

Preventing HIV/AIDS in Adolescents



National Commission on AIDS

WASHINGTON, DC • UNITED STATES OF AMERICA

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The National Commission on Acquired Immune Deficiency Syndrome (AIDS) was established by Public Law 100-607 "for the purpose of promoting the development of a national consensus on policy concerning AIDS and of studying and making recommendations for a consistent national policy" concerning the HIV epidemic. The Commission is a bipartisan body whose members were appointed by the President, the United States Senate, and the United States House of Representatives.

Further information on the work of the Commission is provided at the end of this document or can be obtained from Roy Widdus, Ph.D., Executive Director, National Commission on AIDS, 1730 K Street, N.W., Suite 815, Washington, D.C. 20006.

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PREFACE

During the past four years, the National Commission on AIDS has conducted public hearings and site visits to foster a greater understanding of the challenges facing our nation as it confronts the HIV/AIDS epidemic. These activities have served as a crucial part of the Commission's effort to meet its statutory mandate under PL 100-607 of "promoting the development of a national consensus on policy concerning AIDS."

The Commission has heard compelling testimony on the importance of and need for a comprehensive HIV/AIDS prevention strategy that reaches all Americans. We called for such a national prevention initiative in our 1991 report, *America Living With AIDS*.

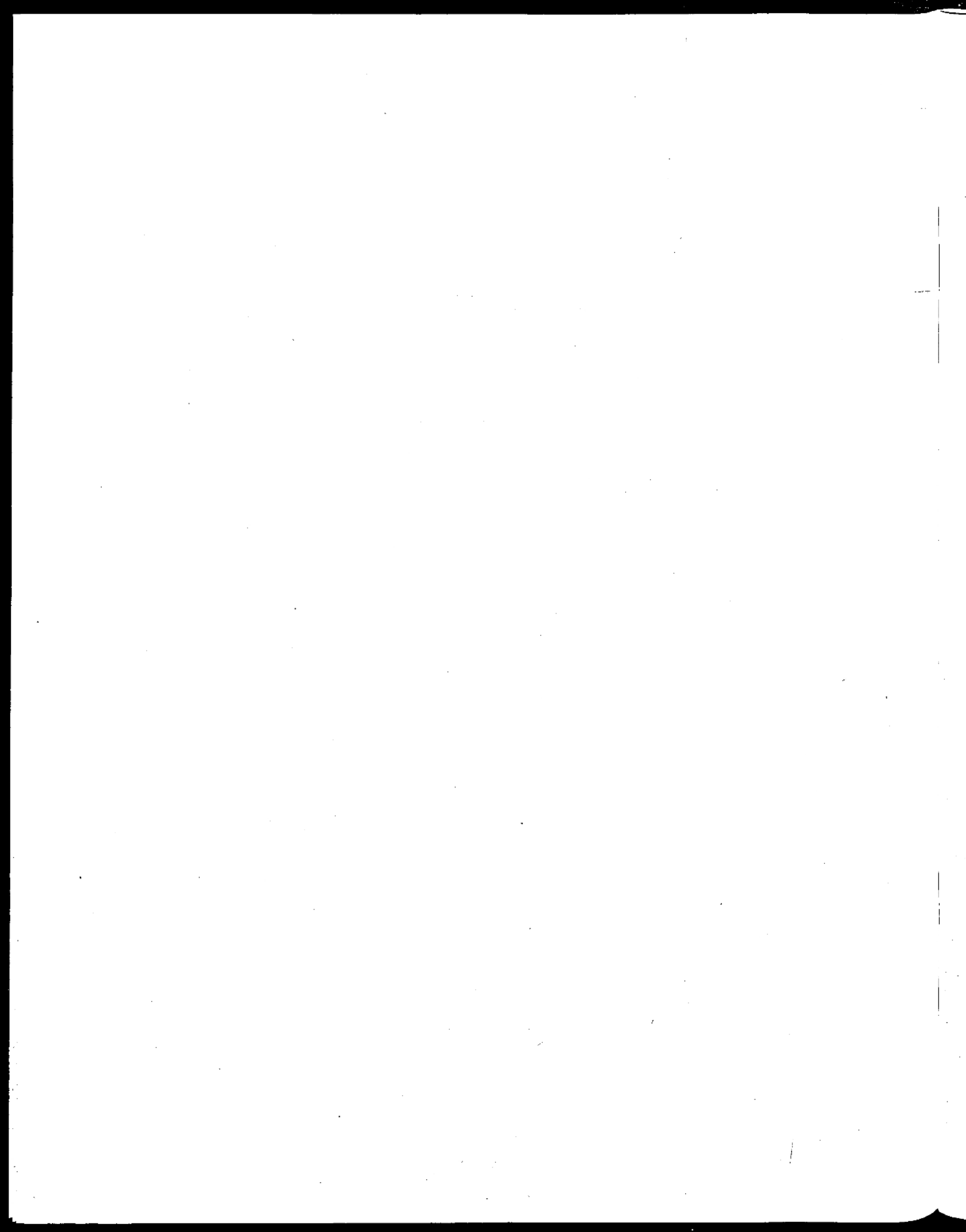
In various hearings, notably in Chicago on March 13, 1991, and recently in Austin, Texas, on March 11, 1993, we heard specifically about the concerns of adolescents and the need for expanded and improved youth-focused HIV/AIDS prevention strategies. Here we outline conclusions the Commission has drawn in this area after listening to diverse individuals and organizations that have been kind enough to share their experience and wisdom with us.

This report predominantly addresses what we must do to prevent further HIV infection among adolescents. This should not divert attention away from the need to properly address the needs of adolescents already living with HIV disease. Even though some risks of HIV to adolescents are now under control—such as transmission through blood transfusions, or through clotting factors to persons with hemophilia—no one should be ignored.

The Commission believes that the challenges raised in this report warrant attention and present opportunities for improving the nation's response to the HIV/AIDS epidemic. Rapid implementation of the recommendations made in this report—at federal, state, and local levels—is essential. We owe this to future generations.

June E. Osborn, M.D.
Chairman

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Vice Chairman



ACKNOWLEDGMENTS

The Commission is indebted to the many individuals whose dedication and expertise guided its work and understanding of HIV/AIDS prevention and the adolescent population. Aiding in the development of the Commission's views were a variety of witnesses at many hearings. The hearings in Chicago, Illinois in March 1991 and Austin, Texas in March 1993 were specifically focused on youth issues and the testimony of the witnesses at those hearings provided the foundation for this report. We also thank witnesses who touched on these issues within hearings on broader topics.

Major assistance in preparing this document was provided by the Center for Population Options (CPO). The Commission would like to thank the following individuals from CPO for their efforts: Margaret Pruitt Clark, Jennifer Hincks Reynolds, Jay Coburn, and Pamela Haugton-Denniston.

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We would like to thank all those individuals who commented on and assisted in the development the report, particularly: Constance T. Cordovilla, Katherine Fraser, Brenda Greene, Debra Haffner, and Dr. Heather Huszti.

Mr. Ted Karpf, and members of the staff of the CDC National AIDS Clearinghouse are due the Commission's gratitude for the work they did in preparing a resource guide for this report (Appendix B).

Preventing HIV/AIDS in Adolescents

Introduction

The HIV/AIDS epidemic threatens a new generation of Americans. Adolescents are vulnerable to infection owing to a combination of behavioral, social, and in some cases economic forces. Halting the spread of HIV among America's adolescents requires, at the minimum, a clear understanding of:

- the range of sexual and drug-taking activities in which young people engage;
- adolescent developmental issues and how to broaden adult/parental recognition of these issues;
- the health and social service needs of adolescents;
- the social and economic contexts in which many young people live;
- the range of values and attitudes that individuals associate with drug-using and sexual behavior;
- the combination of knowledge, attitudes, skills, and services necessary to influence behavior change; and
- the role of parents, schools, and other youth-serving organizations, as well as young people themselves, in prevention.

Helping young people protect themselves from HIV also requires swift action to break down barriers to offering young people the comprehensive HIV education and services that they need. Greater action at all levels, particularly leadership from the federal level, is necessary to address the prevention of HIV infection in adolescents.

HIV and Other Sexually Transmitted Diseases Among Adolescents

HIV infection is spreading rapidly among teens. By the end of March 1993, 1,167 cases of AIDS among teenagers ages 13 to 19 were reported to the Centers for Disease Control and Prevention (CDC, 1993b). Although the number of reported AIDS cases among adolescents is relatively low (see table 1), the low number masks the true picture of

Table 1: Cumulative AIDS Cases in Adolescents by Exposure Category and Sex, Reported through March 1993, United States

Exposure Category	13-19 years	
	No.	%
Males		
Men who have sex with men	228	34%
Injection drug use	50	7%
Men who have sex with men and inject drugs	37	6%
Hemophilia/coagulation disorder	278	41%
Heterosexual contact	19	3%
Blood/blood product disorder	28	4%
Undetermined risk	31	5%
Total males	671	
Females		
Injection drug use	72	26%
Hemophilia/coagulation disorder	4	1%
Heterosexual contact	131	48%
Blood/blood product disorder	29	11%
Undetermined risk	39	14%
Total females	275	

Source: CDC, 1993b.

adolescent HIV infection. Given the period of roughly ten years between infection with HIV and onset of AIDS-related symptoms, it is more useful to look at the 20- to 29-year-old age group to ascertain how infections in the teen years are likely to contribute to AIDS cases of young people in their twenties. By March 1993, 10,949 AIDS cases were reported among 20- to 24-year-olds and 44,171 among 25- to 29-year-olds (CDC, 1993b). These young persons represent about 20 percent of people with AIDS—and were probably infected with HIV as teenagers.

National studies indicate varying infection rates for teens. Among teenagers who applied for military service between 1985 and 1989, 1 in 3,000 tested positive for HIV; for African American teens, the infection rate was 1 in 1,000 (Burke et al., 1990). Among U.S. Job Corps entrants between 1987 and 1990, more than 1 in 300 young people ages 16 to 21 tested positive for HIV. Among African American and Hispanic entrants aged 21, the infection rate was nearly 1 in 80 (St. Louis et al., 1991). Both studies found higher rates of infection among women than men in the 16 to 18 age group. Native American youth also had higher rates of infection than whites.

About half of the 20,000 people with hemophilia in the United States are HIV positive; almost all were infected prior to 1985 when the U.S. blood supply was not tested for HIV (Goldsmith, 1990; Kastor, 1993). Many of those individuals are teenagers. In many cases, when children with hemophilia underwent HIV antibody testing prior to adolescence, their parents were notified of their HIV-positive status, but the children were not. This issue has been addressed by the network of hemophilia treatment centers.

U.S. teenagers engage in sexual behaviors that put them at risk for contracting HIV. According to a 1990 study by the CDC, 39.6 percent of ninth graders, 47.6 percent of tenth graders, 57.3 percent of eleventh graders, and 71.9 percent of twelfth graders report ever having had intercourse (CDC 1992c). More than 19 percent of all high school students have had four or more sexual partners. Male students were significantly more likely than female students (26.7 percent versus 11.8 percent) to report having four or more sexual partners (CDC, 1992d).

While latex condom use among adolescents is rising, many young people still engage in unprotected intercourse. Only 41 percent of students with multiple sexual partners in 1990 reported using condoms at last sexual intercourse; only 45 percent of all sexually active students reported using condoms at last sexual intercourse (CDC, 1992a).

Rates of sexually transmitted diseases (STDs) in the adolescent population are skyrocketing. Every year, three million teens—one out of every eight—are infected with an STD (CDC, 1993c). Lesions from STDs such as occur with syphilis and genital herpes are thought to facilitate the transmission of HIV (Quinn et al., 1988).

Adolescent Alcohol and Other Drug Use

The use of alcohol and other drugs by adolescents poses significant threats to their health in many ways, including the likelihood of engaging in sexual behavior. Under the influence of mind-altering substances, young people's judgment is impaired and inhibitions are lowered, which may lead them to engage in risky sexual behavior.

Eighty-nine percent of high school seniors report having tried alcohol (NIDA, 1991). Four out of ten high school seniors report having tried marijuana (Bachman et al., 1991). Nine percent of high school seniors report ever having tried cocaine, and about 4 percent report having tried crack (NIDA, 1991).

The most recent data released by the National Institute on Drug Abuse (NIDA) suggest that while drug use among high school seniors has been gradually declining over the past decade, more eighth graders are using illicit drugs (Portner, 1993).

Adolescent Developmental Issues

The formation of healthy sexual attitudes and behaviors is a necessary process for every individual as he or she progresses from child to adult. Many adults, particularly parents, are, however, ambivalent toward the emerging sexuality of teenagers. Unless adult ambivalence and reluctance to discuss adolescent sexuality are dealt with, adolescents will not be properly prepared for healthy futures. Adults are important role models in this regard.

Adults do not always understand the crucial role that adolescent risk-taking plays in the maturation process. One of the major developmental "tasks" necessary for teens to accomplish on their way to adulthood is emancipation and independence from their families. Pushing boundaries, testing limits, and questioning adult authority are ways for young people to move to adulthood. While risk-taking behavior is a natural part of adolescent experience, the presence of HIV makes sexual and drug-taking behaviors particularly dangerous today.

Cognitive development also plays a role in teens' ability to make wise decisions on the road to independence. Teens in early adolescence (ages 12 to 14) are, in general, concrete thinkers; they have difficulty projecting themselves into the future. "[T]hey are less able to see the implications of their actions on their futures, and also are less able to take responsibility for their actions and the consequences of their actions when they occur" (Howard, 1993, p. 84).

There is debate about the role that "invulnerability" plays in adolescent risk taking. Some argue that young people in middle to late adolescence have a strong sense of personal invulnerability that allows them to deny the possibility of harm or danger stemming from their actions. Others argue that for some young people, particularly the most disenfranchised minority youth, it is not personal invulnerability that is operative, but rather a loss of hope for the future (Fullilove, 1991). A recent study suggests that young people judge risk in ways very similar to the way their own parents do. When 199 adolescents ages 12 to 18 and their parents were asked to evaluate the relative riskiness of a variety of activities, the youths and their parents assessed the risks similarly. These findings demonstrate that it is simplistic to argue that all adolescents fail to appropriately assess personal risk (Goleman, 1993).

Sexuality, defined broadly as sexual feelings, attitudes, and behaviors, is a normal part of human experience (Gagnon, 1992). In adolescence, particularly mid to late adolescence, young people begin to attach more meaning to sexual feelings and behaviors. Many young people begin to engage in increasing sexual intimacy, including sexual intercourse, as they explore their feelings. Adolescents may use sexual behavior to meet other needs, including touch, intimacy, and friendship needs, as well as a means of achieving peer approval and demonstrating independence.

Cultural Diversity and Language Issues

The cultural and family norms to which adolescents are exposed will vary depending upon their ethnic, racial, or religious group. There is also extensive diversity within the major population groups into which the U.S. population is classified—African American, Hispanic/Latino, Native American, Asian/Pacific Islander, and Caucasian (white). Further differences relate to when and why individuals or their predecessors arrived in the United States. Each group has unique norms and concerns, which should be taken into account in the formulation of prevention efforts or services. The most logical, efficient, and appropriate way to ensure that programs are designed in a culturally sensitive fashion is fully to include persons from the group(s) intended to benefit from the interventions or services. They should be included at all stages of policy formulation, program development, and implementation.

One in every 13 U.S. residents aged 5 or older speaks Spanish in their home. Accounting for more than 17 million people, the diverse Hispanic community comprises 54 percent of the 31.8 million U.S. residents who do not mostly speak English at home. In all there are 329 languages other than English used in the United States. Many of these are used by relatively few individuals, but 11 languages are used by more than 400,000 speakers. Among languages with recent large relative increases in use are some of those from Asia and the Pacific. The percentage of those speaking a foreign language at home has risen to 14 percent in 1990—from 10.5 percent in 1980, an increase of 34 percent. While most of those speaking another language at home also speak English, 5.8 percent, or 1.8 million people, do not speak English at all (Bureau of the Census, quoted in *USA Today*, Wednesday, April 28th, 1993).

The use of English-only HIV prevention materials will constitute a barrier in instances where the first language of adolescents and/or their parents is a language other than English. Simply translating English materials into other languages is not sufficient. Not only should brochures, posters, and electronic media messages be culturally sensitive and available in the appropriate language, but so should opportunities for discussion of the relevant issues. The usefulness of materials for particular groups is best assured by authorship or adaptation by persons fully familiar with the language and culture of the intended audience. Sensitivity to language issues should obviously also extend to the choice of media outlets to be employed in primary dissemination and reinforcement of prevention messages.

Health and Social Service Needs of Adolescents

Adolescence is a time of life when most individuals are healthy, hence it is easy to overlook the health-related concerns that many adolescents have. Access to and financial coverage for such health services as may be available to adolescents may be linked to their parents, which may limit the perceived suitability of certain services. The health care reform process should address meeting the health services needs of all adolescents in appropriate ways. Adolescents with recognized HIV infection, including those known to have been infected through blood transfusion or clotting factors, require a range of health and social services to allow them to live and fulfill personal aspirations as normally as possible.

The majority of adolescents who obtain medical care receive it from providers who have not received special training in adolescent health (Office of Technology Assessment, 1991c). Incentives to encourage providers to make a commitment to adolescent health care should be considered. Health care providers should be trained to discuss sexuality and other sensitive health issues with preadolescents and with older adolescents.

Social and Economic Contexts: Youth in High-Risk Situations

Some young people are at higher behavioral risk for infection with HIV, owing primarily to social and economic factors that are beyond their capacity to change. Young

people who are marginalized, who are poorly educated, who have little hope for meaningful employment, who come from abusive families, and who grow up in violent neighborhoods face a host of problems. For some, this complex of socioeconomic problems translates to high risk of HIV infection from drug taking and unprotected sexual intercourse. Adolescent HIV infection, however, is merely one symptom of a diseased social and economic system that is failing, particularly in the inner cities. HIV education for such youth must incorporate ways to deal with these large problems if it is to be effective at preventing new infection. And society must at the same time address the broader social and economic problems that result in these conditions.

The category "youth in high-risk situations" includes those who have hemophilia or other coagulation disorders, have run away or been rejected by their family, are homeless, are incarcerated, use alcohol and other drugs or are the sexual partners of those who do, have dropped out of school or attend school only sporadically, are gay, lesbian, or bisexual, are survivors of sexual abuse, or have recently immigrated to the United States. The list must also include some larger categories, such as certain racial/ethnic groups (including African American and Hispanic/Latino youth in most inner cities and Native American youth), young women, and youth in smaller and rural communities. Nevertheless, HIV infection is not about who you are, but rather about what you do. This list of categories should in no way detract from that point; youth not in any of these categories can and do have unprotected intercourse and use drugs. The categories are merely surrogates for a higher probability of being at risk of HIV infection that may help target interventions. The categories also are not mutually exclusive. Other categories could have been identified, such as "youth in inner cities" who are often exposed to multiple social problems.

Adolescents with Hemophilia and Other Coagulation Disorders

Currently, 31 percent (363) of all diagnosed AIDS cases in adolescents have occurred in youth with hemophilia or other coagulation disorders (CDC, 1993b) who acquired HIV infection through the use of blood clotting products (clotting factor concentrate) that were contaminated. It has been estimated that, between 1980 and 1985, 50 percent of persons with hemophilia were infected with HIV and 90 percent of those with severe Hemophilia A were infected. With the advent of heat treatment techniques in 1985, HIV is no longer being transmitted through factor concentrate.

Adolescents with hemophilia and HIV experience the same developmental pressures as do other adolescents (as discussed earlier), and thus are at risk of spreading HIV to their sexual partners. Since 1986 the CDC has provided funding for a comprehensive prevention program for persons with hemophilia and their sexual partners, to be delivered through the national network of hemophilia treatment centers (Mason, Olson and Parish, 1988). Over the past seven years, the hemophilia community has developed comprehensive, skill-based prevention programs for adolescents with HIV in conjunction with their medical treatment.

Runaway and Homeless Youth

Youth advocates estimate that between 1 million and 1.3 million teens run away from home every year due to conflict, violence, and abuse (General Accounting Office, 1990). Many of these vulnerable young people—both male and female—exchange sexual activity for money, food, shelter, or drugs (this has been referred to by some as "survival sex").

HIV prevention is rarely a priority for young people burdened with a daily struggle for survival.

Youth in Detention

Research suggests that detained or incarcerated youth lack a future orientation, have poor self-image, and perceive little or no value in modifying risk behaviors. African American and Hispanic/Latino youth are disproportionately represented in detention centers, accounting for approximately 60 percent of presently detained youth. African Americans, Hispanics, and Native Americans and Asian/Pacific Islanders account for 42 percent, 15 percent, and 2 percent combined, respectively (Morris, Baker, and Huscroft, 1992).

Youth Who Use Alcohol and Other Drugs and Their Sexual Partners

Injection drug use is a major risk factor for HIV infection owing to the common practice of sharing needles or "works" (syringes, cocaine cookers, and other paraphernalia). Injection drug use is implicated in approximately one of eight diagnosed AIDS cases among teens (CDC, 1993b). A fairly small percentage of young people are involved in this type of risky behavior, however. Many more youth use alcohol and noninjectable drugs that lead to impaired judgment and lowered inhibitions, leaving them vulnerable to engaging in risky sexual behavior. The issue of sexually transmitted diseases among crack cocaine users is well established; education and prevention activities should be focused on the risks related to all kinds of drug use, particularly in the sexual context (Fullilove, 1991). The sexual partners of injection drug users are at high risk for HIV infection, regardless of whether or not they themselves inject drugs. Older, drug-using males often have younger women as sex partners, and such women are vulnerable to HIV infection by this route of transmission as well as by recruitment into drug injection.

Out-of-School Youth

Young people who have dropped out of school or only attend school sporadically—often termed "out-of-school youth"—do not benefit from school-based HIV education and are often socially isolated. The absence of adult support and guidance and extreme lack of access to medical and social services present tremendous difficulties for these adolescents. Out-of-school youth have been documented as suffering from depression, anxiety, and low self-esteem (U.S. Department of Justice, 1990). As a result, out-of-school youth frequently engage in risky sexual behavior and use of alcohol and other drugs.

Gay, Lesbian, and Bisexual Youth

While individuals will generally recognize their sexual orientation in adolescence, some find it more difficult because of homophobia. The stigmatization and isolation of gay, lesbian, and bisexual youth can sometimes lead them to engage in sexual and drug-taking behaviors that put them at risk for HIV infection. Research suggests that these youth are very vulnerable to depression, suicide, and substance abuse (Remafedi, Farrow, and Deisher, 1991; Kruks, 1991; Gonsiorek, 1988). Young gay men constitute almost a quarter of adolescent AIDS cases, "yet gay youth are consistently ignored in prevention efforts throughout the country" (Futterman, 1991, p. 10). In a San Francisco study, almost half of participants ages 17 to 19 had recently participated in unprotected anal intercourse, compared to under a quarter of the 20- to 22-year-olds (AIDS Office et al., 1991). Recent years have seen an increase in gay and lesbian-centered services, largely in urban centers,

but most mainstream youth-serving agencies and schools are not yet comfortable with the issues raised by adolescent homosexuality.

Survivors of Childhood Sexual Abuse

It is known that the long-term effects of childhood sexual abuse on emotional development and self-esteem are usually quite debilitating and initial data suggest that survivors of childhood sexual abuse are at particular risk of engaging in sexual and drug-using behaviors that can lead to HIV infection. A small 1990 study of HIV positive adolescents (ages 12 to 20) reported that 41 percent of the 34 subjects had histories of childhood sexual abuse (Dekker et al., 1990). There are a great number of survivors of childhood sexual abuse in the United States. Estimates vary, and are likely to be low due to underreporting, but current statistics suggest that approximately 27 percent of women and 16 percent of men were sexually abused by the age of 18 (Finkelhor et al., 1990). Further study in this area is desirable.

Immigrant Youth

Immigrant youth face barriers similar to those faced by immigrant generations before them. Incorrect and unfounded beliefs about the behavior of their U.S.-born peers make them vulnerable to HIV infection. Research indicates that teens born in other countries are more likely to believe that American youth their age engage in HIV-related risk behaviors. The 3,049 immigrant students surveyed in Boston in 1990 were more likely than U.S.-born students to believe that no one their age uses condoms (16 percent versus 6 percent) and that everyone their age injects illegal drugs (29 percent versus 12 percent). The overwhelming desire to "belong" to their peer group can influence immigrant teens to engage in high-risk behavior (Hingson and Strunin, 1992).

African American, Hispanic, and Other Youth of Color

African American and Hispanic adolescents are overrepresented in the adolescent and young adult AIDS population as discussed in the Commission report, *The Challenge of HIV/AIDS in Communities of Color*, which addresses the origins and implications of the disproportionate impact of HIV in these communities. In brief, conditions of poverty, disenfranchisement, and loss of opportunity in inner cities, where large number of African American and Hispanic/Latino youth live, have led to high rates of injection drug use with resultant HIV transmission that in large measure explains the disproportionate distribution of AIDS cases. For example, among teenage women with AIDS, 74 percent are African American or Hispanic (CDC, 1993b), and among these women drug injection or sexual contact with an injection drug user are the most common modes of exposure to HIV.

This disproportionality is likely to continue. A study of applicants to military service between 1985 and 1989 revealed that African American applicants were five times as likely to be infected with HIV as were white applicants (Burke et al., 1990). Concern is mounting that Native American and Asian American adolescents will soon experience a surge in HIV infection.

Young Women

Adolescent women are experiencing rates of HIV infection comparable to adolescent men (Burke et al., 1990). A greater percentage of adolescents (ages 13 to 19) than adults with AIDS are female (29 percent versus 12 percent) (CDC, 1993b). Some young women

often view their sexual role as a passive one; they see it as something that happens to them, that they have little control over (Selverstone, 1992). If a young woman chooses to be sexually active with a man, she needs the skills to successfully negotiate condom use with him in order to protect herself from possible HIV infection. Condom use requires the cooperation of the male, and many men are resistant to using them, leaving their female sexual partners vulnerable. Hence, particular attention will be needed to building self-esteem and good decision-making skills for those young women who might otherwise be especially at risk from perceived lack of choice.

Youth In Smaller and Rural Communities

The myth that HIV/AIDS is only a problem of the major cities is dangerous because it allows the general public, policymakers, and service providers to ignore the invasion of HIV into smaller and more rural communities. The rate of reported AIDS cases is growing faster in small metropolitan, suburban, and rural areas than in large cities (CDC, 1993a). Data indicate that rural areas also experience the socioeconomic problems and subsequent behaviors that can lead to HIV infection. For example, half the girls admitted to drug abuse units in Lake County, Indiana, are survivors of sexual abuse, and most of the young people have run away from home before being admitted for substance abuse treatment. Over 80 percent of the young people over the age of 13 at the units have had sexual intercourse (Dekker, 1991).

Many youth in the categories described in the preceding paragraphs are at higher risk of contracting HIV, but *all* youth must be involved in prevention programs. Every youth must recognize that engaging in unprotected sexual intercourse or in sharing of injection equipment poses a risk of HIV infection.

The Role of the Media

The social context in which all American adolescents live is heavily influenced by the media. News and entertainment media are pervasive, lacing daily living with contradictory messages about sexuality, alcohol and other drug use, and violence. Disturbingly, all three topics are often linked, particularly in the movies and music that most appeal to adolescents. Story lines often portray the kinds of behaviors that are directly counter to those that HIV educators attempt to reinforce (Wilhoit, 1993). While slightly more common in the nineties than in previous decades, it is still rare for characters in television shows or movies to model good communication about sexuality, sexual decision making, or condom/contraceptive negotiation between sexual partners.

While television shows that glamorize sex and commercials that use sexuality to sell products are commonplace, network television producers continue to ban condom advertising (Selverstone, 1992). A potentially valuable path toward normalization and acceptance of condoms, condom use, and responsible sexual behavior is thus blocked. Some educational programs have been aired, but public service announcements are often relegated to low audience time periods.

The news media could play a role in creating an environment in which messages about healthy sexual behaviors, good HIV prevention, and school-based interventions are

integrated. However, controversy sells newspapers and magazines. Thus, stories that are sensational or depict conflict about HIV education programs are reported to the exclusion of stories about successful projects (Fraser, 1993). The resulting stories, while not necessarily irresponsible, create controversy and contribute to the general confusion about effective methods and strategies to provide HIV preventive education (Jeter, 1993).

The Role of Schools in HIV Prevention

Schools—both public and private—are a highly efficient way to reach the majority of young people in the United States with HIV prevention programs (Wilhoit and Fraser, 1993). The issue of whether or not schools should be engaged in the enterprise of providing education beyond the “basics” (like mathematics and English)—providing health, sexuality, and HIV prevention education as well as medical and social services—has been much debated in the education and broader communities. The position of the National Association of State Boards of Education (NASBE) is that schools cannot achieve their primary mission of educating young people if they ignore the social and health problems that interfere with students’ current and future education (Wilhoit, 1993). The National School Boards Association has a similar position and supports a youth policy that advocates dealing with the needs of the “whole child.” The American Federation of Teachers and the Council of Chief State School Officers have both also articulated the need to address the issues and populations mentioned in this report through their policy positions. The Centers for Disease Control and Prevention’s Division of Adolescent and School Health works broadly to identify risks to the health of youth and strengthen risk prevention programs, including those in schools. Their program includes substantial attention to sexual and drug use behaviors with the long-term objective of multidimensional school health programs. Information resulting from risk behavior surveillance activities and guidance on school health curricula (available in both English and Spanish) is particularly useful.

Most other national organizations connected with school or college education, have articulated policies favoring inclusion of instruction about health, sexuality, HIV, and STDs in curricula for adolescents.

Even the best HIV prevention programs are likely to be undermined if they are presented in large, impersonal, and chaotic schools that fail to provide a healthy learning or teaching environment. Thus, NASBE promotes the broader concept of “healthy schools” that are “explicitly concerned with ensuring that every adult and child is treated with respect and given the opportunity to succeed,” and that, in particular, schools work in partnership with the community to assure that students have access to health and other needed social services (Wilhoit and Fraser, 1993).

Conceptually, HIV prevention education fits well into educational reform. What is needed for America’s future is a revamping of education to give students the critical thinking and analytic skills that allow them to apply knowledge, make decisions, and think independently. Those are the skills needed in both today’s and tomorrow’s technology- and information-based workplaces. The best HIV prevention education provides young people with opportunities to learn and practice just those skills.

In the early years of HIV education too many programs were focused solely on the provision of information. Some of their sponsors believed that if young people knew how

HIV is transmitted and that AIDS is fatal, they would use that knowledge to avoid infection. Others omitted sensitive but critical elements in a desire to avoid controversy. Providing information is easy but, unfortunately, behavior change is not that simple to achieve. Information must be backed up with values exploration and skills building, including responsible decision making, negotiation, refusal, and critical thinking skills. Young people need the opportunity to practice the kinds of discussions they will need to engage in and decisions they will need to make in order to effectively protect themselves from HIV infection. They need encouragement and skills to talk to each other, their parents, and other influential adults about their values and concerns. They also need access to medical and social services.

The same knowledge, attitudes, and skills needed for effective HIV prevention also prevent or reduce other risks, including other sexually transmitted diseases, unwanted pregnancy, and alcohol or other drug use. "Numerous studies are documented that youth who begin one negative health behavior are disproportionately more likely to experiment with other negative health behaviors" (Howard, 1993, p. 86). Thus, HIV education should be presented in an integrated, comprehensive health curriculum that includes discussion of sexuality and that teaches general prevention skills, while still providing HIV-specific information.

Skills-based health promotion and disease prevention education should begin in elementary school to lay a foundation for healthy adolescent decision making. Joanne Fraser, Director of the HIV/AIDS School Education Project of the South Carolina Department of Education, notes:

Teaching [disease] prevention skills is like teaching reading. You can't do it one time; you have to start at the beginning and bring kids along with a developmentally appropriate, sequenced, articulated curriculum. As the skills get increasingly complex, you have to have more complex kinds of situations in which to practice those skills. (Fraser, 1993, p. 17)

A majority of schools are not addressing the more sensitive skills when youth are most likely to need them: only 48.2 percent of schools nationwide in 1990 included condom use in skills building even at the high school level (Holtzman and Greene, 1992). Local school boards play an important role and should work to improve programs for adolescents along the lines suggested in this report.

The Role of Other Youth-Serving Organizations in HIV Prevention

While schools are a logical and good place to reach the majority of American adolescents, some of those most at risk for HIV infection may only sporadically attend school or may have dropped out entirely. The area of greatest need in HIV education—that of youth in high risk situations—is the area in which public education is doing the worst job (Wilhoit, 1993).

In order to reach these youth, other youth-serving organizations, especially those in inner cities, must be engaged in the HIV prevention enterprise. Runaway and homeless

shelters, gay and lesbian youth centers, community centers, athletic organizations, religious institutions, and traditional youth-serving agencies such as the YMCA/YWCA, Salvation Army, Camp Fire Boys and Girls, Big Brother/Big Sister programs, Red Cross chapters, and the Boys and Girls Clubs of America can—and many do—provide solid HIV prevention programs to the youth they serve. Teens who are not in school may still have connections to many of these organizations and can benefit from caring adult attention and prevention programs.

It is not just the out-of-school youth who are reached by such programs, however. In-school youth who attend after-school or weekend programs sponsored by youth-serving organizations will benefit from the reinforcement of HIV prevention messages received in school. Out-of-school settings can offer young people more time to practice communication, negotiation, and refusal skills than might be available in school. Lastly, leaders of these programs can have a qualitatively different sort of relationship with youth that might facilitate peer interaction and personal risk assessment.

Parental and Youth Involvement

Whether HIV prevention and health promotion programs are offered in schools or in other youth-serving organizations, it is essential that parents and guardians, who are the first educators of youth, and adolescents themselves be involved in designing them. Successful programs need community support; consulting parents early on in program design will help ensure that success. The Commission believes schools have an important responsibility to provide comprehensive health, sexuality, and HIV/STD prevention education. Parental acceptance of school programs to accomplish this requires that parents understand the need for such instruction in the light of the HIV/AIDS epidemic, other STDs, and teenage pregnancy. Part of the process of parental acceptance of the school's curricula, in an area that for many is value related, is reassurance that instruction does not become promotion of particular behaviors or values that many parents would not endorse. Thus families often need reassurance about program content and goals.

Actively involving parents and other family members in the program by providing them with information and boosting their skills might help ensure that HIV and other health messages will be reinforced in the home. Marion Howard, Clinical Director of the Teen Services Program at Grady Memorial Hospital states: "when we . . . give youth new messages about how to look at social pressure and peer pressure, we have to bring parents along and help them learn how to support their young people in the messages we give [them]" (Howard, 1993, p. 92).

The National Parent/Teacher Association (see Appendix B) is a useful source of information on approaches to parental involvement in program development.

Youth involvement is critical because target group input is essential to designing appropriate and effective interventions. Youth can give input into program planning, design, and evaluation through a variety of formats, including youth representation on committees, focus groups, and review panels. Young people's opinions must not only be solicited, but respected as well.

Youth can act directly as educators. Peer education is a promising way of providing HIV education to young people. Peer educators David Kamens and Kate Barnhart provide

eloquent testimony to the power and importance of peer education. The late David Kamens, of Washington, D.C., noted:

[M]y message, I think, comes from that I've been there and I am 20 and when I was 18, 19, 20, I was going to other 17-, 18-, 19-, 20-year-olds and talking about the fact that they can make a difference for themselves I've seen eyes light up. (Kamens, 1991, p 69).

New York City public high school student Kate Barnhart states:

The peer education approach has many benefits. Peer educators are constantly available. We can be approached informally in the halls, gym, cafeteria, or anywhere . . . We can be telephoned at home if questions arise. We are not confined to the role of educator or authority. We make the transition to friend easily. (Barnhart, 1993, pp. 105-106)

Peer counselling promotes healthy choices for avoidance of pregnancy (Jay, DuRant, Shoffit et al, 1986) and postponement of sexual intercourse (Howard and McCabe, 1990). HIV-infected peer educators often have a special impact on youth.

Peer education is not a panacea; some research to date suggests that those young people who benefit the most from peer education are the peer educators themselves possibly because they receive more intensive exposure to the issues than others (Dryfoos, 1990). Therefore, peer education can be combined with other components of a prevention program but should not stand alone. It also requires training and intensive support for the youth educators.

The Critical Links: Information, Attitudes, Skills Building, and Access to Services

Information

If information about the consequences of unhealthy or risky behaviors were sufficient to motivate people to adopt healthy behaviors, no one would smoke, everyone would wear a seatbelt, all doctors' recommendations about diet and exercise would be followed, and there would be no drunk driving. Obviously, this is not the case, and most adults know how difficult the struggle can be to change entrenched, often pleasurable, behaviors. It is illogical, then, to expect young people to change their behavior based on information alone, even if that information includes knowledge of their own HIV status. The Congressional Office of Technology Assessment reports that HIV prevention programs designed solely to provide information to young people will be ineffective (Office of Technology Assessment, 1991a). Comprehensive HIV prevention should include information, exploration of values and attitudes, skills building, and access to services, including condom availability.

It is important that the information given must include complete, accurate, and age-appropriate information as part of HIV prevention programs. A great deal of misinformation still circulates among adolescents, which distracts attention from real ways in which HIV

is spread. As Marion Howard of the Teen Services Program at Grady Memorial Hospital declares: "[A]nyone who's involved in sex education, HIV education, knows that you spend as much time correcting misinformation as you do giving information" (Howard, 1993, p. 85).

HIV education is severely undermined by declaring discussions of condoms, nonpenetrative sexual activities (e.g., masturbation), homosexuality, and other controversial topics off limits. "You don't hand somebody a condom and kind of say, well, you know, protect yourself, and then walk away. It's not going to work," explains Frances Kunreuther, Executive Director of the Hetrick-Martin Institute for Lesbian and Gay Youth in New York (Kunreuther, 1991, p. 14).

Pedro Zamora, peer educator, notes:

We need to talk about all those sexual things that they could do without putting them[selves] at risk, but nobody is talking about that. (Zamora, 1992, p. 282)

Kate Barnhart, student peer educator in Manhattan, states firmly:

Effective HIV education must encompass the full spectrum of teen sexuality. This must include homosexuality, bisexuality, confusion regarding sexual identity, and sexual experimentation. Other issues, some of them among the most taboo topics in our society, must also be addressed. These include rape, date rape, sexual abuse, incest, and prostitution. (Barnhart, 1993, pp. 97-98)

The information provided to young people about sexuality and HIV should vary according to the age of the young people. Simpler messages are appropriate for children. As young people mature and move through high school age, they become ready for more complex messages. In 1991 a national task force on sexuality education released an important consensus proposal, *Guidelines for Comprehensive Sexuality Education: Kindergarten-12th Grade*, that details the key concepts to be incorporated into health, sexuality, and HIV education at different ages (SIECUS, 1991).

Information, no matter how complete, must be supported by an exploration of personal values and attitudes, skills building, and access to services. The Office of Technology Assessment reports that "preventive efforts that change environments, provide some form of concrete aid or improve competencies are more effective primary prevention strategies than strictly didactic education-based interventions" (Office of Technology Assessment, 1991b, p. I-25).

Much controversy exists about whether or not providing sexuality information to young people will cause them to engage in sexual activity. There is no evidence that sexuality education promotes sexual activity (Wilhoit and Fraser, 1993). Such studies as do exist suggest that it delays or has no effect on the initiation of sexual activity. Abstinence messages—such as to postpone sexual activity—should be included because this can be an effective way of reducing risk. Those who choose it require support. Information and skills building about other means of reducing risk of HIV and other STDs, such as the use of condoms, should be included. A successful research-based, abstinence-focused program at Grady Memorial Hospital provides information on the use of birth control and condoms.

Clinical Director Marion Howard says: "the two messages are not incompatible. One can promote abstinence and still teach youth how to protect themselves against pregnancy and diseases like AIDS" (Howard, 1993, p. 92).

Some opponents of comprehensive sexuality education charge that teaching about both abstinence and safer sexual practices sends a "mixed" message that is confusing to young people. It is not a contradictory message, rather a complex one, much like the twofold message—don't drink, but if you do drink, don't drive. In both instances, the adult community states what is the preferred behavioral option (abstinence from sexual intercourse/abstinence from drinking alcohol), but then provides for options if the preferred behavior is not chosen (use a condom/call a cab or parent for a ride home).

Exploration of Attitudes and Values

Adolescents benefit from the opportunity to examine their own values and attitudes. Prevention programs that provide those opportunities are helping students to assess and personalize their risk and their options. Marion Howard recommends giving young people the opportunity to explore their attitudes and values, particularly as they relate to sexuality, because "Values are beliefs on which we're willing to act. We need to help [teens] look at their attitudes. Young people need to get ownership of strong, positive sexual values [such as] it is irresponsible to spread sexually transmitted disease" (Howard, 1993 p. 93).

Skills Building

Many teens lack important decision-making, negotiation, and refusal skills and rarely have the opportunity to practice them. HIV prevention education that encompasses skills building in these areas will strengthen adolescents' abilities to make healthy decisions about HIV prevention, as well as in many other parts of their lives. Young people need more than pat phrases like "just say no." They need to role-play difficult situations, coming up with their own answers and contingency plans, so that, if and when they are confronted with peer or partner pressure or their own sexual urges, they can draw upon the skills they have practiced. Skills building for anticipating and avoiding potentially risky situations, as well as handling them, should be included. The practicing of skills is of critical importance in building the confidence to use them.

Adolescent women face a different set of negotiation challenges regarding abstinence or safer sex behaviors than do young men. It is not that young women do not have sex drives themselves, or that young men are unable to control their sexual urges. Rather, it is the fact that in this culture some young women tend to view themselves, and are often viewed by others, as the more passive partners in sexual relationships (Selverstone, 1992). Condom use requires male cooperation. Condom purchases are embarrassing and confusing for young women as well as young men. Research conducted in 1988 by the Center for Population Options' Teen Council reveals that adolescent women asking for assistance with condom purchase encountered resistance or condemnation from store clerks 40 percent of the time (Center for Population Options, 1993a).

Given the pervasiveness of media messages extolling the virtues of sexual activity and the use of sexuality to sell products, teens need media analysis skills that would improve their ability to dissect and understand the media's manipulation. Joanne Fraser laments, "[W]e don't teach kids media analysis skills. We teach them reading literature analysis skills . . . [but] we have not translated those same kind of analytical skills into looking at media" (Fraser, 1993, p. 56).

A number of curricula utilizing skills building have been evaluated and found to reduce the risk of unprotected sexual intercourse. These include "Reducing the Risk" developed by ETR Associates of Santa Cruz, California (Barth, 1993; Kirby et al., 1991) and a program developed by Emory University School of Medicine and Grady Memorial Hospital Teen Services Program (Howard and McCabe, 1990). For additional information on well-evaluated skills-building curricula for primary prevention, consult Appendix B.

A further example of a skills-based prevention program is one developed by The National Hemophilia Foundation (NHF) that also utilizes a peer education component. The program used a prevention videotape, "Song of Superman," specifically developed for HIV-positive adolescents by the Canadian Hemophilia Society and NHF, and a companion workbook of skills-building exercises. The program utilizes weekend retreats for HIV-positive and HIV-negative adolescents where the video is shown, workbook exercises are used, and a peer-led support group is held. Preliminary assessments indicate positive behavioral and attitudinal changes after the weekend. Experience with this program could be of great value because children with perinatally acquired HIV infection may increasingly survive to adolescence. They will require programs to help them deal with the issues they will face regarding sexual activity.

Access to Services

It is not sufficient to tell young people what HIV/AIDS is, allow them to practice decision-making skills, and then leave them without the services necessary to allow them to implement healthy behaviors. Hence, the last component of a comprehensive HIV prevention program is access to services, including medical, social, and, in some cases, legal. Young people need condoms and other latex barriers if they choose to engage in sexual activities that might expose them to HIV. They need medical care, including treatment for STDs. Some require alcohol and substance abuse treatment, virtually nonexistent for adolescents. They might require a case manager's assistance in accessing nonmedical services. Adolescent-sensitive HIV counseling and testing should be available to those who want it.

The HIV Center for Clinical and Behavioral Studies at the New York State Psychiatric Institute devised a model comprehensive HIV intervention program that has been implemented and evaluated in several New York City agencies that serve either runaway teens or young gay and bisexual men. Results reported in 1991 revealed that the young people who received the comprehensive intervention reported both an increase in condom use and a decrease in high-risk behavior (Rotheram-Borus et al., 1991).

Because the needs of adolescents at risk for HIV infection and those already infected are both varied and monumental, it is essential that medical, social, and preventive services be offered comprehensively to all adolescents who need them. The national hemophilia program has provided comprehensive services to adolescents with hemophilia and HIV since 1986 (Mason, Olson, and Parish, 1988). Providing essential medical and social services increased the number of prevention sessions. It is essential that adolescents with hemophilia and HIV infection be allowed to continue to use the system with which they have developed a relationship and that similar services are offered to all adolescents at risk for HIV infection.

Schools should act in partnership with other community groups to provide access to services for all students. Some schools and communities will decide—as close to 500 already have—to provide some of these services on site, in school-based health centers, or

to link up with an off-site health center. Condom availability programs are gaining momentum across the nation; some communities have decided and others will no doubt decide in the future that making condoms available to sexually active students is a responsible decision in the face of the HIV epidemic (Center for Population Options, 1993a). Providing condoms is insufficient if it is not included as part of a comprehensive HIV prevention program embraced by the school and school district.

While certain health and counseling services may be available at some school sites, expanding these and making services more widely available will require more resources.

School-Based HIV Education

States have by and large embraced HIV prevention education in schools. Over two-thirds (38 states) require HIV/AIDS prevention education. Almost all states place HIV/AIDS education within the framework of the health education curriculum, and all states provide the rarely exercised option for parents to excuse their children from HIV/AIDS instruction.

The Sex Information and Education Council of the U.S. (SIECUS) conducted an analysis of state HIV/AIDS programs and curricula and reported some important weaknesses in state materials, notably that only three states (Massachusetts, New Jersey, and South Carolina) have curricula that adequately address the cognitive, affective, and skills domains. In addition, SIECUS noted other weaknesses, including: a lack of instruction about sexual responsibility and decision making; failure to discuss human sexuality in a positive framework; inadequate instruction on condom use; overemphasis on abstinence that resulted in no discussion of safer sex practices; and absence of discussion about sexual orientation. In addition, not all localities are in compliance with state mandates (Britton, De Mauro, and Gambrell, 1992).

Effective prevention efforts will not be possible without properly trained personnel to conduct them. Inadequate teacher training hampers HIV prevention education in many states, according to SIECUS. Gene Wilhoit, Executive Director of the National Association of State Boards of Education, elaborates:

We don't [always] get teachers that are trained to deliver [HIV education] . . . They have not been taught about sexuality as [children]. Many are uncomfortable about discussing this with their own children and families. Many of them don't have the attitudinal skills to deliver this kind of curriculum. (Wilhoit, 1993, p. 35)

In addition to teachers, other school-based personnel such as counselors need training. Service providers in out-of-school settings need effective training also. For both teachers and other youth-serving professionals, ongoing staff development should be a norm, not a luxury (Coburn, 1993). Teachers who are adequately trained and who can feel comfortable about providing HIV education will more effectively present HIV/AIDS programs. Those who are untrained or reluctant to deliver HIV education should not be conscripted, since they are unlikely to be effective.

Schools and other youth-serving institutions should select curricula and teaching strategies that have been tested for efficacy through research and/or evaluation. Modifications to carefully developed and tested programs, such as deleting "sensitive" information, refusing to spend money on skills building, or refusing to make condoms

available, create barriers to effective programs. Those who oppose or would choose to alter effective methodologies should be asked to provide alternative approaches that have similarly withstood the rigor of scientific research (Johnson, 1992).

Materials written for specific populations should be targeted in terms of content and language. Judgments about the appropriateness of such materials should be based on whether research and/or experience suggest they will be effective with the target audience, rather than forcing them to conform to "general community standards" at the expense of effectiveness.

Recommendations

A variety of cultural and political barriers to the provision of effective HIV prevention education to America's adolescents exist. Unlike babies and younger children, who make up the pediatric AIDS population, adolescents do not always generate sympathy. Unlike the adult AIDS population, they do not have much of an organized lobbying voice (Coburn, 1993). Most adults are uncomfortable with adolescent sexual activity and many continue to deny the amount and range of adolescent sexual experience, causing those adults to withhold relevant sexuality information from young people. In addition, HIV/AIDS has become one of the most politicized diseases in history. Questions about proper HIV prevention messages, images, and programs have served as a flash point for much of America's anxiety about questions of sexuality.

1. *Presidential and Congressional Leadership is Essential to Prevention Education*

Neither previous administrations nor Congress has provided the vigorous and unequivocal leadership needed to address the controversy and confusion about HIV education. In fact, years of disagreement at the highest levels of the federal government over the proper messages to give young people have helped to create and perpetuate a national atmosphere of confusion and controversy. Controversy over and lack of consensus about how much and what kinds of information should be provided in schools continues to block effective action. A teacher living with AIDS, Marvin Jeter of Ohio, notes: "School-based HIV prevention efforts continue to be stalled by misunderstandings [and] politicizing about what prevention strategies are important and effective" (Jeter, 1993, p. 39). Dispute about the proper role of schools in addressing social problems, including HIV, and the capacity of schools to do so, hampers efforts to move forward with a prevention agenda.

The Commission reiterates its previous recommendations that the President should lead the American people to a new response to the HIV/AIDS epidemic, should appoint a National AIDS coordinator, and should call for the development of a national strategic plan to confront the epidemic. The national strategic plan should contain plans for a national prevention initiative (National Commission on AIDS, 1991 and 1993) that includes steps for educating the public more thoroughly about AIDS and building community recognition of the need for more effective prevention efforts, including those directed at youth. Congress should place high priority on legislation directed towards comprehensive services for youth.

One component to the national prevention initiative should address the prevention of HIV infection in adolescents, particularly youth in high-risk situations. Comprehensive HIV prevention should include information, exploration of values and attitudes, skill building, and access to health care and social services, including condom availability. School-based prevention should be presented in an integrated, comprehensive health curriculum that includes discussion of sexuality and that teaches general prevention skills, while still providing HIV-specific information. Schools and other youth-serving institutions should select curricula and teaching strategies that have been tested for efficacy through research and/or evaluation. Programs should be developed with the involvement of parents and young people.

HIV prevention programs should be nonjudgmental in approach and structured from a public health perspective to help young people learn how to make healthy choices about sexuality. Such programs will be the most effective. The information provided to young people about sexuality and HIV should vary according to their age. Exhortations that adolescents perceive as unhelpful may only serve to distance youth, who may already be alienated, even further from the advice, care, and services they need and deserve. Prevention efforts limited to instilling fear or that omit important information will not be effective in facilitating healthy choices or sustained risk reduction.

Abstinence messages—such as the message to postpone sexual activity—should be included because this can be an effective way of reducing the risk of HIV. Those who choose abstinence require support. Information and skills building about other means of reducing the risk of HIV and other STDs, such as use of condoms, should be included. This potentially life-saving information is needed immediately by those who are sexually active and by all who may become so at some point later in their lives. Withholding such information leaves individuals vulnerable to HIV/STDs through ignorance.

2. *Promote Integrated Adolescent Programs*

Categorical funding constraints make it difficult to best serve young people. Schools and many other youth-serving institutions receive a mix of funds for a variety of programs designed to improve healthy growth and development (Wilhoit and Fraser, 1993). The difficulties presented by the inflexibility of categorical funding streams make it difficult for programs to provide comprehensive prevention programs. The inability to merge those funds to provide a comprehensive prevention program limits their effectiveness. The sheer number of sources from which an individual school or agency might receive funds can lead to overwhelming, time-consuming, duplicative paperwork. For example, the Klein Bottle Youth Programs, a community-based youth serving agency with an annual budget in excess of \$2.5 million, draws on over 65 federal, state, county, and city funding sources to provide comprehensive services to youth in Santa Barbara, California (Coburn, 1993). Another example of the problems created by categorical funding is the current regulatory restriction on discussion of risky sexual behavior in Drug Free School programs, the largest federally supported prevention initiative, even though this is a hazardous potential consequence of drug use (Select Committee on Children, Youth and Families, 1992).

Congress and Agencies should act to break down barriers to collaboration and co-location of services established by categorical funding constraints. This would allow schools and other youth-serving organizations to provide comprehensive disease prevention and health promotion programs to young people.

3. *Strengthen Staff Training*

There is a lack of training and capacity building for both teachers, other school staff, and other youth-serving professionals, including health care providers who are charged with providing HIV education treatment and services. While it is expensive to provide adequate, ongoing staff development, it is essential for the provision of adequate HIV prevention education. Pre- and inservice training and continuing education are all necessary.

The issues raised by HIV—including sexuality, alcohol and other drug use, sickness, and death—are emotionally charged topics that cannot be effectively addressed by unprepared instructors. Congress should increase the level of federal resources for teacher training and other educational staff development in the sensitive areas raised in HIV education. Preparation must address not only knowledge about HIV, but also help providers explore their own attitudes, which affect what and how they teach. It should also offer opportunities to practice and develop new teaching methods.

4. *Enhance Health and Education Sector Collaboration*

The education community does not have ready access to much of the cutting-edge research on strategies for HIV prevention. The “transfer of technology” between the research community and schools needs strengthening. Teachers, school administrators, and school boards do not often read the technical journals in which research results are published, and, even if they do, researchers’ language is often difficult for nonexperts to understand (Wilhoit and Fraser, 1993).

Federal health and education agencies should increase cooperation in order to facilitate “technology transfer” between the research and public health worlds and the education sector and to involve the education community in health promotion. Collaboration between state and local health agencies and education agencies should also be encouraged.

Organizations that sponsor research and pilot projects should undertake and publish meta-analyses that identify the program design and implementation characteristics for prevention efforts that are predictors of effectiveness. Guidance for local action should be developed through collaboration between federal health and education agencies.

5. *Address Youth Health Opportunities in Health Care Reform*

As the nation moves forward with both health care and education reform, important opportunities to address adolescent health needs emerge. Adequately providing for the health needs of young people presents special challenges because of the developmental, behavioral, and psychosocial aspects of adolescence. Providing appropriate care for this population presents a unique opportunity for prevention of disease and for the resulting future cost savings.

"School health" should be made a priority in the education sector. Within education reform, competency-based performance standards for health education, sexuality education, and HIV education should be set that will ask students to demonstrate mastery of a variety of health and prevention-related topics and tasks.

Health care and education reform should merge to create "healthy schools" that provide students with respect, adult mentoring, and critical thinking skills and that also work in partnership with the community to ensure students' access to health and other social services.

Within health care reform, adolescent health issues must be addressed. Incentives to encourage providers to make a commitment to adolescent health care should be considered. The Commission reiterates the importance of its previous recommendations in this regard, particularly those made in *America Living with AIDS* and *The Challenge of HIV/AIDS in Communities of Color*. Longer-term recommendations for universal health coverage and immediate needs, during the transition to a new system, should both be addressed.

6. *Expand Research on Adolescent Health*

More research is needed to refine the knowledge base about adolescent sexual and other risk-taking behavior and to point the way toward effective HIV prevention strategies. Research, however, should not be funded at the expense of primary prevention programs.

A coordinated research agenda should be instituted that includes:

- a. A national survey on adolescent sexual behavior that will provide data not only on prevalence and demographics of sexual activities, but also on who and what has an impact on adolescent risk-taking behavior.
- b. Research on effective behavior change strategies and programs, including those that focus on youth in high-risk situations, and an assessment of how well the comprehensive approach to risk reduction works.
- c. New research that builds upon previously implemented comprehensive HIV programs for adolescents. Examples of such programs include the HIV Center for Clinical and Behavioral Studies (Rotherman-Borus, 1991), the Center for AIDS Prevention Studies at the University of San Francisco, programs for gay and bisexual youth (Remafedi, Farrow, and Deisher, 1991), and those programs implemented by the National Network of Hemophilia Treatment Centers and The National Hemophilia Foundation.

Additionally, a greater commitment of resources is needed for research including evaluation of interventions and for the dissemination of results from successful programs.

7. *Engage the Media in Health Promotion*

Messages conveyed by the entertainment and advertising media that glamorize sexuality or drug and alcohol use and ignore the consequences of unprotected intercourse or substance abuse feed adolescent denial of the threat of HIV/AIDS and other potential consequences.

The federal government should work with the entertainment industry and other media (for example, the advertising industry) to develop strategies for conveying positive messages on HIV/STD and drug-use risk reduction to adolescents.

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APPENDIX A: Hearing Agendas
(Panel participants listed alphabetically)

Adolescents and HIV Disease
Chicago, IL
March 13, 1991

- 8:30 a.m. Opening Remarks: June E. Osborn, M.D.
- 8:35 *Roundtable Discussion: Youth Issues*
Susan Castillo, Youth Advocates Teen HIV Program,
 San Francisco, CA
Anthony Dekker, D.O., Chicago College of Osteopathic
 Medicine, Chicago, IL
DiAna DiAna, South Carolina AIDS Education Network,
 Columbia, SC
Mindy T. Fullilove, M.D., New York State Psychiatric Institute
 and Columbia University, New York, NY
Donna Futterman, M.D., Montefiore Medical Center,
 New York, NY
David Kamens, Washington, DC
Frances Kunreuther, Hetrick-Martin Institute, New York, NY
Su Neuhauser, M.A., Office of AIDS Prevention, Chicago, IL
Jackie Sadler, M.P.H., DC Public Schools HIV/AIDS Education
 Program, Washington, DC
S. Kenneth Schonberg, M.D., Montefiore Medical Center and
 Albert Einstein College of Medicine, New York, NY
- 10:45 Break
- 11:00 Youth Panel
- 12:00 p.m. Lunch
- 1:30 *Overview*
Margaret C. Heagarty, M.D, Columbia University, Harlem
 Hospital Center, New York, NY
- 1:50 *Health Care Issues/Medical Dilemmas*
Margaret C. Heagarty, M.D.
Sheila Swain, Jefferson, IA

Hermann Mendez, M.D., SUNY Health Sciences at Brooklyn,
New York, NY
Janie Eddy, R.N., Children's National Medical Center,
Washington, DC
Elizabeth C. Gath, M.D., Cook County Hospital, Chicago, IL

2:50 Break

3:00 *Social/Family Issues*
Ana Garcia, L.C.S.W., University of Miami School of Medicine,
Miami, FL
Joan McCarley, M.S.W., Terrific Inc., Grandma's House,
Washington, DC
Toni P., Person Living with AIDS
Barbara J. Sabol, R.N., New York City Department of Human
Resources, New York, NY
Dottie Ward-Wimmer, R.N., Children's National Medical Center,
Washington, DC

4:00 p.m. Public Comment

5:00 Adjourn

Sex, Society, and the HIV Epidemic
New Orleans, LA
May 18-19, 1992

May 18

Site Visit

9:00 a.m. G.W. Carver School Based Health Clinic and Day Care Center,
New Orleans, LA

Hearing

1:00 p.m. Opening Remarks: June E. Osborn, M.D.

1:05 *Toward A National Prevention Strategy*
Thomas J. Coates, Ph.D., Director, The Center for AIDS Prevention
Studies, San Francisco, CA

1:45 *Research on Sexual Behavior: Implications for the HIV Epidemic*
John H. Gagnon, Ph.D., State University of New York at Stony
Brook, New York, NY

2:15	<i>Culture, Ethnicity, and Gender in Sex Research</i> Vickie Mays, Ph.D., University of California, Los Angeles, CA
2:45	Break
3:00	Commission Business
4:45	Adjourn
 May 19	
9:00 a.m.	<i>Sex, Society and HIV</i> Priscilla Alexander, Global Programme on AIDS, World Health Organization, Geneva, Switzerland Jose Pares-Avila, M.A., Clinical Psychology Fellow, Harvard Medical School, Boston, MA Richard Green, M.D., J.D., UCLA School of Medicine, Los Angeles, CA John Money, Ph.D., Johns Hopkins University and Hospital, Baltimore, MD Carole Vance, Ph.D., Columbia University School of Public Health, New York, NY
10:15	Discussion
11:00	Break
11:15 a.m.	<i>Adolescents and Sexuality</i> Robert Selverstone, Ph.D., Board Member, Sex Information and Education Council of the U.S. (SIECUS), New York, NY Walter Shervington, M.D., Assistant Secretary for Mental Health, State of Louisiana Pedro P. Zamora, The Body Positive Resource Center, Inc., Miami, FL
12:00 p.m.	Discussion
12:45	Public Comment
1:15	Adjourn

**Communication and the HIV Epidemic
Kansas City, MO & Kansas City, KS
June 15-16, 1992**

June 15

- 8:00 a.m. Breakfast with Representatives of AIDS Organizations
- 10:00 Opening Remarks: June Osborn, M.D., Chair
- 10:05 Welcoming Remarks
- 10:15 *What is Communication and Why is it Relevant to the Epidemic?*
Mary D. Fisher, The Family AIDS Network, Boca Raton, FL
Robert Hornick, Ph.D., Annenberg School of Communication,
University of Pennsylvania, Philadelphia, PA
- 10:45 *How are the Public Perceptions on HIV and AIDS Shaped?*
Mary Debus, Porter-Novelli, Washington, DC
Charles Eisendrath, M.A., University of Michigan, Ann Arbor, MI
Rita Lepicier, KCET Television, Los Angeles, CA
Theresa F. Rogers, Ph.D., Barnard College and Columbia University,
New York, NY
Stephen B. Thomas, Ph.D., University of Maryland,
College Park, MD
- 1:30 p.m. *What is the Role of Communication in Primary Prevention?*
Rashidah Hassan, R.N., BEBASHI, Philadelphia, PA
Ernesto Hinojos, M.P.H., Gay Men's Health Crisis, New York, NY
Jay Johnson, Topeka AIDS Project, Topeka, KS
Frederick C. Kroger, National AIDS Information and Education
Program, Centers for Disease Control and Prevention,
Atlanta, GA
Michael Ramah, AIDSCOM, Washington, DC
- 3:15 Break
- 3:30 Discussion: How Can We Improve the Primary Prevention Effort?
- 4:00 Commission Business
- 5:30 Adjourn

June 16

Battenfeld Auditorium, Student Center, University of Kansas Medical Center

- 8:30 a.m. Breakfast with Representatives of Programs for Adolescents
- 10:00 Opening Remarks: June Osborn, M.D., Chair
- 10:05 Welcoming Remarks: The Honorable Joan Finney, Governor of Kansas
- 10:15 *Care-Oriented Communication Issues*

Panel 1

Lawrence S. Brown, M.D., M.P.H, Addiction Research and Treatment Corp., Brooklyn, NY
John S. James, AIDS Treatment News, San Francisco, CA

Panel 2

Mike Barr, St. Vincent's Hospital, New York, NY
Leonard A. Simpson, M.D., American Association of Physicians for Human Rights, San Francisco, CA
Rochelle L. Rollins, M.P.H., Multi-Cultural AIDS Coalition, Boston, MA

Prevention Strategies in the Workplace and Schools: Current Challenges
Austin, TX
March 10-11, 1993

March 10

- 10:00 a.m. Opening Remarks: June E. Osborn, M.D., Chair
- 10:10 Welcoming Remarks: David R. Smith, M.D., Texas Commissioner of Health
- 10:20 *Behavioral Research and AIDS Prevention: Using the Workplace and Schools*
Anke Ehrhardt, Ph.D., American Psychological Association, Washington, DC
Martin Fishbein, Ph.D., Professor of Psychology, University of Illinois, Urbana-Champaign, IL
- 10:45 Discussion

- 11:15 *The CDC's Role in Prevention Education in the Workplace and Schools*
James Curran, M.D., M.P.H., Centers for Disease Control and Prevention, Atlanta, GA
- 11:30 Break
- 11:45 a.m. *AIDS and the Workplace*
- Panel 1*
Erline Belton, The Lyceum Group, Cleveland, OH
Jerald A. Breitman, Director, Professional Relations, Burroughs Wellcome Co., Research Triangle Park, NC
Sharon F. Canner, Assistant Vice President, National Association of Manufacturers, Washington, DC
Alan Emery, Ph.D., Consultant, San Francisco, CA
Benneville N. Strohecker, President, Harbor Sweets, Inc., Salem, MA
- 12:30 p.m. Questions
- 12:45 Lunch
- 2:15 *Panel 2*
Sandy Bartlett, Coordinator, Central Texas AIDS in the Workplace Task Force, Austin, TX
Carol Camlin, Manager, AIDS Education at Work, AIDS Action Committee, Boston, MA
Ledia Martinez, M.D., M.P.H., Office of HIV/AIDS Education, American Red Cross, Washington, DC
Brenda Moon, The George Meany Center for Labor Studies, Washington, DC
Barney Singer, J.D., Assistant Chief Counsel for Labor Policy, Small Business Administration, Washington, DC
- 2:45 Discussion
Discussant: B.J. Stiles, President, National Leadership Coalition on AIDS, Washington, DC
- 3:30 Commission Business
- 5:15 Adjourn

March 11

- 9:30 a.m. *School/Youth Prevention Strategies*
Opening Remarks: June E. Osborn, M.D., Chair
- 9:35 Welcoming Remarks: Honorable Glen Maxey, Texas State
Representative
- 9:45 *Panel 1*
Joanne G. Fraser, Ed.D., Director, HIV/AIDS School Health
Education Project, South Carolina Department of Education,
Columbia, SC
Vicky Valdez Gomez, Director of Finance, Corporate Fund for
Children, Austin, TX
Marvin Jeter, Teacher Living with AIDS, Akron, OH
Gene Wilhoit, Executive Director, National Association of State
Boards of Education, Alexandria, VA
- 10:30 a.m. Discussion
- 11:00 Break
- 11:15 *Panel 2*
Kate Barnhart, student, New York City Public Schools,
Manhattan, NY
Jay Coburn, B.S., Director, Training and Technical Assistance,
Center for Population Options, Washington, DC
Marion Howard, Ph.D., Clinical Director, Teen Services Program,
Grady Memorial Hospital, Atlanta, GA
- 12:00 p.m. Discussion
- 12:30 Public Comment
- 1:00 Lunch
- 2:00 Presentation by ACTT (Active Community Teen Theater),
McAllen, TX
- 3:00 Commission Business
- 5:30 Adjourn

APPENDIX B: Resources on HIV/AIDS and Adolescents

A bibliography on HIV/AIDS and adolescents has been prepared for those desiring further information on topics covered in this report by the staff of the CDC National AIDS Clearinghouse.

The bibliography contains material on:

- HIV and other STDs,
- Alcohol, tobacco and other drugs,
- Adolescent developmental issues,
- Health and social service needs,
- Youth's high risk situation,
- Special populations,
- Out-of-school youth,
- Portrayal of youth in the media,
- The role of schools,
- Parent/peer/teacher training programs, and
- Role of other youth-serving organizations.

Copies of the bibliography can be obtained from:

CDC National AIDS Clearinghouse
Post Office Box 6003
Rockville, Maryland 20849-6003

Phone: (1-800) 458-5231; (1-301) 217-0023 (international calls)
Fax: (1-301) 738-6616
TTY: (1-800) 243-7012
(available in English and Spanish)

The Clearinghouse will also prepare materials in response to requests on other informational needs.