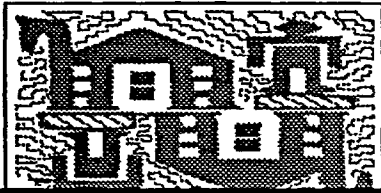


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AIDSCAP



Technical Assessment of HIV/AIDS in El Salvador

A report to

The U S Agency for International Development
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LIST OF ABBREVIATIONS

ADS	Salvadoran Demographic Association (Asociación Demográfica Salvadoreña)
AIDS	Acquired Immune Deficiency Response
AIDSCOM	AIDS Communication (a project funded by USAID/W with the Academy of Educational Development)
AIDSTECH	AIDS Technical Project (a project funded by USAID/W with Family Health International)
ANTEL	Administración Nacional de Telecomunicaciones
BCC	Behavior Change Communication
CBD	Community-based Distribution
CDC	Centers for Disease Control and Prevention
CONASIDA	Comisión Nacional del SIDA
CSM	Condom Social Marketing
CSW	Commercial Sex Worker
ELISA	Enzyme-linked Immunosorbent Assay
ETS	Enfermedad Transmisible Sexualmente
FESAL	Encuesta Nacional de Salud Familiar
FHI	Family Health International
FP	Family Planning
FUNDASIDA	National Foundation for the Prevention, Education and Control of AIDS (Fundación Nacional de Prevención, Educación y Control del VIH/SIDA)
GOES	Government of El Salvador
HIV	Human Immunodeficiency Virus
HPN	Health, Population and Nutrition
HSA/ES	Health Sector Assessment/El Salvador
IEC	Information, Education, and Communication
IPPF	International Planned Parenthood Federation
ISSS	Instituto Salvadoreño del Seguridad Social
MCH	Maternal-Child Health
MSPAS	Ministry of Health (Ministerio de Salud Pública y Asistencia Social)
MTP	Medium Term Plan
MWM	Men Who Have Sex with Men
MWP	Men in Work Places
NACP	National AIDS Control Program (Programa Nacional de Prevención y Control del SIDA)
NGO	Non-governmental Organization
PAHO	Pan American Health Organization
PROSAMI	Proyecto de Salud Materna y Supervivencia Infantil
PVO	Private Voluntary Organization
PWP	People in Work Places
SES	Socioeconomic Status

SIDA	Síndrome de Inmunodeficiencia Adquirida
STD	Sexually Transmitted Disease
USAID	United States Agency for International Development
VIH	Virus de Inmunodeficiencia Humana
WHO/GPA	World Health Organization/Global Programme on AIDS

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EXECUTIVE SUMMARY

This Technical Assessment of HIV/AIDS in El Salvador appraises the epidemiologic status of HIV/AIDS and analyzes the current programming efforts in HIV/AIDS prevention and control. This report includes a review of the institutional response to date, the epidemiologic surveillance system, the management of sexually transmitted diseases (STDs), condom distribution and logistics, behavior change communication (BCC) and safety of the blood supply. In addition, a policy development section is included and recommendations formulated, which lead to the development of a comprehensive HIV/AIDS prevention strategy.

There is no accurate picture of the HIV/AIDS epidemic in El Salvador due to the lack of a reliable epidemiologic surveillance system. Available data indicate that the number of reported AIDS cases to date is 536, and 588 HIV asymptomatic infections have been reported. Early cases were among men with histories of foreign travel. However, current transmission patterns support a local dissemination of HIV. The sex distribution of HIV/AIDS has changed from a male to female ratio of 15/1 (1984-87) to 3.3/1 (1993). The primary mode of transmission reported is sexual (96%), particularly heterosexual transmission, and the 15-34 year old age group accounts for 71% of the cases. HIV seroprevalence studies range from 0.12% prevalence among blood donors, 0.3% in pregnant women, 0.5% in military personnel, to 2.2% in commercial sex workers (CSWs).

The Ministry of Health (MSPAS)/Pan American Health Organization (PAHO) estimates that approximately 30,000 Salvadorans are HIV positive. This estimate is considered conservative in view of the lack of a reliable epidemiologic reporting system and the substantial underreporting in the country. These problems are due to prevalent misconceptions regarding HIV infection, including ignorance, denial and fear. Although it is difficult to characterize the epidemic in time, geographic location, and demographic characteristics due to the poor quality of the limited data available, the authors believe that the HIV/AIDS epidemic is rising steadily and is becoming well established among a cross-section of the Salvadoran society.

The current HIV/AIDS programming efforts and the institutional response to date are considered insufficient to slow the spread of HIV infection. Awareness must be raised and consensus developed among resource holders in all sectors and from all levels, ranging from international donors to local community leaders, of the significant threat to the social, economic and political well-being and development of El Salvador. This epidemic should not be viewed only as a health problem, but rather as a socioeconomic development issue.

The history of worldwide HIV/AIDS prevention efforts demonstrates that timing is extremely important. Because of the potential exponential growth of the epidemic, early interventions have a disproportionately greater effect than similar programs introduced late in the course of the epidemic. El Salvador is lagging behind other countries in the region in understanding the causes, implications and impact of HIV/AIDS. Because HIV is primarily spread through sexual transmission in El Salvador, a comprehensive multidisciplinary and multisectoral prevention program is recommended to reach individuals at risk. The security of the blood system is already

being ensured. A recommended strategy should integrate BCC activities to minimize high risk behavior, including a reduction in the number of sexual partners, improve the treatment and control of STDs, and increase access to and use of condoms. Programs combining all three components have a synergistic effect that is stronger than the effect of individual interventions.

The MSPAS, the Instituto Salvadoreño del Seguro Social (ISSS) and non-governmental organizations (NGOs) should be strengthened to implement a comprehensive HIV/AIDS prevention strategy with appropriate internal and/or external technical assistance. In addition, this approach should be complemented by a policy dialogue conducive to HIV/AIDS prevention and program sustainability, and evaluation activities to measure the impact and effectiveness of intervention efforts.

The authors are indebted to public health professionals at the MSPAS, PAHO and ISSS, and individuals working in NGOs seeking to control HIV/AIDS for their assistance. It is hoped that this assessment and its recommendations will generate discussion and support for the design and implementation of an integrated, comprehensive HIV/AIDS prevention program. The spread and the impact of HIV/AIDS can be greatly minimized if comprehensive prevention efforts are implemented in time. USAID/El Salvador has, at this time, a unique opportunity to make an important and significant contribution to the welfare and socioeconomic development of El Salvador.

I INTRODUCTION

In response to a request from USAID/El Salvador, the AIDS Control and Prevention Project (AIDSCAP) of Family Health International (FHI) and the Office of Health (R&D/H/HIV-AIDS) of USAID/W were asked to provide an assessment of the current HIV/AIDS situation and prevention activities in El Salvador and propose a recommended HIV/AIDS prevention strategy. AIDSCAP assists countries in the assessment of needs, in the design and implementation of comprehensive strategies to address country-specific concerns, to focus resources, and to monitor and evaluate project impact.

The assessment was requested as part of a larger Health Sector Assessment being conducted this Fall in El Salvador (HSA/ES) to 1) assess the current health status of the Salvadoran population, 2) assess the operations and financing of the current national health care system, 3) propose changes to the national health care system capable of improving the health status of the Salvadoran population, and 4) develop a broad consensus on a comprehensive and prioritized policy agenda for donor discussion with the new Government that addresses reforms needed to achieve changes in the health care system.

The results of the HSA/ES will be used in two significant ways. First, it will become the basis for policy discussion between donors and the new Government. Second, it will be the basis for health sector project and program design and development by the donors and the new Government.

The assessment was conducted by a team of two AIDSCAP staff members and two consultants from the Epidemiology Division of the City of Cincinnati Health Department and the Division of HIV/AIDS of the Centers for Disease Control and Prevention (CDC) in Atlanta. The team worked solely in the Departments of San Salvador (La Libertad and Santa Ana) from October 17 to October 31, 1993.

The HIV/AIDS Technical Assessment reviews the existing seroprevalence studies and the sentinel surveillance system in El Salvador. The assessment also describes existing interventions and indicates areas where additional program interventions can have a substantial impact on the epidemic, taking into account the contributions of other donors and the lessons learned from previous HIV/AIDS prevention strategies.

As defined in the original scope of work by USAID/El Salvador's Health, Population and Nutrition Division (HPN), the HIV/AIDS assessment concentrates on the following areas:

1. Review of seroprevalence studies and the sentinel surveillance system to assess the epidemic in El Salvador.
2. Assessment of the state of the blood supply.
3. Evaluation of the testing capability.
4. Assessment of the current status of STD activities, including diagnosis, treatment and control, recommending areas for institutional strengthening and identifying needs specific

- to strengthening STD curative and preventive activities
- 5 A projection of expected prevalence if the current trend continues and/or if the prevalence could be modified with specific interventions
- 6 Description of current NGO programs and multilateral donor assistance already in place or planned
- 7 Examination of policy issues and proposal of an integrated programmatic approach for strengthening local HIV/AIDS programs and prevention through the current and future health program and through other donors' programs

The projection of expected prevalence was not completed due to the underreporting of HIV/AIDS cases and the limited time spent in the country. A document describing the general social and economic impact of an HIV/AIDS epidemic (APPENDIX V), as well as graphics from the Honduras HIV/AIDS Socio-Economic Impact Study, were provided in a separate document at the request of the Mission. The scope of work of the assessment was also broadened to include a review of behavioral interventions significant for HIV/AIDS prevention, specifically condom distribution and logistics and behavior change communication, as well as an assessment of program needs and recommended strategies for the future in these two areas.

A mini-assessment of the situation in El Salvador was previously made by Ms. Erin Soto of R&D/H/HIV-AIDS based on a visit from May 24-31, 1993. After the team's arrival, orientation within El Salvador was provided by team members of the HSA/ES team headed by Dr. Jaime Ayalde. Interviews were conducted with various representatives of the public sector, NGOs and some of the international donors working in El Salvador. Additional information on HIV/AIDS prevention was provided by physicians working in the public and private sector both within San Salvador and in health posts outside of the metropolitan area. (See APPENDIX IV, p. 58 for a listing of individuals contacted.)

II COUNTRY SITUATIONAL ANALYSIS

1 EPIDEMIOLOGY OF HIV/AIDS IN EL SALVADOR

The epidemic of HIV/AIDS in El Salvador is described through three sources of data: MSPAS surveillance, studies in specific populations, and physicians' experience in private practice. Limitations of the data are discussed in the section on surveillance, and original data can be found in APPENDIX II, p. 46.

In 1984, the first case of AIDS was reported in an American living in El Salvador. More AIDS cases and HIV infection have been reported in almost every succeeding year, with 286 reported in 1992. This year, 235 cases have been reported (as of October 8). There have been 536 cases of AIDS and 588 HIV positive infections reported (total = 1,124) to date. Seventy-one percent of all infections have been reported since the beginning of 1991. All departments have reported infections with the highest number (n=774) from San Salvador. There the rate reported in 1992 was 3.4/100,000 population and the incidence of AIDS was 2.3/100,000.

Most cases of HIV infection/AIDS cases are reported in men (n=876, 78%) However, the ratio of male to female cases of HIV/AIDS has progressively declined from 15/1 for the early years of 1984-87, 6 9/1 in 1989, 4 6/1 in 1990, 3 1/1 in 1991, 3/1 in 1992, to 3 3/1 in 1993 (as of October 8) Persons age 15-24 years account for 28% of cases, between 25-34 years for 43% of cases, and 35-39 years for 11% Twenty-five percent of AIDS cases have died (12% of all HIV infections/AIDS cases)

Data on risk for infection are available from 1991 to October 1993 Blood transfusions account for 1 6% of all cases, injection drug use for 0 6% and perinatal transmission for 1 5% The majority of cases reported their risk of infection to be heterosexual contact (n=500, 62%) Homosexual and bisexual behavior account for 11% of cases reported to the MSPAS The ISSS, however, reports that 33% of cases under its care are associated with homosexual and bisexual behavior Discussions with several physicians who have private practices in San Salvador depicted a different picture of the epidemic Specifically, 93% of the patients were men, 73% of whom reported sex with men as their risk for infection The reasons for these differences are unclear but may include the different populations served by ISSS or private physicians or differing abilities to ascertain sensitive information Homosexual and bisexual behavior are not well defined, patients' and investigators' misunderstandings may contribute to misclassification

There have been few studies in specific populations During May and June 1991, prostitutes in two departments outside of San Salvador were voluntarily tested for HIV Of 452 women tested, 10 (2 2%) were positive This may be an underestimate of the true prevalence, because higher risk women may have declined testing ADS has collected information on STD referral and HIV testing among brothel-based CSWs in San Salvador However, there is no regular testing of local CSWs in different parts of the country

From January through September 1991, all prisoners in five correctional facilities were tested for HIV with no option to decline Of 2,838 persons tested, 15 (0 5%) were positive During six-month periods in 1992 and 1993, all women entering the Hospital Maternidad in San Salvador to deliver were tested for HIV in an anonymous and unlinked fashion, using discarded samples of blood Among 770 women tested in 1992, none were positive Among 754 tested in 1993, two (0 3%) were positive

All blood banks have been testing donated blood since 1988 At the end of 1991, blood banks began screening out high risk donors through pre-donation interviews During 1992, the proportion HIV positive among donors varied at different institutions Cruz Roja Salvadoreña, 0 06%, ISSS 0 1%, MSPAS 0 14%, and Hospital Militar 0 2% These variations may be attributable to different recruiting practices, different screening procedures or different prevalences among the donating populations

The data available for analysis do not represent accurately the extent of the epidemic There is no information on the character or extent of unreported cases PAHO estimated that there were 30,000 HIV infections by the end of 1992 This was considered to be a minimum estimate, and PAHO believes that there are likely to be more at the present time In conclusion, the number

of HIV/AIDS cases continues to increase, and there is no evidence that this trend will not continue. Sexual transmission appears to be increasingly important and the major mode of transmission of HIV.

2 INSTITUTIONAL RESPONSE TO DATE

The following section describes the efforts being made in HIV/AIDS prevention in El Salvador by the GOES, international donors, PVOs, and NGOs. Despite a growing interest in, and the current HIV/AIDS programming efforts, their response to date has been limited. The fact remains that the resources and funds available to launch an effective and comprehensive prevention effort are insignificant to counteract the magnitude of the epidemic.

2.1 Government of El Salvador (GOES)

Ministerio de Salud Pública y Asistencia Social (MSPAS)

Four units are most actively involved in HIV/AIDS prevention work: the Central Laboratory, the Mental Health Unit, the Health Education Unit, and the Epidemiology Unit, in which the National AIDS Control Program is located.

The Programa Nacional de Prevención y Control del SIDA (NACP) is responsible for the implementation of the national AIDS Control Program as developed in the Medium Term Plan I (MTP) for 1990-1992 and MTP II for the 1993-1995 period (MSPAS and PAHO, 1992). The NACP is largely supported by PAHO, although some funds have been appropriated by the GOES to support all of the NACP staff salaries beginning in 1994.

For the first Medium Term Plan (MTP) in 1990-1992, PAHO provided an estimated \$US 439,501 in financing to El Salvador to cover the salaries of eight administrative and technical personnel in the Ministry, as well as equipment, information and training programs, two telephone hotlines for the provision of information on STDs and AIDS (one line in the MSPAS and a second in the Red Cross). In addition, three promotional campaigns were designed for television and radio, IEC materials published in collaboration with other governmental and NGO groups, and 300 psychologists in social service were trained to collaborate on an honorarium basis. A network of laboratories was established for the detection of HIV in 22 health establishments. The Central Laboratory of the MSPAS and the Blood Bank of the Red Cross conduct confirmatory Western Blot tests, these being the only two reference centers in the country. By 1991, screening coverage of blood supplies had reportedly reached 100% of the transfused blood, and a Regulation for the Selection of Blood Donors had been enacted at the national level. The NACP has also created and distributed a Manual of Norms and Biosecurity for Blood Screening.

Sentinel surveillance has been conducted in populations of CSWs and women delivering at the Maternity Hospital, as well as a serological study of 2,838 prisoners incarcerated in five prisons. The NACP coordinating with PVOs/NGOs, has formed student brigades working in schools for the prevention of sexual transmission of HIV. External cooperation in the Program was provided

by WHO/GPA and the governments of Switzerland, Holland and Norway, which was equivalent to 06% of the total expenditures of the Ministry of Health for 1992 Through PAHO, Switzerland (\$US 252,000) and Norway (\$US 42,000) have provided funding to El Salvador in 1993 Approximately \$US 38,000-40,000 was allocated for the purchase of reagents in 1993, however, this funding will reportedly be suspended in 1994

In 1993, the NACP created and distributed a manual of Norms and Procedures for Epidemiologic Vigilance A commission was formed of lawyers from different governmental institutions and NGOs to formulate the Regulation for the Prevention and Control of AIDS, which has been approved by Executive Power The norms published are obligatory throughout the country for different institutions and districts Nevertheless, actual compliance is still problematic These norms pertain to the attention given to persons with HIV/AIDS, norms for diagnostic tests, biosecurity, hospital attention (obstetric/gynecological and pediatric), dental attention and other procedures, security in pathological anatomy and mortuary, counseling, nutrition and treatment of opportunistic infections

Comisión Nacional del SIDA (CONASIDA)

The National Commission for the Prevention and Control of AIDS was created on April 7, 1987 with the following responsibilities to group representatives from diverse institutions to assess and evaluate STDs and AIDS, to elaborate the National Plan for Prevention and Control, and to assure the efficacy of the system of epidemiologic surveillance of STD/AIDS CONASIDA is composed of the Coordinator of the Program, Military Health, Ministries of Justice and of Education, the Superior Council of Public Health, the ISSS and the Salvadoran Red Cross

Instituto Salvadoreño del Seguro Social (ISSS)

The ISSS covers an affiliated population of 600,000 and 44,000 children under three years of age It is estimated that services are provided to approximately 20% of the economically active population The ISSS has managed 213 AIDS cases to date at a cost of 7,000 colones per patient (approximately \$US 810), increasing by an average of 10 new cases per month The male to female ratio at ISSS is 2 4/1, primarily in the 20-29 age group, with 85% of the cases due to sexual transmission and a 48% case fatality rate However, ISSS estimates that underregistration of cases within the institution is at least 50% The ISSS conducts HIV testing on three population groups voluntary blood donors, patients identified as pertaining to high risk groups by physicians, and all surgical cases Their approach to HIV/AIDS prevention is through affiliated businesses and blood screening The supply of 350,000 condoms donated by USAID is used only for family planning purposes The ISSS HIV/AIDS program is very limited at present and needs to be strengthened in preventive interventions

2 2 International Organizations

United States Agency for International Development (USAID)

USAID/El Salvador's contribution to HIV/AIDS prevention is not earmarked through separate projects or funding. AIDSCOM, a USAID/W centrally-funded communications project, assisted in establishing training programs for 50 counselors and a telephone hotline at the Red Cross funded by PAHO. Funding has since ceased, however, and only one hotline at the MSPAS remains active. USAID also contributed funds for the production of two regional instructional videos. AIDSTECH, another centrally-funded USAID/W project which has since ended, conducted a workshop for 50 laboratory technicians and 30 people from blood banks on the use of ELISA and Western Blot diagnostic tests. Following the workshop, equipment was donated to the national laboratory. Although AIDS-specific activities have been limited, a number of initiatives in the area of condom provision have taken place. The MSPAS, the ISSS and the ADS family planning affiliate (PROFAMILIA) have received training, and assistance in materials development. USAID procured more than 4 million condoms in 1993.

Pan American Health Organization (PAHO)

The World Health Organization's Global Programme on AIDS (WHO/GPA) has provided support for AIDS programming in El Salvador through PAHO. For the first Medium Term Plan (MTP-I) in 1990-1992, PAHO provided an estimated \$US 439,501 in financing to El Salvador. It is estimated that PAHO will contribute to the NACP an approximate amount of \$US 90,000 for 1994.

Activities programmed in the second MTP are grouped into four intervention strategies and two support strategies: prevention of sexual transmission, prevention of perinatal transmission, prevention of blood-borne transmission, reduction of the impact of HIV infection and AIDS on individuals, groups and society, epidemiologic surveillance of STD patients, CSWs and maternity hospital patients, and administration, organization and evaluation. Although these activities are planned, their implementation is dependent on the levels of funding secured.

UNICEF

UNICEF's mandate is to serve the needs of women and children. UNICEF plans to begin funding work in training of personnel and development of educational materials specific to AIDS and sex education in the near future. However, no further information was available.

2.3 International Private Voluntary Organizations (PVOS)

Cruz Roja Salvadoreña (Red Cross)

The Cruz Roja Salvadoreña, which is supported by the International Red Cross and up to 1993 by Finland, and the Association of Clinical Laboratories (Junta de Vigilancia de la Profesión en Laboratorio Clínico) have recently formed a national blood bank commission (Red Nacional de Bancos de Sangre El Salvador). This commission has written voluntary standards of blood collection and testing. HIV testing of the blood supply began in 1987. Screening interviews conducted by laboratory personnel began in 1991. The primary purpose of screening out high

risk donors and testing blood for HIV antibodies is to prevent HIV infection through blood transfusions. The Cruz Roja and the MSPAS Central Laboratory are the only two reference centers for Western Blot testing. Only the Cruz Roja has a guaranteed supply of reagents. They provide pre- and post-test counseling and provide training for the social workers and personnel involved in HIV counseling at other local NGOs.

Visión Mundial

This religious NGO, which has been working in El Salvador since 1974, works in 123 communities throughout the country and is in part supported by PAHO. Employing the peer leader model to educate community leaders, pastors and medical personnel regarding HIV and AIDS, the organization advocates abstinence and mutual fidelity. Reportedly, half of the pastors support condom use and the other half do not. Visión Mundial in cooperation with FUNDASIDA and the Metropolitan Region MSPAS arranged training sessions in the prevention of HIV/AIDS, for community leaders, primarily students, pastors and copastors, and employees of NGOs participated.

2.4 National Private Voluntary Organizations and Non-governmental Organizations (NGOs)

Asociación Demográfica Salvadoreña (ADS)

Through their International Planned Parenthood Federation (IPPF) affiliate (PRO FAMILIA), ADS provides family planning services, PAP smears, and clinical testing and STD services in five clinics. ADS has 1,400 health promoters who make house visits and visits to high risk places to motivate women for family planning, pap smears, and STD diagnosis and treatment. As of October 1993, the ADS-STD clinic in San Salvador had received 280,000 condoms for family planning and 63,200 for STD prevention work. A total of 2,328,000 were provided by USAID. ADS has integrated STD services within its family planning clinics and a free-standing FP clinic serving adolescents. Staff members periodically receive training in STD diagnosis and contact tracing, and the association is active in providing STD education to others, providing training to 40 physicians in 1992 with funding from USAID. Outreach is also provided by the ADS social worker in San Salvador through presentations to high school students and to medical school students on an annual basis. However, no training is provided to pharmacists.

Comité Internacional del Rescate

This NGO, funded in part by PAHO, does outreach work primarily with CSWs, including the distribution of condoms and educational materials.

Fundación Knapp

This organization is active in funding the development, validation, and printing of educational material for the prevention of STD/HIV/AIDS.

Fundación Nacional de Prevención, Educación y Control del VIH/SIDA (FUNDASIDA)

This is the most active NGO operating at the grassroots level with only 20 members and eight active volunteers. Established in August 1992, it is primarily involved in educational prevention activities for adolescents age 13-19 from 12 area schools, for Evangelical pastors, the military, CSWs and MWM, and the provision of care, counseling, and emotional support of the HIV positive patient. FUNDASIDA receives approximately 25-30 referrals from Rosales Hospital each month, many of whom are the same patients, for provision of counseling and psychological support and provision of drugs, which are donated by FUSAL. Educational materials are provided by the MSPAS, and two-day seminars/lectures held at FUNDASIDA are typically given by the social worker at ADS. Future efforts will be directed to broadening the student education program and outreach to the population of MWM and the Fuerzas Armadas.

Olof Palme

Olof Palme is an NGO supported in part by the Norwegian government and PAHO, which works in health promotion for street children. Although they are primarily involved in providing housing for children, they receive \$US 3,000 from PAHO to assist 6-7 street children, who perform in a popular theater presenting works relating to STDs and AIDS. They also support educational activities with groups of women in health centers and community groups.

Proyecto de Salud Materna y Supervivencia Infantil (PROSAMI)

This NGO has been involved in the delivery of community-level health care for the last year and a half. They are currently working with 19 PVOs (nine for one year and 10 for three months). An additional 17 PVOs will begin working with PROSAMI in January 1994, directing activities toward families who are considered to be at high risk for health problems. In-home counseling and information is provided to families at risk, emphasizing the health of mothers and children. A few contraceptives, including condoms and oral contraceptives, counseling on the various methods available, and information on acute diarrheal disease, prevention of pneumonia, perinatal and maternal mortality, immunizations, and growth and development are provided. Training in STDs and HIV/AIDS prevention is included as part of maternal-child health (MCH) training, and promoters distribute antibiotics, fungicides, and oral antibiotics, such as ampicillin. They make referrals for the treatment of STDs to ADS. From January to June 1993, 865 group sessions and 9,292 individual sessions had been held, but reportedly HIV/AIDS prevention is not emphasized.

III ASSESSMENT OF SPECIFIC HIV/AIDS PROGRAM COMPONENTS

1 HIV/AIDS SURVEILLANCE

A Background Information

Epidemiologic surveillance is the ongoing and systematic collection, analysis, and interpretation of health data in the process of describing and monitoring a health event, in this case the HIV

epidemic. This information is used for planning, implementing, and evaluating public health interventions and programs. Surveillance data are used both to determine the need for public health action and to assess the effectiveness of programs.¹

This section describes surveillance for infection with HIV (asymptomatic infection does not meet the definition of AIDS). El Salvador has a "passive" surveillance system for HIV. That is, unsolicited reports of infection are sent by physicians and health centers to the regional health departments, which then send weekly summary reports to the Epidemiology Unit of the Ministerio de Salud Pública y Asistencia Social (MSPAS). The Epidemiology Unit asks physicians or the health care institution to contact cases after they are confirmed with Western Blot testing to elicit information regarding risk behavior. Reports include basic demographic data and the likely risk for infection (sexual, blood-borne, transfusion, injection drug use, perinatal, or undocumented). Reports are entered into a computerized database (Epi Info).

Sentinel surveillance is the systematic testing of blood samples from persons attending specific institutions, such as hospitals and specialty clinics, or those who work in specific jobs. Depending on the institution, these persons may be at higher or lower risk than the general population. In El Salvador, sentinel surveillance systems are maintained by the blood banks in El Salvador, which test all donated blood (serving the primary purpose of maintaining safe blood for transfusion) and the Hospital Maternidad (the maternity hospital in San Salvador). The Fuerzas Armadas (Armed Forces) have recently begun a sentinel surveillance project.

B Program Needs

The following are some concerns and constraints to an optimal program for HIV surveillance. They represent areas where proposed interventions would be useful, some of which require administrative changes only and others, which are not currently targeted by donor agencies that would require funding.

1 HIV testing. There is a need for continuing funding for HIV testing and the government laboratories should consider using alternative, less expensive strategies for confirming initial screening tests.

Tests for HIV are usually divided into two groups: 1) screening tests and 2) confirmatory tests. Screening tests are less expensive than confirmatory tests and are very sensitive. Thus, screening tests will identify "all" the positives, but may include false positives as well. Confirmatory tests are more expensive and more specific. On a group of samples which have tested positive by the screening test, the confirmatory test will weed out those false positives. One screening test is the Enzyme-linked Immunosorbent Assay (ELISA) which costs \$US 10. Its manufacturer reports

¹For specifics regarding evaluation of surveillance systems, see Centers for Disease Control. Guidelines for evaluating surveillance systems. MMWR 1988, 37(S-5)

a sensitivity of 100% and specificity of 99.9%. A second screening test is the Radio-ImmunoAssay (RIA) which is not popular because it requires radioactive materials. It is used primarily in research settings. Despite the high specificity of the ELISA, it is not adequate for diagnosis. A confirmatory test should also be performed. The most commonly used confirmatory test is the Western Blot, which costs \$US 35 and has 100% specificity. A new confirmatory test is the ImmunoFluorescence Assay, which also costs \$US 35, and is as specific as the Western Blot.

The gold standard for determining if a person is infected with HIV includes screening with Enzyme-linked Immunosorbent Assay (ELISA) or a similarly sensitive and specific test with confirmation by Western Blot testing. Both tests require relatively sophisticated technology, a skilled technician, and some costly reagents. The MSPAS and Cruz Roja are the only institutions that currently provide Western Blot testing. In the MSPAS this is sponsored by the Pan American Health Organization (PAHO), but this support will end in December 1993.

It would be less expensive to retest all positive screening tests with a second screening test rather than use a confirmatory test. Most of the false positives would be weeded out. WHO has suggested other protocols for testing such as two ELISA tests, which are significantly less expensive than one ELISA test and one Western Blot. PAHO and MSPAS officials are exploring other definitions of seropositive that do not require Western Blot testing, (e.g., two strongly positive ELISA results from different testing products). Testing is provided by most major health care institutions in urban areas at varying cost. The Cruz Roja charges 80 colones, and the MSPAS reported that cost depended upon the ability to pay at public facilities. Three or four private labs in San Salvador also offer confidential testing, but cost to patients was not determined.

2 Passive surveillance by the MSPAS There are no clear guidelines for reporting of cases, and laws requiring reporting of cases by physicians and laboratories are not enforced. The number of reported cases is likely to be an underestimate of the actual number, because many persons may be declining testing for fear of stigmatization, physicians may not recognize persons with high risk behavior, HIV/AIDS symptomatology, or may recognize the symptoms, but not report them, or there may be a shortage of inexpensive and accessible test sites. Therefore, the cases reported are unlikely to be representative of all cases.

The Epidemiology Unit asks the reporting physician or institution to interview the case-patient and complete a case report form that is used for all reportable infectious diseases, including HIV/AIDS. Most persons conducting the interview are not trained to effectively elicit risk information.

Data gathering needs to be understood at every level. For example, reporters may not understand the significance of absent information, or the difference between a "no" response and a question not asked. Moreover, the risk categories are not well defined and may be misinterpreted by the persons being tested. Rather than using the term "homosexual" or "bisexual," specific terms such as "man who has had sex with a man" and "man who has had sex with men and women" would

be preferable. We were told that some men do not consider themselves homosexual if they have had sex with another man as the inserting partner. The MSPAS reports 22% of cases with no documented risk. Rural areas report fewer cases, and this may be due to lower prevalence and/or to lower rates of testing and reporting.

3 Sentinel surveillance, Blood banks The surveillance data from blood donors needs to be carefully interpreted and used appropriately. The Cruz Roja has been testing all donated blood since 1987, and other blood banks more recently. Screening out higher risk donors through a directed interview (to prevent donors in the "window period") began at the end of 1991. In most health care institutions, family members and friends of patients are asked to donate (although the blood is not directed toward a specific patient). These requests may pressure persons who have engaged in high risk behavior to conceal their behavior and donate. Therefore, data from blood bank sentinel surveillance may be difficult to interpret, because the overall risk of the population is difficult to characterize.

4 Sentinel surveillance, Fuerzas Armadas The reason for testing in the Fuerzas Armadas is unclear, the objectives and the strategy for testing in this group should be clearly defined. The Fuerzas Armadas appear to be testing people solely for the purpose of removing them from duty as physicians or combatants. Their intention is to eventually test everyone. Men at higher risk have not been chosen for testing early in the project, although in combat zones during the war, the safety of blood transfusion and sexual practices may have put these men at a much higher risk. Men with a history of STDs (especially genital ulcers) or those seeking treatment are also likely to be at higher risk. Out of the approximately 30,000 persons in the Fuerzas Armadas, 5,475 (18%) have been tested and 15 (0.3%) have positive ELISA tests (no epidemiologic data were provided to us). To date, no cases have been tested by Western Blot.

5 Sentinel surveillance, Maternity Hospital The surveillance data from this group should be carefully interpreted and used appropriately. During 1992, 770 women entering the hospital to deliver were tested, but none were positive. In 1993, 754 have so far been tested, but only two were positive. All women presenting for delivery were tested during an approximately six-month period each year. Discarded samples of blood were used, identifiers were removed. Approximately 51% of the children born alive since March 1988 to February 1993 were born in a hospital. The remainder were delivered elsewhere. Approximately 36.4% were delivered in the midwife's house or were attended at home by a midwife, and the remainder, 12.5%, elsewhere or at home (ADS and CDC, 1993). Women delivering in hospitals may have a different risk for infection.

C Recommended Strategies

1 Testing

- The capacity for testing must be maintained. The World Health Organization considers persons who have two strongly positive ELISA results from different testing products to be HIV positive. This is less costly and more sustainable than one ELISA and one

Western Blot

- Testing accompanied by counseling should be widely available and affordable
- The MSPAS should consider making anonymous testing available for asymptomatic persons, in which demographic data are collected, e.g., age, sex, type of employment, municipality of residence, any and all risk behaviors. This practice might encourage more widespread testing and provide better information on the extent of the epidemic

2 Passive surveillance by the MSPAS

- Regulations for reporting should be well-defined
- Educate physicians and other health care providers, laboratory workers, and health center administrators on the importance of reporting, and other epidemiologic principles
- An examination of the reporting system to determine impediments to reporting would be useful, including interviewing laboratory workers, physicians, and patients
- If physicians are not reporting cases in order to preserve confidentiality, then the ways of reporting without names or other identifying information should be explored. Information should be collected, however, that will to the greatest extent possible avoid duplication of reports
- The epidemiologic report form for HIV infection and AIDS should be specific to the needs of this surveillance system. Having the same report form as for other infectious diseases is not adequate. Collecting information on risk behavior is critical. There should be a specific, detailed section for this information. Gathering information on AIDS-defining diagnoses at the time of diagnosis would be useful in establishing a medical profile on individuals with HIV/AIDS
- Ideally, the person who interviews the case-patient to elicit risk behavior information should be trained to conduct interviews. Ideally, local or regional health department officials should perform this function
- Major institutions conducting surveillance and epidemiologic studies need to communicate and coordinate efforts. This can be supported by the systematic and timely feedback of data and analysis from the MSPAS to reporting institutions. A periodic epidemiologic bulletin on HIV/AIDS sent to physicians would encourage reporting and keep physicians informed
- The quality of reporting should be periodically evaluated

3 Active surveillance by the MSPAS

- The MSPAS should consider organized testing of high risk groups, such as prostitutes and persons presenting with sexually transmitted diseases (especially genital ulcers) In the short term, the MSPAS should try to collect the summary information on STD referral and diagnosis that has been collected by the social worker at ADS
- Groups that were outside of the government's health care system during the war may have risks that are not well-recognized The MSPAS may wish to target areas for testing that have only recently come under the government health care system
- Specific rural areas should be targeted for testing to evaluate prevalence and quality of reporting

4 Sentinel surveillance, Blood banks

- Because blood donations must be tested, data should always be available on the number of persons who donate blood who test positive for HIV and characteristics noted during the pre-donation interview If appropriate pre-donation screening is done, this will be a low risk group

5 Sentinel surveillance, Fuerzas Armadas

- All cases must be confirmed with Western Blot or by a testing protocol endorsed by the World Health Organization such as two strongly positive ELISA results Nevertheless it is recommended that the Fuerzas Armadas require a Western Blot confirmation because the relative cost of false positives is higher in the army where the soldier's risk of transmission is less (e.g. compared to blood products) and the personal cost (e.g. expulsion from the Fuerzas Armadas) is more
- The Fuerzas Armadas may also want to encourage soldiers, who served in isolated areas during the war to be tested early on to detect those most likely to be infected

6 Sentinel surveillance, Maternity Hospital

- This is a group that the MSPAS may wish to follow through continued sentinel surveillance

7 Other sentinel surveillance

Because of the high cost of maintaining certain sentinel surveillance systems, the government or others may wish to perform periodic rapid (rather than continuous) assessment of certain groups or patients within an institution Such studies would provide information on the prevalence of infection at a single point in time One or another of these studies may be more feasible, or provide data that is of more interest than other studies Studies could be done in an anonymous, unlinked fashion (identifying information removed from samples) on discarded samples of blood

Blood should not be drawn specifically for this purpose. Groups that would be appropriate for this type of study include hospitalized patients, patients attending STD clinics, childbearing women (including those delivering outside the hospital), and other groups where samples of blood could be easily obtained.

8 Training

Training in HIV surveillance and other public health issues specific to HIV and AIDS is offered yearly at the Centers for Disease Control and Prevention (CDC) in Atlanta. This may be of benefit to staff of the MSPAS Epidemiology Unit.

9 Data analysis

Data collected through surveillance and specific studies should be analyzed periodically to determine which groups and areas to target for intervention. Training is needed for good analysis and interpretation of data. For example, issues of sensitivity and specificity of HIV tests are complicated. Additionally, the prevalence of disease in the population is of utmost relevance to the interpretation of any positive results - and the background prevalence can be ascertained only through seroprevalence studies. A minimum curriculum would include an understanding of rates, measures of association, standardization, and statistical significance.

2 MANAGEMENT OF SEXUALLY TRANSMITTED DISEASES

A Background Information

1 Introduction The prevention of STDs is relevant to an integrated HIV/AIDS program for three reasons: 1) The mode of transmission is the same (particularly true in El Salvador where more than 95% of HIV/AIDS cases are sexually transmitted), 2) STDs which involve genital lesions (syphilis, chancroid, herpes, lymphogranuloma venereum) increase the likelihood of HIV transmission, and 3) Individuals in later stages of the disease are more susceptible to opportunistic infections, leading to a synergistic effect on acquisition and transmission of STDs.

Eleven sites were visited, most located in San Salvador (Rosales Hospital, MSPAS Unidad de Salud, Barrio Concepción, the ADS-ETS clinic, the ISSS Specialty Hospital, one School of Nursing in San Salvador, and three private physicians' offices). In La Libertad, a city on the coast, other members of the HSA/ES visited the MSPAS Unidad de Salud and the "La Pacifica" brothel. In Santa Ana in the Western Region and in San Salvador in the Metropolitan Region, three pharmacies were visited. Original data obtained at these sites are found in APPENDIX III, p. 54.

2 Epidemiology Reporting and follow-up The MSPAS requires reporting of STDs from local health units, through weekly summaries sent to the Regional Epidemiology Office, which then sends them to the Epidemiology Unit of MSPAS. Information is sought on partners and then health workers attempt to contact them. Workers estimate an average of one to two partners.

named by each case, and approximately 50% of these are contacted (rather than 100%), however, other individuals interviewed considered these figures to be underestimates. They believe the majority of contacts are not listed due to the patients' desire to maintain their privacy.

Cases in the private sector are reported from ISSS and ADS. Diagnosis, treatment and contact notification are performed directly by these institutions. However, a few physicians interviewed in San Salvador, La Libertad and Santa Ana indicate that underreporting is attributable to the unavailability of Case History Forms, the desire to protect patients' privacy, and/or a lack of concern.

The MSPAS requires weekly reporting of cases of STDs. Reportable STDs are gonorrhea, syphilis, HIV/AIDS, chancroid, lymphogranuloma venereum, herpes and trichomonas. The ten-year reports are listed in Table 1 of APPENDIX III, p. 54, which represents all reported cases including ISSS statistics. The number of STDs is high, particularly trichomonas (18,244 reports in 1992), gonorrhea (6,688) and chancroid (2,453). Gonorrhea, congenital syphilis, HIV/AIDS, chancroid, lymphogranuloma venereum, herpes and trichomonas have increased during the past 5-10 years (ranging from 12% increase for gonorrhea to 1,400% increase for HIV/AIDS). ISSS statistics on workers and families covered by social security in Table 2 of APPENDIX III, p. 55, mirror these findings: gonorrhea and trichomonas were the most commonly diagnosed STDs, followed by candida, herpes and chancroid. Gonorrhea and trichomonas were also the most frequent reportable diagnoses made at the ADS-ETS clinic (Table 3, APPENDIX III, p. 56).

Three diseases have doubled in ten years: congenital syphilis, from 32 cases in 1983 to 70 in 1992, lymphogranuloma venereum (289 to 572), and chancroid (1,195 to 2,453). Herpes has doubled in five years (954 to 1,921), and AIDS has increased by 14 times in six years (16 to 224). Trichomonas has increased by 50% in five years, and gonorrhea has increased by 12% in the decade. Some of these increases may be due to improved reporting.

Overall, syphilis has decreased by half (4,025 to 1,698). However, syphilis remains a serious problem considering the number of cases of congenital syphilis and that in one study of 80 asymptomatic CSWs at La Libertad, 13% were positive. At the same clinic, approximately 100 RPRs are positive per month (out of 250-300 tests performed). This 33-40% positivity is not high relative to clinics in the U.S., however, 100 positive cases in a small community is high. These rates are much higher than the yield at the ADS-ETS clinic (14% positive). (See Table 5, APPENDIX III, p. 57.)

El Salvador also has a high incidence of cervical cancer, which is a marker for a history of STDs. Rates are at least twice what they are in the U.S., and cases occur in younger women. Among the Pap smears taken in the ADS family planning clinics, 7.2% revealed dysplasia.

3 Prevention Prevention activities are almost non-existent. However, a few specific populations have been targeted for prevention programs, particularly CSWs in the Barrio Concepción and La Libertad, and in "higher class" houses in San Salvador. Inspections, educational programs, and testing are performed by a physician (La Libertad) and a

nurse/sanitarian team (Barrio Concepción) A social worker (ADS-ETS/San Salvador) provides counseling and referrals to the ADS clinic Identification cards providing notice that CSWs are negative for HIV and syphilis are required, they last for six months The administrative or legal basis of the registration system is not known, however, the cards provide motivation for the CSWs to prevent STDs and to be checked regularly In Concepción all women are urged to have a VDRL every six months

Although many condoms are passed out, more are needed The La Libertad Unidad de Salud distributed 4,000 condoms in three months to CSWs and MWM This quantity seems low, and local authorities estimate that at least 1,000 sexual encounters are performed without condoms each month by CSWs in La Libertad

4 Clinical services STD services are available in public clinics (MSPAS), the private sector (including ISSS and private physicians' offices), and within the family planning clinics operated by ADS-ETS Access to clinical services is erratic due to insufficient physicians' hours, inadequate laboratories, fees and absence of identified times for STD treatment (to avoid stigma during regular clinic functions) The MSPAS operates 14 hospitals, one in each department, and 20 to 25 health centers in each department with "some" doctor coverage A visit costs three colones (25 cents), a physical examination, five colones (about 45 cents), and treatment, 15 colones each (\$US 1.30) A series of three shots for syphilis would cost \$US 3.90 MSPAS began charging for services as a means to make health centers self-sufficient Although patients are not refused services, if they are unable to pay, social pressure is strong Therefore, few avoid payment Health workers guess that patients would rather not come to the clinic than become "charity" cases Workers from the health centers go into small "cantons" where they do health education and promotion STD education is a small component of their overall focus on sanitation, maternal and child health, and family planning

5 Laboratory Laboratory quality for diagnosis ranged from excellent at ADS-ETS (capability of gram stains, VDRL, wet mounts, darkfield, cultures for chlamydia and gonorrhea, and testing for resistance to penicillin) to very poor at Rosales Hospital (no VDRLs nor culturing available, microscopes usually unavailable for either wet mounts or darkfields) Health centers run by MSPAS were highly variable--one not having a working microscope, another capable of everything except bacterial cultures and testing for antibiotic resistance Even with minimum laboratory equipment, diagnosis is often made on the basis of visual inspection and clinical judgment Instead of using the laboratory, such as examining a urethral discharge with a microscope, the clinician diagnoses on the basis of the appearance of the discharge, and his/her "experience" in determining whether this appearance resembles a discharge caused by gonorrhea, chlamydia, trichomonas, etc

6 Treatment MSPAS does not publish standard treatment guidelines for STDs Cephalosporins are not available for treatment of penicillin-resistant gonorrhea, nor are anti-fungal agents available for candida Ceftriaxone, the drug of choice for penicillinase gonorrhea, and anti-fungal drugs for treatment of candidiasis, were not available at the MSPAS site visited

ADS-ETS has an excellent protocol, which lists the description and diagnostic procedures (both for the physician and the laboratory) and appropriate treatments for the major STDs. ADS-ETS supports this protocol with adequate staff, supplies, and medications.

7 Integration with HIV/AIDS services HIV/AIDS is considered distinct, by many in the population, from other STDs. For example, it is considered the disease of MWM, or "foreigners." However, there are two concrete examples of the beginning of the integration of HIV/AIDS prevention with extant STD programs:

- 1) In rare instances, patients who have an STD, usually syphilis, are offered an ELISA HIV test.
- 2) Outreach programs to educate CSWs include STD awareness with HIV/AIDS education.

8 Integration with MCH/FP services STD services are offered in the same clinics as MCH/FP services. No free-standing STD clinics were identified. Free-standing STD clinics provide an opportunity for persons to receive services who might be otherwise reluctant to attend an "integrated" clinic. Quality of care might be superior in that clinicians would be more familiar with diagnostic techniques and treatment. However, services within MCH/FP clinics are usually physically separate and do serve different populations. Condoms distributed for family planning do not seem to serve their equally important function of preventing STDs.

9 Training Training of health professionals is variable. Several physicians reported that medical students receive very little training in STD diagnosis and treatment, and even less in STD prevention. Training focuses on theoretical issues such as pathophysiology, rather than practical experience in diagnosis and treatment.

ADS-ETS is effectively training its health professionals through off-site programs in STDs.

10 Access to STD care

CSWs Female CSWs in San Salvador and La Libertad have access to education, prevention (free condoms), diagnosis, and treatment. Reports from more distant clinics indicate that services are worse in other locations.

MWM Work to date with the larger population of MWM is extremely limited, especially those who perceive themselves as homo- or bisexual, yet who are engaging in sexual relations without a condom. No program has formally addressed the transvestite/transsexual CSWs. Although two who were interviewed said they used condoms with their clients ("but not their boyfriends"), they said that many of their colleagues did not because of dissatisfaction.

PWP There is no workplace program for prevention, education, diagnosis, or treatment of STDs. Condoms distributed by ISSS are for family planning purposes.

Youth Every young person asked stated that s/he had received sex education in public school, but that it did not include any information regarding STDs.

Men and Women of Reproductive Age Women aged 15-30 should also be a special group on which to focus However, because need for family planning, pre-natal and pediatric services may provide the motivation for ancillary STD services in young women, young men, who are not otherwise motivated to seek medical attention, may be a more important group to target

B Program Needs

1 Epidemiology

- The current reporting system does not effectively serve as a surveillance nor follow-up program
- Contact tracing/partner notification is at most 50% While 50% throughout El Salvador would be a reasonable goal, contact tracing/partner notification should be 100% That is, every contact is identified, traced, and offered STD preventive services

2 Prevention

- Efforts to reduce risks among CSWs should be supported and expanded
- Risk reduction should also occur at other points of entry into the health system, particularly at family planning clinics
- Condoms need to be more widely available and promoted among all sexually active persons
- Education regarding prevention through peer counseling and clinic counseling should be expanded to adolescents, women, CSWs and their partners, and MWM

3 Clinical services

- Clinical services for target groups (CSWs, FP patients, MWM and Men in Work Places [MWP]) need to begin Patients seeking treatment for other reasons, particularly family planning, need an evaluation for STDs
- Laboratories and treatments must be maintained Access to clinical services is erratic, due to insufficient physicians' hours, inadequate laboratories, fees, and absence of identified times for STD treatment (to avoid stigma during regular clinic functions)

Conclusions

- Summary statistics are extremely conservative because physicians/health centers do not report to MSPAS, because they are not aware of the law, they do not wish to take the time, and/or they want to protect their patient's privacy

- ISSS data also reflect high rates of gonorrhea and trichomonas, candida, herpes, and chancroid
- Risk reduction efforts have occurred among groups of CSWs, but counseling and education are largely absent in the public sector. ADS has begun an excellent program with CSWs in San Salvador, which could be a model for more programs
- Condoms have been promoted to prevent STDs mostly among CSWs
- Sex education in schools does not include prevention of STDs
- Diagnosis and treatment are highly variable. The MSPAS operates no free-standing STD clinics. According to the MSPAS physicians interviewed, most cases are diagnosed without laboratory investigation
- The ADS operates an STD clinic which provides good services
- STDs are not diagnosed because patients do not have symptoms, patients with symptoms diagnose themselves and never seek clinical services, physicians make incorrect diagnoses because they lack time, training, and/or adequate laboratory tests
- Laboratories have inadequate supplies, health centers have insufficient personnel, and health care workers generally have deficient training in STD prevention, diagnosis, and treatment
- Appropriate antibiotics are not available. For example, cefuroxime (to cure gonorrhea resistant to penicillin) and ketoconazole (to treat candidiasis [vaginal yeast]) are not widely available
- The strengths of the current programs on which to build STD prevention/services are
 - 1 Required reporting and follow-up of STDs by MSPAS
 - 2 Good clinical services through ADS-ETS and ISSS
 - 3 Protocol manual developed by ADS
 - 4 Prevention programs directed toward CSWs by ADS and MSPAS
 - 5 Peer-to-peer education, which includes STD prevention strategies for adolescents, women, CSWs and their partners, and MWM
 - 6 Availability of condoms, at least for family planning purposes

C Recommended Strategies

Epidemiology

- Enforce current notification requirements throughout both the public and private sectors

through education and feedback to notifying doctors

- Educate physicians and other health workers in the relevance of STD epidemiology and follow-up of reported cases. Efforts to identify and contact partners should be expanded with a goal of increasing notification to at least 75% of named partners
- Include chlamydia in the list of reportable diseases. Even if diagnosis is poor at present, its inclusion will increase physicians' awareness of this important STD and efforts to assess its epidemiology can be initiated
- Evaluate the efficacy of additional resources through systematic and timely evaluation. As more resources are allocated for STD prevention, diagnosis, treatment, and control, studies of prevalence should be conducted to verify efficacy of changes. If rates do not diminish, alternative strategies should be employed

Prevention

- Establish national standards and protocols for prevention
- Develop a curriculum, integrated with HIV/AIDS education, for use in primary and secondary schools
- Provide more condoms and promote them as protection against STDs
- Continue support for the MSPAS AIDS telephone hotline
- Continue to support the ADS-ETS and expand its methods to the MSPAS programs

Clinical services

- Educate health care workers, particularly physicians, in diagnostic and treatment protocols
- Provide adequate equipment and materials for diagnosis, with the goal of upgrading to the level of WHO STD laboratory recommendations (WHO/VDT/89.443). Develop, disseminate, and evaluate standard procedure and quality assurance guidelines. At a minimum, each health center should have the capacity to perform gram stains, wet mounts, and RPR tests
- Establish a national reference laboratory where cultures for gonorrhea, chancroid, and chlamydia antigen-testing could occur
- Provide basic antibiotics, particularly cefuroxime (to cure gonorrhea resistant to penicillin) and Ketoconazole (to treat candidiasis [vaginal yeast])

- Expand services to lower risk persons, such as MWP and women seeking family planning
- Integrate with other clinical and preventive services, particularly family planning programs, health promotion efforts in the outlying areas, and maternal-infant health programs
- Increase physician coverage in health centers
- Offer special STD sessions at MSPAS health centers on a weekly basis

3 CONDOM DISTRIBUTION

A Background Information

USAID/El Salvador provided a little over 4 million condoms to various programs in the country in 1993. The majority of these condoms (2,328,000) went to the social marketing organization ADS through the IPPF affiliate PROFAMILIA for family planning purposes and STD prevention.

Although the condoms are priced lower than what should be required for a successful social marketing program, sales and use rates are still very low. Assuming that all of ADS condoms are sold, the per capita sales rate is still only .4 compared to 1.0 to 1.6 per capita sales in Costa Rica. The overall condom use rate among married women aged 15-44, as reported in the FESAL-93 survey, is only 2.1% down from the 2.4% reported in 1988 (ADS and CDC, 1993).

The social marketing brand condom is priced at a US equivalent of just over 3 cents (30 centavos). With El Salvador's per capita GNP of \$US 1,070, the social marketing condom price could easily be raised to three times the current level and still reach the target audience of lower income Salvadorans with appropriate promotional, advertising, and marketing practices.

Free condoms are distributed through PROSAMI, MSPAS, FUNDASIDA, and ISSS as well as through the ADS family planning/STD clinics but to such a small extent that it can not be claimed to be the reason for low sales figures.

B Program Needs

The most important area for improvement rests in an improved condom social marketing (CSM) program. The per capita income in El Salvador is great enough to justify a minimally subsidized social marketing program that would use international CSM pricing standards. Pricing is roughly calculated at 1% of the per capita GNP for a year's supply of condoms (100 units). Of course this figure is based on the family planning model, and the number of condoms needed by the CSW or homosexual male is many times greater. The formula is nevertheless valid in pricing the condom for the lower income segment of the population. The objective of this strategy would be to optimize the balance between affordability and sustainability. Any extra income generated could be applied to a revolving fund to support purchasing condoms on the world

market and/or increasing advertising and promotion activities

It is assumed that since the ADS program has been in effect since 1976, outside technical assistance is needed to develop a comprehensive and effective marketing and distribution plan. Condoms can be purchased with foil wrappers, packaged and stamped with a logo for under \$US 03 including delivery to port. CSM condoms priced at approximately \$US 10, compared to \$US 33 for other commercially available condoms in El Salvador, would provide a good portion of the additional funds necessary to adequately promote the CSM brand and increase overall usage.

C Recommended Strategies

Correct and consistent condom use is the most effective weapon we have for the prevention of HIV/AIDS and other STDs. The following recommendations would benefit all HIV/AIDS prevention efforts in El Salvador by providing for the increased use and supply of condoms.

- 1 Perform a technical assessment of the current CSM program Recommendations are needed for the appropriate expansion into both traditional and non-traditional outlets such as bars, motels, and gathering places for populations at high risk. The critical review of the program would also provide needed recommendations for increasing market share at a price level more appropriate to the economic conditions.
- 2 Increase promotion and advertising of CSM brand condom Both generic and brand specific condom advertising is needed to increase the acceptance and use rate of condoms. Pricing alone rarely sells a product, and too low a price can have as negative an effect on the brand as too high a price. Point of Sale materials need to be widely distributed to serve as a constant reminder to consumers and potential consumers of the product's benefit(s) and availability.
- 3 NGOs and other private sector organizations should be encouraged to become involved in CSM activities CSM activities through peers working with all of the target populations has proven to be very effective in increasing condom use/sales in other countries. Manufacturing, transportation and other businesses have become involved in HIV/AIDS prevention in collaboration with local NGOs by supporting these types of activities effectively leveraging the financial resources of the program to reach a wider audience.
- 4 Evaluate and establish an appropriate Logistics Management Information System for the public sector distribution of condoms Information on condom distribution is scarce, but it would seem that storage in many cases is poor, as is the tracking of supplies. Condoms which arrive damaged or are made useless by poor storage conditions discourage use. The development of a comprehensive logistics program is necessary to get the most benefit of all condoms brought into the system.

4 BEHAVIOR CHANGE COMMUNICATION

A Background Information

1 Level of general information In reviewing the available evidence on the extent of AIDS knowledge, it is clear that a large proportion of the population is well informed on the means of transmission of the HIV virus. According to the Encuesta Nacional de Salud Familiar (FESAL-93), among the 6,121 women age 15-49 who were interviewed (unweighted responses), more than 90% cited blood transfusions, homosexual relationships, heterosexual relationships, and injections with previously used nondisposable needles or syringes as possible sources of transmission. Moreover, 92.4% knew that perinatal transmission could take place at birth, and 89.2% cited breastfeeding of an HIV positive woman as a possible source of infection.

Despite this high level of accurate knowledge, some important misconceptions also exist on the transmissibility of the virus, relating to kissing the forehead (15.2%), kissing on the mouth (41.9%), donating blood (89.5%), shaking hands with someone (13.4%), and using tissues previously used by another person (79.4%). Approximately one-fourth of the women felt that they were at some risk for contracting AIDS, indicating the need for more accurate information relating to prevention. Unfortunately, 17.2% believed there was a cure for AIDS (ADS and CDC, 1993).

Fear of the disease, coupled with the association of AIDS with stigmatized groups such as gay and bisexual men, and the perceived higher risk of infection experienced by some individuals due to previous sexual activities have produced barriers to the adoption of safe sex behavior and testing through denial, fatalism, and inertia. Another contributing factor to denial of susceptibility relates to historical events. Reportedly large numbers of people practiced unsafe sexual behaviors during the period of social disruption characterizing the 12 years of civil conflict, but there is no evidence to support or refute this impression. Moreover, HIV testing of the blood supply began in 1987, three years following the first diagnosed AIDS case. Although only 13 cases of transfusion-associated HIV infection or AIDS have been reported, this is likely to underrepresent the actual situation.

2 Media materials developed to date Most of the media materials reviewed, including print and audiovisual materials, are produced by the Departamento de Comunicación y Producción Educativa of the ADS or by the Departamento de Educación de Salud of the MSPAS. Publication is usually undertaken by these groups working in collaboration with PROSAMI and ISSS, to print and distribute educational material. There was no opportunity to directly assess institutional capability and experience in media development.

Efforts to educate the population on HIV/AIDS prevention have concentrated on use of mass media television, radio, and a billboard in San Salvador. Small media materials have concentrated on the production of audiovisual slides, flipcharts, posters, and the production of booklets relating to menstruation, adolescent sexuality, condoms, and the prevention of STDs.

The materials identified are designed for promoters to distribute or are provided to inform individuals waiting to receive family planning or STD services. Although health promoters working for PROSAMI and ADS and MSPAS health units are provided with these materials, they are heavy to carry to individual and group counseling sessions and cannot be left in homes, where other family members can read them and discuss the information. No media materials were located, which were developed for specific high risk groups, such as CSWs and their clients or MWM.

The instructional flipchart on HIV/AIDS is available to all health institutions, but appears to be used primarily by PROSAMI health promoters. It provides information on the following subjects: definition of the disease, stages of the infection, most common signs and symptoms, modes of transmission through sexual relationships, transfusion of infected blood, use of objects contaminated with blood (such as needles, brushes, and razors), perinatal transmission through birth and breastfeeding by HIV positive mothers, and homosexual and heterosexual sexual relationships, which involve the exchange of semen or blood. Appropriate means of prevention and unlikely routes of transmission are also covered.

However, the relative risk of infection is not differentiated, which may account in part for the levels of misinformation on particular modes of transmission. For instance, individuals are urged not to share personal items, such as toothbrushes and razors. Saliva from adult patients has been shown to be infrequently positive (Ho et al., 1985), and the virus is present in only small quantities relative to the volume of saliva. Although some risk of infection from shared use of a toothbrush or razor through bleeding gums or open sores remains a possibility, only two cases of infection between foster children residing in the same residence have been reported to CDC as attributable to these causes. It is thus highly unlikely that HIV transmission occurs from sharing these and other personal objects.

Fear of contagion also exists among medical personnel. AIDS patients who are close to death are sometimes referred to the AIDS ward at Rosales Hospital in San Salvador, a small unit with six beds, which is the primary care center for AIDS patients, receiving referrals from other regional hospitals. Fear of contagion on the part of the employees has resulted in the need seen by MSPAS staff members to provide intensive education to all levels of the hospital staff. Transfusions are also depicted as a source of infection, despite the current screening of the blood supply.

Although materials relating to condom use as a preventive measure appear in all of the flipcharts, there are no detailed instructions on accurate application or cautions against the use of lubricants. There is no mention of sources of testing for those who wish to know their serostatus or the meaning of positive or negative test results. Due to the latency period between exposure to and infection with HIV, individuals may not be certain of their or their partner's health status, a point which also needs to be made.

AIDSCOM, a USAID/W centrally-funded communications project assisted in establishing a telephone hotline at the Red Cross, which was funded by PAHO. Funding has now ceased, and

only one hotline at the MSPAS remains active, which has been funded by PAHO since late 1990. The hotline operates eight hours a day from 8 am to 4 pm, and approximately 50-70 calls are fielded each day. An interview with the woman in charge of the hotline revealed a great deal of interest on the part of all segments of the population to learn more about HIV prevention. The most frequently asked questions include what is AIDS, what are the primary modes of transmission, symptoms, how to detect the virus, where to go for testing, and information relating to access and correct use of condoms.

3 Peer education and outreach efforts Although a good deal of information needs to be provided on risk factors for transmission, as well as increased accessibility and knowledge on correct condom use, some excellent examples of information, education, and communication (IEC) efforts exist in El Salvador. No formal evaluations have been conducted of these efforts, however, it is clear that different segments of the population have received information on HIV transmission and prevention. For example, the FUNDASIDA peer educator program, provides information on the prevention of STD/HIV/AIDS to Evangelical pastors, students, and adults, who in turn inform others in their communities. In FY 1992, Visión Mundial cooperated with FUNDASIDA and the Metropolitan Region MSPAS and arranged training sessions in the prevention of AIDS, in which 221 community leaders, primarily students, 100 pastors and copastors, and 30 employees of NGOs participated. They, in turn, serve as peer counselors in their communities.

Efforts to reach high risk groups appear to be limited to the provision of condoms to 28 brothels in San Salvador and elsewhere. Condoms are provided directly to 139 CSWs, rather than to brothel managers, by the ADS social worker who is available for consultations, if advisable, the CSW is referred to the ADS-STD clinic for treatment or HIV testing, which forwards the blood sample to the Cruz Roja for testing. Between January and September 1993, the ADS social worker reported 705 house visits and 293 visits to "high risk" places had been made to motivate women for family planning, pap smears, STD diagnosis and control, and HIV testing. As of the end of September 1993, 115 women had been encouraged to receive STD diagnosis and 131 to receive HIV testing. Among these women, only one tested HIV positive. Pre- and post-test counseling is conducted by the ADS social worker. Some training in AIDS counseling has been provided by the Salvadoran and American Red Cross and the Ministry of Health.

B Program Needs

1 Training in formative research IEC technical capacity at these institutions can be improved through training in formative research, message design, and materials production. One effective approach rests on surveying pharmacies and retail outlets to uncover obstacles that adolescents may face in purchasing contraceptives or reviewing commonly asked questions regarding HIV/AIDS prevention addressed in the hotline. An area of special concern relates to concerns regarding correct use of condoms. Two-day presentations made at FUNDASIDA are typically followed by evaluations, which indicate the area of new knowledge acquired by the participants to provide information deemed important in HIV/AIDS prevention. This information can provide teens with ideas for the development of pamphlets for peers on HIV/AIDS prevention or advice on purchasing condoms.

2 Training in message design IEC materials should be focused on behavior change, not information. To overcome barriers to change, efforts are needed to continue reliance on intensive interpersonal communication strategies, in order to personalize individual risk and use multiple channels to reinforce these messages through creative use of small media materials. Both flipcharts and pamphlets produced mainly for adult audiences need to be developed with more accurate information on the relative risk of transmission from different sources, in order to reduce the level of misinformation.

3 Alternative small media materials More thought needs to be given to alternative sources of information, other than the flipcharts for instructional purposes. AIDS fotonovelas with story lines that relate directly to appropriate appeals and reference subgroups need to be developed.

4 Interpersonal counseling The work being conducted by the social worker at ADS is exemplary, and more resources should be devoted to the training of individuals capable of providing counseling and referral to STD treatment in San Salvador and elsewhere to expand current knowledge of health promoters and the staff of ADS, who provide STD referrals and pre- and post-HIV test counseling.

Although there are other high risk groups in San Salvador, including CSWs who are non-establishment based and MWM, access to these groups through gathering places does not exist. According to FUNDASIDA personnel, reportedly only one owner of a discotheque, which is frequented by MWM, is willing to participate in HIV/AIDS prevention education and activities. An outreach program to CSWs, who are working on the street should also be considered. Small media materials for these groups need to be developed, involving group members in their design.

5 Media materials for adolescents In San Salvador, adolescents have limited access to family planning aside from the special clinic run by ADS. The materials currently available in ADS clinics include two booklets on the development of sexuality and menstruation. Peer education efforts funded by FUNDASIDA should be expanded to ensure that students outside of San Salvador also receive information. Efforts need to be expanded to reach out-of-school youth, preferably through peer counseling or the theater group sponsored by Olof Palme.

6 Evaluation efforts Efforts at formal training in educational methodology are recent. A seminar/workshop was held in July 1993 on the employment of educational methodology directed to MSPAS health educators. However, no formal evaluations of previous educational materials and campaigns have yet been conducted, and it is impossible to assess the impact of these materials on behavior change.

C Recommended Strategies

1 Strengthening the technical capacity of NGOs

The technical capacity of NGOs to provide high quality IEC interventions can be strengthened through

- Improvement in IEC technical capacity, that is, training in formative research, message design, and materials production
- Greater research efforts focused on specific target groups, specifically the comprehension of print and audiovisual materials and their impact on behavior change
- Fostering information exchange about lessons learned between the staff of the MSPAS, ADS, and FUNDASIDA
- Expanding the staff of the ADS, who provide STD/HIV/AIDS counseling

2 Developing appropriate messages

- Small media materials, especially pamphlets, need to be developed on ways to prevent HIV/AIDS prevention, advice on purchasing condoms, and other appropriate messages
- Many of the messages can be used as the basis for dialogue between counselors/providers and clients or to build community education campaigns and can be conveyed in visual or audio media, on posters in clinics, on radio and television
- Visual and verbal reinforcement of the themes developed can be made through billboards, newspaper, or magazine features in connection with special commemorations, such as World AIDS Day

3 Developing small media materials

- Small media materials need to be developed with correct information on the modes of transmission and information on prevention and testing
- Future materials should focus on the development of AIDS fotonovelas with story lines that relate directly to appropriate appeals and reference subgroups
- Posters and flyers are the most malleable of the mass marketing tools and can be adapted and tailored for each of the target groups and posted or distributed in specific locations to reach different groups

5 PREVENTION OF TRANSFUSION-ASSOCIATED HIV TRANSMISSION

A Background Information

Blood transfusion is a well-documented and effective mode of transmission of HIV. In order to reduce transfusion-associated transmission of HIV, there must be blood banking, identification and recruitment of low risk blood donors, provision of essential laboratory services and HIV

testing, prevention of unnecessary transfusions, and prevention of severe anemia. The major health care providers, the Cruz Roja Salvadoreña, and the Association of Clinical Laboratories (Junta de Vigilancia de la Profesión en Laboratorio Clínico) have recently formed a national blood bank commission (Comisión Red Nacional de Bancos de Sangre El Salvador). This commission has written voluntary standards for blood collection and testing.

The primary purpose of screening out high risk donors and testing blood for HIV-antibodies is to prevent HIV infection through blood transfusions (see APPENDIX II for a sample registration card for donors used at blood banks). Only 13 cases of transfusion-associated HIV infection or AIDS have been reported, although this is likely to underrepresent the actual number of cases. While the blood supply in El Salvador is safe, efforts should be made to maintain and even increase this security.

B Program Needs

The following are some concerns and constraints to an optimal program for blood safety. They represent areas where proposed interventions would be useful, some of which require administrative changes only, and others of which would require funds but are not currently targeted by donor agencies.

1 Blood banking. There is no central authority which governs blood banks nor any formal association of the various blood banks to facilitate sharing of guidelines and resources. There are multiple blood banks under the jurisdiction of different parts of the health sector that comprise an informal association.

2 Identification and recruitment of low risk blood donors. There is a need to improve recruitment efforts to select donors who do not practice known high risk behaviors. Also efforts should be strengthened to selectively screen and defer those donors who do practice high risk behaviors. Salvadorans may not be well-informed on the importance of donating blood. Screening interviews began only in 1991. Interviewers are sometimes laboratory personnel or, in the case of the Fuerzas Armadas, superior officers. These interviewers may not be trained to effectively elicit risk information. Although the Cruz Roja accepts only non-remunerated volunteer donors, virtually every other blood bank (public, private and military) recruits donors, who are family members or friends of surgical patients. Donation is required for elective and non-emergency surgery. This pressure to donate is equivalent to paying for blood. Persons may be reluctant to admit high risk behavior for fear of being rejected as a donor. Anecdotally, wealthier patients are reported to pay people to donate. The FESAL-93 survey indicated that many people believe donating blood is a risk for HIV infection. Clearly, this belief will prevent people from donating.

3 Provision of essential laboratory services and HIV testing. Equipment and supplies for screening of blood are often not maintained, and back up support is not always available to assure a reliable safe blood supply at all hospitals. HIV testing of the blood supply began in 1987. Several hospitals occasionally depend on the Cruz Roja for blood or testing. The

Maternity Hospital has been without adequate equipment for blood banking since April 1993 and depends completely on the Cruz Roja. Since 1986, when an earthquake disrupted services at the Bloom Hospital for children, it has depended on the Cruz Roja.

4 Prevention of unnecessary transfusions No needs determined since these were not assessed

5 Prevention of severe anemia No needs determined since these were not assessed

C Recommended Strategies

1 Blood banking

- Blood banking must be supported to maintain the safety of the blood supply
- Equipment for collecting (e.g., sterile needles, collection bags) and storing blood (e.g., refrigerators) must be present in every blood bank
- Banks should have the materials available for splitting units into pediatric packs

2 Identification and recruitment of low risk blood donors

- Further education of the population on the importance of donating blood voluntarily
- The population should be educated regarding the absence of risk for HIV infection through donating blood
- The MSPAS and the Cruz Roja should conduct frequent and organized campaigns, encouraging donation at various locations such as churches, schools, and businesses
- The Cruz Roja has a single mobile unit for collecting blood, which should be utilized more for areas inside and outside of San Salvador. In the short term, this unit could collaborate with other health promotions, such as vaccination campaigns or health education, where they could collect blood at the same time. In the long term, having another vehicle available for collecting blood on a more regular basis may be useful.
- Persons conducting the pre-donation interview (screening out high risk donors) should be trained in methods for eliciting this information
- There should be increased use of non-remunerated volunteer donors, so that there can be decreased reliance on recruiting family members or friends of patients

3 Provision of essential laboratory services and HIV testing

- Procurement and distribution of test kits is not sufficient to maintain the safety of the

blood supply, an integrated approach as outlined here must be utilized

- Laboratories must be equipped with appropriate equipment for testing. There have occasionally been shortages when a blood bank has had to rely on other laboratories for testing

4 Prevention of unnecessary transfusions

- If data are not available, a formal evaluation would be useful
- Physicians should be well-instructed in the use of blood transfusion, evaluating hemoglobin as well as clinical criteria, and should receive continuing medical education in the use of blood components

5 Prevention of severe anemia

- If data are not available, a formal evaluation would be useful

6 POLICY DEVELOPMENT

A Background Information

Although the efforts of the National AIDS Control Program (NACP) are limited in scope, progress has been made in relevant areas conducive to HIV/AIDS prevention. The GOES approved in April 1993 Legislation for Research, Prevention and Control of AIDS and created CONASIDA. Manuals on HIV/AIDS prevention and control, biosecurity, and criteria for the selection of blood donors have been developed and distributed. A national blood bank commission has been created and is in place. In addition, the MSPAS plans to absorb the salaries of the NACP staff members beginning in 1994.

Despite the above mentioned achievements, a significant barrier to the development of an effective HIV/AIDS intervention program in El Salvador is the lack of political concern and desire to address the epidemic. Both the GOES and the Salvadorans currently view this epidemic only as a health problem and from a curative standpoint. Little attention is paid to the social, political, human rights, economic, and development aspects of the epidemic. This is compounded by a lack of consensus on the magnitude and seriousness of HIV/AIDS among the government, business and tourist sectors, and international donor agencies. The response to the epidemic in terms of quantity and quality of effort has, therefore, been limited and the long-term threat to the overall well-being of the country is being ignored.

Policy development activities are needed to enable national collaborators to lead and sustain a policy dialogue over time to create an environment conducive to HIV/AIDS prevention, and to provide policy makers with a full vision of HIV/AIDS as a development issue. The primary targets for policy activities should be business leaders, especially those involved in industries that

are most likely to be affected by HIV/AIDS and/or have resources available to invest in prevention, government officials, with a particular focus on the Ministries/Departments of Health, Finance, Planning, Labor and Education, and health care policy makers including public, private social security and religious leaders

B Program Needs

HIV/AIDS prevention and control programs in El Salvador must be willing and able to adapt to the political, economic, and social realities of the country. Technical support and assistance in policy formulation would allow Salvadoran collaborators to identify pertinent obstacles and opportunities, and facilitate the implementation of HIV/AIDS prevention programs. Some of the policy issues to be addressed include the following:

1 Policy priority HIV/AIDS prevention has not been declared a priority area by the GOES, as demonstrated by the lack of funding for recurring costs for reagents, condoms, and STD drugs. Political will is needed to gain support and resources for HIV/AIDS programs. Current HIV/AIDS programming efforts are insufficient. HIV/AIDS prevention programs need greater technical, managerial, logistical, human and financial support, and assistance from the GOES, the private sector and international donor community.

2 HIV/AIDS surveillance and reporting Health care providers in the private sector do not consistently report HIV/AIDS to the MSPAS. Physicians in the public sector do report HIV/AIDS. The epidemiologic form needs to be reviewed, in order to reduce the level of underreporting.

3 Health care delivery system The government currently lacks a policy on HIV/AIDS universal procedures. Salvadorans with HIV/AIDS are directly or indirectly neglected/rejected by the public and private health care systems. Physicians, in general, as well as paramedical and ancillary personnel, need to be safeguarded through adequate supply of protective clothing and gloves and retrained to adequately handle persons with HIV/AIDS. Universal guidelines should reinforce preventive measures over curative and address the misconception that mandatory HIV testing is an effective prevention measure.

4 HIV testing policies Practices in the private sector regarding HIV antibody testing present unique challenges to human rights issues. Pre-employment HIV testing is rising, HIV positive individuals are not offered employment, and employees who test positive are usually terminated. A greater emphasis on confidentiality (anonymous unlinked testing) needs to be addressed, as well as laws protecting HIV positive individuals.

5 HIV/AIDS education Sex education through the national school system is limited in scope and breadth. The Ministry of Education, in conjunction with the Ministry of Health, should conduct a thorough assessment of its sex education efforts leading to the development and implementation of an effective age-appropriate human sexuality/STD/HIV/AIDS curricula.

C Recommended Strategies

In order to achieve a more effective policy environment, which will enhance HIV/AIDS prevention efforts, USAID/El Salvador should work with policy makers, national collaborators, and international donors to create a policy dialogue that will modify policies that hinder HIV/AIDS interventions. Appropriate activities include, but are not limited, to the following:

- Implement a program to raise awareness and develop consensus among policy makers and business, community, and religious leaders on the significant threat of HIV/AIDS to the social, economic and political well-being and development of the country
- Provide leaders and resource holders in all sectors and from all levels with the information and motivation to develop policies conducive to supporting and implementing HIV/AIDS prevention programs, and to generate and mobilize necessary resources for sustainability
- Identify and address formal and informal rules, regulations, plans, and practices in the public and the private sector that are relevant to the implementation and success of HIV/AIDS interventions

IV PROBLEM STATEMENT

El Salvador has a territorial extension of 21,049.79 Km², a population of 5,251,679 inhabitants and a population density of 250 per square kilometer. The population is rapidly increasing due to a high birth rate and a descending mortality rate. The population is eminently young: close to 60% of the population is under 20 years of age. The MOH, ISSS, and national and international NGOs provide maternal and child health services, especially in communities that were affected by the war, however, many rural communities still do not benefit from these efforts. In addition, most of the physicians and health care workers are concentrated in the capital city and/or principal cities of El Salvador.

Underregistration of mortality in El Salvador is estimated at 29% (PAHO, 1990), and in terms of morbidity the estimates range from 50 to 60%. There is no accurate picture of the HIV/AIDS epidemic due to the lack of a reliable epidemiologic reporting system and the substantial underreporting in the country. The majority (82%) of the reported AIDS cases are among those aged 15-39, the primary mode of transmission is heterosexual (96%), the male to female ratio has changed from 15/1 (1984-87) to 3 3/1 (1993), and STD rates are high and increasing. This is consistent with patterns found in other countries with significant HIV/AIDS epidemics: early increases in HIV among risk groups followed by levels of infection among sexually active men, then slow and steady increases in HIV in the general population, particularly the economically productive, the sexually active and the female sub-populations. The limited data available suggest, however, that the HIV/AIDS epidemic is rising steadily and is becoming well established among a cross-section of the Salvadoran society.

An assessment of HIV/AIDS in El Salvador cannot be viewed only as a local problem, but rather as part of a regional issue. There is a lot of internal, regional and international migration stimulated by the harvesting of coffee, cotton, and sugar cane (internal), by a tendency of countries and border zones to become more economically integrated (regional), and by economic and political considerations (international). Hence, the HIV/AIDS epidemic in El Salvador is compounded by the changing demographic patterns of disease transmission due to an increase in population migration.

The above mentioned conditions are aggravated by an institutional response to date and current HIV/AIDS programming efforts, which are considered insufficient to slow the spread of HIV in El Salvador. The epidemic is hardly considered a problem within the general population, including medical and paramedical personnel, and the strategic approach addresses HIV/AIDS as a health and not as a socioeconomic development issue. While existing activities attempt to raise personal awareness, particularly in core groups which practice high risk behaviors, they have not created a widespread demand for information and services. Awareness must be raised and consensus developed among resource holders in all sectors and from all levels, ranging from international donors to local community leaders, of the significant threat to the social, economic, and political well-being and development of El Salvador. Meaningful HIV/AIDS prevention efforts require real political commitment and an effective public policy to frame national-level HIV/AIDS prevention programs.

Key issues, then, which must be addressed in an effective HIV/AIDS prevention effort in El Salvador include, but are not limited to, the following:

- Improving information about the extent of the current HIV/AIDS problem and mobilization of policymakers in both the public and private sectors to increase and generate support for HIV/AIDS prevention activities
- Increasing both widespread and targeted access to and use of condoms for HIV/STD prevention
- Improving access to STD services in the public and private sector through strengthening existing MOH, ISSS, and NGO services and expanding the participation of other health services
- Coordinating the support of international donors to improve allocation and use of existing resources

V RATIONALE FOR PROPOSED STRATEGIC APPROACH

The strategy recommended to USAID/El Salvador for reducing the spread of HIV in El Salvador emphasizes a focus on specific target populations, geographic areas, and combined prevention intervention strategies. Through **targeting** populations with the highest HIV incidence and seroprevalence, the World Bank has estimated that the prevention impact can be increased as

much as eight-fold when compared to programs aimed at the general population. Targeting concentrates limited financial resources and time where the need, and therefore the benefit, is likely to be the greatest.

Similarly, **combining intervention strategies** provides the greatest potential for significantly reducing the spread of the epidemic. For instance, programs including STD services, condom use, and partner reduction have a synergistic effect that is stronger than the effect of individual interventions. The following description of (1) Technical Strategies and (2) Target Populations illustrates the focus and features of this approach.

1 Technical Strategies

HIV/AIDS Surveillance

The HIV/AIDS epidemic needs to be described in more detail to design and implement appropriate prevention strategies. Because of reporting practices and/or prevailing attitudes toward homosexual and bisexual behavior, persons with this risk for infection may be underrepresented. There have been few studies of specific populations or studies designed to answer questions regarding knowledge, attitudes, and practices. To remedy this situation, training in HIV/AIDS epidemiology and surveillance may be useful for MSPAS personnel, so that they can more effectively design and implement needed studies. Training will also assist in the processing and analysis of these data.

Management of Sexually Transmitted Diseases

Research has confirmed that individuals who have other sexually transmitted diseases are more likely to transmit or become infected with HIV. STDs, especially genital ulcer disease, facilitate the transmission of the HIV virus. Since appropriate diagnosis and treatment interrupts the chain of transmission of STDs and reduces the probability of HIV infection during sexual contact, HIV/AIDS prevention programs must incorporate the diagnosis and treatment of STDs as a fundamental component. Effective STD prevention efforts incorporate program design with providers and patients, strengthen case management services, improve laboratory services, and include conducting research to strengthen STD programming.

Behavior Change Communication

In order to reduce the rate of HIV infection, high risk sexual behaviors must be changed. However, programs that attempt to increase knowledge alone are not sufficient to bring about sustained behavior change. Behavior change communication can create a demand for condoms, encourage STD treatment-seeking behavior, and promote risk reduction behaviors through a variety of channels, i.e., audience segmentation, target audience involvement, multiple reinforcing

messages, multiple communication channels, collaboration between public and private communication programs, and local capacity building

Condom Distribution

Condoms are one of the most effective strategies available to curtail infection, in that they provide a barrier to the transmission of HIV and other STDs that facilitate sexual transmission of the virus. Their effectiveness, however, relies on an active demand for them, accessibility to those who want and need them, and their regular and correct use. Accessibility of condoms through a reliable supply and an efficient distribution network, quality assurance, and instruction in correct use are essential components of an effective prevention strategy.

Policy Development

Key individuals in government, business, unions, community settings, PVOs, international donor agencies, religious, and medical institutions have a strong impact on the success of prevention efforts. Private and public sector leaders, particularly policy makers, must be informed about HIV/AIDS prevention programs and motivated to support and develop policies and practices to minimize the social and economic impact of the epidemic. Prevention and control of HIV/AIDS requires a multisectoral response, combining efforts and resources from both the public and private sectors. If policy makers are to support and develop an environment conducive to reducing the spread of HIV/AIDS, they must be well-informed about the epidemiologic, demographic, social, and economic impact of HIV/AIDS and the benefit of prevention activities.

2 Target Populations

The data gathered to date, although subject to underreporting, show that San Salvador has had the largest number of reported HIV/AIDS cases. The departments of Santa Ana, San Miguel, and Usulután have concentrations of HIV/AIDS, however, at much lower rates. A few population groups have been identified as priorities by MSPAS, ISSS, ADS, PAHO and UNICEF: CSWs and their clients, adolescents and female adults, and people in work places (PWP). A secondary group, which would be much more difficult to reach but is nonetheless important for future outreach activities, are men who have sex with men (MWM).

Commercial Sex Workers and Their Clients.

Sentinel surveillance on populations of female CSWs is very limited. Available data demonstrate that CSWs are the population sub-group with the highest HIV seroprevalence. A PAHO-funded study showed a seroprevalence of 2.2% (PAHO, 1991), and UNICEF survey data indicate an early onset of sexual activity in El Salvador, measured as the proportion of individuals who initiate sexual activity before the age of 15. Since CSWs are at higher risk of contracting and transmitting HIV, reducing their HIV transmission will prevent infections among their clients and permanent partners.

Approaches directed toward CSWs are cost-effective, since both infected and susceptible individuals are relatively easy to find either at establishments where sex is transacted or when they seek out STD treatment

Efforts should be made to strengthen community-based outreach programs in El Salvador, especially in areas of potential growth. Emphasis should be placed on reaching lower- and middle-class CSWs, and those working on the street. Reaching non-establishment based CSWs, especially those operating along the border with Guatemala and Honduras, will require additional outreach activities, including possibly CSW peer education

Clients of CSWs are difficult to reach and are reportedly never identified by CSWs treated for STDs. Nonetheless, efforts can be directed toward reaching adolescents, especially young men, who may be most likely to change risky sexual behavior, through outreach peer counseling stressing the importance of partner reduction, condom use, early treatment and diagnosis of STDs, and where indicated, HIV testing

Adolescents and Female Adults

These two groups need to be reached through different channels with different messages. With improved reporting and sentinel surveillance, hopefully these data will be available for planning purposes. Unweighted demographic data show a high rate of adolescent pregnancy. Early tabulations from the FESAL-93 survey indicate that the age-specific fertility rate for women 15-19 was 124 births per 1,000 women (based on all live births between 1988-93), in comparison to 221 among those 20-24, and 168 among those age 25-29 (ADS and CDC, 1993). Adolescent boys are thought to be an important target group as well, given their relatively early age at the time of sexual initiation, according to the UNICEF data. The FESAL-93 data also show that 26.7% of the women in union interviewed felt that they were at risk of HIV transmission, however, no detailed tabulations are yet available to differentiate which women feel they are most at risk

People in Work Places (PWP)

The work place is a channel or mechanism to reach sexually active adults. The analysis of epidemiologic data by occupational category will provide information on the groups of workers most at risk, including men, women and adolescents. Although information on the individual's occupation is requested on the Case History form, the data are often not provided by the individual completing the form. The non-response is so high that the data are not entered into the MSPAS computer

Data on occupation are particularly useful for targeting purposes and for assessment of the demographic, economic, and social impact of the epidemic. Available age data on reported HIV/AIDS cases show a high but increasing prevalence of infection among individuals in the economically productive years. Occupation-based target groups are not currently identified as a priority within the recent MTP, and in part, this argues for their future support. The data would

be particularly useful in the planning of possible activities in condom distribution now being considered by the ISSS

Truck drivers are a group believed to be at high risk for infection. They reportedly solicit CSWs in the cities along the Pan American highway and other common trucking routes in northwest El Salvador. However, the extent of the epidemic in this geographic region has not yet been examined.

It is widely believed that international migration is a contributing factor to the epidemic within the country. The migration of Salvadorans to the U.S. (estimated as exceeding 1 million population) and their exposure to the virus through contact with CSWs abroad and the probability of further spread during return visits to El Salvador is frequently cited as a contributing factor. However, there are no data specific to the incidence of AIDS or the prevalence of HIV infection among El Salvador nationals residing in the U.S. The use of untested blood transfusions in the early years of the conflict further complicates the situation.

The only available data pertain to a recent study examining trends in HIV transmission among AIDS cases reported to CDC from January 1, 1988 through December 31, 1991 for Hispanic residents of the U.S. (including Puerto Rico). The study reported 713 AIDS cases among males born in Central America (out of a total of 19,760 cases for Hispanic males) and only 64 cases among females born in Central America (among 3,169 AIDS cases reported for Hispanic females). These data underestimate the total number of cases, especially among undocumented aliens, who are less likely to have contact with the health system. Approximately two-thirds of the men reported male-male sex as the probable exposure category. Heterosexual sex accounted for only 2.5% of the male AIDS cases reported. Women reported sex with an injection drug user (21.9%), injection drug use (17.2%), and sex with an HIV positive man (17.2%) (Diaz, Buehler, Castro, and Ward, 1993).

Men Who Have Sex with Men (MWM)

Current epidemiologic data suggest that only 11% of the cases of HIV/AIDS reported among men from 1991-93 cite homosexual or bisexual mode of transmission. These data are difficult to interpret, as 23% of the male cases have an undocumented mode of transmission, and there is undoubtedly underreporting of MWM by physicians and patients alike. The ISSS, however, reports that 33% of cases that they report are associated with homosexual and bisexual behavior.

In El Salvador, the social consequences of being identified as a homosexual or bisexual are substantial. Despite the limited epidemiologic data on risk of infection, knowledgeable individuals indicated that gay discotheques and one gay bar currently exist in San Salvador, as well as some transvestite commercial sex.

It is believed that this group will be difficult to reach. Anecdotal evidence indicates that it is not likely that homosexual gathering places will be accessible for HIV/AIDS intervention activities, and no NGOs with the exception of FUNDASIDA are currently working in this area.

VI MAJOR RECOMMENDATIONS

The following recommendations have been extrapolated and summarized from the text of the report. For further details and clarification, please see the relevant sections of the assessment.

General Recommendations

- 1 A strategy should be developed for or by USAID/El Salvador to provide assistance which fits well within the country program, based on available Mission funds.
- 2 The strategy recommended to USAID/El Salvador for reducing the spread of HIV in El Salvador should emphasize a focus on specific target populations, including commercial sex workers and their clients, adolescents and female adults, people in work places, and men who have sex with men. Targeting concentrates limited financial resources and time where the need, and therefore the benefit, is likely to be greatest.
- 3 Specific geographical locales need to be emphasized. The data gathered to date, although subject to underreporting, show that San Salvador has had the largest number of reported HIV/AIDS cases. The departments of Santa Ana, San Miguel, and Usulután have concentrations of HIV/AIDS, however, at much lower rates.
- 4 Combining intervention strategies provides the greatest potential for significantly reducing the spread of the epidemic. The strategies recommended to USAID/El Salvador should improve the treatment and control of STDs, increase access to the use of condoms, and provide information and education to minimize high risk behavior, including a reduction in the number of partners. (See APPENDIX I, p. 45 for an illustrative budget.)

HIV/AIDS Surveillance

- 1 Surveillance efforts should be strengthened. In particular, the MSPAS should educate physicians and other health care providers, laboratory workers, and health care administrators on the importance of reporting, and other epidemiologic principles.
- 2 The reporting system should be examined to determine impediments to reporting, including interviewing laboratory workers, physicians, and patients. If physicians are not reporting cases in order to preserve confidentiality, then ways of reporting without names or other identifying information should be explored. The epidemiologic report form for HIV infection and AIDS should be specific to the needs of this surveillance system.
- 3 Training in HIV/AIDS epidemiology and surveillance may be useful for MSPAS staff, so that they can more effectively design and implement needed studies and process and analyze these data.

- 4 With regard to active surveillance, the MSPAS should consider organized testing of high risk groups, such as prostitutes and persons presenting with STDs (especially genital ulcers)

Prevention of Transfusion-Associated HIV Transmission

- 1 Major blood banks in El Salvador understand the principles behind preventing transfusion-associated HIV transmission and should continue current efforts to evaluate its completeness. Blood banking must be supported to maintain the safety of the blood supply. Equipment for collecting (e.g., sterile needles, collection bags) and storing blood (e.g., refrigerators) must be present in every blood bank.
- 2 With regard to the identification and recruitment of low risk blood donors, further education of the population is required on the importance of donating blood voluntarily. The population should be educated regarding the absence of risk for HIV infection through donating blood, and the MSPAS and the Cruz Roja should conduct frequent and organized campaigns encouraging donation at various locations such as churches, schools, and businesses.

Policy Development

- 1 In order to achieve a more effective policy environment, which will enhance HIV/AIDS prevention efforts, USAID/El Salvador should implement a program to raise awareness and develop consensus among policy makers and business, community, and religious leaders on the significant threat of HIV/AIDS to the social, economic, and political well-being and development of the country.
- 2 Develop a comprehensive plan to increase collaborative efforts between government, donor agencies, NGOs, businesses, religious institutions, unions, and community groups, strengthen both governmental and non-governmental capacities, and incorporate private sector leveraging activities for HIV/AIDS prevention.

Management of Sexually Transmitted Diseases

- 1 It is necessary to enforce current notification requirements regarding STDs throughout both the public and private sectors through education and feedback to notify doctors and educate physicians and other health workers on the relevance of STD epidemiology and follow-up of reported cases, increase partner notification efforts and follow-up.
- 2 National standards and protocols for STD prevention should be established. Adequate equipment and materials for diagnosis are needed, with the goal of upgrading to the level of WHO STD laboratory recommendations. Standard procedures and quality assurance guidelines should be developed, disseminated, and evaluated. At a minimum, each health center should have the capacity to perform gram stains, wet mounts, and RPR tests.

- 3 A national reference laboratory should be established, where cultures for gonorrhea, chancroid, and chlamydia antigen-testing can occur, and basic antibiotics, particularly cefuroxime and Ketonizidol should be provided
- 4 Ideally, STD services should be integrated with other clinical and preventive services, particularly family planning programs and health promotion efforts in the outlying areas

Condom Distribution

- 1 A technical assessment of the current CSM program should be performed. Recommendations are needed for the appropriate expansion into both traditional and non-traditional outlets such as bars, motels, and gathering places for populations at high risk. The critical review of the program would also provide needed recommendations for increasing market share at a price level more appropriate to the economic conditions.
- 2 An appropriate Logistics Management Information System for the public sector distribution of condoms should be evaluated and established.
- 3 Promotion and advertising of the CSM brand condom is required. Both generic and brand specific condom advertising is needed to increase the acceptance and use rate of condoms. Pricing alone rarely sells a product, and too low a price can have as negative an effect on the brand as too high a price.
- 4 Point of Sale materials need to be widely distributed to serve as a constant reminder to consumers and potential consumers of the product's benefit(s) and availability.
- 5 NGOs and other Private Sector organizations should be encouraged to become involved in CSM activities. CSM activities through peers working with all of the target populations has proven to be very effective in increasing condom use/sales in other countries. Manufacturing, transportation, and other businesses have become involved in HIV/AIDS prevention in collaboration with local NGOs by supporting these types of activities, effectively leveraging the financial resources of the program to reach a wider audience.

Behavior Change Communication

- 1 Targeted education should be improved particularly through training, small media and peer counseling to increase the demand for STD treatment, minimize high risk behavior, and increase the demand for and use of condoms.
- 2 The technical capacity of NGOs to provide high quality IEC interventions should be strengthened through improvement in IEC technical capacity, that is, training in formative research, message design, and materials production. Greater efforts should be focused on specific target groups, specifically the development of small media materials, assessment

of comprehension of print and audiovisual materials, and evaluation of their impact on behavior change

- 3 Information exchange should be fostered about lessons learned between the staff of the MSPAS, ADS, and FUNDASIDA and the staff of the ADS, who provide STD/HIV/AIDS counseling should be expanded
- 4 Small media materials, especially pamphlets, need to be developed on ways to prevent HIV/AIDS prevention including advice on purchasing condoms, and other appropriate messages. These messages can be used as the basis for dialogue between counselors/providers and clients or to build community education campaigns and can be conveyed in visual or audio media, on posters in clinics, on radio and television
- 5 Posters, flyers, and fotonovelas are the most malleable of the mass marketing tools and can be adapted and tailored for each of the target groups and posted or distributed in specific locations to reach different groups

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APPENDIX 1 ILLUSTRATIVE BUDGET

The following HIV/AIDS Program Budget has been prepared at the request of USAID/El Salvador. It is only illustrative and suggests the minimum program levels recommended to support a comprehensive effort. If linkages can be made with other health sector components a reallocation of funds would strengthen the design. Line categories are based on the Rationale for Strategy Design described in Section V, p. 35.

PROGRAM AREAS	Y1 BUDGET \$US
<p>1 Information Systems</p> <p>Raise awareness of HIV/AIDS/STD to generate/sustain prevention activities through (1) Policy Development \$75,000 (2) Improving Epidemiology/Surveillance System \$75,000 and (3) Develop and distribution of IEC materials \$50,000</p>	200,000
<p>2 Management of STDs</p> <p>Expand access of the general population to prevention of HIV/AIDS/STD through development of national STD standards/protocols, training of trainers/providers, strengthening key STD reference centers/laboratories</p>	100,000
<p>3 Condoms & Logistics</p> <p>Improve condom logistics and distribution. CSM and Logistics Management assessment, support for CSM promotion, advertising and expansion</p>	100,000
<p>4 Work Place Programs</p> <p>Support for people in the workplace programs, design/implement sub projects with prevention emphasis</p>	150,000
<p>5 NGO Support</p> <p>Design/implement comprehensive BCC, Condom Distribution and STD sub projects with NGO sector for target populations</p>	150,000
<p>6 Program Support</p> <p>Provide technical/management support coordinate TA required, monitor/evaluate program/sub projects (1) Evaluation \$50,000, (2) Management \$100,000 (USAID El Salvador 50% FSN or TAACS, or local staff/office)</p>	150,000
TOTAL	850,000

APPENDIX II HIV EPIDEMIOLOGY SUMMARY TABLES

Seroprevalence in Select Populations, El Salvador

Group	HIV Prevalence	Source	Comments
Prisoners (n=2,838)	0 5%	MSPAS, 1991	Not voluntary
Prostitutes (n=452)	2 2%	MSPAS, 1991	Voluntary
Childbearing women (n=770)	0	MSPAS, 1992	Anonymous, unlinked survey
(n=754)	0 3%	MSPAS, 1993	Anonymous, unlinked survey
Blood donors (n=17,256)	0 14%	MSPAS, 1992	
(n=15,855)	0 06%	Cruz Roja, 1992	
(n=12,089)	0 16%	ISSS, 1992	
(n= 2,489)	0 9%	Hospital Militar, 1992	

Cruz Roja Salvadoreña, Centro de Sangre
Units collected, 1987-1992²

Year	Units collected	Number HIV+ (percent)
1987	8,086	2 (0.02)
1988	8,354	4 (0.05)
1989	11,858	7 (0.06)
1990	13,487	10 (0.07)
1991	13,549	115 (0.85) ³
1992	15,855	11 (0.07)
Total	71,189	149 (0.21)

Cruz Roja Salvadoreña, Centro de Sangre

Tests performed by request

Year	Tests performed	Number HIV+ (percent)
1992	2,567	127 (4.9)

²Blood collection began in 1981. Hepatitis B Surface Antigen testing began in 1983. HIV testing (ELISA and Western Blot) began in 1987. Percentage HIV positive calculated and rounded off, official Red Cross percentages are not rounded off.

³Screening for risk by interview began toward the end of 1991, which may explain why there was a drop in number and percent HIV+ units in 1992.

Instituto Salvadoreño del Seguro Social
Centro de Sangre

Units collected, 1988-1992⁴

Year	Units collected	Number HIV+ (percent)
1988	802	4 (0.5)
1989	3,195	30 (0.9)
1990	5,669	10 (0.2)
1991	8,245	8 (0.1)
1992	13,008	12 (0.1)
1993	?	18 (?)
Total	30,117	60 (0.2)

Instituto Salvadoreño del Seguro Social
Centro de Sangre

Tests performed on patients

Year	Tests performed	Number HIV+ (percent)
1988	135	3 (2.2)
1989	514	14 (2.7)
1990	776	16 (2.0)
1991	1,531	41 (2.7)
1992	3,526	74 (2.1)
1993 ⁵	?	72 (?)

⁴Testing began at the end of 1988

⁵As of October 1993

HIV/AIDS by year of diagnosis, El Salvador

Year	84	85	86	87	88	89	90	91	92	93	Total
HIV+	0	0	0	0	21	77	42	148	172	128	588
AIDS	1	1	5	16	34	72	54	132	114	107	536
Deaths	1	1	4	13	18	13	13	34	19	18	134
Total AIDS + HIV infection (asymptomatic) = 1,124 (as of 10/8/93)											

Cases by age group in years, by year of diagnosis

Year	84	85	86	87	88	89	90	91	92	93	Total
<1	0	0	1	0	0	1	1	2	2	2	9 (0.9%)
1-14	0	0	0	0	0	0	0	5	1	1	7 (0.7%)
15-24	0	0	0	2	13	33	25	72	77	55	277 (28%)
25-34	0	1	3	3	24	46	37	102	117	96	429 (43%)
35-49	0	0	1	11	7	25	17	47	59	57	224 (22%)
>50	0	0	0	0	2	7	4	10	17	10	50 (5%)
Unknown	1	0	0	9	9	37	12	42	13	14	127 (*)
Total	1	1	5	16	55	149	96	280	286	235	1,124

* Not included in percentage calculation

HIV/AIDS by mode of transmission by year of diagnosis and sex, El Salvador

Mode	1991		1992		1993		Total
	Male	Female	Male	Female	Male	Female	
Heterosexual	132	52	125	50	100	41	500 (62%)
Men sex with men	36		40		16		92 (11%)
Transfusion	2	1	2	4	2	2	13 (2%)
Injection drug use	0	1	0	0	4	0	5 (1%)
Perinatal	3	4	1	2	2	0	12 (1%)
Undocumented	38	11	46	16	56	12	179 (22%)

Information from discussions with doctors about their private patients

Risk	Men (n=56, 93%)	Women (n=3, 5%)	Children (n=1, 2%)
MSM	41 (73%)		
Heterosexual	15 (27%)		
Transfusion		2 (66%)	
IDU		1 (34%)	
Perinatal			1 (100%)
Total	56 (100%)	3 (100%)	1 (100%)

**MINISTERIO DE SALUD PUBLICA Y ASISTENCIA SOCIAL
BANCO DE SANGRE
TARJETA PARA REGISTROS DE DONADORES**

ESTABLECIMIENTO _____ REGISTRO No

DATOS PERSONALES												
APELLIDOS _____					NOMBRES _____						TIPO DE SANGRE _____	
Años <input type="text"/>					<input type="checkbox"/> M <input type="checkbox"/> F		<input type="checkbox"/> C <input type="checkbox"/> S <input type="checkbox"/> A <input type="checkbox"/> V				GRUPO _____	
LDAO _____		FECHA DE NACIMIENTO _____			SEXO _____		ESTADO CIVIL _____				No CEDULA _____	
DOMICILIO: CALLE, AVENIDA, No., COLONIA, BARRIO, CIUDAD O POBLACION _____										TELÉFONO _____		
LUGAR DE TRABAJO _____										TELÉFONO _____		
OBSERVACIONES _____												
DONACIONES												
FECHA	PESO	TA	Hb	Hto	No BOLSA	RPR	Ac. VIH	CHAGAS	AgHDe	ATENDIO	OBSERVACIONES	

FECHA DE INVESTIGACION												
CRITERIOS SELECCION DONANTE	SI	NO	SI	NO	SI	NO	SI	NO	SI	NO	SI	NO
HEPATITIS O ICTERICIA												
CONTACTO CON ENF DE HEPATITIS EN LOS ULT 6 MESES												
EMBARAZO EN LOS ULTIMOS 6 MESES												
ABORTO EN LOS ULTIMOS 3 MFS 5												
OPERACIONES EN LOS ULTIMOS 6 M.SES												
DONACIONES DE SANGRE EN LOS ULTIMOS 2 MESES												
EXTRACCIONES DENTARAS EN LOS ULTIMOS 3 MESES												
VACUNACIONES RECIENTES EN LT 2 SEMANAS												
ENFERMEDADES RESPIRATORIAS RECIENTES												
PALUDISMO												
DIARREA PRESENTE												
TRANSFUSIONES												
SIFIUS												
GONORRREA												
TATUAJES												
RESIDENCIA FUERA DEL PAIS												
ENFERMEDAD DEL CORAZON O DO OR PR. CORRAL												
ANEMIA Y OTRA ENFERMEDAD D. LA SANGRE												
HEMORRAGIA												
SEXO CON TRABAJADORAS DEL S. S.												
SEXO CON HOMOSEXUALES												
ULCERA DE ESTOMAGO												
ENFERMEDADES RENALES												
PERDIDA DEL PESO MAYOR DE 10% EN 2												
CONVISSIONS												
HIJOS CON ICTERIA MEDIANA												
ENFERMEDAD DE LA PIEL												
NUMERO DE EMBARAZO												
USO DE DROGAS INOVENCOSIL												
TRATAMIENTO ACTUAL												
ENFERMEDAD DE OJOS												
DESEFIAZONES												
FUENTE DONANTE												

APPENDIX III STD EPIDEMIOLOGY SUMMARY TABLES

Table 1
Annual Reports of Sexually Transmitted Diseases (STDs)

Gonorrhea (GC-U, *), Syphilis (SYPH), Congenital Syphilis (C-SY), AIDS,
Chancroid (CHAN), Lymphogranuloma Venereum (L G), Herpes (HERP),
and Trichomonas (TRI)

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
GC-U	5957	5674	4343	4340	4139	6512	5391	5321	6544	6688
*	712	1131	744	943	1429	1325	1831	1623	1212	47
SYPH	4025	4499	3777	3286	3033	3376	2621	2771	1767	1778
C-SY	32	39	31	77	50	117	79	82	64	70
AIDS	-	-	-	-	16	49	149	104	245	224
CHAN	1195	2149	1800	1990	2221	2321	2280	2398	2189	2453
L G	289	415	464	458	369	432	330	526	468	572
HERP	-	-	-	-	-	954	1126	1551	1377	1921
TRI@	-	-	-	-	-	12290	14711	18844	18983	18244

GC-U = Gonorrhea of the genito-urinary tract
* = Gonorrhea elsewhere (throat, rectum, sepsis, etc)

Table 2
Sexually Transmitted Diseases (ISSS)
1992

	4th Quarter	# Cases Year	Rate/100,000
HIV/AIDS	27	61	11
Gonorrhea (GC-U) **	451	2126	384.6
Trichomonas **	487	1772	320.5
Candida*	451	1450	262.3
Herpes (genital)	186	750	135.7
Chancroid	105	539	97.5
Condyloma acuminata	123	471	85.2
Syphilis	65	263	47.6
Lymphogranuloma venereum	18	66	11.9
Congenital syphilis	1	5	0.9

* Associated with STDs, but not a true STD

** Among the top ten infectious diseases reported by ISSS

Table 3
Sexually Transmitted Diseases (ADS-ETS)
Jan-June, 1993

	Men	Women	Total
HIV/AIDS	0	1	1
Gonorrhea (GC-U)	41	28	69
Trichomonas	5	81	86
Candida	43	98	141
Herpes (genital)	23	34	57
Chancroid	5	4	9
Condyloma acuminata	53	83	136
Syphilis	12	14	26
Lymph venereum	0	0	0
Congenital syphilis	0	0	0
Gardnerella	9	252	261
Other	254	670	924

Table 4
Ratio of GC/SYPH in STD site

1993	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Total
GC	12	9	10	7	16	15	13	9	91
SYPH	1	3	5	3	8	6	4	5	35
GC/SYPH	12	3	2	2.3	2	2.5	3.3	1.8	2.6

Table 5
 STD Tests (ADS-ETS)
 1993

	Women		Men	
	# Tests	# Positive	# Tests	# Positive
Syphilis	580	58 (10%)	118	38 (32%)
Gonorrhea	376	21 (6%)*	43	25 (58%)*
Chlamydia	7	0 (0%)	4	1 (25%)
Trichomonas	376	47 (13%)	118	0 (0%)

Approximately 10% of gonorrhea are resistant to penicillin

APPENDIX IV. LIST OF CONTACTS

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Others

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Ms Linda Hamby, Consultant

APPENDIX V SOCIOECONOMIC IMPACT OF HIV/AIDS IN DEVELOPING COUNTRIES

A Projection of the Demographic Impact

Based upon epidemiologic data, it is possible to assess the potential impact of an HIV/AIDS epidemic, and projections of the future rate of infection of the AIDS virus can be performed utilizing data bases (both case history and sentinel surveillance data). Analyses of this type are typically conducted in countries where the HIV/AIDS case data and blinded sentinel surveillance data are sufficiently plentiful and accurate to ensure the reliability of the assumptions required to implement the modeling techniques. El Salvador is not one of these countries, and it is important to emphasize that this general description of the probable social and economic impact of the epidemic is based on the experience of countries in which the data base is sufficiently accurate to utilize the methodology.

The Epi Model technique generates epidemiologic estimates of the HIV/AIDS epidemic by fitting data to a hypothetical curve constructed for the country under investigation. Future rates of HIV infection and AIDS morbidity and mortality can be extrapolated from the curve. Population estimates can be generated from the demographic software package and are used to calculate the HIV prevalence rates.

For this analysis, estimates for individuals at lower and higher risk of acquiring HIV are produced separately to produce more sensitive estimates. Individuals who engage in high risk behavior include groups such as CSWs, MWM, and persons with multiple unprotected sexual partners. Lower risk populations include general groups of adults, such as populations composed of maternity patients or those seeking prenatal care. All estimates are based on the assumption that no comprehensive HIV/AIDS intervention program is currently established in a country, which would affect the future course of the epidemic.

The projection methodology provides demographic projections through the year 2000. The exercise yields estimates of high to low HIV prevalence for a selected year in the future from the present year to the year 2000 for various segments of the population defined by age (adults and children) or degree of risk (higher and lower risk segments of the population, as described above). High and low projections of new cases of AIDS by year can also be made. The projections are usually calculated for the areas of the country evidencing the highest prevalence, as indicated by sentinel surveillance data, and high risk groups are conservatively estimated as a certain proportion of the population. Actual outcomes will most likely fall between the lower and upper estimates presented in each estimate.

B Social Impact

Utilizing this methodology, estimates can be made regarding the social impact (estimates of life expectancy with and without AIDS, estimate of AIDS deaths per week as the average of high and low estimates, the distribution of HIV infections by age group by the year 2000, the rate of

infant mortality with and without AIDS, estimates of low and high estimates of the number children orphaned by mothers with AIDS) If no private facilities or hospice care currently exists for the care of AIDS patients, public sector institutions will incur the greatest responsibility and cost of care for these patients

C Slowing the Epidemic

A variety of steps can be taken to slow the epidemic One can strengthen sexual responsibility through a delay in the onset of sexual relations, encourage mutual sexual fidelity, the practice of safe sex, or reduction in the risk of infection through accessibility and promotion of condoms

Integrated interventions include blood screening, the treatment of STDs, and the design of communication campaigns which emphasize the risk reduction Where sufficient data are available, it is possible to project the reduction in the rate of HIV resulting from interventions in blood screening, increased condom use, from a reduction in partners, and the reduction from the combination of all of the above These estimates are based upon immediate implementation of AIDS intervention programs and provide an indication of the impact of AIDS on the health of the population in areas in which the epidemic is concentrated

D. Economic Impact

If economic indicator data are available, as well as detailed information on the distribution of the employed population or employed AIDS population by type of work, it is also possible to assess the impact of the epidemic on a country's economy In a developing country afflicted by an AIDS epidemic, one can expect a number of negative consequences, including

1 Decline in productivity High levels of HIV infection and HIV/AIDS associated illness could reduce the number of years of productive life and the income of workers affected with AIDS Such reductions in productivity will affect all skill levels in a country Whereas many workers in a developing country economy are poorly skilled laborers, the costs of absenteeism, retraining, and medical care will be significant as the epidemic progresses This reduction in productivity will also discourage industrial investment in the country from international sources

2 Increased medical costs and decreased access to medical care The cost of medical care for those infected with HIV by the year 2000 is usually high for developing country economies Moreover, the dramatic increase in demand for AIDS-related medical services will stress already overburdened health care systems and make access to other medical services much more difficult to obtain

3 Inability to address other problems As the number of HIV-infected persons grows in a country and more people become sick with AIDS, it will be more difficult to address a wide range of socioeconomic problems Given the limited resources available in developing countries, even moderate increases in monies allocated to AIDS medical care could severely damage the ability of the country to mount an effective development plan

4 Decline in the size of the labor force As the rate of AIDS-related morbidity and mortality increases in a country, the size of the productive labor force declines. As a result, competition for labor will rise with a resulting increase in labor costs or with diminished industrial capacity. This increase in morbidity and mortality will occur in the most productive age group of society (age 15-45), which will result in an increase in the dependency ratio (the number of dependents per productive worker) in the country. The higher the birth rate and the larger the baseline number of children in a country, the greater the number of orphans who survive parents who die of AIDS. This situation will in turn increase the demand for social services to support them.

5 Loss of ability to migrate due to HIV positive status An additional cost of the epidemic will be a limitation in the number of individuals, who will be able to migrate from a country to other areas, due to HIV seropositive status. Many of the major recipients of legal migrants (including the US) currently prohibit the immigration of HIV positive persons. This limitation on the number of nationals who are able to migrate will have a significantly negative impact on developing country economies from sending countries, given the number of immigrants who typically send remittances to family members remaining in countries of origin.