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AIDS in Schools:
A comprehensive initiative

Abstract

This paper, in addition to exploring the potential impact of the growing HIV epidemic on schools, provides information and suggestions for how educators can become involved in promoting education about AIDS. The epidemic raises a myriad of health and social policy and programming issues which school administrations and communities will confront in the 1990s. Even if a school does not have a person living with AIDS or a seropositive student, it still must educate students about HIV and AIDS as personal health risks and as issues to be dealt with as future leaders in a world facing the tragedy of the epidemic. This paper discusses innovative educational and preventive strategies for schools, including integrating AIDS into the classroom and relating AIDS to other risk-taking behaviours many students practice. Finally, the paper argues that educators and communities must confront their fears and differences and work together, seizing the opportunities offered by this epidemic to help save the lives of youth.

Résumé

Les auteurs de cet article étudient l'incidence potentielle de l'épidémie de VIH sur les écoles. Cette épidémie soulève une pléthore de problèmes de santé et de politique et de programmation sociale qui affecteront les administrateurs scolaires et les écoles dans les années 1990. Même lorsqu'une école ne compte personne que soit atteint du sida ou séropositif, elle se doit d'éduquer les élèves sur le VIH et le sida qui constituent des risques et des problèmes de santé personnels pour les dirigeants futurs d'un monde exposé à cette épidémie. Les auteurs analysent les méthodes éducatives et préventives novatrices dont disposent les écoles, notamment l'intégration du sida dans les enseignements théoriques et la mise en relation du sida et d'autres comportements à risque affichés par les élèves. Enfin, ils soutiennent que les éducateurs et les communautés scolaires doivent aplanir leurs craintes et leurs différends, collaborer ensemble et saisir l'occasion qu'offre cette épidémie d'aider à sauver de jeunes vies.

An atmosphere of fear: AIDS in 1985

In Kokomo, Indiana, in 1985, AIDS became a frightening threat. French scientists had only the year before announced the discovery of the virus later named HIV (Human Immunodeficiency Virus). There was great uncertainty about how the disease was transmitted. Some clung to beliefs that this was a "gay plague" or that mosquitos could move the virus from person to person. Many worried that the disease could be transmitted by coughing, sneezing, kissing. A 1983 article in *Journal of the American Medical Association*, which was later discredited, fed these fears that casual contact was a mode of transmission (Fischl *et al.*, 1987; Oleske *et al.*, 1983; Shilts, 1987, p. 299). When Rock Hudson, the American movie star, announced he was dying of AIDS, people wondered how he could have gotten the disease. Only later did his secret life as a homosexual man become public knowledge (Shilts, 1987, p. 575).

In this atmosphere of fear, the parents of Kokomo's children found out that a student had contracted AIDS, and naturally they were scared for their children. They reacted by demanding that Ryan White, the youngster with hemophilia who had contracted the disease from his medical treatments, be kept from school. A long, traumatic legal battle followed. Eventually, Ryan White was allowed into school. During the next year, this young man fought both his illness and a social isolation and ostracization which included being called a "fag", having his locker spraypainted with obscenities, a mirror being stolen, and having difficulty finding friends. Eventually, he and his family moved to Cicero, Indiana, where his classmates celebrated his coming with a party. His reminiscences of Kokomo were succinct: He was glad to move because "I didn't want to die there" and "I really didn't want to be buried there" (Kirp, 1989, p. 64). Ryan White lived in Cicero until his death April 8, 1990, at age 18 (Johnson, 1990).

Ryan White's story, the most famous of the growing number of cases of HIV-seropositive children coming to school, could be seen simply as a manifestation of ignorance in a small town during the early years of a deadly epidemic. Unfortunately, the burning of a house in Florida, mass rallies against allowing seropositive children into the schools in New York City, and other incidents, remind us that the debate over the policies regarding HIV seropositive students is a very sensitive issue no matter what size the community and the stage of the epidemic (Kirp, 1989; Shilts, 1987). In each new school district, not only in North America, but throughout the world, educators will be forced to confront the issues of risk, relationships, and education. Scientists may have demonstrated that casual contact is not a mode of transmission for HIV, but parents and teachers, concerned about the devas-

tating nature of AIDS, are not going to give up the myths easily (Dodds *et al.*, 1989).

These incidents involved children who contracted the disease as a result of their hemophilia or a parent's use of shared needles. What if these children had been users of intravenous-drugs or were homosexuals? Would administrators have been even less supportive, would communities have demanded retribution and responsibility? Ryan White's locker was spraypainted with an explicit and derogatory reference to anal sex. Just contracting the disease had made him a social outcast.

Risky behaviours: AIDS and adolescents

AIDS is an issue for adolescents because adolescence is often a time of sexual confusion and experimentation. Policies must clearly distinguish between illness and social behaviours. One percent of the respondents to the *Canada Youth and AIDS Study* reported themselves as having a homosexual orientation (King, 1988, p. 87). Although same-sex behaviour was declared **not** a disease by the American Psychiatric Association in 1973 (Bayer, 1981), and its listing in the *Diagnostic and Statistical Manual* (DSM-III) was dropped, studies have shown that many students were afraid to report their sexual orientation or were denying it (Valdisseri, 1989).

While the majority of cases of full-blown AIDS occur in adults and newborns, the drug-related and sexual practices of teens and young adults place them at high risk for contracting the HIV. Drug use has **declined** among adolescents, but a considerable percentage **still** drink alcohol to excess or use marijuana, both possible impediments to good communication and judgement in sexual matters. Canadian street youth reported heavy abuse of alcohol and drugs. About half of the adolescent users of intraveneous-drugs had shared needles with each other. Approximately a quarter of ninth grade Canadian boys and almost 40 % of Canadian college student males engaged in heavy alcohol use (defined as five or more drinks at a time) (King, 1988, p. 31, 119).

The average onset of intercourse has been estimated to be at approximately 16 years of age for most youths on the North American continent. Some studies show that over 30% of middle and junior high school students have had sexual intercourse at least once (Bigler, 1989, p. 7) and that nearly half of all teens 15 to 19 are sexually active (Turner, 1989).

A considerable number of the adolescents having sexual intercourse increased their risk of infection by engaging in anal intercourse and unprotected vaginal intercourse. Although only one percent of Canadian youths reported that they were homosexual, fifteen percent (15%) reported they had

had had anal sex. A majority of those said they had had anal sex "a few times." Twenty per cent of female dropouts had had anal sex. The risk of contracting the HIV from a single episode of unprotected anal intercourse with an infected partner is considerably higher than vaginal intercourse (King, 1988, p. 86).

Even more widespread is the decision to have unprotected vaginal intercourse. The use of condoms as protection from sexually transmitted diseases (STDs) has increased substantially in the last decade. One study among college-aged sexually active men found 58% used condoms in 1988, compared to only 28% in 1979. Still, condom use among teens is irregular at best. As many as 30% of sexually active teens do not use any method of contraception. Others use withdrawal and birth control pills, neither of which are barriers against the HIV and other STDs (Bigler, 1989).

These risk-taking behaviours and examples of denial add up to a youthful population at risk. The incredible rates of unintended pregnancies and STDs are manifestations of the risks. "[I]n 1987, an estimated 800,000 (American) teenaged girls became pregnant unintentionally and approximately 2.5 million teenagers had STDs (excluding infection by HIV)" (ODPHP, 1989, p. 149). Seven percent of heterosexual Canadian males and eight percent of females entering college reported having had a STD. In the United States, almost one-half of all STDs occur among people under 25. Most frightening, over 80% of youth responding to the Canadian survey believed they could prevent HIV, but only about half believed they were at risk of contracting the virus (Bigler, 1989; King, 1988, p. 79, 95).

The risk of infection is clearly present. An initial study of the prevalence of HIV-infection on college campuses found that an average of two students in every 1,000 were HIV-seropositive (Biemiller, 1989a). The number of teens living with AIDS in the United States has increased by 40% in the last two years (Kolata, 1989). Statistics from the military and Job Corps report about three in 1,000 applicants are infected. These data most likely understate the problem since applicants know they will be tested and would be first tested privately if they suspected they were going to be positive (Kolata, 1989). Even more startling, a significant portion of Americans living with AIDS are 20-29. Given that the period of incubation from infection with the HIV to onset of full-blown AIDS can be five to seven years, many of those dying of AIDS today were high school or college age when they contracted the virus. AIDS is in all ages, it is spreading to all areas, and everyone is living with the epidemic (Wiley & Samuel, 1989).

Developing a response: Education as prevention

Teachers, administrators, counsellors, school board members, clergy, clinicians, people living with hemophilia, students, people living with AIDS, and parents confront AIDS from different perspectives, but seek the same solution. All of them want to stop a deadly spreading epidemic. First, they hope for a vaccine. Current biomedical research, however, suggests a vaccine is still a long way off. Second, they hope for a cure. The latest studies suggest that zidovudine (also known as AZT) and other drugs can slow the development of AIDS in HIV-infected people for a considerable period (Young, 1989). Yet, while the new life-prolonging combination of treatments provide some hope that eventually AIDS will become a chronic disease, prolonging life is not a cure.

Confronted by this devastating disease for which there is no cure and no vaccine, prevention remains the best hope for stemming the tide of the epidemic (Presidential Commission, 1988). Educators must develop a strategy of prevention, based on education, cooperation, and compassion. Ironically, prevention strategies are turning out to be as challenging as some of the clinical and laboratory research efforts. Preventive education may be the toughest method of slowing the spread of the disease, even though it appears to be the easiest. Many believe that if young people were simply taught to "just say no to premarital sex and drugs," and "yes to abstinence" and "long term, mutual monogamy," that would stop the spread of AIDS and of several other serious illnesses, including the widespread epidemics of chlamydia – the number one STD in North America – gonorrhea, and syphilis, which have risen again to the levels of the 1940s (ODPHP, 1990).

The key words in this easiest of prescriptions are "if young people were simply taught." Educators recognize how hard it is to teach any subject, from math to history. As the accompanying cartoon suggests, behavioural education is even more challenging. As Stripe demonstrates, it is much easier to transmit knowledge than it is to change behaviour. The battles society has waged against smoking and excessive alcohol use are constant reminders that people often know how to change their behaviour, but are still unable to change. There are many barriers to change besides lack of knowledge (Fisher, 1988; Valdiserri, 1989). These barriers are particularly high in the area of sexual behaviour.

Education remains the cornerstone of AIDS prevention programs. Students must be convinced that having unprotected sex and sharing needles are potential life-threatening risks. Abstinence and delay can be described as

Figure 11-1. Teaching versus learning

Teaching versus learning
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the safest sexual behaviours, but as Dr. June Osborn, Chair of the National AIDS Commission in the United States, observed, "There has never been a society in which patterns of sexual behaviour were restricted solely to monogamy or chastity, and America . . . is surely not going to be the first" (Osborn, 1988, p. 318). For those who choose to be sexually active, condoms and spermicides must be accessible. Students need to learn how to use them properly. Many parents report informally that they would prefer that their children not be sexually active, but they all also say . . . "but we don't want them to die because of it. . . . ."

The preventive education task is made enormously more difficult because prevention programs are not just tackling behaviour change, but behaviour change involving some of the strongest taboos in Western society. AIDS forces the open discussion of sexuality, including homosexuality; drug use, including sharing of needles; and death, especially of young, apparently healthy members of society. These issues collide with deeply held religious beliefs, cultural norms, and legal systems. The mere discussion of these topics often provokes fear, discrimination, anger, and violence.

Yet, these are the issues that have to be discussed. Educators must understand HIV and AIDS – what it is, how it is transmitted, and critically, how it is **not** transmitted. Educators must develop strategies for educating students and communities about HIV/AIDS to affect behavioural change. Educators must identify and overcome the barriers to effective education and evaluate their programs to determine if they have changed behaviour. Communities must join with educators to develop the courage and leadership to find solutions for this epidemic. Critically, the controversies over sex education and availability of protection, as well as the intolerance to a variety of cultural and sexual values, have to be overcome.

The Swansea strategy: Another side of AIDS in 1985

In the same year that the parents of Kokomo defiantly opposed Ryan White's return to their school, some going so far in the end as to remove their children from the school, Mark Hoyle began the eighth grade in Swansea, Massachusetts. Swansea is a working-class town and a very closely-knit community. As David Kirp has chronicled (1989), Mark Hoyle also had contracted the HIV as a result of his treatment for hemophilia. His presence in school also frightened parents, leading eventually to a mass meeting of parents with the school administration, school board, and the Massachusetts state epidemiologist. The result of that meeting, during which many people verbalized the same feelings of frustration and anger over a child with AIDS being present in the school, was that the student stayed in school, that virtually no parents removed their children, and that the community came to support Mark up until his death in 1986.

The difference between these two cases was that the administration in Swansea, unlike that in Kokomo, had decided that the presence of Mark Hoyle in school was not a danger. They had developed a policy allowing him to be a student. Their policy resulted from the cooperation of the school superintendent, the school principal, the boy's doctor, and other medical officials in carefully considering the risks posed by and to the student who had been infected. Unlike Kokomo, where the medical experts were conspicuous by their absence, the Massachusetts state epidemiologist, George Grady, surprised parents by assuring them, "If you can guarantee me 100 percent that your [child] will never shoot drugs or have sex with another person, then I can guarantee you that your [child] will not get AIDS" (Kirp, 1989, p. 81). Unlike the Kokomo school administrators, who had helped the group protesting Ryan White's presence, the Swansea superintendent and principal had first talked to as many medical experts as possible, lined up legal support, met and discussed the matter with teachers, then worked to keep the issue a matter of school policy.

Significantly, in the years following Mark Hoyle's re-entry into school, no Massachusetts school quarantined an HIV-seropositive student or forbid any of them entrance. The establishment of a strong, direct policy had diffused the issue, making it a private health matter rather than a public fight. Perhaps even more significantly, no case of transmission from student to student has been known to have resulted from the Swansea decision nor any other casual contact between a HIV-seropositive student and another student in a school setting.

Thus the importance of a strategy of education, cooperation, and compassion which leads to a higher rate of prevention from the disease was modelled. C. Everett Koop, former Surgeon General of the United States, has

stated: "Those of us who are parents, educators and community leaders . . . cannot disregard this responsibility to educate our young. The need is critical and the price of neglect is high. The lives of our young people depend on our fulfilling our responsibility" (Koop, 1986). He and a rising chorus of educators and public health professionals have called for explicit AIDS education in the schools of North America.

Schools without an HIV-seropositive student

In communities like Swansea and Kokomo, there was a catalyzing event that precipitated AIDS education and policy making. An HIV positive child in the school or a student with AIDS forced a community to discuss the medical, legal, ethical, moral, and educational issues. Confronting AIDS is a consuming challenge for communities, but, with such a hidden epidemic, it is relatively easy without a catalyst to avoid the subject of AIDS education and prevention strategies, to ignore AIDS as a school policy issue, and to hide from the controversies that might arise in solving these problems. The infection of a student, however, should not be the only reason that motivates educators to move to institute new policies and educational programs. Everyone is now living with AIDS, and more people each year are going to know someone who is infected. Thus, everyone needs education on the issues.

It is more difficult to broach the subject of AIDS education in schools in a district where there has been no such catalyst. Who should initiate the idea of an AIDS program, and what risks would they be taking? In some communities, the students initiate the idea. They may have heard or read about AIDS in the news or in a classroom and may feel concerned, and they know that infection is preventable. The idea for a new program may be raised by a teacher or an administrator who is concerned about AIDS and is committed to preventive health education. The chair of the board of education may be a physician and know about the high rates of unintended pregnancy and sexually transmitted diseases among teens and recognize the potential danger to the students. Some parents may want AIDS education to be taught as part of the health education curriculum in school because their children refuse to talk with them about sex. Other parents may wish to use the fear of contracting HIV to reinforce their genuine beliefs that abstinence until marriage is the best sexual decision.

Each of these potential leaders is afraid. The students want frank and explicit details about what practices are dangerous, and some have requested that condoms be made available in the high schools. They are afraid the adults will just say no. The teachers want to integrate AIDS education into their classroom curriculums but are unsure of their expertise and certainly do not want teaching material to be censored, or to be censured themselves for

teaching unapproved material. The school administrators are concerned that parents will not approve of explicit material on AIDS in the classroom or availability and discussion of condoms. They already have enough political controversy and conflict with budget cutbacks and teacher union demands. The doctor, who may be up for reelection on the school board, is aware of the public's distrust of public health authorities, and is afraid of vocal minorities opposed to sex education. The first group of parents may be concerned that people will criticize their position if they press the point. The second may be concerned that someone will suspect that their children are HIV positive if they push too hard. Besides, there is no funding.

On one hand, people fear losing a job, stirring up controversy, confrontation, tempers, budgets, politics, distrust, and personal criticism. On the other hand, communities face losing the lives of citizens who could have been saved. Any disease that involves drug use and sexual practices (especially homosexuality) or causes death will create controversy, and any educational program about those issues is likely to offend someone (Freudenberg, 1989).

Confronting the epidemic

Whether there is a seropositive student in school or not, the strategy for reducing the obstacles to AIDS education calls first for teachers, counsellors, administrators, and school board members to acknowledge that AIDS is a political issue as well as a medical one. "The skills of proponents of effective AIDS education in . . . our communities will determine the shape of interventions in the years to come" (Freudenberg, 1989, p. 4). The fear of doing innovative AIDS education because of a vocal minority, some of whom have genuine moral objections, should be balanced with the voice of other community members who are supportive, but may be less vocal. A 1985 poll by the *Los Angeles Times* found that 74% of the respondents supported "production and distribution of explicit safer sex material" (Freudenberg, 1989, p.5). While educating communities about the importance of innovative AIDS education, school officials and parents need to mobilize the silent majority who support AIDS education. The potentially disastrous consequence of inaction needs to be part of the political strategy.

Communities will need to recognize that AIDS education is most effectively done by using a comprehensive approach. The skills that students need to learn to prevent AIDS transmission are closely linked with health education issues (such as risk-taking behaviours that are related to other illnesses) and social services (such as primary health care, family planning, and substance-abuse prevention). A more comprehensive approach to AIDS education will not only keep AIDS in the context of other related risk-taking behaviours, but will help engender a broader base of political and funding support. Weaving the AIDS education messages into existing community

organizations and classroom curriculums, educators will reduce the barriers that their constituents feel in receiving these messages.

No matter what their values, lifestyles, or behaviours, everyone in a community has the right to know the facts of AIDS and prevention strategies. Even given the obstacles of politics, misunderstandings, and fears, the education community has the opportunity to overcome the issues that interfere with AIDS education.

Three paths of AIDS Education

There are three interrelated educational paths in the HIV epidemic. First, educational programs for HIV-seropositive people and those people whose lives are touched by their infection. Second, programs which integrate information about the epidemic into school curriculum. Third, a comprehensive public health education program about the sexual risks and precautionary measures surrounding the epidemic. Historically, North American schooling has been an important part of the public health system and has often been responsible for the detection, control, and eradication of many communicable diseases.

1. Education for HIV-seropositive people

There is a growing number of HIV-seropositive people in North America. If the calculations are correct, over 1.5 million people are infected in Canada and the United States (Wiley & Samuel, 1989). These people are confronted by a devastating disease. As the number of infected people grows, schools need to begin providing HIV-seropositive students and students whose relatives or friends are HIV-seropositive with support and information on living with AIDS. HIV-education can not focus simply on those who are not infected, leaving those who are to fend for themselves. "Buddy programs," such as those pioneered by the Gay Men's Health Crisis in New York City, will be essential to help people (GMHC, 1989).

Preventive and formal educational strategies should be accessible, visible, and community-based. All educational and outreach efforts need to be targeted to a specific population. Community organizations should be funded so that people close to the targeted population can tailor the messages appropriately. Bilingual or language-specific information about clinical support, medical services, home care, support groups, and buddy programs are just a few examples of resources that people living with HIV-infection need to know about. Attention also needs to be paid to community attitudes and prejudices towards people living with HIV-infection. Panels, interviews,

public service announcements, and poster media can be used to introduce and reinforce messages about transmissibility, safer sex practices, and resources for support. The issues of coping with discrimination and prejudice against seropositive people can be processed in support groups. Preventing discrimination and prejudice should be addressed in the classroom.

2. AIDS in the classroom

HIV-education could be integrated into the formal academics of school. For instance, in a class on the history of the United States since 1877, the HIV-epidemic has proven an instructive parallel to events under discussion. In a discussion of the living conditions of North American cities in the late nineteenth century, an important topic is the incredible toll of epidemic diseases, such as yellow fever, scarlet fever, influenza, and consumption. The HIV-epidemic provides students with an insight into the fears and responses of the earlier society, as well as providing the teacher with an opportunity to discuss the similarities and differences between the air-borne diseases and the far more fragile HIV (Fee & Fox, 1988).

This is one example of the integration of the HIV-epidemic into the curriculum of the classroom. It is also possible in history classes, where parallels are obvious, as can be seen in the edited book by Elizabeth Fee and Daniel Fox, *AIDS: The Burdens of History* (1988). But in economics, ethics, sociology, political science, and other social sciences the issues of health care costs, testing, diseases of poverty, the funding of research, and drugs are clear areas where HIV is a relevant topic of discussion. In biology and chemistry, there are many articles on the impact research on HIV is having on topics such as immune system functions, dementia, and retroviruses (Kean, 1989).

As a part of this path of education, there is the broader motivation to educate students about critical social issues surrounding the epidemic. These students will one day be making funding decisions, doing research, managing companies, and deciding their personnel policies. Even if the education only makes them more compassionate in their policies, more thoughtful in their decisions, and more enlightened in their work, then it will have had a positive impact on the future of the epidemic.

3. AIDS and health education

The third path is the most controversial because the education about the personal health risks surrounding HIV must be direct and explicit. As the following five points suggest, the task is not simple.

a. The program must teach the clear, unambiguous message that the virus is the enemy, not people with HIV. There have been a rising number of "gay-bashing" incidents in Canada and the United States during the 1980s and 1990s, including recently Joe Rose, in Montreal, and Roger Macomber, in Burlington, Vermont. Joe Rose was a young homosexual activist who was HIV-seropositive. He was first heckled, then stabbed while riding on a bus. He bled to death before medical help could be provided (*The Gazette*, [Montreal], March 20, 1989). Roger Macomber was severely beaten outside a homosexual bar by a man who allegedly told police: "You want the truth? I went looking for it, ... found a fag and kicked the [obscenity] out of him" (Daley, 1990, p. 73). Macomber's beating was used as further justification for new "hate crimes" legislation in Vermont, one of the three states in the United States that currently does not have legislation that stiffens penalties for criminals when their violent crime is motivated by hatred based on religion, race, or (only in some states) sexual orientation. In 1988, a Gallup poll reported that 30% of the respondents had or were going to take action to isolate themselves from homosexuals out of a fear of AIDS.

One reason for the increase in violence against homosexuals is the portrayal of AIDS as a "gay plague" for which homosexuals are responsible and the mid-1980s characterization of people living with AIDS as part of the 4-H Club (Haitians, homosexuals, heroin addicts, and people with hemophilia) (Shilts, 1987, p. 352, 197). In 1983, a group of Seattle teenagers raped two homosexual men with a crowbar, afterwards telling police that "[i]f we don't kill these fags, they'll kill us with their . . . AIDS disease" (Shilts, 1987, p. 352). Although organizations such as AIDS Coalition to Unleash Power (ACT UP) and Haitian organizations such as the Action Groups for the Prevention of AIDS in Montreal have tried to counteract this image of the epidemic, the public still confuses AIDS with homosexuality and specific risk groups rather than risk behaviours.

b. The program coordinators must recognize that the student population is not in full agreement as a cohort in its attitudes towards sex and drugs. Homosexual and bisexual students need understanding and support. Some young people have always known they were homosexual. Others are exploring, and perhaps struggling with their sexual orientation (Valdiserri, 1989, p. 97). Educators can help students navigate this challenging time in their lives. If a student is homosexual, she or he is learning to live in a world that predominantly shuns and outlaws her or his orientation. The homophobia surrounding AIDS has only aggravated this already difficult development. Homosexual students need to know explicitly and without judgement what sexual practices are safer and which are riskier, to be reminded that homosexuality did not cause AIDS, and to be told that AIDS is a health issue, not

a moral issue. Education of homosexual men has contributed to reduced HIV-infection in some communities (Winkelstein, 1987). However, there is a growing concern that young homosexual men, like their heterosexual peers, also feel invulnerable and invincible.

Among heterosexual and homosexual students, the population breaks down into two unclearly defined groups. First, those who either have chosen not to have sexual experiences for the foreseeable future or are faced with circumstances that do not permit it. Some of these heterosexual students are momentarily delaying their first intercourse, while others are committed to waiting until marriage before engaging in sexual intercourse. This first group needs support. They need skills to stick to their decision and communicate their position. They need to know that alcohol and other drugs can impair their decision-making ability. Teens need strong self-esteem to assert themselves when confronted by others who have made another choice. Ironically, this choice is less open to homosexual students because marriage is not a covenant that they are encouraged to "wait for."

A second group of students has chosen to be sexually active. The decision to have sexual intercourse is a complicated one for adolescents. In the earlier years, studies have suggested, students with lower self-esteem are more likely to engage in intercourse, while several years later the reverse seems to be true. Strong biological and hormonal messages to continue the human species are powerful urges to try to resist. Peer pressure, curiosity, and emotional longings all contribute in choosing to become sexually active. Having made the decision, teens need to be prepared to act responsibly. A program simply castigating these students, telling them to return to celibacy, ignores their decision and their developmental readiness and pressure for risk-taking. Offering them the choice to return to abstinence is one option, but not the only option. Sexually active students need information about condoms, spermicides, and safer sex practices.

Condoms are, and long have been, controversial. As early as 1788, Christoph Girtanner referred to the condom as a "shameful invention which suppresses and annihilates completely the only natural end of cohabitation, . . . procreation" (Valdiserri, 1989, p. 30). More recent commentary has had a similar message. Condoms are problematic. Many churches, including the Catholic Church, feel that their use is a violation of their doctrine and teachings. Yet, from a medical, public health, and educational perspective, condoms can be a life-saving device. Coincidentally, they can also help stop the transmission of some other STDs. (One of the major health risks from contracting these diseases is infertility.) Moral teachings and public health concepts must both be a part of a comprehensive education program.

Adolescent drug activities span an equally wide range. Studies have targeted adolescence as the "critical time to affect future drug-using behaviours" (Valdiserri, 1989, p. 108). Some drug users are experimenting for a single time, others are addicted (Schoenbaum, 1989). Since many AIDS-education programs for adolescents have categorized AIDS primarily as a disease of homosexuals and minorities, young, white heterosexual adolescents feel safe from transmission. Yet, there has been one reported case of HIV-transmission through shared needles, where the drug being "shot" was steriods, one of the most popular of high school drugs (Scott & Scott, 1989). Alcohol and other drugs impair decision-making and communication skills, affecting adolescents' decisions about protection and risk-taking. Drugs taken intravenously through shared needles may seem something students would be unlikely to do, but this behaviour is a reality.

Finally, ethnic, class, and cultural differences must be considered in the formulation of educational programs. Just as homosexuals and heterosexuals have different perspectives on sexual matters, persons from different ethnic backgrounds have different cultural attitudes and heritages. The deep importance of *machismo* in the Hispanic culture, for instance, creates critical obstacles and opportunities for educational activities that focus on condom use and same-sex intercourse (Dalton, 1989; Valdiserri, 1989). Even appearing to be concerned with AIDS or practicing safer sex is inconsistent with masculine gender roles in some ethnic and racial groups (Fisher, 1988). Some minority groups that have high rates of HIV-infection also have strong barriers to discussing sexuality, much less prevention of AIDS (Fisher, 1988).

Early in the epidemic, when many believed that only homosexuals, then later only homosexuals and drug users, were at risk, white heterosexuals also denied that it could happen to them. They did not think of themselves as being in a "risk group". They disbelieved that their partner could possibly be infected. There is evidence that even those who communicated about past sexual histories lied to their partners about their sexual past in order to have sex (Cochran, 1990). Educational programs must be created with this diverse audience in mind.

c. Adolescents are going through a personal transformation, both physically and psychologically. Programs must be sensitive to issues of development, peer pressure, their sense of immortality, their disregard for (or rebellion against) authority. A program which tells them that they must stop doing something will probably fail. Such a strategy has failed with teens in anti-smoking and anti-drinking efforts.

One of the concerns teens have is that adults are using AIDS as an excuse to prevent them from having sex. They may be right. One-half of state mandates in the United States for AIDS-education require that abstinence be

stressed in all programs (Haffner, 1989). Students need to be included in the process of designing and implementing programs. If the teachers and parents approve the curriculum and services, but students do not feel an ownership, and if their needs have not been met, the program will have less of a chance of changing behaviour.

Students also listen to other students, thus peers teaching peers may be one of the most innovative and effective strategies to overcome distrust and to encourage ownership and behaviour change (Conant Sloane, 1990). Peer education has received increasing attention during the AIDS epidemic because it has succeeded in reaching people at risk that media and other campaigns can not. The first widely successful program was in the homosexual community, where homosexual community members went into the bathhouses and bars providing information on safer sex, AIDS, and other STDs. Reports had demonstrated by the late 1980s that such programs had had a significant impact on sexual behaviours in San Francisco and other cities (Winkelstein, 1987). Educational efforts for heterosexuals and users of intravenous -drugs adapted such programs as "Hot, Horny and Healthy" (GMHC). Students and community members were often leaders in adapting the educational programs to their colleges and cities. (See Figure 1 for innovative approaches to AIDS-education around the world)

d. AIDS-education can be limited to the production of a pamphlet or the one-time presentation of a program. An example of an interesting and innovative peer education program, however, is RAID (Responsible AIDS Information at Dartmouth), which was begun at Dartmouth College in 1987 by four seniors concerned about the epidemic and the apparent ignorance of many Dartmouth students concerning their risk of contracting the HIV (Biemiller, 1989b). The program has developed into a comprehensive program of public service announcements, lectures, small-group information sessions, and most prominently, a peer education "roadshow." The peer roadshow is an hour-long presentation written and acted by student volunteers. It has appeared in virtually every residence hall, fraternity, and sorority on campus, along with appearances at other colleges, prisons, secondary and primary schools, and the **Vth International AIDS Conference** in Montreal (Conant Sloane, 1989).

The RAID presentation consists of three parts: first, a slide show discussing the epidemic and student risks; second, a series of skits where students role-model possible behaviours surrounding sexual decision-making (including delay, abstinence, and protected sexual intercourse of heterosexuals and homosexuals); and third, a training session on how to properly use a condom. The show combines humor, as a way to engage the audience and

Figure 1
Innovative Interventions Around the World

The HIV/AIDS epidemic is tragically an international epidemic, so it is not surprising that some of the most innovative educational programs come from all over the world. Community organizations, non-governmental organizations, and ministries of health have all been active in developing effective educational programs to service diverse elements of the global population. Many of these programs were discussed or exhibited at the **Vth International AIDS Conference** in Montreal, Quebec, 5-8 June 1989.

. In the West African country of Guinea-Bisseau, thousands of citizens packed a stadium to watch 23 of the country's singers compete in an AIDS song contest. Many of the songs became "pop" music hits and the proceeds from this project helped underwrite the costs for important information to be disseminated among a population which is 80% illiterate.[1]
. In Bangkok, Thailand, a group of prostitutes canvass the city's infamous Red Light district teaching safer sex and distributing condoms cheaply to other prostitutes.[2]
. TASO, The AIDS Support Organization, is a unique African group which offers counselling, support, medical, and educational services to people with AIDS and their families. Based in Kampala, Uganda, most of the volunteers themselves have lost relatives to AIDS or have the virus themselves.
. Health officials in New South Wales, Australia, have created a series of provocative television advertisements. One particular piece, which garnered much attention in Montreal, displays the enormity of the epidemic: the camera opens on one couple embracing in bed and gently zooms out to reveal a football pitch covered with beds and more couples. The voice-over states: "When you have sex with someone without a condom you're having sex with everyone they ever had sex with."
. Representatives of the National AIDS Programme of Zaire discussed installing a looped cassette playback system on Kinshasa's bus system which plays 15 minutes of music interspersed with information on AIDS. Through this innovative medium AIDS education can reach many of Kinshasa's 600,000 daily bus passengers.
. In France, l'Association "Jeunes" Contre le SIDA (AJCS) has been organized by French medical students to develop peer education programs for French high school students. The group discussed the special challenges it faces in working with Catholics, under papal ban against the use of contraceptives, and Algerian immigrants, who have been taught to avoid discussing sexuality completely.
. Los Angeles has thousands of children who have left school to pursue a life on the street. Project ABLE recruits such out-of-school youth to become actors and AIDS educators for their peers. This novel theater group brings important AIDS information to their audiences by using powerfully realistic scenarios.

[1] *New York Times*, African Nation Turns to Song to Warn of AIDS Infection. 4 January 1988: A2.
[2] The Panos Institute, *AIDS and the Third World* (Philadelphia: New Society Publishers, 1989), p. 65.

For more information about organizations which sponsor AIDS education programming around the world, please write: National AIDS Information Clearinghouse, P.O. Box 6003, Rockville, Maryland, 20850 or call (301) 217-0023 (1-800-458-5231 inside the United States).

deflate the taboos surrounding the issues to be discussed, and serious discussions of communication and decision-making skills, critical whether the issue is AIDS, STDs, sex without consent, alcohol use and abuse, or unprotected intercourse (Conant Sloane, 1990).

While the RAID program is an effective teaching tool for students at Dartmouth College, the group that benefits most from any peer education activity is the peer educators. RAID participants spend over forty voluntary hours attending sessions on the issues surrounding the epidemic. Sessions include a physician treating people living with AIDS, the supervisor of the local AIDS testing facility, a person living with AIDS, an historian discussing the social context of the epidemic, a homosexual professor on language and homosexual life, a discussion of values and language clarification, and others. The students must be able to answer the questions of a hostile audience as well as understand the intricacies of the epidemic in order to write their skits (Conant Sloane, 1990).

The RAID roadshow is more effective because it is part of a comprehensive health education program that emphasizes relationships between personal behaviours and health (Conant Sloane, 1990). Age-appropriate information must be integrated into school curriculums that include human sexuality classes, alcohol and other drug programs, biology classes, and sex education and hygiene activities. The biomedical and immunological facts about the disease and the epidemic are important, but have an impact on knowledge, not behaviour.

Indeed, even though most students understand the biology and methods of transmission of AIDS and while many students also understand the importance of protection and have access to condoms, they still do not necessarily adopt safer sex practices. They don't believe they will be at risk. Further, they don't have the skills to respond to a situation where they are at risk. The goal of the comprehensive education program must be more than knowledge about the epidemic. It must be the development of decision-making, problem-solving, and communication skills that will enable students to successfully face the peer pressure and other issues surrounding sexual activity and drug use. Peer education programs should be less a discussion of sexual information than the complex methods of running the maze of mixed and ambiguous messages that surround sex and dating in our culture.

There are many videos and other materials available to help educators engage students. The Academy Award winning documentary, *Common Threads* (Epstein & Friedman, 1989), is a startling, emotional, and satisfying discussion of the people behind the names on the AIDS quilt. It, along with several other television documentaries, could be used by teachers as ways to

trigger class discussions of the epidemic. AIDSFILMS, in New York City, has made several new films on AIDS for young people, all targeted to specific communities and constituencies of teens, including Blacks, Hispanics, and women. A new film, *Face to Face*, made by the Alaska Native Health Board in Anchorage, is specifically made for Native Americans and features interviews with young people who are HIV-positive and living with AIDS. These documentaries also make the epidemic more human, as students can relate directly with individuals in the films.

One innovative alternative, created in partnership by Magnus Communications of Canada, the National Federation of State High School Associations from the United States, and IBM, is an interactive videodisc titled *Target Interactive Project – An AIDS Interactive Disc for Students* (TIP-AAIDS), intended for secondary school students. Instead of passively watching an information-filled video, the videodisc demands that the student decide what the party-going teens will do when faced with choices regarding alcohol and sex. It is one example of placing students in circumstances where they can practice making the right decisions leading up to drinking and unprotected sexual intercourse.

These films, interactive videodiscs, and videos must not stand alone. They are not AIDS programs, but could be important parts of a more comprehensive prevention effort. They are quite effective as discussion starters, information sources, and human-interest stories. They will not provide all the student needs to know about AIDS, nor have studies shown that they will change behaviours. Media efforts will reinforce and provide justification for behavioural changes (Valdiserri, 1989, p. 91-3).

e. The educational prevention program must integrate discussions on values and morals together with scientific and health information. The role of the educator in teaching the facts of sexuality and discussing what is right and wrong is controversial in many school districts. The church is a very valuable resource for this important aspect of education. Parents also need to be involved in AIDS education (See Figure 2). Studies show that in homes where youth and parents discuss sex, youth are less likely to have intercourse, or if they do they are more likely to use protection (Haffner, 1989). Recent studies show that adults remain confused about the facts surrounding HIV-transmission. Youth need to be able to come home and ask a parent questions about AIDS and discuss the moral issues and decision-making process they are experiencing.

The educator's job is to help young people learn **how to decide** what is right and wrong, not just **what to decide**. Educators need to give students the facts and help them decide how to evaluate them and how to respond. But

that raises the question of whether even this is value laden? By making condoms available, is the teacher promoting sex? By helping a homosexual student cope with an identity crisis, is the teacher condoning homosexuality? By educating students about safer sex practices, is the teacher encouraging them to engage in intercourse? No, the aim of a program is to provide an accurate, compassionate, medically safe, and realistic environment for the student to discuss and make sound decisions about sexual activity.

Some educators believe that it is better to wait until marriage before engaging in intercourse and they may have chosen long-term monogamy for themselves. Those values may be the ones reflected in what they choose to discuss with their students. Other educators have chosen long-term partners of the same sex. Some believe for them that celibacy is the appropriate choice. Others would never consider marrying before finding out if they are sexually compatible with a partner. Teachers must help each other discuss these sensitive areas. Community members, especially those involved in the many professional and volunteer AIDS organizations, can be helpful in leading discussions on the issues surrounding AIDS.

AIDS: A threat and an opportunity

In whatever way the program is structured, the goal is to teach students the skills to make their own decisions and to make good communication skills a major part of what they learn. Students need to be armed with the knowledge of how to protect themselves, even if society wishes that they would "wait." Delay is the safest medical choice and one appropriate moral choice, but educators must acknowledge that this is not the only choice. Information or access to protection must not be withheld.

Educators have the challenge in this time of fear to become community leaders. They can create avenues for explicit and meaningful educational opportunities. They can expand the AIDS message into a more comprehensive message about communication: that good communication means better decisions about alcohol and drug use; that good communication can overcome the obstacles surrounding protection and delay; and that good communication can prevent STDs, unintended pregnancy, and HIV-infection. Innovative educational techniques such as peer education and interactive video disks can involve students; the process itself can be a learning experience. By including topics about AIDS in the school curriculum, educators can relate their special topics to an important social issue. They can make the intellectual challenge come alive with a contemporary problem: the past, present, and future of AIDS as a worldwide issue.

Figure 2
Talking to Children about AIDS

Parents are their children's primary source for information about sex education. From infancy, parents should strive to create an environment in which sexuality can be discussed honestly as a "natural and healthy" part of their whole being. Teaching children the names for **all** the body parts and respecting and responding to their questions about "their bodies, health, and sexuality lays the groundwork for open discussions" and builds bonds of trust for later periods of life.

When children begin hearing about AIDS they have many questions. Some of the answers will raise issues they will not understand, but children need to be reassured that "people do not get AIDS from being bad" and that going to school or playing with someone who is HIV-seropositive is safe. Working through, rather than casually dismissing a child's fear, can help maintain open communication.

Entering puberty is often a tumultuous experience which can be eased with "basic, accurate information" on sex and drugs. Young people need to learn not just that early sexual intercourse and intravenous drug use **can** be unhealthy, but **why**. Teens also need information on prevention, including condoms. Parents should share their values with their children, and let them know that they will always be available to answer questions. Together, parent and child can establish a respectful healthy relationship for life.

Adapted with permission from *How to Talk to Your Children about AIDS*, a booklet by SIECUS (Sex Information and Education Council of the United States). For a free single copy of the booklet, please write: SIECUS, Publications Dept., 130 West 42nd St., Suite 2500, New York, NY 10036. Enclose a stamped, self-addressed business envelope. *How to Talk to Your Children about AIDS* gives you specific advice about the kinds of sexual issues that children are curious about from early childhood to late adolescence. Specific advice is offered about what to discuss with each age group. How to bring up subjects and answer questions about issues such as human sexuality and AIDS are explained.

AIDS is a threat, but it is also an opportunity. And there is not a choice. Young people are at risk. It is time to reach out with compassion, innovation, and courage. Educators have the choice of taking the example of Kokomo or Swansea, of isolating and degrading students living with HIV and AIDS or

supporting and helping them. As Dr. Mervyn Silverman, President of the American Foundation for AIDS Research, has argued: We have the opportunity to make a difference, and those who do not seize the moment will preside over the deaths of thousands (Silverman-Berkeley Health Education AIDS Conference, January 1987). In the schools of North America, there is the expertise, the energy, the creativity, and the commitment to make a difference. And there are many young lives which educators still have time to save.

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REFERENCES

American Psychiatric Association. (1980). *Diagnostic and Statistical Manual of Mental Disorders* (3rd. ed.). Washington, DC, American Psychiatric Assoc.

Bayer, Ronald. (1981). *Homosexuality and American psychiatry: The politics of diagnosis.* Princeton, New Jersey: Princeton University Press. (1987 paperback edition).

Biemiller, L. (1989a, February 22). Dartmouth students use humor and skits in "Roadshow" to spread information on AIDS. *The Chronicle of Higher Education,* A34.

Biemiller, L. (1989b, May 24). An average of 2 students in 1,000 found infected with AIDS-linked virus. *The Chronicle of Higher Education,* A29.

Bigler, M.O. (1989, October/November). Adolescent sexual behaviour in the eighties. *SIECUS Report,* 6-9.

Cochran, S.D., & Mays, V.M. (1990, March 15). Sex, lies, and HIV; Letter to the Editor. *The New England Journal of Medicine,* 774.

Conant Sloane, B., Sloane, D.C., Poinsette, G., Berry, K., Van Trueren, R., Dyer Chamberlain, M. (1990). Strategies for AIDS education on the college campus: A study of AIDS education at Dartmouth college. Submitted for publication.

Conant Sloane, B., Sloane, D.C., Tucker, L., & Steinman, K. (1989, June). Innovative strategies AIDS education for adolescents: Strategies for behaviour change. Paper presented at the Vth International Conference on AIDS, Montreal, Quebec.

Daley, Y. (1990, April 22). Beating of gay man raises stakes for Vermont hate crimes bill. *The Boston Sunday Globe,* New England Section, 73.

Dalton, H.L. (1989, Summer). AIDS in Blackface. *Daedalus, 118*(3), 205-228.

Dodds, S.E., Volker, M., & Vivand, H.F. (1989). Educating children and youth about AIDS. In J.M. Seibert,, & R.A. Olson (Eds.),*Children, Adolescents & AIDS,* Chapter 5. Lincoln: University of Nebraska Press.

Epstein, Robert, & Friedman, Jeffrey. (1989). *Common Threads.* Telling Pictures, Inc.

Fee, E., & Fox, D. (1988). *AIDS: The burdens of history.* Berkeley: University of California Press.

Fischl, M.A., Dickinson, G.M., Scott, G.B., Kilmas, N., Fletcher, M.A., & Parks, W. (1987, February 6). Evaluation of heterosexual partners, children, and household contacts of adults with AIDS. *Journal of the American Medical Association, 257*(5), 640-644.

Fisher, J.D. (1988, November). Possible effects of reference group-based social influence on AIDS-risk behaviour and AIDS prevention. *American Psychologist, 43*(11), 914-920.

Freudenberg, N. (1989, Aug./Sept.). Social and political obstacles to AIDS education. *SIECUS Report, 17*(6), 1-6.

Gay Men's Health Crisis (GMHC). (1989). Supporting people with AIDS: The GMHC Model. Gay Men's Health Crisis, publisher.

Gay Men's Health Crisis (GMHC). (1986). *Hot, horny & healthy: Eroticizing safer sex.* Palacios-Jimenez, Shernoff, Jacobs, McKinney.

Haffner, D. (1989, Aug./Sept.). AIDS education: What can be learned from teenage pregnancy prevention programs. *SIECUS Report, 17*(6), 7-10.

Johnson, D. (1990, April 9). Ryan White Dead. *The New York Times,* D10.

Kean, B.H. (1989). AIDS: An overview. In P. Ma, & D. Armstrong (Eds.), *AIDS and infections of homosexual men* (Second Edition, Chapter 30). Boston: Butterworths.

King, A.J.C., Beazley, R.P., Warren, W.K., Hankins, C.A., Robertson, A.S., & Radford, J.L. (1988). *Canada youth & AIDS study.* Kingston, Ont: Social Program Evaluation Group, Queens University.

Kirp, D.L. (1989). *Learning by heart: AIDS and schoolchildren in America's communities.* New Brunswick: Rutgers University Press.

Kolata, G. (1989, October 8). AIDS is spreading in teenagers, a new trend alarming to experts. *The New York Times,* 1, 30.

Koop, C. Everett. (1986). *Surgeon General's Report on Acquired Immune Deficiency Syndrome.* Washington: Government Printing Office.

Office of Disease Prevention and Health Promotion (ODPHP), Office of the Assistant Secretary for Health & National Institute on Drug Abuse, Alcohol, Drug Abuse, and Mental Health Administration & Division of Adolescent and School Health, Center for Chronic Disease Prevention and Health Promotion, CDC. (1989, March 10). Results from the National Adolescent Student Health Survey. *Morbidity and Mortality Weekly Report, 38*(9), 147-9.

Office of Disease Prevention and Health Promotion (ODPHP), Office of the Assistant Secretary for Health, Public Health Service, US Department of Health and Human Services; Division of STD/HIV Prevention, Center for Prevention Services, CDC. (1990, February 2). Progress toward achieving the 1990 objectives for the nation for sexually transmitted diseases. *Morbidity and Mortality Weekly Report, 39*(4), 53-57.

Oleske, James, *et al.* (1983, May 6). Immune deficiency syndrome in children. *Journal of the American Medical Association, 249*(27), 2345-2349.

Osborn, June 3. (1988, February 18). AIDS: Politics and science. *New England Journal of Medicine, 318*(7), 444-7.

Presidential Commission on the Human Immunodeficiency Virus Epidemic. (1988). *Final Report.* Washington, DC: Government Printing Office.

Schoenbaum, E.D., Hartel, D., Selwyn, P.A., *et al.* (1989, September 28). Risk factors for human immunodeficiency virus infection in intraveneous drug users. *The New England Journal of Medicine, 321,* 874-9.

Scott, M.J., & Scott, J.J., Jr. (1989, July 14). HIV infection associated with injections of anabolic steriods: Letter to the Editor. *Journal of the American Medical Association, 262*(2), 208.

Shilts, R. (1987). *And the band played on: Politics, people and the AIDS epidemic.* New York: St. Martins Press.

Siecus Report. (1988, September) Sexuality, Education and the schools: Issues and Answers. DeMauro and Haffner.

Silverman, Mervyn. (1987, January 28). Berkeley Health Education AIDS Conference. Berkeley, CA.

Turner, C.F., Miller, H.G., & Moses, L.E., Editors. (1989). *AIDS sexual behaviour and intraveneous drug use.* Washington, DC: National Academy Press.

Valdiserri, R.O. (1989). *Preventing AIDS: The design of effective programs.* New Brunswick: Rutgers University Press.

Wiley, J.A., & Samuel, M.C. (1989). Prevalence of HIV infection in the USA. *AIDS, 3* (suppl. 1),, S71-S78.

Winkelstein, W., Samuel, M., Padian, N.S., Wiley, J., Lang, W., Anderson, R., & Levy, J.A. (1987, June). The San Francisco Men's Health Study: III. Reduction in human immunodeficiency virus transmission among homosexual/bisexual men, 1982-86. *American Journal of Public Health, 77*(6), 685-689.

Young, F.E. (1989, November). New information available about AIDS treatments. *FDA Consumer,* 6-7.

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