and other human retrovirus infections; to conduct scientific, technical, and operational reviews and evaluations on the content and scope of the Program; to provide expert guidance for global activities; to advise WHO’s Director-General on priorities in the Program’s scientific and technical components; and to provide the Director-General with a continuous evaluation of the scientific and technical aspects of the Program. The other source of support rests on WHO’s Collaborating Centers on AIDS. Support activities from these designated centers include assisting Member States in initial studies or surveys on AIDS; assisting countries to develop laboratory capabilities by providing technical expertise, training, and proficiency testing; providing reference materials and reagents; and conducting quality control for national reference laboratories. To date, there are collaborating centers in each of the six WHO Regions.

The following paragraphs highlight some of the Global Program’s salient activities during 1987 and 1988.

World Summit of Ministers of Health on Programs for AIDS Prevention. WHO and the Government of the United Kingdom jointly organized the summit in London, in January 1988. The meeting, attended by 114 Ministers of Health, delegates from 148 Member States, and representatives of organizations within the United Nations system and from other intergovernmental and nongovernmental organizations, unanimously endorsed the "London Declaration on AIDS Prevention," which states that with no vaccine or cure for AIDS, "the single most important component of national AIDS programs is information and education." The summit declared 1988 a year of com-
municating and cooperation about AIDS, and the Director-General announced that 1 December 1988 would be "World AIDS Day." (See pp. 234–236 in this issue for a report on the summit.)

WHO/United Nations Development Program (UNDP) alliance to combat AIDS. To ensure the best possible coordination among all those working to combat AIDS, to address the concerns of many countries about uncoordinated or inappropriate offers of external assistance, and to respond to the insistence of donor agencies for well-coordinated activities in countries as a prerequisite for their support, WHO's Director-General has completed negotiations with the Administrator of UNDP to combine the strengths of that agency and the Global Program on AIDS.

World Bank. The World Bank is collaborating with the Program in studies on the economic impact of AIDS in the developing world and on the demographic impact of AIDS. During the first quarter of 1988, the initial development phase was completed of a model for estimating direct-treatment costs and indirect costs from years of social and economic productivity lost due to HIV infections and AIDS.

Global Blood Safety Initiative. The Global Program on AIDS is coordinating a Global Blood Safety Initiative to safeguard blood from the possibility of serving as a vehicle for transmission of HIV and other viruses such as hepatitis. The initiative will soon be launched by a consortium of participants, including the Program, the WHO Health Laboratory Technology unit, the League of Red Cross and Red Crescent Societies, the International Society for Blood Transfusion, and the UNDP. This effort is based on the conviction that a long-term reduction in the transmission of diseases, including HIV infection, through blood can only be effectively achieved by establishing blood transfusion systems capable of implementing adequate quality-control measures, including screening, on a routine and sustained basis. UNDP has made a pledge of US$700,000 to the Program for the initial costs of this activity.

Criteria for screening programs for HIV infection. A meeting to consider the complexities of screening for HIV infection was convened by the Global Program in Geneva, in May 1987. Twenty-one participants from 17 countries attended the meeting, including epidemiologists, virologists, experts in legal medicine and ethics, social and behavioral scientists, and disease control specialists. The meeting developed a comprehensive list of criteria which should be closely observed in the planning of any HIV screening program. These criteria are designed to serve public health interests while protecting human rights.

WHO Collaborating Centers on AIDS. In June 1987, the third meeting of the collaborating centers was held in Washington, D.C., where three consensus statements were adopted on transmission of HIV, HIV infection and health workers, and present and future developments in laboratory testing for HIV. The collaborating centers have been working with the Program in training laboratory workers, preparing documents, evaluating test kits, and preparing and standardizing reagents and reference material. Several centers have provided technical support for epidemiological assessments in some African countries and the formulation of short-term plans of action.

Prevention of HIV transmission through injections. In July 1987, the
Global Program convened a meeting within WHO on preventing HIV transmission through injections and other skin-piercing procedures. In a "note verbale" issued to all ministers of health in Member States, the Director-General recommended, among other things, that injections and other skin-piercing procedures be restricted to situations where there is no other alternative.

**HIV and routine childhood immunization.** To address concerns regarding immunization of children who are HIV infected, a consultation was jointly sponsored by the Global Program on AIDS and the Expanded Program on Immunization (EPI). The meeting, held in Geneva in August 1987, was attended by 13 participants from eight countries and included immunologists, virologists, disease control specialists, infectious disease specialists, and experts in immunization and epidemiology. Participants endorsed the recommendation of EPI's Global Advisory Group to immunize HIV-infected children with EPI antigens, except for those with clinical manifestations of AIDS, for whom BCG is to be avoided.

**Prevention and control of AIDS in prisons.** In November 1987, in Geneva, a consultation on prevention and control of AIDS in prisons was convened by the Program. The meeting developed a detailed consensus statement specifying that the general principles adopted by national AIDS programs should apply to prisons.

The struggle against AIDS in the future will, most assuredly, make increasing and more wide-ranging demands on individual countries. WHO's Global Program on AIDS has shown what can be done in a short time when individual countries' efforts are unified.

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**The Response to AIDS in the Region of the Americas**

Even before the formal organization of the Global Program on AIDS (GPA) by the World Health Organization in early 1987, countries in the Americas were beginning to develop a wide variety of activities for the prevention and control of HIV infection and AIDS. In 1987 and 1988, the Pan American Health Organization (PAHO) collaborated with nearly all the countries in the Region of the Americas to consolidate those activities into national AIDS prevention and control programs. These programs, which can be differentiated into short-term programs (encompassing 6 to 12 months) and medium-term programs (covering 3 to 5 years), follow the general guidelines developed by WHO for AIDS prevention and control strategies. Every country in the Region now has at least a short-term program in operation, and PAHO is providing technical collaboration in the preparation of medium-term programs.

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Abstracts and Reports 151