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Plan for International Activities to Prevent and
Control Human Immunodeficiency Virus (HIV) Infection and the
Acquired Immunodeficiency Syndrome (AIDS)

January 21, 1988

Centers for Disease Control
U.S. Public Health Service
Department of Health and Human Services

Introduction

Since the acquired immunodeficiency syndrome (AIDS) was first recognized in 1981, it has been reported worldwide and has resulted in severe health and economic consequences. The detrimental effect of AIDS has been global, but its effect in some developing countries has been the most dramatic. Currently, the World Health Organization (WHO) has reported over 60,000 cases of AIDS in 124 countries and estimates that 5 to 10 million persons are currently infected.

The urgent need for a global effort to combat AIDS is clear. The 1986-87 World Health Assembly charged WHO to provide leadership in the global struggle against AIDS. WHO has quickly assumed this role as the lead agency to coordinate the international prevention and control of human immunodeficiency virus (HIV) infection and AIDS. WHO's strategy is broad and responds to country-specific needs including:

National Programme Support

To provide 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 programmes.

Health Promotion

To develop, promote and assist in the design, implementation, monitoring, and evaluation of health promotion interventions which utilize behavioural change strategies and communication techniques.

Research and Development

To coordinate, promote and support biomedical, epidemiological, social, behavioural and operational research and development.

Surveillance, Forecasting and Impact Assessment

To promote, support and coordinate the data collection and analysis to describe current and predict future HIV infection trends, along with associated social, economic and demographic impacts and implications for intervention.

The current international needs for assistance to combat AIDS far exceeds the present resources of WHO, and the needs are expected to increase substantially in the near future. It is through the coordinated assistance of international agencies and institutions that many of the unmet needs can be addressed.

The Centers for Disease Control (CDC) has considerable experience in working with WHO, the U.S. Agency for International Development (A.I.D.) and developing countries in the prevention and control of diseases of international public health importance. Examples include CDC's involvement in the Smallpox Eradication Program, the Combatting Childhood Communicable Diseases (CCCD) Program, the Expanded Program on Immunizations (EPI), and the

programs to prevent and control diarrheal diseases, malaria, tuberculosis, and health problems related to famine and displacement. The legislative authority for CDC's involvement in international health is clearly defined in the PHS Act (42 U.S. Code 241, 242b; sections 301, 307) and the International Health Research Act of 1960 (22 U.S. Code 2103). Under this Act, CDC is able to conduct "research, investigations, experiments, demonstrations, and studies relating to the causes, diagnosis, treatment, control and prevention of physical and mental diseases and impairment of man. . ."; "to advance the international status of the health sciences through cooperative enterprises in health research, research planning, and research training"; and "to encourage, support, and promote the planning and conduct of, and training for, research investigations, experiments, and studies in participating foreign countries relating to the causes, diagnosis, treatment, control, and prevention of diseases and impairments of mankind."

There are several additional reasons for CDC to increase its international role in the prevention and control of HIV infection and AIDS: (1) The U.S. has the largest number of reported cases of AIDS in the world. As such, the U.S. has developed the largest pool of technical expertise and can therefore play an important role in assisting other agencies and countries in measures to prevent and control this global epidemic; (2) As long as the incidence of HIV infection remains unchecked internationally, there will be adverse economic and political consequences for the U.S. and the rest of the world; (3) HIV infection may have a severe detrimental impact on existing CDC international health programs for other diseases, both by directly affecting these diseases and by diversion of already limited resources; (4) In some areas of public health, CDC has the expertise or resources which can be applied to develop or implement prevention and control programs; (5) CDC has well established communication and collaborative networks with other international agencies and institutions providing the necessary infrastructure for international programs.

CDC is presently involved in a major long-term AIDS project in Kinshasa, Zaire (Projet SIDA) which has led to a greater understanding of the epidemiology of AIDS in Africa. In FY 1987, AIDS Program staff, at the request of SPA/WHO, made 14 trips to Geneva to provide technical assistance. In addition, CDC has responded to requests for assistance in Brazil, Rwanda, Haiti, Mexico, Sudan, Guinea, Burkina Faso, Ivory Coast, Tanzania, Uganda, Federal Republic of Germany, and Japan. To further provide assistance and a focal point for coordination of epidemiology and research in international AIDS, the AIDS Program of CID has recently developed an International Activities office. CDC international AIDS activities (FY 1987) and objectives (FY 1988), from reports by Centers/Offices, are provided in Appendices A(1) through A(4).

This document is a description of the areas of expertise within CDC which can be applied to the international AIDS effort, the past and current CDC international AIDS activities, and the initial plan for assisting WHO, A.I.D., and other agencies or countries in the international effort to prevent and control HIV infection and AIDS.

Areas of Expertise at CDC Which May Be Applied to International AIDS

In the following areas CDC has had experience in domestic AIDS programs and is able to assist WHO internationally in developing programs to prevent and control AIDS:

I. Epidemiology and Laboratory Science: CDC has traditionally maintained capability in the design, implementation, and analysis of epidemiologic and laboratory studies. Of great importance in this area is the development of surveillance systems to monitor the prevalence and incidence of HIV infection in specific populations or regions, as well as studies to define modes of transmission, risk factors for infection or development of AIDS, high risk populations, disease linkages (opportunistic infections or other conditions associated with AIDS); all of which are important for developing strategies to prevent and control HIV infection and AIDS. CDC provides the laboratory support for the extensive serologic and immunologic tests necessary to conduct these surveys. CDC has often assisted in establishing the laboratory itself or in training laboratory personnel so studies can be conducted. In addition, sophisticated laboratory-based research for the development of new methodologies of detecting HIV and other retroviruses and evaluation of diagnostics is very important. However, it must be noted that the current service and research commitment for the U.S. AIDS problem has placed very heavy ongoing demands on these resources.

II. Prevention and Control: CDC has had longstanding and extensive international experience in planning and implementing prevention and control programs. Of particular importance with regards to AIDS has been CDC's past experience in the Smallpox Eradication Program, CCCD, EPI program, control programs for sexually transmitted diseases, malaria, nutrition, family planning, and demonstration projects. In FY 87, CDC has committed over \$55 million to domestic AIDS prevention and control programs. Coordinated by CPS, AIDS-related activities have focused on program management and evaluation (55 Health Education/Risk Reduction and 50 Counseling and Testing site agreements); projects in applied research, intervention field trials, and evaluation; training and information dissemination; and school health education

III. Training: CDC has considerable expertise in training technical and program personnel. This training is directed to improve the skills of health workers in prevention programs, strengthen the country's ability to plan and conduct training, and integrate the appropriate technical information into the programs of training institutions. Training in AIDS prevention and control is conducted in the areas of: (1) Laboratory science - The Training and Laboratory Program Office (TLPO) and Center for Infectious Diseases (CID) have extensive international experience in providing training for laboratory competency and safety, evaluation of lab performance, as well as data processing; (2) STD control - CID in cooperation with the Center for Prevention Services (CPS) and TLPO, can provide training services in HIV screening approaches, pre- and post-test counseling, and methods of protecting individuals in occupations that require handling of body fluids; (3) Epidemiology - Through CDC's Global EIS Program, Epidemiology Program Office, and International Activities of the AIDS Program, intensive training in epidemiology has been provided to many international participants and in several international sites (Thailand, Mexico, Taiwan, Indonesia, and France). The Global EIS program is also being initiated in the Philippines. The Global EIS programs in international sites could perhaps be expanded to establish

and/or facilitate epidemiologic studies on AIDS in the specific countries or regions. Workshops on STD prevention and control by the Division of Sexually Transmitted Diseases and workshops on general reproductive health epidemiology by the Division of Reproductive Health have also been conducted in China, Kenya, Tanzania, Sudan, Zimbabwe, Liberia, and Nigeria. (4) Surveillance - Training can be provided by CID to national public health officials and personnel in methods of establishing and maintaining surveillance systems and in methods of data management and analysis.

IV. Health Promotion and Education: CDC is conducting AIDS education/information programs to promote the adoption of specific behaviors to reduce the transmission of HIV. Other activities in the area of health promotion and risk reduction include maximizing utilization of health services, promoting practical training in patient education, and conducting research for health education planning. CHPE is working with other organizations to provide effective education about AIDS to school and college-aged youth, and to youth not in school. Part of this effort includes the development and dissemination of health education curricula and materials.

CHPE is also providing technical assistance on AIDS education for women of reproductive age to Title X family planning clinics in the United States.

V. Program Management and Evaluation: CDC has effectively used Public Health Advisors (PHAs) and other program managers in the U.S. and developing countries to develop, implement and evaluate prevention and control programs. These program managers have been successful in ensuring program development and continuity, and identifying and solving operational problems. Many times these managers have long term on-site residence in the country enabling establishment and operation of surveillance programs, epidemiologic studies, and training of their management counterparts. They have displayed flexibility in scope of responsibility and program activity as well as ability to work with other institutions and agencies.

CDC currently employs many experienced PHAs who assist in the management and evaluation of AIDS prevention and control programs in the U.S. These managers have the requisite experience and knowledge of AIDS and STDs in the U.S., and many have had international health experience. An international assignment would broaden their experience and enhance their ability to perform their program management and evaluation responsibilities on return to the U.S. However, for the most part, AIDS responsibilities have been added to ongoing responsibilities in STD control, and to a lesser extent, other prevention programs. A significant increase in FTEs has not accompanied these added responsibilities in AIDS. Furthermore, domestic responsibilities of CDC PHAs and State and local health departments will increase greatly in FY 88-89 as HIV testing, counseling, and surveillance activities increase.

VI. Information Dissemination: CDC provides up-to-date scientific information regarding AIDS and HIV infection and develops, refines, and disseminates AIDS prevention program guidelines. This information is

necessary in order to carry out program operations and monitor progress. In addition, health information systems can be used to strengthen data systems, develop and test performance indicators, monitor disease, and measure the effectiveness or impact of interventions. CDC has also provided some assistance in this activity internationally in the past.

VII. Equipment and Supplies: CDC has had considerable experience and expertise in the identification of the appropriate technology, equipment, and supplies to conduct studies or programs in developing countries and in logistical analysis, i.e., how to have adequate supplies in the right place at the right time.

WHO's Special Program on AIDS

WHO formally established the Special Programme on AIDS (SPA) in February 1987 as the focal point for a global AIDS prevention and control program. The Programme's goals are to prevent HIV transmission and reduce morbidity and mortality from HIV infections. Thus far, a global strategy has been developed, sufficient funds have been raised to start implementing this strategy, and a global cooperative effort initiated. Six strategies have been proposed for development or implementation: (1) prevention of sexual transmission; (2) prevention of transmission through blood and blood products, unsterile instruments, and organs or tissues; (3) prevention of perinatal transmission; (4) prevention of transmission from HIV infected persons through use of therapeutic agents; (5) prevention of HIV transmission through development and delivery of vaccines; and (6) reduction of impact of HIV infection on individuals, groups and societies. At the national level, each country is to establish a comprehensive AIDS prevention and control program to include:

- A broadly representative national AIDS committee;
- An assessment of HIV prevalence;
- A surveillance system;
- Laboratory capability for diagnosis and screening;
- Educational programs for health workers;
- Prevention programs for the general population or specific groups; and
- Treatment, counseling, and education programs for HIV infected persons and the community.

WHO has indicated a need for CDC assistance in the implementation of these strategies, but CDC lacks the capacity to respond in a major way without additional personnel and funds.

CDC'S plan for International AIDS Activities: Conceptually, involvement in international AIDS can take many forms. One type of involvement may be in response to a specific short-term need (i.e., consultation to a Ministry of Health, establishment of a surveillance system, or training of laboratory

personnel). Involvement may also consist of a response to a specific medium to long-term need (i.e., develop, conduct, and evaluate a laboratory, training or educational program in a country). Lastly, involvement may consist of a response to a long-term commitment to a country or region which would be responsive to broad or specific needs (i.e., conducting longitudinal epidemiologic and laboratory studies, prevention and control programs including education, training, and management support). All of these efforts have an appropriate place in a prevention and control strategy. However, the latter approach of intense involvement in a few select sites will likely provide the greatest potential for impact on AIDS prevention and control as compared to a brief involvement in many different geographic areas. In most cases, involvement would evolve from an initial short-term activity to a broader long-term commitment. The international sites selected for more extensive studies or programs would be based on the analysis of WHO, the current available information on AIDS in the area, the capabilities of the local public health infrastructure to participate in these activities, and the governmental interest and cooperation in collaborative work. International AIDS activities in most cases would be initiated through requests for assistance from WHO or A.I.D.

Objectives

General Objectives:

- (1) Coordinate with and complement the efforts of WHO in the global fight against AIDS.
- (2) Rapidly and effectively respond to requests for assistance to developing countries from WHO and other national and international agencies and institutions, contingent upon the availability of resources.
- (3) Develop, conduct, and evaluate surveillance and epidemiologic research studies in international sites.
- (4) Assist developing countries and international institutions in the development, maintenance, and evaluation of programs to prevent and control HIV and AIDS.

Specific Activities:

- (1) In collaboration with WHO, develop and implement a stepwise approach to assess country-specific resources and needs in developing strategies or programs to prevent and control HIV and AIDS.
- (2) Assist in the implementation and evaluation of national programs for HIV screening of blood and blood products.
- (3) Develop surveillance systems and selected epidemiologic studies to define the prevalence and incidence of HIV infection, modes of transmission and risk factors, associated cultural factors, possible role of cofactors in transmission or progression of disease, and target populations for prevention efforts.

- (4) Assist in providing laboratory support for surveillance and epidemiologic studies of HIV, and for conducting special laboratory studies.
- (5) Assist in the training of national personnel in areas of epidemiology and laboratory science, sexually transmitted disease (STD) programs, counseling, management, and health education.
- (6) Using epidemiologic methods, develop and implement a systematic collection of clinical specimens for laboratory analysis to detect virus variation and other retroviruses which might cause AIDS.
- (7) Conduct behavioral and operational research to determine present practices and cultural influences as a basis for the development/implementation of acceptable prevention and control approaches.
- (8) Assist in developing accurate and effective health education materials for all at-risk groups, including school- and college-aged youth, youth not in school, and women of reproductive age.
- (9) Provide on-site personnel (including managers, laboratory supervisors, epidemiologists, education specialists, or experts in blood banking) to assist in the development, implementation, evaluation, and management of national prevention and control programs.

How CDC Will Work with WHO

WHO has developed a stepwise approach for the implementation of national prevention and control programs. Although CDC is unable to provide all of the necessary steps included in the WHO plan for a specific country and is likewise unable to provide assistance to all countries, CDC is able to assist WHO with the implementation of specific components of the national plans for selected countries. The following is a description of a stepwise approach which might be used in the design and implementation of studies or programs in international sites. CDC could provide assistance to a country in any one of these components or possibly several components. The approach may also vary depending on the level of information in the country or region, the progress already made in the development of the national plan, or the specific needs expressed by the country or WHO.

I. Initial Assessment

A. Surveillance and Epidemiological Assessment:

- Establish surveillance and a reporting system for AIDS cases.
- Establish laboratory testing capability.
- Conduct serology-based epidemiologic studies to determine the prevalence, incidence, modes of transmission, risk factors, co-existent diseases, co-factors, high-risk groups, and methods of intervention.

B. Cultural Assessment:

- Determine the role of local factors such as sexual practices and customs, and the prevalence of high-risk behaviors.
- Determine the social and ethnic divisions in the country or region.
- Determine the health care system (traditional, medical, public health) and infrastructure and the organization of health care politics.
- Determine the "lay of the land" in terms of transportation of people and goods, communications media, etc.

C. Resource Assessment:

- Determine available resources that can be applied to research, prevention, and control programs.

D. Needs Assessment:

- Determine short and long-term needs for epidemiology, surveillance, research, prevention and control programs.

II. Laboratory Support and Special Studies

- A. Establish laboratory support for surveillance and epidemiological studies.
- B. Conduct special studies to characterize HIV and identify other retroviruses.

III. Prevention and Control

A. Blood transfusion services/banks:

- Conduct national assessments of blood transfusion services/banks to determine sites of service, to characterize donors (volunteer vs - paid, number with potential risk factors for HIV infection), to determine number of transfusions, to characterize recipients, to determine present HIV screening practices and capability for HIV screening if not already established.
- Assist in the establishment and maintenance of HIV screening programs in blood transfusion services/banks.
- Develop and evaluate rapid diagnostic tests for HIV which could be effectively used in transfusion services of developing countries.

B. Provide assistance in health education, counseling, and provision of condoms.

C. Provide assistance in conducting behavioral and operational research and demonstration projects on prevention and control approaches.

IV. Training and Health Education

- A. Provide assistance in training in the areas of epidemiology, laboratory science, STD control, blood banking, counseling, management, health education, and health care.
- B. Integrate training into existing educational and program institutions.

V. Evaluation and Management

Provide a resident program manager (public health advisor or other temporary advisor) to assist in the following:.

- Monitor and evaluate prevention and control programs.
- Analyze needs for supplies and provide logistics support.
- Assist in the development of counseling approaches.
- Assist in training courses.
- Assist in surveillance systems and epidemiologic/laboratory studies.

VI. Demonstration Projects

Conduct demonstration projects to determine or evaluate prevention or control efforts (i.e. STD control programs, perinatal HIV infection prevention, or health education programs).

Based on the needs and cultural assessments, and in coordination with WHO, specifically tailored assistance will be provided. However, a likely initial important step in a prevention and control program is HIV screening of blood transfusion/banking services. Initially establishing this program (if not already on-going in the country) is a priority for the following reasons: (a) a substantial amount of HIV transmission may be prevented; (b) this activity is not culturally sensitive and would be recognized as a needed service; (c) it could be more rapidly initiated and implemented compared to other AIDS prevention and control activities; and (d) this activity has a relatively high likelihood of achieving success. A useful adjunct activity arising from this screening program would be the identification of HIV positive individuals, who (and their sex partners) can be counseled and educated to reduce HIV transmission. The successes and accomplishments in the blood transfusion service screening would also establish a working relationship within the country, facilitating cooperation in the more sensitive and difficult segments of AIDS prevention and control programs.

There may be other opportunities for having immediate impact on the prevention of HIV infection. In some countries, condom distribution with instructions for usage to high risk groups such as prostitutes and their clients may be undertaken. Another possibility would be to assist in the development of programs to prevent and control complications of HIV infection such as increases in tuberculosis. While another might be to develop a national information and education program.

What are the Unmet Needs

There are three areas of immediate need, for which CDC has recognized expertise that would be of major assistance to developing countries:

--Assist in establishing laboratory support for surveillance and epidemiological studies/conducting special studies to characterize HIV and identify other retroviruses;

--Assist in development and maintenance of HIV screening programs in blood transfusion service/banks; and,

--Assist in the development of appropriate country-specific AIDS case definitions.

Options for CDC International AIDS Activities

A. Significant Additional Funding and No New FTEs

1. Provide an estimated 20 consultants (approximately 40 person weeks) for limited short-term assistance to WHO and A.I.D. to assist developing countries in establishing AIDS programs.

2. Establish collaboration with two other international laboratories and research institutions on epidemiologic/laboratory studies.

3. Conduct three to five international workshops under the sponsorship of WHO or A.I.D. for training in epidemiology, laboratory technology, STD prevention, education (conduct field courses or transport the students to CDC).

4. Contract with the appropriate experts or institutions to perform on-site assessments, research studies, prevention and control programs, training and education, and assist with implementing both laboratory services and evaluation of those services.

5. Develop and provide training and educational materials suitable for international use.

Additional funding: \$1,000,000

B. Significant Additional Funding and New FTEs

In addition to or in lieu of Plan A :

1. Provide maximal assistance to WHO and A.I.D to assist developing countries with technical support or consultation (an estimated 30

consultants per year or 90 person-weeks).

2. Establish additional international bilateral agreements, e.g. Projet SIDA but smaller in scale and budget, for AIDS prevention/control, research and training: one in FY 1988 and two in FY 1989 (see Appendix B).

3. Establish an international laboratory training and performance evaluation and assessment activity.

4. Provide on-site consultants, researchers, or managers, (short to long-term) according to the analysis of WHO, to national programs to assist in coordinating AIDS activities.

FTEs 10

Additional funding: \$3,000,000

Recommendations:

A. That CDC support option B of the proposed CDC AIDS Plan which would allow for 1) continuing and increased consultant assistance to WHO, A.I.D. and individual countries and, 2) in FY 1988, develop at least 1 bilateral agreement with a developing country to assist in improving planning and management skills, conducting research, providing training and assistance in prevention and control activities.

B. Determine where in CDC the focus and responsibility for international AIDS activities would be.

International AIDS Activities FY 1987 and
Objectives FY 1988
Center for Infectious Diseases

FY 87 Accomplishments

At the invitation of the Mexico Ministry of Health, we investigated the reasons for a 15% HIV seropositivity rate among paid plasma donors in Mexico City. We verified the initial results by repeat laboratory investigation and developed a questionnaire for use by local investigators. Twenty-six plasma donors have been interviewed, and only one had a known risk factor for HIV infection. We are now examining the need for a large community-based survey to determine how these persons became infected. (AP)

Developed protocol for evaluating response to immunizations (BCG, DPT, OPV, measles vaccine) in HIV-infected and uninfected children in the cohorts, and initiated study during month-long consultancy, with Projet SIDA, Zaire September 1987. (AP)

To examine the genetic relatedness of HIV from different geographic locations, the genome of HIV isolated from a Zairian AIDS patient was molecularly cloned. Nucleotide sequence analysis revealed conserved and variable regions as observed in other HIV isolates. In addition, the nucleotide sequence of an HIV isolate from a 1976 serum sample from Zaire has been analyzed. Nucleotide sequence data of these isolates may be useful for constructing the evolutionary tree of AIDS viruses. (DVD)

Determined the nature of AIDS viruses from Africa, by molecularly cloning HIV from Zairian AIDS patients. Isolated virus similar to HTLV-III/LAV-I (HZ321), from a serum sample collected in Central Africa in 1976. This is the earliest known HIV isolate that has biological properties similar to other recent isolates. The nucleotide sequence of a significant portion of this virus has been determined. This information, in conjunction with other HIV sequences, has been used to measure the rate of genetic variation for HIV's to determine what effect this has on detection of future isolates. Genetic analysis of Z321, together with other analysis of other HIV isolates from the U.S. and elsewhere, will be valuable in selecting the important strains for vaccine development. (AP)

Assisted the World Health Organization in developing a prototype protocol and data-collection instrument to measure high-risk sexual behaviors in various populations. Data will be used to plan national and international programs to interrupt the transmission of HIV infection and other STD. Behavioral scientists in the AIDS Program have consulted with WHO on the methodologic aspects of these surveys. (AP)

Coordinated the development of a comprehensive CDC plan for international AIDS activities with CPS, CHPE, IHPO, TLPO. (AP)

-Provided assistance in developing the national AIDS plan for Sudan.

Assisted WHO in providing consultation and technical assistance:

-Provided technical assistance and consultation in laboratory testing capability and the national plan for Rwanda.

-Assisted PAHO in conducting the Fifth Clinical-Epidemiologic Update on sexually transmissible diseases with the Ministry of Health in Bogota, Colombia (Oct. 31/86).

-Provided epidemiologic assistance to PAHO and the Mexico Ministry of Health to investigate the prevalence of HIV infection in paid plasma donors (Mar.2-5). (AP)

-Provided consultation services on AIDS epidemiology to PAHO and member countries. (AP)

-Participated as a speaker and panelist during the First Pan American Teleconference on AIDS in Quito, Ecuador (Sept.13-14/87). (AP)

FY 88 Objectives

Projet SIDA, Zaire: Complete initial follow-up of vaccine response; analyze and present findings. Provide epidemiologic consultation and laboratory support for Projet SIDA in its ongoing studies of HIV infection in children. (AP)

Initiate surveillance of AIDS-like disease, and collection of lymphocytes for retrovirus isolation in Sierra Leone, in conjunction with USAID and the Sierra Leone Ministry of Health. (DVD)

Develop protocol for determining frequency of neurologic manifestations and complications of HIV infection in Zaire. (DVD)

Perform pilot studies in 3 West African countries (Ivory Coast, Guinea, and Burkina Faso) to determine prevalence of HIV-I and HIV-II infection, and incidence of AIDS-like disease in these countries. (AP)

Identify and evaluate single, rapid, and sensitive tests for HIV antibodies for potential use in field conditions in developing countries. Coordinate with USAID, WHO and Projet SIDA for introduction of new tests into these countries. (AP)

Begin the implementation of CDC international AIDS plan including:

- Surveillance and epidemiologic assessments
- Cultural practices, needs, and resource assessments
- Laboratory support and special studies (AP)

Implement education program in groups at high risk for HIV infection in Sierra Leone in conjunction with USAID and the Sierra Leone Ministry of Health. (DVD)

Continue to assist WHO, A.I.D., and other international institutions in providing consultative or technical assistance for 10-15 countries (estimated). (AP)

Assist Mexico in identifying risk factors for HIV infection in paid plasma donors. (AP)

Receive approximately 50 international visitors and provide consultation or assistance on AIDS. (AP)

International AIDS Activities
Division of Sexually Transmitted Diseases, CPS

Fiscal Year 1987

- o Participated in the African AIDS/STD Conference of the African Union Against Venereal Diseases and Trepanematoses held in Harare, Zimbabwe, in June 1987
- o Participated in the III International Conference on Acquired Immunodeficiency Syndrome held in Washington, D.C., in June 1987
- o Assisted the World Health Organization in the process of planning a maternal and perinatal infection study group meeting in Geneva that in part will address the intervention strategies for HIV infection during pregnancy and their cost-effectiveness.
- o Participated in the strategic planning for AIDS surveillance and prevention in Columbia.
- o Assisted in evaluating seroprevalence of HIV in Mexico City's blood donors.
- o Reviewed AIDS prevention and control program in Panama.
- o Participated in the orientation meeting with National AIDS Committee in Panama.

- o Participated in the HIV antibody laboratory course in Brazil.

- o Participated in the World Federation of Schools of Public Health meeting on AIDS in Mexico.

- o Attended a WHO meeting on retroviruses.

- o Developed and organized an AIDS prevention and control plan in Haiti.

- o Discussed AIDS prevention and control with national authorities in Brazil.

- o Discussed AIDS prevention and control with national authorities in Argentina.

- o Worked on initial plans for AIDS prevention and control in Aruba.

- o Participated in an AIDS symposium in Venezuela.

- o Reviewed the scientific program of Pan American meeting on AIDS in Ecuador.

- o Participated in review panels for USAID-AIDS projects.

- o Will assist the Division of Reproductive Health, Center for Health Promotion and Education in their research in Zaire on condoms and heterosexual transmission of HIV.

- o Will work with the Rockefeller Foundation and researchers and officials in Africa to develop research projects and prevention and control programs relative to AIDS and HIV transmission at a meeting in Kenya.

- o Will participate in the IV International Conference of Acquired Immunodeficiency Syndrome in Stockholm, Sweden, in June.

- o Will work with the World Health Organization on the review of papers on maternal and perinatal infections, including HIV infection during pregnancy, with the discussions focusing on intervention strategies and their cost-effectiveness.

- o Will assist in the development of AIDS prevention and control programs in Columbia, Brazil, and Aruba.

TRAINING AND LABORATORY PROGRAM OFFICE, CDC
INTERNATIONAL AIDS TRAINING ACTIVITIES FY87

- o November 1-8, 1986
Rio de Janeiro, Brazil
Course Title: Serodiagnosis of HIV Infections

Presented at the request of Dr. Francisco Pinheiro, PAHO and Dr. Bernardo Galvao, Oswaldo Cruz Foundation, Brazil.

Course was attended by 20 students from several South American countries. Most of the students were affiliated with blood banks or various public health laboratories within their countries.

CDC Instructors: J. Richard George, Ph.D. and Dan Palmer, Dr.P.H.

- o June 13-20, 1987
Mexico City, Mexico
Course Title: Serodiagnosis of HIV Infections

Presented at the request of Dr. Virgilio Escutia and Dr. Martinez-Silva of the Pan American Health Organization. Course was presented at the Centro Nacional De La Transfusion Sanguinea.

Course was attended by 15 students from all over Mexico. Most were affiliated with blood banks, the national laboratory, or PEMEX.

CDC Instructors: J. Richard George, Ph.D. and Sharon Blumer, M.S.

- o June 26-July 4, 1987
Cairo, Egypt
Course Title: Serodiagnosis of HIV Infections

Presented at the request of Dr. H. Tamashiro and Dr. M. Wahdan of the World Health Organization. Course was held at NAMRU-3 in Cairo and was hosted by Dr. James Woody, Commanding Officer, NAMRU-3.

Course was attended by 18 representative of countries from the Middle East and Northern Africa. These people were primarily from the national laboratories of their various countries.

CDC Instructors: J. Richard George, Ph.D. and Dan Palmer, Dr.P.H.

- o CDC Headquarters AIDS courses were also attended by international students.

INTERNATIONAL AIDS ACTIVITIES
FY 1987, FY 1988
CENTER FOR HEALTH PROMOTION AND EDUCATION

AIDS STUDY IN ZAIRE

In collaboration with Projet SIDA, the Department of Public Health in Kinshasa, Zaire, and UTEXAFRICA, a Kinshasa textile firm, the Centers for Disease Control is conducting a cohort study of the efficacy of condom use in the prevention of HIV transmission in discordant (one individual seropositive, one individual seronegative) heterosexual couples. This study will also identify knowledge and attitudes toward HIV infection, risk factors for couple discordancy, and effective individual and community education efforts to reduce transmission in this high prevalence urban African population.

XIII WORLD CONFERENCE ON HEALTH EDUCATION

The XIII World Conference on Health Education will be held in Houston, Texas, August 28-September 2, 1988. Its purpose is to stimulate and encourage participants from around the world to exchange information, skills, knowledge and experience related to health education. Between 3,000 and 4,000 international professionals and practitioners in health education and related fields are expected to attend.

Specific health education problems and issues will be addressed in special sessions during the Conference. A special session is planned to address the issue of AIDS. Health education practitioners will receive updated information on AIDS, learn what education efforts are being undertaken, share progress being made and future plans, and clarify their roles in combatting AIDS and its spread in their own countries.

The Conference will be conducted in English, French, and Spanish, with simultaneous translation during the Opening, Plenary, General Assembly and Closing sessions.

Appendix B: National Programs for AIDS Prevention, Research and Training

Epidemiologic information on HIV infection and AIDS is sparse or lacking in many areas. Although the immunopathogenesis of HIV infection is similar among different international populations, it is clear that the epidemiology and clinical spectrum of disease vary considerably according to the different cultural and sexual practices, risk factors, modes of transmission, and opportunistic infections. In the U.S., the high-risk behaviors or practices of homosexual activity (especially receptive anal intercourse) and IV drug abuse are very different from that in Africa where HIV is predominantly transmitted by heterosexual contact, blood transfusions and possibly by use of unsterile instruments for injections and scarifications. Likewise, in Brazil there appears to be a higher proportion of AIDS associated with bisexual activity, and in Asia and Latin America the risk factors have not yet been elucidated. It is also known that the opportunistic infections vary widely, and therefore the clinical case definition for surveillance and reporting of AIDS must vary accordingly. Since the causative virus can vary genetically by geographic isolation and other retroviral infections can cause AIDS or AIDS-like disease, there is some concern that the sensitivity and specificity of laboratory tests may also vary with location and time. These differences become especially important should a vaccine be developed. The immunogenicity and efficacy of the vaccine could vary depending on the antigenic composition of the vaccine and the immunological characteristics of the prevalent virus.

National Programs for AIDS Prevention, Research and Training

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Possible National Program sites are as follows:

- (1) Central Africa: Kinshasa, Zaire - continuation of Projet SIDA
- (2) West Africa: Ivory Coast
- (3) East Africa: Lusaka, Zambia or Nairobi, Kenya or Kampala, Uganda or Harare, Zimbabwe or Kigali, Rwanda.
- (4) Central America: Mexico City, Mexico
- (5) South America: Sao Paulo and/or Rio de Janiero, Brazil
- (6) Southeast Asia: Bangkok, Thailand or Manila, Philippines

(7) Asia: New Delhi, India or Dhaka, Bangladesh

In general, activities in these National Programs would begin with an initial assessment as outlined previously with gradual development of more comprehensive, long-term studies and programs. The priority activities in each program would be HIV screening in blood transfusion/banking services and the establishment of surveillance systems and centralized reporting. Carefully designed epidemiologic and laboratory studies would be conducted to establish a clinical case definition and to define the prevalence of HIV infection and high-risk groups. Training and prevention and control programs would be implemented simultaneously and become more focused as the results of epidemiologic studies and surveillance programs become known.

The extent of involvement or level of support to each Program would depend on the existent AIDS programs/studies, the available scientific information on AIDS in the area, the local public health infrastructure, and the level of governmental support and collaboration. Establishment of the support to these National Programs would be phased in over a 3 to 4 year period with each Program requiring 2 FTEs onsite .. Collaboration with other countries or institutions would be welcomed as well as using "composite" FTEs (using one FTE by more than one individual).

The National Programs for AIDS Prevention, Research and Training would provide a crucial link to the WHO global effort to prevent and control AIDS.

Important work experience and training in epidemiology, laboratory science and prevention methods could be provided to local health care providers and public health officials, as well as regional countries. The epidemiologic information and training of professionals which could be used regionally would greatly assist countries in becoming proficient in developing and maintaining their own prevention and control programs.

CDC would accrue a number of benefits from involvement in international AIDS activities: International recognition that CDC is taking an active role in AIDS internationally as described above; CDC would gain further scientific and epidemiologic experience with HIV-I/II and perhaps other retroviruses which may be useful in domestic efforts to prevent and control HIV and AIDS; long and short term experience/training, for medical officers and public health advisors, would be available which would enhance CDC's efforts to develop staff with international credentials which would better qualify them as AIDS experts in the U.S. and also qualify them to serve in other international initiatives that CDC would want to manage or support, including requests for assistance from individual countries, A.I.D., WHO, and others.

These National Programs would also serve as a focus for other international investigators or agencies for future studies and could facilitate the exchange of information and resources between interested parties. By serving as a focal point for outside investigators, surveillance data would be considerably enhanced and more efficient collaborations could be established.