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September 2002 • Volume 17, Number 9 • Pages 105-120

IN THIS ISSUE

HIV/AIDS epidemic wreaks havoc on youths worldwide

800,000 infants infected last year

Most people across the world who became infected with HIV last year were younger than age 25, showing that the epidemic's toll is worst for the age group that typically is relied upon for a nation's most promise and productivity.

Equally alarming: In many developing nations, HIV infection is higher among young women of childbearing years than among men.

In 2001 in sub-Saharan Africa, the overall proportion of women infected with HIV had risen to 50%, up from 41% in 1997, and in some countries, the rates of HIV infection among girls is five or six times that of boys. For example, in Botswana, young women (15-24) are estimated to have a 45% HIV prevalence rate, which is twice the HIV rate of Botswana young men.[1]

This has led to a situation in which 800,000 infants were infected with HIV last year, and greater numbers of children are becoming orphans or heads of households because their parents have either died or are sick from AIDS.

"The future of AIDS is youth," says **John Chittick**, EdD, executive director of TeenAIDS-PeerCorps Inc. of Boston. Chittick leads global walks to raise awareness about HIV/AIDS and to train teens to fight the spread of the epidemic. **(See story on AIDS global walks, p. 115.)**

"Since my Harvard research in the late 1980s and early 1990s, I have been talking about this new wave of HIV among adolescents," Chittick says. "We now have solid evidence that my predictions have come true."

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- Feasible, efficient HIV treatment in the developing world
- The transgender youth challenge
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AIDS Alert® (ISSN 0887-0292), including **AIDS Guide for Health Care Workers**®, **AIDS Alert International**®**,** and **Common Sense About AIDS**®, is published monthly by American Health Consultants®, 3525 Piedmont Road, Building Six, Suite 400, Atlanta, GA 30305. Telephone: (404) 262-7436. Periodicals postage paid at Atlanta, GA 30304. POSTMASTER: Send address changes to **AIDS Alert**®, P.O. Box 740059, Atlanta, GA 30374.

Subscriber Information

Customer Service: (800) 688-2421. Fax: (800) 284-3291. Hours of operation: 8:30 a.m-6:00 p.m. M-Th, 8:30-4:30 F EST. E-mail: customerservice@ahcpub.com. Web site: www.ahcpub.com.

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Editorial Questions

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In some regions, as many as one in 10 young women are infected with HIV, and the situation has compounded the problem of AIDS orphans, now estimated at more than 13 million.[1]

"What we see is that the number of orphans is increasing dramatically," says **Anne Peterson**, MD, MPH, assistant administrator in the Bureau for Global Health for the U.S. Agency for International Development in Washington, DC. Peterson spoke about AIDS and orphans at the 14th International AIDS Conference in July in Barcelona, Spain.

"In Africa, 30 million children are orphans, one-third of them are due to AIDS," she adds. "By 2010, 40 million children will be orphans, but half will be due to AIDS."

AIDS orphans typically are impoverished and are at greater risk of becoming infected with HIV, compounding the problem.[1]

Unfortunately, the epidemic's ripple effect on children takes a long time to turn around even when HIV prevention programs succeed. "Even if we could stop the spread of AIDS starting today, the number of orphans would continue to increase for the next decade," Peterson says.

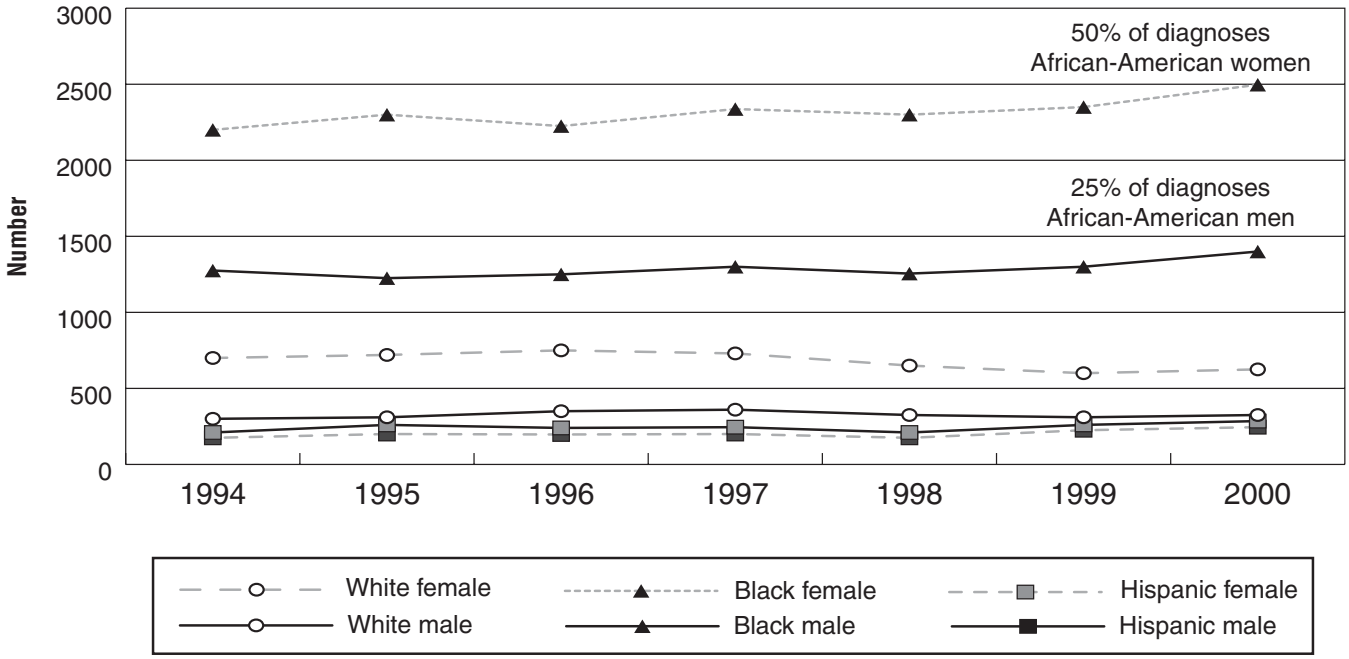
AIDS has become a family disease that affects the most vulnerable groups in society, says **Peter Piot**, MD, PhD, executive director of UNAIDS of Geneva, Switzerland.

Loss of childhood

Children often are the primary caregivers of sick parents, and they have taken up the roles of adults in many communities, working adult jobs at the expense of their education and development, Piot explains.

"There's just a whole generation that has disappeared because of AIDS," he says. "And as a

HIV Diagnoses for Heterosexuals, 1994-2000



- Includes HIV and HIV with AIDS; adjusted for reporting delays and redistribution of reports without information on mode of exposure.
- While Hispanics do not comprise a large portion of the epidemic in these states, they are disproportionately impacted on a national level.
- Alabama, Arizona, Arkansas, Colorado, Idaho, Indiana, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Nevada, New Jersey, North Carolina, North Dakota, Ohio, Oklahoma, South Carolina, South Dakota, Tennessee, Utah, Virginia, West Virginia, Wisconsin, Wyoming.

Source: Centers for Disease Control and Prevention, Atlanta.

result, one could safely say that the very fabric of society is disappearing with family structures crumbling."

Typically, when HIV destroys a family, the chain reaction that occurs begins with the girls dropping out of school and a decline in the family's social and economic status. Then the children of AIDS parents, whether the parents are living or dead, grow up without the guidance they need to develop healthy principles of life. As such, they are prone to prostitution or becoming child warriors, Peterson says.

"They become very vulnerable to all of the externalities and harm that can come to unprotected children," she says.

Unfortunately, statistics show that this is a widespread phenomenon in sub-Saharan Africa, and it has the potential to explode in Asia, the Caribbean, and other parts of the world as well.

According to a recent report by the Menlo Park, CA-based Henry J. Kaiser Family Foundation, 58% of the 5 million people who were infected with HIV last year were under age 25, and 40% of new infections occurred among those in the 15-24 age group.[1] **(See chart of proportion of 15-24 year olds living with HIV in selected countries, at left.)**

In the United States, half of the estimated 40,000 new HIV infections each year are believed to be among youth under age 25, and the epidemic particularly hits hard in communities of color.[2]

HIV/AIDS prevalence among the 15-24 year-old age group accounted for 8.6 million HIV infections in sub-Saharan Africa, 240,000 infections in industrialized countries, and 1.1 million infections in South and Southeast Africa.

In all, 11.8 million youths were among those infected in 2001, according to statistics by UNAIDS. **(See chart with estimated number of youths living with HIV worldwide, p. 109.)**

As the epidemic continues and life expectancy falls in many sub-Saharan nations, the populations grow younger, meaning there are fewer mature adults available to teach the next generation. **(See chart of the percentage of population below age 18 in selected countries, at left.)**

Deaths among those in the prime productive and reproductive years of ages 20-34 have climbed dramatically in 50 countries that have been hard hit by the epidemic, according to a Kaiser Family Foundation analysis of U.S. Census Bureau data.

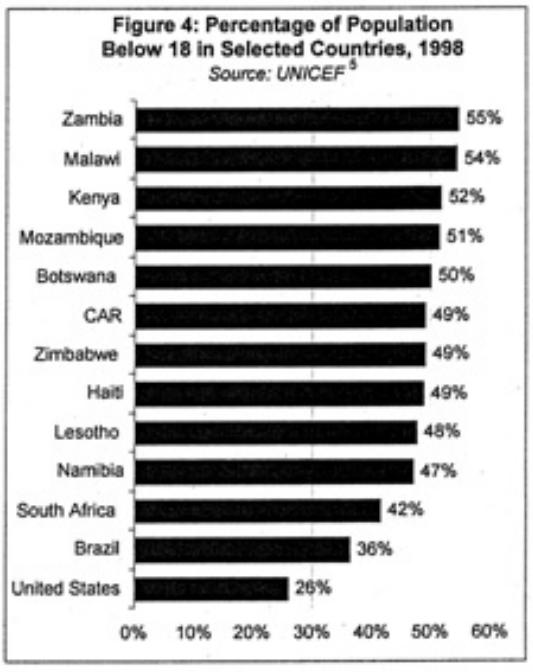
An estimated 26.7 million people in this age group are expected to have died from AIDS by 2010, and about 59% of these deaths will be

Figure 3: Low & High Estimates of Proportion of 15-24 Year Olds Living With HIV/AIDS in Selected Countries, 2001
Source: UNAIDS[4]

	Female Low – High	Male Low – High
Botswana	30% - 45%	13% - 19%
Lesotho	25% - 51%	11% - 23%
South Africa	21% - 31%	9% - 13%
Zimbabwe	26% - 40%	10% - 15%
Namibia	19% - 29%	9% - 13%
Zambia	17% - 25%	6% - 10%
Malawi	12% - 18%	5% - 8%
Mozambique	11% - 19%	4% - 8%
Central Afr Republic	11% - 16%	5% - 7%
Kenya	12% - 19%	5% - 7%
Cambodia	2% - 3%	0.8% - 1%
Haiti	3% - 7%	3% - 5%
Brazil	0.4% - 0.6%	0.5% - 0.8%

Source: Henry J. Kaiser Family Foundation, Menlo Park, CA.

Figure 4: Percentage of Population Below 18 in Selected Countries, 1998
Source: UNICEF[5]



Source: Henry J. Kaiser Family Foundation, Menlo Park, CA.

among young women. **(See chart on estimated AIDS deaths of 20-34 year-olds, below right.)**

For all of these reasons, the United Nations is making HIV prevention among youths a priority and has set a prevention goal of reducing HIV infection in the 15-24 age group by 25% by 2005, Piot says.

"I hope when we issue our next report for the international conference held in Bangkok, Thailand [in 2004], that we'll see a number of countries where that decline is happening," he says.

"We're starting to see a slowing down of the increase in HIV infection rates, and for the first time, we're seeing some kind of leveling off, but that will have to be monitored country-by-country," Piot explains.

One of the more sinister findings among current AIDS epidemic data is that there has not been the expected leveling off of HIV prevalence in Africa as had been predicted in the early 1990s, he says.

"When we started with UNAIDS, the predictions were that by the year 2000, the number of infected individuals in Africa would reach a certain level, and we've gone far beyond that," says **Neff Walker**, a senior epidemiologist with UNAIDS. "In 1995, epidemiologists predicted numbers of one-third to one-half of what we're seeing now in southern and central Africa."

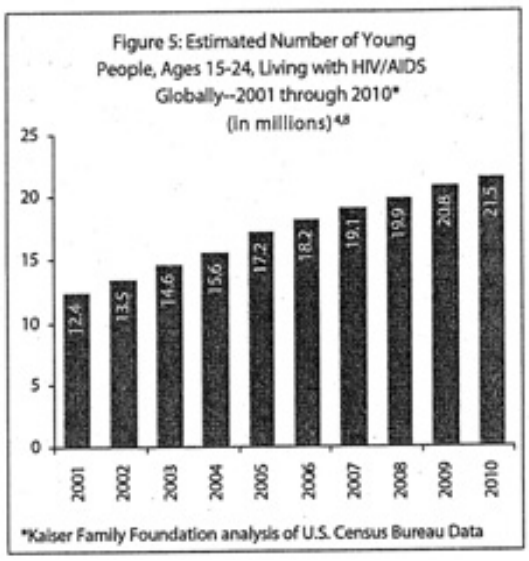
What epidemiologists failed to grasp was how insidious AIDS can be with an infection lifetime of nine to 10 years. They assumed that once a population of at-risk people became infected, there would be a saturation point, explains Walker, who spoke about the epidemic's epidemiological challenges at a telephone conference held prior to the Barcelona conference.

However, one of the possible reasons that the saturation point hasn't been reached is because children, who are at very low risk before puberty, enter an at-risk population of sexually active youths during the time period in which the generation of HIV-infected adults ahead of them remain alive and capable of transmitting the virus to the younger members.

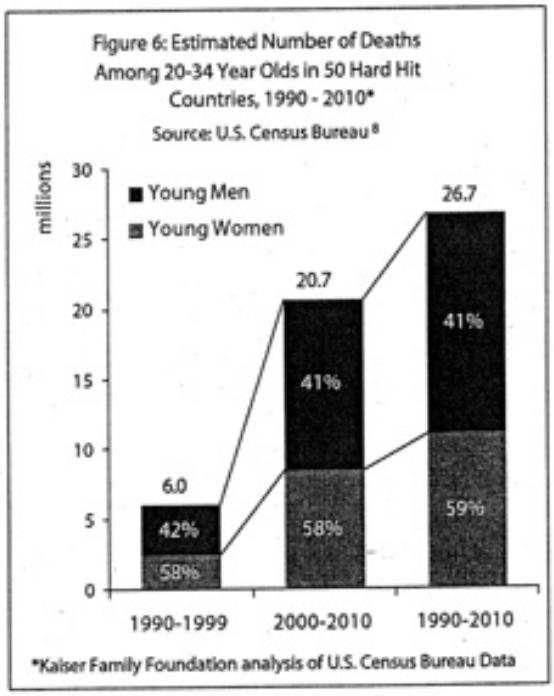
"What we missed is that people move in and out of risk groups," Walker says. "The HIV prevalence rate is so high it basically puts everyone in the population at risk."

UNAIDS and other international organizations have sounded the alarm and are pushing for more prevention and treatment money to combat the epidemic among youths as well as the general population, but their efforts have fallen far short of the estimated $4.8 billion needed.

"We need a massive scale-up of what we know



Source: Henry J. Kaiser Family Foundation, Menlo Park, CA.



Source: Henry J. Kaiser Family Foundation, Menlo Park, CA.

works to avert millions of infections over the next decade," says **Helene Gayle**, MD, MPH, formerly with the Centers for Disease Control and Prevention (CDC) of Atlanta, and now a representative of the Bill and Melinda Gates Foundation of Seattle. Gayle spoke the UNAIDS' telephone prevention conference prior to the Barcelona conference.

The most effective and cheap prevention efforts are those that are levied on a population that is new to HIV infection, but this is where the world's leadership has failed when it comes to the AIDS epidemic, Piot says. "We lost such precious time, and that waste of time is translated into millions and millions of deaths," he says.

Still time for some

While it's too late for sub-Saharan Africa, the United States, and other nations that were the first to experience the epidemic to limit the disease's toll, it is still possible for Eastern European nations, China, and India to stop the epidemic before it takes firm hold, Piot says.

"You need absolutely watertight, safer sexual behavior to bring down the rate of new infections," he says. "That's the message we have for China, India, and East Europe: If they invest now seriously against AIDS, that investment will save them billions of dollars later on."

Such a mission is a formidable challenge. New research presented at Barcelona indicates that nearly 17% of Chinese people have never heard of AIDS, and more than half do not know the cause of the disease.[3]

Another study shows that injection drug use continues to spread HIV throughout south China, and the region is on the verge of a generalized AIDS epidemic if prevention measures aren't quickly and effectively put in place.[4]

In Moscow, sexually transmitted diseases (STDs) are rampant among the city's homeless with more than 30% having at least one STD. While HIV infection among this population still is low (at 1% prevalence) by sub-Saharan African standards, it is already more than five times the rate of the general population, indicating that it is on the verge of exploding. Homeless women have a 3% HIV prevalence rate, which means their risk is considerably greater.[5]

The HIV epidemic doubled in Russia in 2001, and most of the people infected are 15-29. In a study that looked at unsafe sex and drug use among Moscow students, investigators found that Moscow high school students are at high risk for HIV infection and are in need of prevention campaigns aimed at this population.[6]

Meantime, UNAIDS and other international AIDS organizations are continuing to find better treatment and prevention methods for sub-Saharan African nations.

"The key challenge is access to effective prevention," Gayle says. "Only one in five people at risk have access to prevention, so there's a huge gap in access."

Even in success stories, such as Uganda's mother-to-child transmission prevention efforts, there is limited access to the drugs needed to prevent newborns from becoming infected, notes **David Serwadda**, MBChB, MPH, of Makerere University in Kampala, Uganda. Serwadda also spoke at the UNAIDS prevention conference.

"Uganda is the country that initiated studies on nevirapine and reported widely the results, and we find that up to now we have less than 5% of pregnant women accessing these drugs," he says. "The challenge has been to actually try to find a method of distributing or having pregnant women access this drug."

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INTERNATIONAL

AIDS stigma forms an insidious barrier to prevention/care

HIV experts describe problem in India

Even though many government programs place a heavy emphasis on preventing HIV/AIDS, they are running into an insidious barrier. In many areas, particularly sub-Saharan Africa and India, the disease comes with a stigma that prevents many from acknowledging the disease, seeking help for it, and even being able to access care.

HIV stigma contributes to domestic violence, abandonment, increased risk behaviors, and reluctance to seek health care and HIV counseling and testing, experts say.

In South Africa, a majority of men and women surveyed said they would want to keep their HIV status a secret if they were infected, and 58% of females said that women with HIV are treated worse than men with HIV.

Also, more men expressed stigmatizing attitudes than did women, according to a study presented at the recent 14th International AIDS Conference held in Barcelona, Spain.[1]

Discrimination severe in India

This situation is particularly a problem in India, which is believed to have more HIV-infected people than any other single country. In some places in India, stigma has resulted in physicians denying care to those who are infected and hospitals providing inadequate care and treatment, says **Bitra George**, MBBS, DVD, a program manager of Family Health International of Chanakyapuri in New Delhi, India.

"Denial of these basic services has led to a lot of people living with HIV/AIDS dying at their own homes without any medical care," George says.

Some of the other common effects of HIV stigma include these:

- HIV-infected people will hide their status while accessing care in medical settings.
- Health care professionals are reluctant to provide quality care, and they may breach the patient's confidentiality.
- HIV-infected people are denied employment if employers find out they are infected, and they may be denied other economic and educational opportunities.
- Landlords evict tenants based on HIV status.
- A HIV-positive woman may be thrown out by her family and not allowed to see her children.
- People whose behavior places them at risk for HIV are reluctant to seek voluntary HIV counseling and testing.
- Some hospitals will deny admission to a person who is living with HIV/AIDS.
- Some hospitals and physicians will refuse to deliver babies to HIV-infected women or perform surgery on those who are infected.

"All these discrimination persists because of the prevailing attitude of people about the modes of transmission of HIV," says **Sunil Mehra**, MD, executive director of MAMTA — Health Institute for Mother and Child in New Delhi.

"In almost all cases, people have a tendency to associate every HIV-infected person with the sexual route of transmission," Mehra says. "Since sex and sexuality is a taboo in Indian culture and society, people put a moralistic and judgmental attitude toward the people who are living with HIV/AIDS."

Struggle with societal attitudes

Once it is known that a person is infected with HIV, the person is labeled as someone who indulges in immoral behavior, and this is true of monogamous wives who were infected by their husbands.

New Delhi group shares 2 case studies of HIV discrimination

Repercussions can be severe

According to directors with MAMTA, the Health Institute for Mother and Child in New Delhi, India, HIV stigma and discrimination can have severe social and health consequences for those who are infected.

Here are two examples of what might occur when health care professionals learn of a person's HIV status:

- **Case study one:** A woman who sought help from Child Survival India (CSI) of Delhi describes what has happened to her: "I am an HIV-positive pregnant woman. Both my husband and me are HIV-positive. We both love and trust each other so much that we can never think of doing any high-risk behavior. Five months back, my husband gave blood to my father-in-law during an operation. At that time, his blood was tested as HIV-negative. In the meantime, I went through an infertility treatment since I did not conceive since my marriage. After a few months of treatment, I conceived naturally. Now I am six months pregnant. I went for delivery registration to many private hospitals who refused to take me because of my HIV status. Then I approached CSI through my counselor. The director in CSI had a friend working as a doctor at All India Institute of Medical Sciences (AHMS), New Delhi, one of the premiere institutions in the subcontinent. Most of the doctors working at AHMS refused to register me for delivery. I really don't know what to do now." At eight months of pregnancy, the woman still was unable to register with any private or government hospitals for delivery, and The Lawyer's Collective, Delhi, had planned to take up the case to be fought in court.
- **Case study two:** One of MAMTA's clients had to be hospitalized in the middle of the night. He was taken to the emergency ward at Safdarjung Hospital, Delhi, with a severe breathing problem. As one doctor was pumping his heart, other doctors were looking through his case papers, when suddenly they discovered that he was infected with HIV. According to MAMTA, the doctors started screaming, and the doctor who had been pumping his heart jumped away from the patient. The doctors scolded the people attending the patient and refused to touch him after discovering his HIV status. Within an hour, the patient had died. ■

"In Indian society, there is an extremely high premium on having children, and there's also a sense in the society that women are property and they don't have the same rights as men," says **Kenneth H. Mayer**, MD, an infectious disease physician with Miriam Hospital in Providence, RI, and a professor of medicine and community health at Brown University in Providence.

"This is an explosive situation for an epidemic, which is hitting truck drivers, businessmen, who go into the big cities, and the women in brothels who are trying to exist with survival sex," Mayer says.

"The younger daughters of a family that doesn't have enough food for them will go to the big city and become infected by somebody, and until they get sick, they are having sex with a man, who may not know he is HIV-infected," he adds.

Then the businessman will come home and infect his wife without telling her about his visits to brothels, and because of the stigma, he won't admit that he is the one who has had risk behaviors. So when the woman becomes sick, particularly if she becomes sick first, she will be blamed for the family's illness and misfortune, Mayer explains.

Mayer and other researchers found in a study of HIV and sexually transmitted disease (STD) infection rates in slums in Chennai, India, that married women rarely had behavioral risks for infection.[2]

Nonetheless, the women often are the ones who pay the highest price when the disease appears. **(See case studies of HIV stigma in India, above.)**

"If the woman has a bad dowry and her husband's mother finds out she has an illness or can't bear children, there might be a household accident in which the woman is killed," Mayer notes.

Many infected women go untested

Stigma regarding HIV and the Indian culture's pressure on men to be married and have children also has led to many men who have sex with men (MSM) marrying and not telling their wives about their homosexual activities, he says.

The result has been that infected women often are unaware that they are at risk for the disease, so they are not tested, and this can result in their babies becoming infected, as well. Since 10% of

the society is middle class, including professionals and others who have access to health care, there is the potential for HIV treatment programs that could greatly reduce the mother-to-child transmission rates, Mayer says.

"But the majority of people don't know they are infected, and if they do know, they may feel terrified and want to keep it a secret," Mayer adds.

Various health and social organizations have been working to address the HIV stigma and change perceptions so that HIV-infected people will be more willing to be tested and receive treatment.

For instance, MAMTA is working with eight nongovernment organizations to implement a community-based care and support program for people affected by HIV/AIDS in the Delhi State, which is the capital city of India. The region has a heterogeneous population that has had a tremendous influx of immigrants from neighboring states, and it's the region where the per-capita income is the highest in the country.

High vulnerability

However, the region also is characterized by a large pool of migrant laborers, industrial workers, poor slum dwellers, homeless, beggars, and street people. "The vulnerability of this section of the population remains high because of several socioeconomic reasons, yet their visibility remains low due to the stigma attached to the disease," Mehra says.

The government is trying to combat HIV stigma through the National AIDS Control Organisation (NACO), which is disseminating messages of prevention and safe behavior.

"NACO is trying through mass awareness campaigns and information, education, and counseling messages to counter stigma and discrimination due to a lack of awareness in the general population," George says.

"In addition, NACO is also funding training programs for health care professionals at different levels to remove myths and misconceptions and sensitize the staff to the needs of people living with HIV/AIDS," George adds.

These efforts are a step up from the government's past actions.

"Most of the government programs until now are prevention-based," Mehra says. "However, our experience suggests that prevention-based programs cannot reduce the social stigma and discrimination with the people living with HIV/AIDS."

Also, the government is opening up more voluntary counseling and testing centers, although the reality has been that people will not come forward for testing and counseling until a social support system is well developed and the HIV social stigma has been reduced.

The organizations making efforts toward reducing HIV stigma have programs that train family members, counsel and provide psychosocial support to HIV-positive people, and work to sensitize the community about the disease.

HIV stigma, stereotypes, and discrimination can be solved through government and public sector initiatives once there are proper policies and laws in place, as well as other sweeping measures. For instance, policymakers need to understand the issues and address the challenges through existing government programs, and there must be a political will and commitment to the issue in order to bring about the necessary changes, Mehra says.

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Unwitting trust of sexual partners result in infection

Study shows how youth perceive trust

Young people who fail to use condoms during intercourse often say they trust their partners and don't want to jeopardize that trust by asking their partners about their sexual histories or asking them to engage in safer sex practices.

However, as the HIV/AIDS epidemic disproportionately affects youth across the world, it's apparent that some strategies need to be put in place to help youth look at condoms and safe sex as a normal practice, according to a study presented at the 14th International AIDS Conference

held in Barcelona, Spain.[1]

"We found out that across the countries we looked at, the number one reason people don't use condoms with regular partners is because they trust them," says **Kim Longfield**, PhD, MPH, research officer for the AIDSMark Project of Population Services International in Washington, DC.

"What we wanted with the study was to find out what this trust means and how we can help people use protective behaviors," she says.

Investigators held 33 focus groups in Eritrea, Tanzania, Zambia, and Zimbabwe, and discussions were divided by the age groups of 15-19 years and 20-24 years and by sex.[1]

They explored what trust meant to these young people, what kind of criteria they used to determine trustworthiness, and how young people identified the types of individuals whom they could trust.

"We looked at how trust then influences sexual decisionmaking and perceptions and how sexual partners can violate your trust and how that can affect your sexual decision making," Longfield explains.

Youths were asked to give examples of these decisions, and from their list researchers drew up a mental checklist of trustworthy criteria, which includes the following:

- meeting through family or close friends;
- passing an informal assessment;
- perceiving fidelity;
- exchanging financial support and gifts;
- dressing appropriately/projecting the right appearance;
- saying the right things/sweet talk;
- being from the right neighborhood;
- knowing the family;
- keeping appointments/dates.[1]

"What we found is that youth have these superficial criteria which are not good criteria for making decisions about sex and risks for HIV," Longfield says. "It's better to know their HIV serostatus and concrete measures for risk, but they're reluctant to talk about things like this because they don't want to jeopardize the relationship."

Even when youth begin a relationship with condom use, they are likely to abandon it over time once they felt they trusted their partner enough, she adds.

These attitudes were prevalent even in Zimbabwe and Zambia, which have very high rates of HIV infection, Longfield says.

In Zambia, which has a 20% HIV prevalence rate among the general population, only one-third of youth reported using condoms in their last sexual contact with a regular partner, and Zimbabwe, which has a 25% HIV prevalence rate, condom use remains very low, she says.

There were some differences in responses among youth from Eritrea and Tanzania, which each have a single-digit HIV prevalence rate. In Eritrea, youths said they wanted promises of marriage and commitment in relationships before they were likely to enter into a sexual relationship, Longfield says.

Investigators concluded that while it's a human need to trust a partner, prevention programs are needed that teach youth to disassociate trust from risk.

"You can have a partner whom you care about and trust, but that's not enough to protect you from the risks of sexually transmitted diseases (STDs) and HIV, so you should evaluate your risk by getting tested," Longfield says.

"This research was used to develop a regional campaign that these countries can adopt," she continues. "The first is a mass-media spot that we're working on right now, and that will be followed up by interpersonal communication activities."

Prevention programs need to talk about accurate risk perception, consistent condom use, and getting to know one's own HIV status, as well as that of partners, and why they should delay sexual activity as long as possible, Longfield says.

One of the challenges of convincing youths to engage in safer sex activities is that even in nations where HIV prevalence is high, youths are more concerned about other life issues, such as their education, relationships, and economic status, she explains.

"Youth are youth and have a hard time living in the moment and at the same time seeing how something might protect them from risk years from now," Longfield says.

"AIDS rides on the back of poverty, and when you're struggling to survive, there are other competing issues that fight for your attention, such as making money, getting to school, so risk perception takes a backseat," she adds.

Reference

1. Longfield K, Klein M. Multi-country study on trusted partners among youth. Presented at the 14th International AIDS Conference. Barcelona, Spain; July 7-12, 2002. Abstract ThPeE7786. ■

Global walks teach teens to fight HIV/AIDS epidemic

Organization supported entirely by volunteers

*(*AIDS Alert *asked* ***John Chittick****, EdD, executive director of TeenAIDS-PeerCorps Inc., a nonprofit organization in Boston, to discuss the global walks he founded and an abstract he presented at the 14th International AIDS Conference in Barcelona, Spain. The global walks began in 1999, as Chittick spread the word about HIV/AIDS by foot in 40 countries. He spoke to teen volunteers who, in turn, were expected to educate their peers about HIV prevention. Within two years, the global walk had reached 75,000 youths, who taught HIV prevention through such techniques as Stop Action Theater, street outreach "AIDS Attacks," and "AIDS Comics," which were drawn by teens. Also there is a Teen Advice Column available in multiple languages on the Internet.[1] Chittick discusses the program and its outcomes in this Q&A session.)*

***AIDS Alert*:** Would you please tell us a little about the first walk to educate youth and why this method is good a way to reach young people at risk for HIV infection across the world.

Chittick: There are many good educational methodologies to spread the AIDS prevention message to teens. Some work from the top down — mine is grass roots at the most local level. Some programs are not effective (despite costing money), while I'm convinced that my street approach is the best because it is the most direct. I use a lot of psychology when I talk about AIDS. I always ask teens to give me a few minutes as I have information that might save their best friends' lives. I also say, "If you love a friend, it's your responsibility to save your friend, and that happens when you tell them the medically-accurate facts." I also tell older teens to tell their younger friends. By empowering them to help spread the word, we are saving lives.

My first global walk took me to 40 countries, and about 75,000 teens were trained as peer teachers in their homelands. I pay attention to cultural issues, and I try to learn a little of the language to introduce myself and my AIDS mission. I have teens translate for me, and we pass out business cards that also are AIDS information cards in every foreign language, so teens can easily keep them and pass onto friends. Also, I ask teens about themselves and then use this information as part of my argument why they must stay healthy. Now, on my second walk, I'm up to 52 countries, and the total combined teens trained is about 90,000.

***AIDS Alert*:** How was the global walk designed? What were some of the results of the prevention program?

Chittick: Because I receive no salary and TeenAIDS operates on the goodwill of many private donors' donations, my walks are always tentative in the planning. As I have money, I go to countries where I think there is great need and also to countries that are experiencing heavy migration of youth (for work, study, travel, play, etc). My largest youth peer groups (PeerCorps) are in South Africa, Vietnam, India, Brazil, Austria, the United States, Mexico, Cambodia, Russia, and Kenya, but in many other countries as well. I hear from many AIDS organizations about the effectiveness of my outreach.

***AIDS Alert*:** How can this "taking-it-to-the-streets" program more cost-effectively and efficiently teach youth about HIV prevention?

Chittick: I am not paid, and I do not pay teen helpers. We are all volunteers, and there is very little overhead cost. I have found that teens like the idea of a doctor walking in their neighborhoods to talk to them directly about an issue and that most adults in their lives are too uncomfortable to talk to them openly and honestly. Also, teens listen more and respect more when a message about sex comes from volunteers — not paid staff.

I prefer this direct approach on the street, farm roads, beaches, at sports venues, etc. I still speak at large student gatherings in schools and universities — tonight I speak in Lisbon, Portugal, to 250 student leaders — but afterward, I am taking some on the streets with me to learn how I do my outreach. Because my approach is local and different from regular AIDS efforts, the media, local TV, and newspapers cover the story, bringing it to many more youth.

***AIDS Alert*:** What are a few strategies that other AIDS service organizations, public health clinics, and others could employ to use the global walk techniques for prevention in their own communities?

Chittick: I believe that my model of direct action can be utilized by most other groups, but it takes special training to know how to do it. Most

people are too shy or very uncomfortable about walking up to strangers and talking with them about AIDS, sex, and needle use. With my trained volunteers, the direct outreach is easy, most effective, and most efficient because it costs so little. It is fun, and it makes you feel you are saving lives when the teens respond with heartfelt thanks for giving them crucial information.

AIDS Alert: Where could more information be obtained about TeenAIDS-PeerCorps Inc. and the global walk?

Chittick: TeenAIDS-PeerCorps Inc. can be found on the Internet at www.teenaids.org. The mailing address is P.O. Box 146727, Boston, MA 02114. The main number is (978) 665-9383. My e-mail address is chittick@post.harvard.edu.

Reference

1. Chittick JBC. Walking the globe to train teens to fight the spread of HIV/AIDS. Presented at the 14th International AIDS Conference. Barcelona, Spain; July 7-12, 2002. Abstract TuPeF5376. ■

U.S. prevention strategies focus on involving youths

Strategies include theater, youth planning groups

With an estimated 20,000 new HIV infections in the United States each year among youth under age 25, there have been many efforts in recent years to find effective prevention programs targeting that population.

Among the intervention strategies highlighted in abstracts presented at the 14th International AIDS Conference in Barcelona, Spain, was one that has been developed by AIDS Alliance for Children, Youth & Families of Washington, DC.

The strategy incorporates some of the lessons HIV experts have learned about youth prevention strategies, including how to make developmentally appropriate, culturally sensitive programs that are based on science and public health policies on youth and HIV prevention.[1]

AIDS Alliance has been funded by the Centers for Disease Control and Prevention (CDC) of Atlanta to develop an intervention program for youth that could be easily replicated by community-based organizations (CBOs), says **Scott Dano**, program specialist.

"We will help to improve or develop programs to reach more youths, especially those who are at higher risk for contracting HIV," he says.

The youth programs fall under AIDS Alliance's Hope Campaign for Youth and are currently in the development and pilot stages.

The idea is that CBOs could apply for CDC prevention funding and then ask to be directed to the AIDS Alliance program for assistance. All of the training and travel would be provided at no cost to the CBO, Dano says.

One of the prevention/intervention programs available is called YDREAM, which offers technical assistance and capacity building assistance to CBOs around the country. Specialists help CBOs increase their reach into youth populations, and help CBOs develop a theater-based program that uses young actors and participants.

"We do an interview over the phone and possibly a site visit," Dano says. "If it's a service we can supply in-house with a theater group, we can do it, or we use one of the consultants we have recruited to go out to the CBO and provide the service."

Assistance could be provided for one to six months, depending on the CBO's needs.

AIDS Alliance obtains theater expertise from NiteStar, an HIV training and education program for adolescents, based in the Center for Comprehensive Care at St. Luke's-Roosevelt Hospital Center in New York City. The theater-based intervention that NiteStar has developed is called Zip to Script, and it basically uses behavioral science to help youths make better decisions about reducing their own HIV risk, Dano explains.

NiteStar's method provides information, stimulates thought and discussion, and teaches youth how to change their behavior.[2]

"I'm a co-presenter of a workshop, and we go into a group of 30 youths, doing some warm-ups, ice-breakers, and introductions," Dano says. "It's a very active session with very little sitting around."

Other workshop moderators are employees of NiteStar, and they act in the prevention-oriented plays performed for any groups that invite them to appear, including schools, community centers, and churches.

Youths attending a workshop also may participate as actors, depending on how the program is designed.

"What we do is bring several people, varying in race and age and gender, to act as moderators, and they'll explain the exercise and what to do," Dano says. "The actual participants of the workshop will get up and do the acting scene — there's a lot of improvisational activity in these workshops."

Another youth intervention program that can be replicated is one in which an HIV risk reduction program is combined with some other conference or program aimed at youths, such as a drug and alcohol prevention program.

For example, AIDS Alliance was involved in a street outreach workers conference in Austin, TX, in which the topics that were discussed included HIV, safer sex negotiations, and condom use.

"We had three groups develop full scenes for the entire group of youths and adults," Dano says. "The groups went off, wrote up their notes, and prepared scenes to present."

One of the benefits of the team approach is that individuals were taught how to be supportive, while providing critiques and recommendations. "They'd say, 'I really like what you did, but I'm wondering what would happen if you did it this other way,'" Dano explains. "The scenes lasted two to five minutes, and we had three groups that did great scenes."

Another AIDS Alliance program is designed strictly for capacity building as part of the Youth Corps Leadership Program.

"We have assessed the needs of youth to participate in community planning groups [CPG]," says **Michael Stevens**, youth program coordinator.

"The CPG process involves local communities having groups of community members of all different backgrounds, including HIV/AIDS prevention folks, church members, school members, and health departments," Stevens says. "What the process does is look at the epidemic in their community and develop with the community a plan to address prevention."

AIDS Alliance is writing an implementation plan for this program, and it will include specific recommendations, divided into bite-sized pieces of activities that youth can do in their communities, Stevens adds.

Another aspect of the capacity building project is the Youth 4 HOPE (Health Opportunities Prevention and Education), which brings youth from all over the country together for a training session in Washington, DC.

In a training session held in June 2002, 19 youths from Seattle, San Diego, Detroit, Albany, NY, Boston, and Atlanta participated. They were diverse ethnically and were in the 15-24 age range. Both men, women, and transgender youth participated, and they represented a great deal of diversity with regard to having had prior experience working with HIV interventions.

"The three-day training was based on community mobilization and empowerment, and it had no predefined agenda," Stevens says. "We provided a venue for the youth to come together and discuss what was already going on in their communities and to define discreet action steps for them to take."

The youth decided on specific activities they'd like to do in their communities, and the next step is to implement their action plans with guidance and coordination from AIDS Alliance, Stevens says.

"Then we'll bring them all back in November for a second training session to see how things are going and to provide advanced skills training."

Eventually the Youth 4 HOPE program will be available as a model for other groups, but it's currently in its infancy stage and will first need to be evaluated, Stevens adds.

References

1. Grosz J, Harvey DC. A new generation at risk: Youth HIV. Presented at the 14th International AIDS Conference. Barcelona, Spain; July 7-12, 2002. Abstract TuPeB4657.

2. Coleman JC, Berlin C, Brenneman J. Using theater-based prevention methods to help decrease new HIV infections in youth. Presented at the 14th International AIDS Conference. Barcelona, Spain; July 7-12, 2002. Abstract TuPeG5634. ■

Monitoring indicates safe-sex relapse in Boston

Phenomenon now apparent coast-to-coast

The trend of men who have sex with men (MSM) resorting to increasingly unsafe sexual practices is becoming apparent throughout the developed world, as studies continue to highlight increases in the prevalence of sexually transmitted diseases (STDs).

Studies presented at the 14th International AIDS Conference in Barcelona, Spain, showed increasing trends of STDs among MSM in New England's largest MSM clinical care site and at Paris STD clinics.

Fenway Community Health in Boston has charted STD trends among gay men and lesbians in New England for three decades. The clinic's records showed that the lowest prevalence rate in STDs occurred in the late 1980s and early 1990s, after AIDS deaths had become a strong motivating factor in safe sex practices.

"Because of education about safer sex and people being scared about the epidemic, the number of new cases of gonorrhea hit a low point in 1994 and several years before that," says **Kenneth H. Mayer**, MD, medical research director at Fenway Community Health.

Mayer also is an infectious disease physician at Miriam Hospital in Providence, RI, and a professor of medicine and community health at Brown University in Providence.

Gonorrhea cases had reached a nadir of 43 and there were no syphilis cases at Fenway in 1994.[1]

"Now that rate has started going back up," Mayer says. "The number of STDs tripled between 1994 and 2000."

By 2000, there were 113 patients diagnosed with gonorrhea and 10 with syphilis. Of these patients, 75% presented with no symptoms, and 10% had been notified by sexual partners.[1]

"The experience at Fenway is a phenomenon seen all around," Mayer says. "We've seen a relapse from safer sex among many gay men."

Earlier studies have highlighted similar trends in San Francisco, which also has some data showing increases in HIV infection rates among MSM.

The trend, however, is not limited to the United States. Paris experienced a sharp increase in syphilis cases between 1998 and 2001, according to another study presented in Barcelona.[2] In 1998, there were four syphilis cases reported in Paris STD clinics; in 2001, there were 91 cases reported.

Prior to the late 1990s, syphilis had been a rare disease in Paris, and its resurgence is consistent with evidence that gonorrhea cases also are increasing, especially among MSM.[2]

"Therapeutic optimism is part of the equation," Mayer says.

While MSM in their 40s and 50s have lived through a time when their friends became sick and many died from AIDS, the younger MSM have grown up with AIDS as a fact of life and have not necessarily personally been affected by it, Mayer says.

"Say you're 20 years old, and by the time you decide to have sexual contact, your impression is that this is an infection that you may not get because of good drugs, and the people taking the drugs are looking good and feeling well," Mayer explains.

Although the data collected on HIV infection at Fenway are not precise enough to measure HIV prevalence rates over time, there is an increased likelihood that HIV rates have gone up in New England among MSM, just as they have in San Francisco, Mayer adds.

References

1. Mayer K, Golub S, Cohen D, et al. Intersecting Epidemics: High co-prevalence of STD and HIV in MSM at a Boston community health center. Presented at the 14th International AIDS Conference. Barcelona, Spain; July 7-12, 2002. Abstract WePeE6545.

2. Couturier E, Dupin N, Janier M, et al. Syphilis: Increasing trends in Paris, France, 1998-2001. Presented at the 14th International AIDS Conference. Barcelona, Spain; July 7-12, 2002. Abstract ThPeC7591. ■

Internet paging system helps improve adherence

Counseling is combined with reminders

HIV patients who began a study with very low medication adherence made some improvements after several months of being prompted by an Internet-based paging system. But their adherence still was far from the 95% goal of HIV medication treatment programs, according to a study presented at the 14th International AIDS Conference in Barcelona, Spain.

"People's adherence was really low at the beginning with 55% to 57%, and the pager system did improve adherence," says **Steven Safren**, PhD, a research scientist at Fenway Community Health in Boston.

Safren also is an associate director of the Cognitive Behavioral Therapy Program at the

psychiatry department of Massachusetts General Hospital and an assistant professor at Harvard Medical School, both in Boston.

After two weeks of being prompted by the pager system, adherence climbed to 70%, but it fell back to 64% after 12 weeks, he says.

The group of HIV patients who did not receive the pager prompts had adherence rates of 56% at two weeks and 52% at 12 weeks.[1]

The pager system worked this way: A clinician or investigator had input a patient's medication regimen into an Internet computer program; the patient carried a beeper that had a display window, and when it was time for the patient to prepare or take a pill, the beeper notified the patient with instructions, Safren explains.

For example, the display might read: "Remember, don't eat for the next hour," or "Take your pill, and don't eat for the next two hours."

Patients' adherence to the program was assessed through a pill bottle system that recorded each time a patient opened the bottle to take out a pill. Although this system is considered more reliable than self-reporting, it could possibly underreport adherence because there may be times when a patient takes out more than one dose in order to put some pills away for when the patient will be away from home, Safren notes.

Ironically, the Internet-based paging system that was used for the study, called MediMom, no longer exists. The business folded during the dot.com failures, he says.

Similar systems may exist in the United States, and in Europe, a paging system is being marketed that makes use of regular cell phones, so patients would not need to purchase or rent a pager, Safren says.

A combination of strategies more effective

Since the paging system hasn't proven to be highly effective, clinics and physicians who want to improve patient adherence should consider an approach that uses more than one strategy. For example, a paging or reminder system could be combined with counseling and behavioral modification.

In the case of a patient with severe social and behavioral problems, there are alternative approaches to direct observational therapy, and these would be less resource intensive. For example, a program could have these patients return to weekly one-on-one meetings to work on their adherence skills, and they could be given both a pill box and a reminder system, such as a pager or watch alarm, Safren says.

Another strategy is for a counselor to have the patient go through a checklist of steps that help the patient plan for taking the medication. These steps may include memory cues, such as having the patient schedule to take pills during another daily task. The morning pill could be taken when the patient brushed his or her teeth, for instance, he says.

"A lot of HIV-related interventions involve three components: information, motivation, and behavioral skills," Safren says.

The information component would include educational materials, as well as individualized education, but this by itself is not enough to help people change their health behavioral skills, Safren says.

Motivational interviewing is a technique sometimes used for people beginning or considering a behavioral change. This technique may include an exercise in which an interviewer asks a patient to examine the short-term and long-term pros and cons of behavior.

This technique is based on the transtheoretical model of change characterized by acknowledging that people are at different stages of readiness to change, Safren says.

"So one person might be at a pre-contemplative level where they don't see the behavior as a problem," he explains. "The use of motivational interviewing is to try to motivate them to go to a higher level."

And the third focus on behavioral skills may include providing patients with assistance in achieving adherence, such as teaching them skills to cope with medication side effects, Safren says.

A behavioral skill technique could include teaching patients to think about the reasons why they are taking their medications each time they begin to feel that the medication makes them feel worse or is too much trouble.

Reference

1. Safren SA, Hendriksen ES, Boswell S, et al. Twelve-week outcome of a cue-controlled paging system to increase ART adherence. Presented at the 14th International AIDS Conference. Barcelona, Spain; July 7-12, 2002. Abstract WePeB5864. ■

CE/CME questions

9. In developing nations, the HIV infection rate now is higher among young women of childbearing years than men. In Botswana, women 15-24 are estimated to have what HIV prevalence rate?
   A. 25%
   B. 35%
   C. 45%
   D. 55%

10. Youth prevention/intervention programs developed by AIDS Alliance for Children, Youth & Families, available for replication by any community-based organization or other HIV/AIDS group, have what set of characteristics?
   A. They are developmentally appropriate and culturally sensitive.
   B. They are based on science and public health policies on youth and HIV prevention.
   C. They seek to build capacity for reaching youth and engage youth in activities, including theater-type skits about HIV.
   D. All of the above are true.

11. At Fenway Community Health in Boston, there has been a rise in sexually-transmitted disease (STD) rates since the early 1990s. Between 1994 and 2000, the number of STDs has multiplied by how much?
   A. doubled
   B. tripled
   C. quadrupled
   D. 150%

12. Motivational interviewing, which is a technique sometimes used to help increase HIV patients' adherence to their antiretroviral drug regimen, can best be described in what way?
   A. Clinicians motivate patients through adherence incentives, such as free movie passes, coupons for fast-food restaurants, etc.
   B. It is sometimes used to motivate people into starting or considering a behavioral change. It may include an exercise to examine the short-term and long-term pros and cons of behavior, and is based on the transtheoretical model of change, characterized by acknowledging that people are at different stages of readiness to change.
   C. Patients verbally answer a series of questions geared toward showing the patient the logic of changing his or her course of action with regard to medication adherence.
   D. none of the above

CE objectives

After reading this issue of *AIDS Alert*, CE participants should be able to:

• identify the particular clinical, legal, or scientific issues related to AIDS patient care;

• describe how those issues affect nurses, physicians, hospitals, clinics, or the health care industry in general;

• cite practical solutions to the problems associated with those issues, based on overall expert guidelines from the Centers for Disease Control and Prevention or other authorities and/or based on independent recommendations from specific clinicians at individual institutions. ■